universität wien

DISSERTATION / DOCTORAL THESIS

Titel der Dissertation /Title of the Doctoral Thesis

The Chinese Cadre Management – A Tool to Rule?

verfasst von / submitted by

Mag. Julia Marinaccio, Bakk.

angestrebter akademischer Grad / in partial fulfillment of the requirements for the degree of

Doktorin der Philosophie (Dr. Phil.)

Wien, 2018 / Vienna 2018

Studienkennzahl lt. Studienblatt / degree programme code as it appears on the student record sheet:	A 792 388
Dissertationsgebiet lt. Studienblatt / field of study as it appears on the student record sheet:	Dr. Studium der Philosophie (Dissertationsgebiet Sinologie)
Betreut von / Supervisor:	Univ.-Prof. Dr. Susanne Weigelin-Schwiedrzik

Acknowledgments

The completion of this dissertation would not have been possible without the support of many people. I would like to express my greatest gratitude to my supervisor, Prof. Susanne Weigelin-Schwiedrzik, who has been mentoring me for more than a decade. She supervised my M.A. thesis at the Department of East Asian Studies in 2008, accepted me as her Ph.D. student and continued to carry out her mentoring work throughout my studies in Taiwan and then the last four years in Vienna.

As a mentor, Professor Weigelin-Schwiedrzik not only assists with her expertise but does not refrain from sharing her personal experiences and thoughts with her students. Her approach is a combination of professional consultation hours with intriguing discussions on scholarly topics and moments of unconstrained chit-chatting. She not only shows interest in her students' ideas but she cares for the persons behind. Despite her high expectations, she realizes when in moments handing a tissue and having a laugh is far more important and helpful than expressing a professional expert advice.

I give my thanks to all those people in China (and beyond) who spared their time and shared their experience and insights with me. China's political climate is worsening and I am aware that many of them could not talk to me anymore under these new circumstances, as it would be too dangerous for them. I, therefore, made it my highest priority to protect them from being exposed.

I am grateful to the University of Vienna which offered me a paid position with working space and financed all my study tours to China in these four years.

Thanks to Liu Jixin, Chen Chen, Cui Jinke, and Massimo Lin-Schultze who have helped me with the transcripts. My thanks also go to my friends and colleagues who have motivated me relentlessly. Together we endured moments of self-doubts and demotivation, together we also shared happy moments when our hard work finally paid off.

Finally, I thank my husband, Roberto Marinaccio, who has acted as my tower of strength, my motivator, and critic. He never refrained from taking a critical view on my reflections and actions, no more than catching me in his arms.

Abstract

Deutsch

Die Dissertation beschäftigt sich mit der Rolle des Kadertrainings im Versuch des chinesischen Parteistaats sein Modell einer nachhaltigen Entwicklung in China gesamtstaatlich zu operationalisieren. Ausgehend von einem multidimensionalen Ideologiekonzept, der zwischen einer symbolischen und operationalen Dimension unterscheidet, werden die Strukturen des Kadertrainings, seine Funktion und Wirkkraft untersucht und neu interpretiert. Während sich symbolische Ideologie auf abstrakte Ideen bezieht, die von der Kommunistischen Partei Chinas formuliert und propagiert werden, beschreibt operationale Ideologie konkrete Politik, die von fachspezifischen Ressorts formuliert und (idealerweise) umgesetzt werden.

Die Dissertation zeigt auf, dass Kadertraining in China auf zwei Ebenen des politischen Verwaltungsapparats operiert. Erstens horizontal, wo das Kadertraining die Übersetzung von symbolische in opertationale Ideologie unterstützt. Zweitens vertikal in den Beziehungen zwischen Zentral- und Lokalregierungen, wo Kadertraining ein höheres Maß an Folgsamkeit von Lokalregierungen in der Umsetzung zentraler Vorlagen erreichen soll. Gleichzeitig verfolgt Kadertraining das Ziel, Humanressourcen aus- und weiterzubilden, um die administrativen Kapazitäten im Ressort und vor Ort zu stärken. Im Kontext der Transformation von einem auf wirtschaftliches Wachstum ausgerichteten Entwicklungsmodell hin zu einem Model, das darüber hinaus auch Umweltverträglichkeit und soziale Gerechtigkeit anstrebt, ist Kadertraining ein wichtiges Instrument, um diesen besagten Wertewandel herbeizuführen. Über das Training werden nicht nur abstrakte Ideen vermittelt, sondern auch eine Reihe von vordefiniertem Wissen und Fertigkeiten, die die Transformation auf praktischer Ebene ermöglichen sollen.

Die operationalen Aspekte der Kadertrainings, deren Zusammenspiel mit symbolischer Ideologie, und seine Funktion für das Herbeiführen eines Wertewandels werden anhand eines Fallbeispiels analysiert. Die Staatliche Forstwirtschaftsadministration ist nicht nur beispielhaft für die Trainingsstrukturen in anderen Ressorts, ihr ist mehr noch der beispielhafte Konflikt der nachhaltigen Entwicklung, nämlich zwischen Ressourcenverbrauch und Ressourcenschutz, inhärent, in dem sie eine wichtige Vermittlerrolle zwischen den Konfliktparteien spielt. Zusammen mit dem Umstand, dass das Ressort schon vergleichsweise früh, nämlich 1998, eine diesbezügliche politische Wende herbeigeführt hat, ist die Staatliche Forstwirtschaftsadministration eine geeignete und fesselnde Fallstudie.

English

The study tackles the role of cadre training in the Chinese party-state's efforts to operationalize its vision of sustainable development. Its theoretical framework grounds on a multidimensional concept of ideology that distinguishes between symbolic and operational features of ideology. While symbolic ideology refers to abstract ideas formulated and promulgated by the Chinese Communist Party, operational ideology pertains to concrete policies of functional bureaucracies.

I argue that cadre training operates on two dimensions: Horizontally, cadre training facilitates the translation of symbolic ideology into operational ideology. Vertically, cadre training operates in the context of central-local relations pursuing a higher degree of responsiveness of local government agencies toward central mandates. Furthermore, cadre training aims foster administrative capacities by human capacity building. In the context of a transformation from a growth driven development model toward a model that also pursues environmentally soundness and social equity, training is a central tool for achieving this change of value. Training not only conveys abstract ideas to people working for China's state administration (and beyond) but also imparts a set of pre-defined knowledge and skills that should enable transformation on a practical level.

The study investigates the operational aspects of cadre training, its relation to symbolic ideology, and the function of cadre training in the promotion of a value change by means of a case study. The State Forestry Administration exemplifies training structures that are replicated in other functional administrations. Above all, it inherently carries a main tension of sustainable development, the conflict between resource extraction and resource conservation, and is responsible for mediating between conflict parties. This and the administration's comparably early shift from blind resource extraction to resource conservation in 1998 make the State Forestry Administration and its political portfolio an intriguing case.

Table of Contents

Acknowledgements 3

Abstract 5

Table of Contents 7

Tables and Figures 11

List of Tables 11

List of Figures 11

Chapter 1 13

Introduction 13

1.1 Motivation 14

1.2 Literature Review 16

1.2.1 Cadre training as a research topic 17

1.2.2 Policy implementation and cadre management 21

1.2.3 Research on China's environmental crisis and forestry 25

1.2.4 Research gap 28

1.3 Research design 29

1.4 Structure of the thesis 31

Chapter 2 35

Theory and Method 35

2.1 Theory 35

2.1.1 Sustainability as a political project 35

2.1.2 Symbolic and operation ideology 38

2.1.3 Cadres as operationalizers and implementers 42

2.1.4 Central-local relations 43

2.1.5 Human capital development and value change 46

2.1.6 Summary 48

2.2 Method ... 50
2.2.1 Case study ... 50
2.2.2 Data collection and analysis ... 52
2.2.3 Fieldwork and expert interviews ... 54
2.2.4 Content Analysis ... 67
2.2.5 Limits ... 70
Chapter 3 ... 72
Characteristics and Origin of China's cadre training system ... 72
3.1 China's contemporary cadre training system ... 73
3.1.1 The legal framework of cadre training ... 73
3.1.2 Institutions and providers of cadre training ... 76
3.1.3 Training ... 80
3.2 Origins and development of cadre training ... 82
3.2.1 Cadre training and the red-expert paradigm ... 82
3.2.2 The history of China's cadre training structure ... 84
3.3 Conclusion ... 119
Chapter 4 ... 121
Translating Ideology into Training Practices ... 121
4.1 Governing papers and governing with papers ... 123
4.1.1 Documents as "graphic artifacts" in central-local relations ... 123
4.1.2 The representation of interests in government papers ... 125
4.2. Training plans and central-local relations ... 134
4.2.1 The genesis of training plans ... 134
4.2.2 Three principles of planning ... 137
4.2.3 Local practices ... 144
4.3 Organizing forestry governance ... 146
4.3.1 Defining subjects of operationalization ... 147
4.3.2 Creating subjects of operationalization ... 152
4.4 Conclusion ... 157

Chapter 5.....159

Structure and Organization of Forestry Training.....159

5.1 The management of forestry training.....160

5.1.1 China's State Forestry Administration.....161

5.1.2 The principle of *fenji guanli fengong zeren* (分级管理分工责任).....163

5.1.3 Drawbacks in training management.....167

5.2 Central and local "training bases" (培训基地).....174

5.2.1 Central training academies and colleges.....174

5.2.2 Local forestry cadre schools and other training bases.....179

5.3 Explicit and Implicit objectives of the training.....187

5.3.1 Typology of training programs.....188

5.3.2 Training and human capital development.....193

5.3.3 Training and state integration.....199

5.4 Conclusion.....202

Chapter 6.....204

Grassroots Cadres as Trainers.....204

6.1 Stakeholder interests in forestry and state expansion.....205

6.1.1 Stakeholder and the devolution of forest rights.....206

6.1.2 The reach of the state.....209

6.2 Knowledge transfer in China's state-rural-society relations.....211

6.2.1 Symbolic and operational aspects of knowledge transfer.....212

6.2.2 Historical development in China.....215

6.2.3 Grassroots cadres as agents of the state in contemporary China.....217

6.3 Conclusion.....224

Chapter 7.....227

Conclusion.....227

References.....237

List of Interviews.....262

Appendix.....264

Tables and Figures

List of Tables

Table 1: Training institutions and providers 79

Table 2: Cadres going abroad between 1990 and 2011 115

Table 3: Training Statistics, Venice International University 117

Table 4: Annual Training Plan 2012 143

Table 5: Roles and expertise 150

Table 6: Complementary training for the implementation of national forest program 154

Table 7: Gross output value of agriculture in 2014 173

Table 8: Annual budgets of central-level training institutions 179

Table 9: Objectives and types of cadre training 189

Table 10: Forestry stakeholders in China 207

Table 11: List of cadre training facilities in 1986 (according to province and type) 264

List of Figures

Figure 1: China's concept of sustainable development 37

Figure 2: Distribution of cadres in the Chinese polity 43

Figure 3: Roles and functions of cadre training 50

Figure 4: Cadre training in an un-specified Chinese city 110

Figure 5: Drafting and issuing training plans 137

Figure 6: Building plans 140

Figure 7: Translation process in training plans 144

Figure 8: Levels of abstraction in complementary training 157

Figure 9: State Forestry Administration (central-level) 162

Figure 10: Parceling out training responsibilities 164

Figure 11: Training programs at the State Academy of Forestry Administration 176

Figure 12: Geographical distribution of China's forestry training institutions 181

Figure 13: Airports in Yunnan..... 182

Figure 14: Cadre training base of the Ministry of Land and Resources 184

Figure 15: Financial allotments and educational levels in Forestry Stations 199

Figure 16: Structural organization of technical extension service..... 218

Figure 17: Extension Service Training Material in Yunnan..... 219

Chapter 1

Introduction

This dissertation grounds on a personal and professional interest in China's attempts to bring its development model on a path of sustainability by reconciling economic, social, and environmental/ecological interests. If sustainable development is an abstract goal, how can it be operationalized, and above all, how does the authoritarian state bring its agents to formulate and enforce policies that are in line with a preassembled or pre-formulated vision of sustainability? The study tackles the role of cadre training as a political instrument in the Chinese party-state's efforts to operationalize its vision of sustainable development.

Why is it necessary to write another book on cadre training in China? As I will show in this Chapter, I am not the first scholar to study the training of Chinese officials. Over the past 50 years, a series of very informative and insightful books and articles have been produced which tackle the institutions of training, organizational processes, and the role of training in China's political regime. Many studies focus on party schools and investigate cadre training from the vantage point of regime preservation, but do not relate the contents of cadre training to sector-specific policies and reforms. This is what this dissertation is about: the training of officials in China's State Forestry Administration.

The theoretical framework of my study draws on a multidimensional concept of ideology that distinguishes between symbolic and operational features of ideology (Free & Cantril, 1967). While symbolic ideology refers to abstract ideas formulated and promulgated by the Chinese Communist Party, operational ideology pertains to concrete, sector-specific policies of functional bureaucracies. I argue that cadre training operates on two dimensions: Horizontally, cadre training facilitates the translation of symbolic ideology into operational ideology, that is, the formulation of sector-specific policies within the framework of ideological party concepts which set the parameters for what is to be developed and how it is to be developed. Vertically, cadre training operates in the context of central-local relations pursuing a higher degree of responsiveness of local government agencies toward higher-level mandates. Both translation and responsiveness, rely upon the ability of those who staff government agencies to formulate and implement sector-specific policies that reconcile economic, social, and environmental interests. Therefore, training also aims to foster administrative capacities by means of human capacity building.

Using China's State Forestry Administration (国家林业局) as a case study, the dissertation analyzes the structures of the training of operational aspects of ideology, how operational contents relate to symbolic ideology and the function of training in the promotion of a value change from resource extraction to resource conservation. The State Forestry Administration and its political portfolio are an intriguing case for the following reasons: First, the State Forestry Administration exemplifies training structures of other bureaucracies and line departments. Second, the administration is subject to tensions between economic and environmental interests and responsible for mediating between conflict parties. Third, forests as natural resources became part of China's environmental agenda at a comparatively early date. This allows analyzing to what degree and how training was employed to pursue a value change from frantic resource extraction to resource conservation, and to sustainable forest management that aims to achieve a reconciliation between economic, social, and environmental interests.

In this dissertation, I demonstrate that cadre training takes up a vital role in making a tangible and comprehensible connection between abstract concepts of development and concrete policy proposals. Institutional and non-institutional spaces serve as places of knowledge transfer and knowledge acquisition, and training is where symbolic and operational ideology engage in a dialogue. In the context of the transformation from growth-driven development toward a model of development that pursues economic growth, social equity, and environmental soundness, training is an important tool employed by the State Forestry Administration for achieving a value change within its administration. Training conveys abstract of development and imparts a set of pre-defined knowledge and skills that should enable transformation on a practical level. Therefore, training is not a simple instrument to spread information, but assists in the construction of a vision of development and it conveys how this vision should be operationalized. Training is thus a means for the Chinese party-state to organize forestry governance.

1.1 Motivation

I started out this research with a very simple endeavor. My initial ambition was to uncover whether there was more about cadre training than existing scholarship ascribed to it. I did not dismiss the general view that cadre training was about leadership training and thus about leadership reproduction and elite culture (Price, 1976; Pieke, 2009a), neither did I object to the understanding that training and study operated as a communication system geared to transfer policy directives into the length and breadth of the Chinese administrative system (Schurmann, 1971 [1967]). Yet, I came to understand that approaches so far applied in research predominantly focused on the implicit goals of training while yielding less importance to the function of promoting human capital development. The latter, so I was convinced, was a vital ingredient for whether China

managed to operationalize sustainable development and find solutions for reconciling economic, social, and environmental interests.

The majority of studies published so far pursues to understand (the preservation of) party-rule in contemporary China, therefore they predominantly focus on party schools and/or central-level training institutions (Shambaugh, 2008; Pieke, 2009a; Chin, 2011; Lee, 2015). Cadre training is regarded as a combination of Leninist ideological indoctrination and modern executive leadership training with the latter focusing on the improvement of leading cadres' managerial skills. The focus on this set of training institutions appeared to me to be quite unsatisfactory for understanding how ideology and political practice relate to each other in contemporary China. Indeed, when I attempted to find out more about how cadre training dealt with the issue of sustainability, I came to realize that party school programs had inserted training sessions on Hu Jintao's (胡锦涛) Scientific Development Concept (科学发展), Harmonious Society (社会和谐), and Ecological Civilization (生态文明), but provided little professional expertise and practical skills for their operationalization. When asking my informants about training on environmental protection in cadre training, they all referred to professional training provided to cadres from the Ministry of Environmental Protection. It was then when I slowly came to understand that China's cadre training was not limited to training in party schools and academies of administration, but that there was a world of professional, sector-specific training in China that had not been discovered by research – at least in the English speaking literature.

The sensation of dissatisfaction with regard to the focus of analysis of extant literature also applied to the persisting idea that cadre training is about the reconciliation of party ideology with modern management and/or leadership skills necessary for handling the day-to-day challenges in a modern state. I reckoned that if limited to management and leadership skills, the scope of knowledge and skills attributed as necessary to run a state had a quite narrow definition which excluded the above-mentioned sector-specific knowledge that was though vital for the formulation and implementation of policies.

Departing from my home country Austria, where training institutions exist for the general administrative civil service (*Allgemeiner Verwaltungsdienst*) as well as for civil servants working in the judiciary, education, and forestry, I wondered whether something akin existed in China. Literature that does not relate to the term *cadre training* suggests that China has been exerting efforts to professionalize the public service by providing continuing education and on-the-job-training to different professional groups employed in the judiciary, police, and fire service (Yang, 2002; Zhang, 2009). Although this sort of training specializes on professional contents related to the work fields of the trainees addressed, I assumed that the training contents were not completely

unrelated to party ideology and the Chinese Communist Party's vision of (sustainable) development.

In the 2000s, the Chinese central government announced its new vision of development and rhetorically turned its back to the promotion of economic growth at the expense of social equity and environmental soundness. China observers raised questions such as: How would the Chinese party-state change its institutions to make change possible? Which measures would be set to make local politicians more accountable to environmental and social policies? How would the state at the central level break the close ties between economy and politics at the local level that had made growth possible in the first place? Finally, with the commensurate rise of civil society, NGOs, and the increasing role of experts questions were raised on how these actors influenced policy-making in contemporary China.

Against this backdrop and my reading on cadre training in China, I started to reflect whether the more professional, sector-specific training played a particular role in bringing about change and whether it contributed to the implementation of concrete policies and reforms that fostered sustainable practices. My initial reflections grounded on the yet not empirically founded idea that the transformation of development had to rely to a large degree upon public administrators in ministries responsible for resource management, environmental protection, etc. Although I considered political clout and power to be important factors for these ministries to press their political agendas, I found that public administrators' ability to respond to the manifold challenges (e.g. environmental degradation, pollution, industrial restructuring, and social welfare), as well as the conviction that economic growth cannot be further pursued at the expense of social inequalities and environmental degradation, was no less important. In other words, the salient question was how the prevailing attitudes and values that supported the former development model would be overcome. Training appeared to be the obvious answer. Yet, the literature on cadre training and sustainable development in China talked little about the issue of human capital building in the context of China's transforming development model. Finally, looking into the literature of public administration I found empirical evidence for my initial reflections on the role of civil servant training in promoting change. Hence, I defined the research gap I intended to fill.

The following section presents a literature review in which I discuss the main contributions of extant literature important for my research topic.

1.2 Literature Review

I read into a very large body of literature that is concerned with the political institutions and organizations of the Chinese party-state, central-local relations, sustainable development and

environmental protection politics, and, more specifically, forestry, forest development, and forest management. This manifests the strong character of interdisciplinarity of my dissertation project. The literature review presented here is composed of three parts that discuss cadre training as a research topic in its own rights, dominant approaches in the study of policy implementation and the role of cadre management in policy implementation, and research on China's environmental crisis and forestry. It closes with the definition of a research gap that informed my research project and based on which I formulated the guiding research question for this dissertation.

1.2.1 Cadre training as a research topic

Studies that specifically and exclusively deal with the issue of cadre training rise to a manageable amount. Jane Price's (1976) *Cadres, Commanders, and Commissars: The Training of the Chinese Communist Leadership, 1920-45* is the earliest comprehensive English-language volume on leadership education in China. Up to that point, cadre training was treated as a side-product of party organization (Schurmann, 1971 [1967]) and cadre management (Vogel, 1967). With her analysis of historical documents, Price adds a detailed picture of the institutions of leadership training (party schools and military academies), and leadership training practices of Chinese Communist cadres. Price started a tradition of writing on cadre training that is mostly concerned with the organization and institutions of leadership training understood as one major contributing factor to the CCP's "political effectiveness" (Price, 1976, p. 5) which grounds in "an organization loyal to the state" (p. 5). She analyzes the variety of training institutions and how they served very concrete political goals during the revolutionary period. In several chapters, she explains training practices in China and abroad all of which aimed to convey theoretical and practical competencies to their students for carrying out the Communist revolution and for fighting against its enemies. Price's book is a historical research on the concept of leadership and its direct organizational expression in how leaders were trained during the revolutionary period, it is thus a central work in the research on cadre training in China.

By the end of the 1970s and in the early 1980s, a series of research articles were published on 7 May Cadre Schools. These schools had been installed during the Cultural Revolution and had served as labor camps for intellectuals and intellectual. The schools provided a combination of theoretical study and manual labor, cadres and other bureaucrats were expected to gain a better understanding of the revolutionary process (Casella, 1973). Research articles are cursory reports that tackle the everyday practices and living conditions (Casella, 1973; Wang, 1975; Fen, 1986). Literary writing has offered literary intellectuals space where they could process their personal excruciating experiences in these schools. Yang Jiang's (1984) *A Cadre School Life: Six Chapters* and the more recently published *One Man's Bible* by Gao Xingjian (2003) are literary outputs in

which the authors cope with their memories on their personal experiences during the Cultural Revolution in general and on 7 May Cadre Schools in particular.

With the introduction of a civil service system, researchers started to analyze the reform efforts and its impact on China's administration. Research in this field focuses on the process of implementation tackling questions regarding professionalization, administrative efficiency, and the persisting influence of the CCP in China's state administration (Burns, 1987; Burns, 1994; Aufrecht & Li, 1995; Tsao & Worthley, 1995; Tong, et al., 1999; Brødsgaard, 2002; Chou, 2004; Chan, 2004; Tsao & Worthley, 2009; Yang, et al., 2012). The frictions between party influence and regulations modeled to introduce a politically neutral and effective state administration continue to preoccupy scholars up to this date (Chan & Li, 2007; Jing & Zhu, 2012; Yang, et al., 2012). Most studies do not exclusively tackle civil servant training. An exception is a study by Yang, et al. (2012) on civil service training in Nanning City, Guangxi Province. The authors investigate the training in the municipality's Schools of Administration and identify three problem areas: Firstly, the centralized structure of the civil servant training that allows little flexibility at the local level. Secondly, the parallel structure of party schools and school of administration "creates overlapping functions and diffuses or wastes of limited resources" (p. 186). Thirdly, marketization or outsourcing has also pervaded China's training sector. They point out that literature does not fully agree whether this is a benefit for training or not. In China, the case seems to be that "capacity training may be outsourced, but value training (or ideological training) must be kept in-house" (p. 187). Yang, et al. (2012) together with Chin (2011) – who will be discussed below – are the first to shift the focus from party schools to a different set of training institutions. More importantly, Yang, et al. (2012) bring to light the parallelism and overlapping of different sets of training structures in China's polity and hint to a deliberate division of responsibilities between them. However, their analysis stops at this very finding and does not delve deeper into how these structures interrelate on a discursive level.

Another wave of research concerned with cadre training in party schools cropped up at the turn of the 21st century. The previous collapse of the Soviet Union and China's regime unexpected resilience prompted researchers to seek answers for how the Chinese Communist Party organized its party-state in order to remain in power. Under the catchy slogan "bringing the party back in" (Zheng & Brødsgaard, 2004), students of Chinese politics started to turn their attention to party organization for finding answers to how the Chinese party-state managed to adapt to the new challenges brought about by economic and societal transformation.

Monographs, edited volumes, and research articles were henceforth published that touched upon regime resilience and adaptability (Oi, 2000; Nathan, 2003; Shambaugh, 2008). The interest in

party organization was also owed to new insights in Soviet history. A crucial factor for the collapse of the USSR was internal state disintegration, i.e. the loss of loyalty of state agents towards the regime. It turned out that while international China observers analyzed the causes for China's regime resilience, the Chinese Communist Party had started to engage in serious research on the reasons for the USSR's atrophy already in the 1990s (Shambaugh, 2008, p. 49) and had obviously set measures to prevent a similar fate. In this strand of literature, cadre training is acknowledged as a crucial element of party building (Shambaugh, 2008) through which the Chinese Communist Party tries to win the minds of its cadres (Pieke, 2009a).

Around the same time, cadre training became a case study for investigating the party's adaptive capacities (Tran, 2003; Chin, 2011; Lee, 2015). This new wave of interest in leadership training began with Tran's (2003) research article on the Shanghai Municipality Party School which she shows to be epistemic for the Chinese Communist Party's efforts to modernize its party-state administration. Objects of this modernization are not only its political organizations but also Chinese party and government cadres working in these institutions. Frank Pieke (2009a) underlines that

> [c]adres are as much a trusted instrument of transformative rule as the party's primary object of transformation. (p. 32)

A general and persisting assumption is that regime resilience is successful provided that contractions between economic transformation and Leninist principles of organization of the party-state can be reconciled. Leadership training is a political instrument that helps the Party to achieve both ends. It fosters innovation, and at the same time preserves the fundaments of its political regime (Chin, 2011).

The most comprehensive and so far most insightful volume on contemporary cadre training is Pieke's (2009a) volume *The Good Communist: Elite Training and State Building in Today's China* and his complementary articles (Pieke, 2009b; Pieke, 2009c). Using ethnographic research methods, he analyzes leadership education, institutions of leadership training, and leadership training practices in today's China in a provincial-level party school. For him, cadre training is central in the party's efforts to control its agents that populate the party-dominated public sector. In a Bourdieu-like way of thinking Pieke (2009a) asserts:

> […] cadre training is a strategic site, where the party not only imparts knowledge and skills needed of cadres. [… It] also turns cadres into a ruling elite, whose whole composure expresses the mystique of the CCP's power. (p. 19)

Due to the drastic changes in research opportunities that occurred between the 1970s and the early 2000s, Pieke was able to carry out an anthropological study in Yunnan Provincial Party School in Kunming. In the course of his research, he conducted a series of expert interviews with information-rich actors involved in the organization of cadre training (also at central-level training institutions), attended classes, and carried out a survey with party school students. The data he retrieved allowed him to detail a quite vivid and palpable picture of the "life and work at party schools" (Pieke, 2009a, p. 81). This methodology stands in stark contrast to Price's (1976) study. Besides the fact that her research had a historical approach and was based on document research, Price would not have had access to institutions of cadre training at that time. Due to China's isolation and the internal political situation, researchers had much trouble in gaining access to data and were often barred from engaging in fieldwork. This changed with the Reform and Opening Policy and its concurring increase of international exchanges. Since the 1990s "fieldwork in China has become more multifaceted and diverse" (Thørgersen, 2006, p. 12).

Pieke's (2009a; 2009b; 2009c) work is insightful, misses analyzing in more depth how cadre training affects local politics and development. In one of his chapters he hints to how cadre training relates to local policy implementation (2009a, pp. 136-137): His research activities brought him to Shilin Yi Autonomous County in Yunnan, where the local party school increased the number of students from previously 500 to 2000 in 2004, and trained them in skills conducive for the promotion of local tourism, in particular, with regard to the local tourist attraction, the Stone Forest Park. Training aimed to convey cadres the

> […] skills required by Shilin's exposure to the outside world: proper Mandarin Chinese […], computer skills, electronic government, and English." (Pieke, 2009a, pp. 136-137)

Unfortunately, he does not further elaborate the case but takes it as an example to demonstrate the impact of the market economy on China's socialist governance.

Charlotte Lee (2015) is so far the latest representative of the tradition in the study of leadership training institutions. In her recently published book, *Training the Party: Party Adaption and Elite Training in Reform-era China*, cadre training is a case study to exemplify how the dictates of marketization have befallen core political organizations of the Chinese Communist Party. The study reveals more details on changes in the organization of training that have occurred after China decided to launch its Reform and Opening Policy. However, the book does not offer any new perspective on cadre training and its role in Chinese politics.

In addition to the above-discussed studies, a body of literature touches upon cadre training in the broader context of authoritarianism. Under the general term *cadre management* a range of articles, in particular at the beginning of the Reform Era, tackled the reform of cadre management and its

individual components entailing recruitment, training, promotion, transfer and removal, as well as retirement (Manion, 1985; Burns, 1987; Burns, 1994; Chan, 2004). Even so, cadre training has never entered the field of study of those who seek to analyze steering mechanisms established by the central government to pursue lower-levels' compliance with higher-level expectations (Edin, 1998; Whiting, 2004; Mertha, 2005; Landry, 2008; Chan & Li, 2009; Heberer & Trappel, 2013). As a consequence, while the processes of cadre evaluation and its impact on the implementation of specific policy goals have been thoroughly studied by Chinese and international scholars, cadre training has yet to be examined from the vantage point of accountability. This aspect will be discussed further in the following section.

To sum up, cadre training has so far been studied in party schools and executive leadership training institutions. It is acknowledged as a pivotal feature of party organization and a crucial measure for regime adaption. From this perspective, cadre training serves the purpose of elite socialization that produces and reproduces leaders that are expected to be capable of problem-solving and, at the same time, to remain loyal to the political regime under the leadership of the Chinese Communist Party and its ideologies. Similar to other fields of economic organization, cadre training has been subjected to a transformation process toward more marketization. The role of cadre training in, and its effects on, local development have yet to be studied; the same applies to sector-specific on-the-job-training in bureaucracies that carry out policy implementation.

1.2.2 Policy implementation and cadre management

Policy research in the Chinese context either assesses the outcome of a specific policy on local development or it tries to find explanations for unexpected outcomes or implementation gaps at the local level. Traditionally, scholars of Political Science search the causes either in the institutions that regulate government agencies, the structures that affect government officials' behavior, or the individual's choices of local officials. What underlies all these approaches is the question of power and influence. A central issue in policy research is delegated discretion and the effectiveness of instruments that can increase the responsiveness of lower levels toward higher-levels' expectations. In China Studies, recent scholarship has focused on institutional (or personnel related) control over local governments and government branches. Consequently, cadre management gained momentum as an important research topic.

Cadre management came into the focus of research in the late 1990s, when scholars sought explanations for China's economic development and answers for what stimulated cadres' behavior. Dominant were principal-agent theories that saw cadres as agents, both of higher levels of the party-state administration and the local communities (Edin, 1998, p. 98). The theory purports the necessity to build up effective incentive structures (e.g. promotion, bonus, etc.) so that the agent's

own interest works toward the interest of the principal. At the same time, the agent's behavior has to be monitored in order to detect diverging behavior and, if necessary, impose sanctions (e.g. transfer or removal) (p. 98). The understanding that cadre behavior is stimulated by rational-linear control mechanisms, whose aims and goals are clearly linked with the instruments used to exert control, continued to stimulate research in this field and gained further momentum with the rise of literature on regime resilience at the turn of the 21st century. The underlying theoretical puzzle is best expressed with the following question: How does a state which lacks a "predictable rule-of-law-oriented, un-political, impersonal type of public administration that is known as the Weberian model of bureaucracy" manage to make its agents accountable and promote socio-economic development (Rothenstein, 2015, p. 533)?

A great deal of research likened the idea of accountability with the system of cadre evaluation in combination with promotion prospects. Scholars have attested the cadre evaluation system a steering function, but with varying degree of effectiveness. Schubert & Ahlers (2012) explain that in cadre evaluation the final allocation of points produces a hierarchy among governments and government departments by awarding those that finish at the top with promotion prospects and more funds. Heberer & Trappel (2013, p. 1065) find that even those cadres who are not promotable must play the game, as an "attention slip" (p. 1065) could be the end of their appointment.

In the context of sustainable development, more specifically with regard to conflicting goals between economic development and environmental protection, Lo & Tang (2007) have discovered that the introduction of environmental targets into the cadre responsibility system has improved environmental governance. Heberer & Trappel (2013, p. 93) have come to a similar result claiming that if a local government chooses to stress environmental policies, environmental targets can become hard targets and thus a prerogative for the promotion of cadres. The introduction of the Life-long Ecological and Environmental Damage Responsibility System (生态环境损害责任终身追究制) in 2013, the newly enacted *Environmental Protection Law* (环保法), the closing of highly polluting industries (*Foreign Affairs*, 10 May 2017), and the recent revival of Green GDP under the newly appointed minister of environmental protection, Chen Jining (陈吉宁) and his vice-minister, Pan Yue (潘岳), are strong indicators that the central government attempts to achieve a value change by yielding more importance to environmental goals in the cadre evaluation system. Yet, the problem proves to be much more complex than simply shifting weight from economic targets to environmental targets.

Even so, there is little consensus about the effectiveness of cadre evaluation for policy implementation. Analyses of various policy fields show that the mechanism produces considerable side-effects (Lam & Chan, 1996; Edin, 1998; Chan & Li, 2009; Wu, et al., 2013; Kostka, 2014),

and Ang (2016) has found out that only about 1 percent of all cadres have the chance for promotion. Side-effects and behavioral patterns of officials can be explained by the interaction of formal institutions of cadre evaluation and informal factors such as political coalition building or social capital, strategic behavior of cadres to obtain tax alleviation, funding, or rent-seeking activities for the purpose of supplementing one's income (Whiting, 2004; Zhang, et al., 2004; Tsai, 2007; Kung, et al., 2009). At an early point, Edin (1998, p. 119) pointed out that the weakness of the accountability system lies in its conjunction with the evaluation system. In contrast to the clear work targets that local cadres have to fulfill, evaluation lacks a clear basis.

In a case study on Jingbian County, Shaanxi Province, Chan & Li (2009) show that local governments have difficulties to meet all goals set by higher levels. Like many other counties in China Jingbian's development is subjected to a conflict between economic and environmental interests. Both are reflected as performance criteria in the cadre evaluation system that sets goals for livestock raising as well as for increasing forest cover and prevention of soil erosion. In order to achieve both, the government stipulated strict grazing regulations which resulted in economic disadvantages for farmers who consequently disobeyed the regulations (p. 57). In order to avoid these contractions, cadre evaluation schemes need to be based on clear ends with regard to "what is to be achieved." However, a serious challenge is that multiple actors have different interests and expectations on development (p. 58). Other research hints to similar phenomena in a broader range of policy fields (O'Brien & Li, 1999; Bernstein & Lu, 2003; Tsai, 2007).

Against the backdrop of China's tax and financial system, local governments shoulder the greatest burden for public policy provision. Hence, cadres continue to give priorities to revenue generating policies over the provision of environmental services that do not bring any revenue for local government budgets (Wu, et al., 2013). Another problem with performance measurement in China is that the system remains prone to manipulation in terms of false reporting. Over years, researchers have been pointing to the problematic distortion and the lack of credibility of China's internal information system (Xiao & Womack, 2014). This has wider implications not only for environmental monitoring (Brombal, 2017) but also for the effectiveness of cadre evaluation with regard to meeting environmental goals. Finally, "enhanced accountability may not necessarily produce better performance" (Chan & Li, 2009, p. 58).

Cadre training has so far not entered the scholarly discussion on accountability mechanisms in China, even though there is a widely excepted view that cadre training serves as a communication system to bring higher-level mandates down to the local level (Schurmann, 1971 [1967]; Shambaugh 2008; Pieke 2009a; Heberer & Trappel, 2013; Tsai & Dean, 2013). In their article on Politburo study sessions, Tsai & Dean (2013) unfold the structures of study sessions from the

Politburo at the central level to the party committees at the township level and trace the process of knowledge diffusion. According to their research, study sessions are organized in cooperation with the Policy Research Office that proposes possible topics for a study to the CCP General Office that makes the final decision. The topics are then disseminated to the Party committees at the various levels (p. 96). The authors provide indications that study sessions have indeed an effect on policy implementation, to the extent that central priorities on certain policy measures are communicated over this system (p. 104). Although comprehensive and logical, the evidence provided by Tsai & Dean (2013) is based on official documentation. In addition, questions such as how local governments deal with the "knowledge" acquired through the study sessions, how skills and knowledge are translated into political action, and whether the training helps them find solutions for local challenges, remain unanswered. Notwithstanding, the article is an important contribution to the literature on cadre education and training in China, as it reveals the decision-making processes with regard to what kind of knowledge should be diffused and who makes this decision.

While in China Studies the effect of training is an under-researched topic, there is growing international recognition in other disciplines that skill training of public officials is an important contributing factor to change (Witesman & Wise, 2009; Racko, et al., 2014; Schröter & Röber, 2015). Peters (1998, p. 305) argues that shared and similar values, skills, and understandings about policymaking are conducive for effective policy coordination between different governmental agencies. Schröter & Röber (2015) discuss the need to adapt civil servant training programs with value changes in society and organizations. Civil servant training is a "powerful tool of professional socialization," hence training programs are "the most effective conveyances to help new cultural dispositions making their inroads into established organizations" (p. 27). Witesman & Wise (2009) show the influence of structural characteristics of a government – whether it is centralized or decentralized – on the availability of training in values and skills that are fundamental for a democratic transition. They theorized that democratization promoted via skill training in civil service is best supported by a centralized government structure. In contrast, (Tõnnisson & Kaido, 2004) object that only centralized structures can bring about a collective value change. Centralized tools might facilitate the process of awareness building, however, they are no guarantee that civil servants behave accordingly. It is the conditions that have been created to develop on their own (p. 8). These studies bring together international experience in civil service training; their contribution is not the establishment of a clear cause-effect relationship between training and policy implementation, but they provide empirical insight how training is conducive for value change by providing training on a specific set of skills in a variety of countries, an aspect

that is central for policy implementation in the first place and for bringing about change in development in the long run.

Summarizing, research suggests that cadre evaluation acts as a political instrument with which higher levels try to direct development at lower levels of administration. While literature continues to discuss the effects and side-effects of cadre evaluation, cadre training is not considered to act as an accountability mechanism with similar results. However, research on civil servant training in Public Administration Studies suggests that training of public officials is conducive to change. The theoretical reflections and insights into international experiences of civil servant training have yet not informed the study of cadre training in China.

1.2.3 Research on China's environmental crisis and forestry

Over the past decade, the body of literature on China's environmental crisis has grown exponentially. What is striking is the growing degree of interdisciplinarity of the field, as studies choose from a variety of approaches from disciplines including Political Science, Anthropology, Sociology, History, and Public Administration. It has become harder and harder to make a clear and net demarcation of China Studies as a discipline in its own right, not least because researchers contributing to the field have become interdisciplinary by the training they have received and do not exclusively work at Departments of Asian Studies or Departments of China Studies. Due to the bulk of literature, an exhaustive review goes beyond the scope of this chapter, hence the state of the art presented here is limited to the most representative studies in the field.

Research on contemporary issues of sustainable development and environmental degradation tackles institutions, administrative measures, bureaucratic processes, and competing authorities within the polity (Rooij van, 2006; Stern, 2013; Economy, 2014). Other scholars focus on lobbying and advocacy of stakeholder groups in the policy-making process (Yang, 2005; Mertha, 2005; Zhan & Tang, 2013; Dong, et al., 2015) as well as perceptions and coping mechanisms with environmental degradation of local communities (Tilt, 2009; Lora-Wainwright, et al., 2012; Yu, 2014; Ahlers & Shen, 2017). In 2018, The China Quarterly will publish a special issue on *The Human Dimensions of Air Pollution in China* edited by researchers that are part of the well-known research project "Airborne" at the University of Oslo. In addition to these books and articles, several annual report series have been produced that give updated information on China's environmental situation. Most notably among them, the Brill Series *The China Environment Yearbook* which was published annually between 2005 and 2011 and edited by Yang Dongping from Friends of Nature (Liang & Yang , 2007; Yang , 2008; Yang, 2009; Yang, 2010; Yang, 2011). Research has closely followed China's efforts to combat climate change, curb pollution, and enhance resource management. It gives insights into the process of environmental policy-making

and policy implementation, causes of pollution, the role of public-private relations, conflicting stakeholder interests, as well as tactics and evolutions of environmental protests.

Literature tackles a great variety of environmental *topoi* such as climate change, water, soil, and land degradation, air pollution, biodiversity conservation, and resource management. Given China's pressing pollution issues and their impact on human health and China's economy, pollution of water, air, and soil have dominated the public and scholarly debate over the past years (Rooij van, 2006; Zheng & Lu, 2015; Delang, 2017). Resource management, entailing water, agricultural land, grassland, and forests are research areas in the field of rural governance, most commonly tackled from the vantage point of state-society relations (Yeh, 2013; Zhao , 2013; Yu, 2014; Zhan & Ming, 2017). Without a doubt, research on China's environment has become an established field in the discipline of China Studies providing insights into challenges of various environmental systems, and explanations for shortcomings as well as successful practices.

While agricultural development in rural China is a constituting field of China Studies, forestry and forest management have garnered comparatively little attention. Relevant journals in the discipline of China Studies have sporadically published contributions on issues such as reforestation and poverty alleviation, as well as other questions of sustainable forest management (Yeh, 2000; Ross, 2002; Robbins & Harrel, 2014; Strauss, 2009). Against the backdrop of the recent emerging interest in China's environmental crisis and sustainable development, this lack of interest is *a fortiori* astonishing, not least because forest management is where economic, societal, and environmental considerations meet. In addition, forests are an important role in combating climate change: clearing, overuse, and degradation of forests cause one-sixth of global carbon emissions; wood fuels produced from sustainably managed forests are a benign alternative to fossil fuels, they potentially absorb one-tenth of global carbon emissions (FAO, 2012). Questions with regard to whether and how conflicts in the field of forest management are settled can contribute to the field of rural governance. Above all, they are important for enhancing our understanding how China is developing its capacities to achieve sustainable development and combat climate change in the future.

That said, research on forestry and forest management in China is by far an under-researched topic. Outside the discipline of China Studies, there is a large body of literature. Some studies measure the outcome of policies and reforms, and their impact on forest resources, biodiversity, and farmer incomes in a variety of localities in China (Bennett, 2008; Démurger, et al., 2005; Dai, et al., 2013; Liang & Mol, 2013; Li, 2004; Liu, 2001; Wang, et al., 2004; Xie, et al., 2016; Yin, et al., 2013). Others tackle state-society relations in forest resource management and forestry governance focusing on local communities (Menzies, 2007; Yeh, 2014) or discussing the role of indigenous

knowledge in forest management (Xu, et al., 2006; Sturgeon, 2007). This literature provides insights into regional variations on policy implementation and challenges in forest development, different branches of industry, stakeholder interests, and the impact of various reforms and policies on farmers, biospheres, and biodiversity.

Interestingly, the role of human capacity (development) plays a minor role. If touched upon, human resources, education, and training are treated as one factor among many that affect policy performance, or one measure among others to be improved in order to achieve better results. However, much suggests that human capacity building should be tackled more closely also in the field of environmental protection and resource management.

In the forestry development, many studies attest a yawning gap in the professionalization of the staff in high-level and low-level forestry organizations. The lack of sector-specific expertise has detrimental effects on local development. For example, in a situational report on forest development in South Yunnan, Hammond, et al. (2015, p. 51) attest a "disconnection in the knowledge transfer process" in the context of extension service provided to local farmers: While high-quality knowledge, techniques, and strategies are developed at higher levels, the mechanisms that pass these down to smallholders are unreliable and slow. In Weyerhaeuser, et al.'s (2005, p. 245) study on the outcomes of the Land Sloping and Conversion Program in Nujiang in Yunnan, the researchers have found that only a third of forestry officials have a proper background in forestry, almost 50 percent of the forestry staff are former soldiers without any training in forestry or agriculture. They are unable to do basic forester work, such as surveys that are a prerequisite for program planning and implementation. Not few studies advise to enhancing human capacity development in terms of knowledge and skill training as well as awareness building, as they are key components in the search for sustainable solutions that can overcome the clash between economic and environmental interests (Xu, et al., 2006; Wigboldus, et al., 2016; Marinaccio, 2017). Yet, there is no comprehensive study on professionalization efforts in China's State Forestry Administration.

English language literature that tackles forestry training is very limited and outdated. Richardson's (1966; 1990) seminal works on forests and forestry in China as well as a report on an inspection tour by the UN Food and Agriculture Organization (FAO, 1982) discern some information on aspects of the forestry educational system and professional training of China's forestry cadres during the Maoist Era and the early Reform Era. In spite of the cursory information provided, they present an outsider's perspectives on forestry education and training during a time when China was isolated or at the threshold of becoming more open and international. It was before students

were sent abroad to study forestry and other related disciplines at European and American universities.

In contrast, Chinese-language articles on human capital development in China's forestry organizations as well as training measures within the administration is ample. A lot of historical documents on sector-specific training (行业培训) that date back to the Mao Era and Reform Era under Deng Xiaoping are government reports or other documents of political communication. Even today, officials working in different branches and organizations of the forestry administration continue to publish comments and recommendations on issues related to training and human resources. These reports are variegated and display regional differences, but contribute little to theoretical development on the function of training in China's party-state and on its role in promoting China's vision of sustainable development (Zhang, 1997; Zhang & Peng, 2002; Shen, 2002; Ren & He, 2004; Li, 2004; Zhang & Jin, 2005; Yu, et al., 2008; Wu, 2010; Huang, et al. 2010; Chen, et al., 2012; Chen & Gao, 2013; Gao et al, 2013; Qiu, 2016). The goal of these studies is to detect deficiencies and propose possible paths of development. In other words, they provide academic evidence for current political measures (Klotzbücher, 2006, p. 52).

Summarizing, studies on China's environment and natural resources are abundant. Despite its policy cross-cutting nature, forestry is not a dominant environmental *topoi* in China Studies, but research on forestry is mostly done outside the discipline of China Studies. Aspects of human capital development in China's dealing with environmental degradation have yet garnered little attention by the international research community. The english-speaking literature on human capacity building in China's forestry sector is few in number and its findings are outdated. Chinese-language literature offers insights into regional variations of aspects of human capacity development in China's forestry administration but does not theorize China's approach to human capacity building to foster our understanding how China's political system impacts human capacity building in China's forestry administration.

1.2.4 Research gap

The review has tackled literature from three areas of research which are important for the study of cadre training in the context of the transformation of China's development model. The research gap(s) that I have determined can be summarized as follows:

Studies on cadre training mainly focus on party school training and executive leadership training but have shown little interest in the professional training of bureaucracies that formulate and implement sector-specific policies. Even though cadre training is acknowledged as a pivotal feature of party organization and a crucial measure for regime adaption, its role in, and effects on,

local development has yet to be studied. In contrast to cadre evaluation, which is commonly assumed to be a political instrument to increase local cadres' responsiveness to higher levels' expectations, cadre training is not considered as an accountability measure. Research in the field of Public Administration Studies, however, suggests that skill training is an important measure for promoting change. Finally, research on China's sustainable development has paid little attention to the human factor, in terms of intellectual capacities, as a precondition for solving conflicting interests of development. Human capacity development in the field of resource management, particularly in China's forestry sector is under-researched. International scholarly debates on China's environment and resource management has yet not been informed by a discussion on China on human capital building in China's State Forestry Administration.

1.3 Research design

Based on the above-presented literature review the key question that guided this study is

> **WHAT IS THE ROLE OF CADRE TRAINING IN THE CENTRAL GOVERNMENT'S EFFORTS TO OPERATIONALIZE ITS VISION OF SUSTAINABILITY?**

Two assumptions underlie this question: First, cadre training is paramount in the state's efforts to promote abstract concepts and concrete policy contents in a variety of economic sectors and localities. Second, sustainability is not understood as a "politically neutral and universally achievable condition, but as a political project that creates the conditions of possibility for thinking about nature as well as its intervention" (Yeh, 2009, p. 885).

The research question was operationalized by means of three sub-questions:

- ✓ ***What are the characteristics and origin of cadre training in China?***

  The inquiry into the historical development of this interlocked system of symbolic and operational ideology was necessary to understand the current system in its operation. I show that ever since the idea of a CCP ruled China was born, training has served as a political means of state communication and knowledge transfer. More importantly, training has always entailed symbolic and operational aspects of ideology. It was in the early 1950s that the new ruling party started to organize a more distinctive training system against the background of a more diversified and complex bureaucracy.

- ✓ ***How does the center employ cadre training to achieve a higher degree of responsiveness at the local level and how are policy reforms transferred to the local level?***

  If state integration and assertiveness are major goals of any state, either democratic or authoritarian, then central-local relations are a major feature that constitutes the system and the

organization of training in China. Consequently, dynamics in the governance of training are similar to other fields of political and economic organization. My research demonstrates that the governance of cadre training underlies similar incentives and constraints as other policy fields in which revenue generation is a decisive factor for whether and how training is provided to local agents. Furthermore, I reveal that the spatial dimension of cadre training goes far beyond the structural premises of party schools, academies of administration, and cadre schools. Communication and knowledge transfer takes place in a range of spatial environments such as hotels, forest farms, and forests and other natural environments. The choice of the spatial environment is contingent on a variety of factors. In addition, my study demonstrates that training in the State Forestry Administration is an important method to reach into society, it should foster the communication between state and society, and is an attempt by the state to bring developmental ideas and concrete proposals for operationalization to societal stakeholders. However, the system faces a series of challenges that can be mostly ascribed to the consistent lack of structural resources, but also to how knowledge generates role expectations.

- ✓ ***How do efforts in human capital development influence policy-making and implementation at the local level?***

  It is important to emphasize that cadre training is not only a political tool for bringing in line agents, inculcating their minds with CCP ideology, and conveying modern management skills. Training is an important measure in the state's efforts to enhance human capital development within its administration (and beyond). Professional training in line departments, such as the State Forestry Administration, has a communicative function, it diffuses knowledge on what higher-levels deem necessary for translating "the words of policy statements […] into action" (Kaufman, 2006 [1960], p. 4). In doing so, training conveys knowledge on laws and regulations, policy contents, technologies, and other technical or practical skills so that cadres can operationalize and implement higher-level mandates. The analysis in Chapter 4 shows that cadre training is more than just a system of knowledge transfer in China's multi-level governance regime. It is, above all, a means for knowledge construction that helps the state to produce thought communities within the administration and subjects in the process of the operationalization of sustainable development. Thus, cadre training is a technology of power that directs thinking of development and of how to achieve sustainability.

I selected China's State Forestry Administration to become my case study for the following reasons: Since training structures are replicated in all line departments, the State Forestry Administration exemplifies these structures, although with the reservation to particularities that

feature the administration. The choice was also based on a series of reflections with regard to forests and forestry, their relevance in sustainable development, and China's comparatively early efforts to promote a change in its development. The findings presented in this dissertation are based on a variety of data gathered by textual research (i.e. official government documents, yearbooks, newspaper articles, research articles, etc.) on the one hand, and oral data obtained through interviews and conversations (with cadres in the forestry administration at the various levels of administration, scholars, and other experts in the context of civil service training) on the other hand.[1]

1.4 Structure of the thesis

This dissertation is organized into seven chapters, four of which present the empirical findings of my research conducted between 2014 and 2017.

Chapter two discusses my theoretical framework for analyzing and explaining cadre training in China and its role in the party-state's efforts to transform its development model toward economic, social, and environmental sustainability. Sustainability is not analyzed as an achievable condition, but as a discursive regime promoted by China's ruling party.

My theoretical model draws on a multidimensional concept of ideology which distinguishes between symbolic and operational features (Free & Cantril 1967). While symbolic ideology refers to abstract ideas formulated and promulgated by the Chinese Communist Party, operational ideology pertains to concrete policy programs of functional bureaucracies in the context of symbolic ideology. Operating on two dimensions cadre training translates symbolic ideology into operational ideology and pursues a higher degree of responsiveness of local government agencies toward central mandates, thus also promotes a value change among administrators toward development. In its function of human capital development, cadre training aims to increase administrative capacities fostering problem-solving capacities of members that staff the party and government organizations.

The system addresses two groups of actors: Operationalizers that are decision-makers who are central in the party-state's project to formulate policies that could transform development from lavish economic growth and resource extraction toward a balanced model that reconciles economic, social, and environmental interests; and implementers that are people who support the administration in the planning and implementation of policies. Training not only conveys abstract ideas but also imparts knowledge and skills that should enable transformation on the practical level. In the context of a transformation from a growth driven to an environmentally sound and socially

[1] See more details in Chapter 2.2.

equitable development model, training is a central tool for achieving a value change in the administration that should foster the implementation of respective policies.

Chapter three presents a new perspective on China's cadre training system looking at it through the lens of symbolic and operational ideology. It demonstrates that cadre training in China is a complex structure consisting of several training systems that are under the responsibility of line bureaucracies. It so pervades the horizontal and vertical lines of bureaucracy. Party and government departments at central and local levels share responsibilities over the training of operationalizers and implementers.

The historical analysis traces cadre training in the symbolic and operational realm (here using the example of China's forestry administration) and demonstrates that cadre training as a vital feature of the CCP and later the PRC has always aimed to avert the emergence of a paradox between symbolic and operational ideology. Therefore, against widespread beliefs, the purpose of training has never been to teach pure ideological, but to connect pure and practical ideology in order to enable cadres to operationalize the CCP's ideology and promote its vision of change. Skill and knowledge adapted to the changing parameters of symbolic and operational ideology over the course of time.

Chapter four focuses on the discursive level of cadre training. It attempts to substantiate the claim that the main function of training is to establish an association between symbolic and operational ideology and to preserve their mutual contingency. Emphasizing language formalization as a specific feature in Chinese politics, the sections analyze the role of documents in the communication between party and government, as well as central and local authorities.

Documents assist the state to translate symbolic into operational ideology and transfer both contents from the center to the local level. Training conveys what the state perceives as necessary knowledge and skills to a predefined set of actors involved in the process of operationalization. Knowledge transfer follows a hierarchical structure of five trainee groups that are addressed by the forestry training system: civil servants, managers, forestry professionals and technicians, forest workers, and forest farmers. The level of abstraction of training contents follows accordingly and three levels of abstraction can be discerned in the contents conveyed to the trainee groups: macro, meso, and micro. While the training of people concerned with the formulation of policies is more concerned with abstract ideas, in contrast, the training of forest workers and farmers whose main duty is to cultivate land is of technical and practical nature.

The findings demonstrate that training is not a simple instrument to spread information and knowledge of ecological modernization that pursues a win-win result for both the economy and

the environment. Instead, it is a vital part of the construction of this vision and how it should be operationalized by inscribing roles to actors and determining their expectations and responsibilities in the process of operationalization and implementation. Training is thus a means for the Chinese party-state to organize forestry governance.

Chapter five analyzes the structures and organization of training in China's State Forestry Administration. It explains how responsibilities and authorities for training are parceled out from the central to local forestry authorities. Local forestry departments and their divisions enjoy a great autonomy over training contents. Yet, the center retains authority over key categories of cadres, who are regularly summoned into the central training institution, and over the content of their training.

The chapter shows that training takes place in diverse spatial environments: They range from the premises of educational institutions such as party schools, cadre academies, cadre schools, vocational schools, colleges, and universities, to alternative places such as guesthouses or seminar hotels, as well as outdoor training and training at demonstration forest farms.

Another important outcome is a typology of training programs offered by the State Forestry Administration. Each of the four types pursues its distinct objectives: first, the socialization of state employees, the clarification of role expectations, and the creation of an administrative thought community; second, the construction of shared knowledge among cadres that a) hold similar positions, b) operate in the same region, or c) have no professional background in forestry and thus need to be introduced with the necessary basic knowledge; third, imparting specific skills for specific work tasks; and fourth, facilitation of policy implementation by fostering the understanding of the policy (training as a form of complementary measure).

By using the example of China's Great Western Development Strategy the section shows that forestry training is an integral part of state development in China. Human capital development perceived as an important measure to promote development. Notwithstanding, in the context of the relations between the center and its peripheries, sector-specific training toes the central government's political efforts to foster state integration. Forestry training is one among a set of political tools used by the center to get a grip on local officials in China's periphery.

Chapter six shows that knowledge transfer does not make a halt at the lowest level of state administration, instead forestry training extends into society. Forestry extension service is an institutional extension of the party-state's training system, where grassroots cadres carry out training activities with farmers. As transmitters of the state's vision of sustainable development, grassroots cadres transmit ideas on development and how to achieve a certain kind of development to local farmers by providing practical technical training.

Extension service is located at the far end of the symbolic-operational continuum and the abstract-concrete continuum. In order to avoid a disconnect from the more symbolic features of ideology and its source, the Chinese Communist Party, extension service complements state propaganda that makes use of media and broadcasts TV-programs. Latter provide farmers with the more symbolic aspects of ideology, including principles of development paradigms, policies, legal issues, as well as the state's role as regulator of development and mediator between interest groups.

Chapter 2

Theory and Method

2.1 Theory

2.1.1 Sustainability as a political project

There is a consensus among scholars in the discipline of Chinese Studies and beyond that, the Chinese government officially renounced its single-minded economic growth driven development concept with the endorsement of the two ideological concepts, Scientific Development Outlook (科学发展观) and Socialist Harmonious Society (社会主义和谐社会). Little agreement is though in the assessment of specific policies and their benefits for the economy, the society, and the environment – the three dimensions that constitute a universal concept of sustainability.

It is not the intention of this study to analyze specific policies or the assessment of their outcomes. Instead, the study defines China's vision of sustainability as a discursive regime and inquires on the instruments the Chinese government employs to operationalize its vision and bring about change. Thus sustainable development is not understood as an outcome, but as a set of ideas formulated into a comprehensive ideology, which is meant to be translated into concrete and issue-based policies.

Sustainability has already become a common term in both the political and the public discourse on development all over the world. The term goes to back to the late 1980s and was first defined in the Brundtland report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, 1987 cited in Jóhannesson, et al., 2011). Sustainability most generally describes a holistic approach to development that reconciles considerations of three spheres: the economy, the society, and the environment.

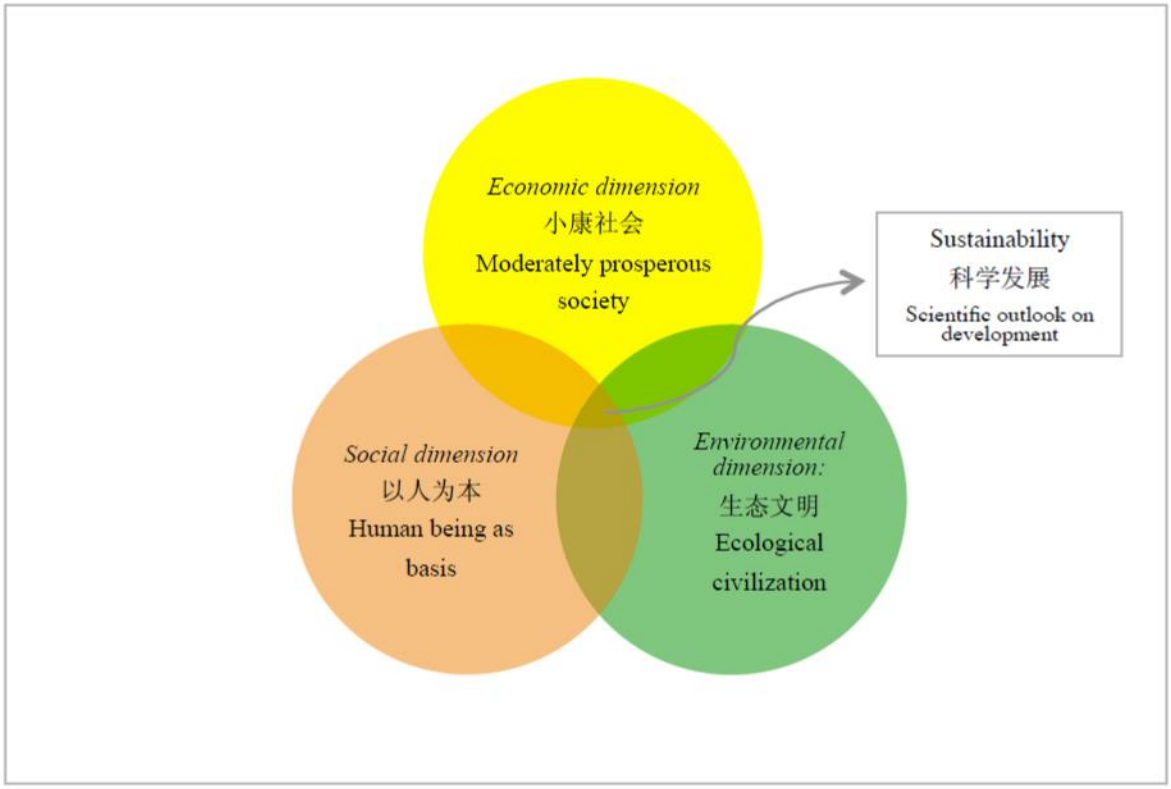
Informed by the international discourse, the Chinese leadership officially introduced sustainability as a development strategy two months after the Rio Conference in 1992. *Ten Strategic Policies for Environment and Development* (中国关于环境与发展问题的十大对策) declared its official adoption in the *Chinese party-state's political agenda.* Two years later, the *Agenda 21* (中国 21 世纪议程—中国 21 世纪人口、环境与发展白皮书) defined goals in the areas of economic

development, social development, resource management and protection, ecological protection, as well as environmental protection and pollution prevention. Since 1997, the Central Committee has convened annual symposia on Population, Resource and Environmental Problems that have become a regular institution in which heads of the CCP Central Committee, local provinces and municipalities, and various government departments gather to discuss challenges and strategies (Zhang & Wen, 2008, p. 1250).

At the turn of the century, China launched a series of policy initiatives to tackle the detrimental effects its growth-driven economic development concept had produced. With the leadership reshuffle in 2002, the new generation under the leadership of Hu Jintao (胡锦涛) and Wen Jiabao (温家宝) endorsed two new ideological guidelines – the Scientific Development Outlook in 2003 and Harmonious Socialist Society in 2005. Against the backdrop of an increasingly disparate society (i.e. widening regional disparities, a tattered social welfare system, massive unemployment, structural poverty, etc.) and rising environmental concerns (Zheng & Tok, 2007, pp. 6-7), the endorsement of both directives were widely interpreted as the Chinese leadership's rhetorical shift from an economic growth driven development model to a more comprehensive approach of development that would not pursue economic development at the expense of social equity and environmental soundness (Fewsmith, 2004; Holbig, 2005). Scientific development stressed the importance of giving those areas a share of China's development that had yet not benefited from the reform policies, and an institutionalization of governance (Fewsmith, 2004, p. 7). While Harmonious Socialist Society acknowledged for the first time the "serious social contractions that have arisen in the process of transition" (Holbig, 2005, p. 28) and "refine[d] the party's management of social expectations implicit in the 'scientific development concept'" (p. 27).

In the course of the years, Chinese party ideologues have refined and elaborated a series of complementary concepts that should complete and further refine the Chinese vision of sustainability: moderately prosperous society (小康社会), putting the people first (以人为本), and ecological civilization (生态文明). Superficially, these can be understood as equivalents to their Western counterparts "economy", "society", and "environment." However, Chinese political concepts are not simple translations of terms created in a Western normative political and academic discourse, but concepts that are developed and formulated in their specific socio-political context. Furthermore, ideological concepts and their interpretations are not uncontested within the CCP, as factions within the party have diverging convictions where China should be heading to. Therefore, concepts and their interpretations can alter from one leadership generation to the next (Holbig, 2006).

Figure 1: China's concept of sustainable development



Source: (Brombal, 2017, p. 327)

As explained in more detail in the literature review, the body of research tackling sustainable development in China has grown to an extent that it has become almost impossible to keep track and to get a quick overview on the discourse and its main narratives. Students of Political Science mainly put their focus on the analysis of the implementation of policies–the process and / or the results –that are fashioned against the backdrop of the (not so) newly emerged paradigm of sustainable development. The majority of these studies depart from the assumption that sustainability is "politically neutral and universally achievable condition" (Yeh, 2009, p. 885). Although these studies determine the main factors that undermine or encourage ways to balance economic, social, and environmental interests, their approach remains problematic. In their analysis the concept of sustainable development, as well as the ideas related to this form of development, are dealt with as something intrinsic, but not as something constructed.

This dissertation borrows from a more critical approach toward sustainable development in China and views sustainability

> as a political project that creates the conditions of possibility for thinking about nature as well as its intervention. […] Ecology is a discursive regime, a set of ideas and practices that produces truth about nature, authorizes certain ways of telling the truth and certain

> people to speak that truth, as well as enabling new identities with respect to nature. (Yeh, 2009, p. 885)

In other words, this dissertation is interested in the concept not from a philosophical vantage point, but in the discursive characteristics of sustainable development in China and how the discourse shapes knowledge provision in China's cadre training structure. By analyzing the transfer mechanisms of knowledge, the study aims to improve our understanding of the process how knowledge on sustainable development is constructed, what kind of knowledge is constructed, and how knowledge construction affects the governance of natural resources as well as the natural environment.

I argue that ecological knowledge is transported via formal and informal communication and training channels, cadre training is one of them. Above all, knowledge on sustainable development and its provision are a "technology of power through which geo-power is exercised" (Baldwin, 2003, p. 419). Cadre training produces subjects for whom the implementation of sustainable policies becomes a category in relation to which they think and act.[2]

2.1.2 Symbolic and operation ideology

In Political Science, the role of ideology in politics has been acknowledged as one among the most "consistent and powerful predictors of myriad political attitudes and behavior" (Devine, 2015, p. 3). In democratic regimes, ideology helps to explain vote choices, policy preferences, and party identification. A traditional conceptualization of ideology defines the concept as a meaningful form, of an internal application of abstract principles (Campbell, et al., 1960; Converse, 1964). However, a one-dimensional approach conceals observable contradictions in how people relate to the source of ideology and to the contents of concrete policies.

In the 1960s, US-American scholars began to observe that philosophical beliefs of citizens did not necessarily translate in the same operational standpoints. Free & Cantril (1967) were the first to coin a multidimensional concept which distinguished between the symbolic and the operational aspects of ideology. In their research, they showed that many Americans were simultaneously "philosophical conservatives" and "operational liberals" opposing a "big government" in the abstract but supporting the individual programs comprising the New Deal welfare and regulatory state. In a more recent survey, Stimson (2004) finds that two-thirds of American citizens identified as symbolic conservatives but were operational liberals with respect to issues and policies. In a follow-up study, Ellis & Stimson (2012) show that symbolic liberalism became less popular in the

[2] The idea of "subjects of operationalization" in this dissertation is borrowed from the notion "environmental subjects" in (Yeh, 2009, p. 885).

late 1960s, while the operational liberalism had a different fate: many Americans continued to hold operational, liberal issue attitudes. The distinction between symbolic and operational ideology became henceforth an important analytical concept in the study of party identification (Stimson, 2004; Ellis & Stimson, 2012; Chen & Goren, 2016), policy and electoral change (Ellis, 2012), and policy reasoning (Popp & Rudolph, 2011).

According to Devine (2015),

> symbolic ideology embraces the notion that ideology derives much of its explanatory power from the influence of social factors giving meaning to ideological labels and direction to ideological group members. In short, it is an interaction of internal categorization and external cues that makes ideology relevant to the political behavior of the mass public. Symbolic ideology does not require a high level of political sophistication; attitudes toward, and applications of, ideological labels primarily are based upon symbolic evaluations, not elaborated policy orientations. (p. 511)

From this perspective, policy judgments reflect symbolic ideological attachments toward the source of a given policy (Popp & Rudolph, 2011, p. 808). A policy judgment thus requires an evaluation of the symbols and their "perceived congruence" with ideological identity (p. 808). Based on this understanding, researchers using conventional concepts of ideology inferred that Democrats and Republicans in the US "perceive, interpret, evaluate, and integrate new information in a manner that yields pro-party conclusions" (Bartels, 2002 cited in Chen & Goren, 2016, p. 704).

Operational ideology refers to concrete policy decisions or what citizens think the government should or should not be doing to solve specific problems (Ellis, 2012, p. 330). Judgments reflect the principled ideological beliefs about the content of a policy; in this case, policy judgments require an evaluation of the substance of a policy and its perceived congruence with one's ideological beliefs (Popp & Rudolph, 2011, p. 808).

Summarizing, symbolic ideology connects with the source of ideology that proposes a policy and refers to "general, abstract ideological labels, images, and categories, including actors of self-identification" (Jost, et al., 2009, p. 312).Operational ideology connects with the actual contents of the policy and refers "to a more specific, concrete, issue-based opinion that may also be classified by observers as either left or right" (p. 312). Depending on which perspective one chooses, it can influence how one judges and perceives policies.

In the soviet-socialist authoritarian context, in particular, in China, ideology is most commonly analyzed from the vantage point of its legitimizing function. As opposed to democratic countries, the Chinese political regime does not allow for any rival ideology proposed by any other source

than the CCP, neither does it compete for votes in popular elections. The party claims the undisputed monopoly on being the sole legitimate source of ideology. Therefore, ideology is a unified system of abstract meanings for which the CCP declares exclusive authority (Hermann-Pillath, 2005, p. 13; Holbig, 2006, p. 7), and which formulated and stipulated in central party documents. Notwithstanding, ideology is by far an uncontested field devoid of competing values or judgments. Any more than that does it not imply that the emergence of a symbolic-operational "paradox" or "disconnect" (Ellis & Stimson, 2012, p. 92) can be *a priori* excluded. On the contrary, the party put many efforts into avoiding the emergence of a symbolic-operational paradox.

After a longer period, during which the idea of pragmatic politics prevailed over questions of ideology in the research of China Studies, ideology has recently re-emerged as a topic of interest and in the attempts to fathom where China is heading to in the future. Re-acknowledging the role of ideology in Chinese politics Holbig (2009, p. 38) cautioned in 2009 that it would be too early to ring its end. She argued that party has never discontinued relying on ideology as a source of regime legitimacy. The pragmatism heralded by Deng's reform policies was not an abandonment of ideology, but its reform and renovation (Holbig & Gilley, 2010, p. 17).

Similarly to the US-American debate, scholars concerned with ideology and its role in the Chinese political regime have noticed that ideology and its working in Chinese politics are multidimensional. One among the first who reflected on the internal structure of ideology was Franz Schurmann (1971 [1967]). For his research purpose, Schurmann defined ideology "as the manner of thinking characteristic of an organization" (p. 18). The CCP's ideology is an organizational ideology, meaning that the Party "has made its ideology into a systematic set of ideas which it used to create its own organization and to achieve its goals" (p. 19). This set of ideas is formulated in a specific language in party rules and other documents represented as abstract formal ideas (p. 20).

Schurmann (1971 [1967]) distinguished between pure and practical ideology, together they constitute the ideology of organization:

> [Pure and practical ideology] function in different ways. The ideas of pure ideology state values: moral and ethical conceptions about right and wrong. The ideas of practical ideology state norms: rules which prescribe behavior and thus are expected to have direct action consequences. The values and norms of the total ideology are tools through which two important organizational functions are accomplished. Firstly, they serve to motivate individuals to give full commitment to the organization. Secondly, they give individuals a set of rational ideas with which to carry out the actions demanded by the organization. (pp. 38-39)

Pure ideology and practical ideology are in a contingent relationship, without pure ideology the ideas of practical ideology would have no legitimacy, at the same time, without practical ideology the party could not transform its *Weltanschauung* into consistent action (Schurmann, 1971 [1967], p. 23). Here, we notice a similarity to the concept of symbolic and operational ideology as described in the US-American literature on mass ideology, only that Schurmann stresses the fundamental necessity that both dimensions corroborate with each other, as they legitimize each other.

The question to raise now is whether the Chinese party-state is confronted with a symbolic-operational paradox. Literature concerned with policy implementation stresses the diversity of approaches in China's provinces that differ in economic, social, environmental, and cultural terms. This variety is a strong influencing factor that produces localism. Against this backdrop, Hermann-Pillath (2005) argues that ideology is embedded in a tension between orthodoxy and heteropraxy – a concept that described the strain between official state ideology and local or popular subculture in imperial China.

> Orthodoxy did not preclude diversity in practice, as long as this diversity expresses itself in orthodox terms. […S]ymbolic dominance of the political center was the pillar on which the Chinese body politic was built (Cohen, 1994) […] Quite in a similar fashion, in contemporary China, the socialist orthodoxy allows a bewildering diversity of actual forms of socio-economic organization, unless this does not find expression in heterodox ideologies. (Hermann-Pillath, 2005, pp. 11-12)

According to this understanding, the Chinese regime does not face a perceived paradox as long as practical ideology is expressed within the framework of symbolic ideology. If we assume that ideology has a legitimizing function in the Chinese political regime (Holbig, 2006), and, moreover, that the legitimacy of the Chinese Communist Party grounds on its capacity to reform and innovate ideology (Holbig & Gilley, 2010), then reforms in the realm of operational ideology are equally important as the change of official rhetoric on the symbolic level. The regime has to make certain that operational ideologies always connect with the source of symbolic ideology and vice versa. In doing so, a paradox between source and content or between symbolic and operational ideology can be averted. Furthermore, the Chinese party-state has to make sure that those people who are responsible for the operationalization of ideology are fit to satisfy the current needs of people and find solutions for the complex challenges that have emerged under socio-economic transformation. Provided this capacity the Chinese Communist Party can transform its *Weltanschauung* into consistent action and continue to legitimize its claim on power.

2.1.3 Cadres as operationalizers and implementers

There is a widespread presumption that the Chinese Communist Party puts many efforts into suppressing the burgeoning of rival ideologies or rival symbolic centers and does not refrain from coercive means even military might, if necessary to achieve this goal (e.g. Falun Gong, Tibet, Xinjiang, intellectuals etc.). What is less obvious is that the regime puts equal efforts – or even more – into preventive measures to avoid the possibility of a rival ideology within its own state administration. Here ideological indoctrination is only one cornerstone in a strategy that pursues the avoidance of a symbolic-operational paradox.

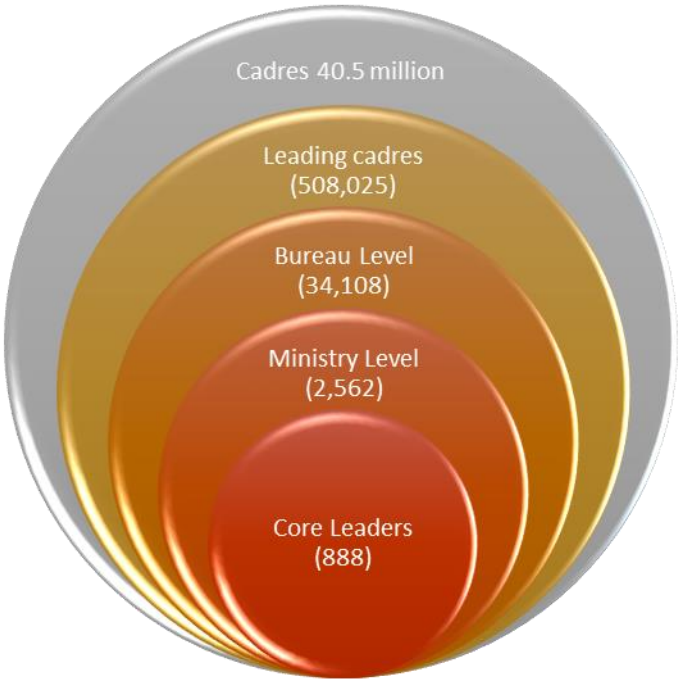
Cadres are key actors in the party's strategy of survival. In the operationalization of symbolic ideology, the party-state relies on those people that fill the ranks and posts in its vast state apparatus. It is necessary to distinguish between two different kinds of cadres: Operationalizers are those people who have decision-making power and formulate abstract ideas into concrete, issue-based policies. While implementers are those employees who carry out the practical implementation of policy, translating "the words of policy statements […] into action" (Kaufman, 2006 [1960]). The training of both groups assumes a vital function, as it helps to establish and manage the relationship between symbolic and operational ideology. Since operationalization also means the implementation of policy proposals, cadre training not only has to convey abstract ideas and create shared values, it also has to equip cadres with relevant knowledge and skills to solve local problems within the predefined framework of symbolic ideology. Against the background of ideological reform and renovation, cadre training helps the regime to promote a value change within China's public administration to overcome prevailing attitudes and values among operationalizers and implementers that support the formerly established development model.

Before delving more thoroughly into cadre training as a political instrument for value change, let us take a step back and take a look at cadres first. Cadres fill the party and government offices at various administrative levels. Over the decades and in spite of various reforms to downsize the state, the number of officials has continued to grow (Brødsgaard, 2002). According to official numbers published in 1998, the Chinese party-state has approximately 40.5 million cadres, of which 48 percent are CCP members; 92 percent work at the provincial level and below, the remaining eight percent are high-level cadres that occupy positions in the central ministries or are provincial governors or first Party secretaries. Only one-third of these approximately 2,500 high-level cadres are employed at the "center" (中央), the core of the Chinese party-state. (p.75) (see figure 2 below).

So-called "leading cadres" possess policy-making and allocation authority for the party and state (Lee, 2015, p. 8). In a hierarchical system, where power is concentrated in a small share of power

holders, it is reasonable that the regime focuses many of its efforts (selection, training, monitoring etc.) on these specific actors, especially because the "leading cadre class produces the policies that the rest of the bureaucracy must implement" (p. 8). Notwithstanding, making sure that political decision-makers formulate policies that fit into the symbolic ideological framework is merely the tip of the iceberg. Beneath the surface, there is a far greater share of cadres who do not have decision-making power, but who are assigned to an almost equally important task: to help with the implementation of policies. This personnel is vital for the CCP's survival strategy, as their capacities decide over whether the party's ideology is an ideology of action that is apt to solve the pressing problems of the Chinese society or not.

Figure 2: Distribution of cadres in the Chinese polity



Source: Brødsgaard (2002, p. 75)

2.1.4 Central-local relations

Ever since the inception of Reform and Opening Policy at the end of the 1970s, students of Chinese politics have been concerned with the question on the center's influence on local development. These most commonly refer to the contractions between central mandates and local policy implementation as unexpected outcomes or implementation bias.

The devolution of authorities and responsibilities to the local level in the 1980s initiated a major transition in the realm of socio-economic organization. This transition has affected political institutions to the same extent as the people who work in the administration. Organizations and institutions that once were established to fulfill tasks such as managing a planned economy, indoctrinating the population, and extending social insurance through the work unit, have entered

a process of adaption in which they have become responsible for a range of more complex agendas; the flip side of the "retreat" from the state-run economy and high levels of political indoctrination is, in fact, the state's attempted expansion of capacity in service delivery and regulation of emerging markets and social actors (Strauss, 2009, p. 1165).

Strauss (2009, p. 1173) historicizes the party-state's attempt of capacity development and argues that, in its history, the Chinese state has had two possibilities to increase administrative capacities and the loyalty of its state agents: Firstly, by strengthening the formal and technical instruments of monitoring, auditing, and control. Secondly, by mobilizing the loyalties of local agents with a combination of training, exhortation, and incentives. Against the backdrop of "chronic resource shortage" (p. 1173) and a moderately functioning system of administrative control and monitoring, the state complements hard elements with softer elements of politics and culture.

The definition, „elements," draws near the concept of accountability. In Public Administration Studies, accountability in a strict sense refers to means with which to measure or evaluate performance in order to increase accountability and thus productivity of organizations (Ammons, 2007). For Romzek & Dubnik (1987, p. 228) the essence of accountability are the means by which public offices and their employees manage the diverse expectations that are generated within and without the organization. The literature further distinguishes between hard and soft accountability: Hard accountability refers to rational-linear control mechanisms whose aims and goals are clearly linked with the instruments used. Whereas soft accountability

> recognizes that the political purpose is highly uncertain, ambiguous and contingent. The discretionary exercise of public authority on the part of all of those engaged in the process is inevitable. (Gregory, 2012, p. 690)

Measures of soft accountability can involve the spread of information or forms of feedback mechanisms (Gregory, 2012, p. 690). An often expressed critique is that soft accountability demands answers from duty-bearers without taking any consequences if answers are not delivered. Therefore "for many, answerability without consequences falls short of accountability" (Fox, 2007, p. 668).

Accountability has gained popularity also in the field of China Studies and entered the analytical vocabulary of China analysts. In most of the cases, accountability refers to the state's efforts to bring local cadres in line with central directives and make them more responsive to the local population's needs (Cai, 2015; Chan & Li, 2007). In this sense, the Chinese party-state employs a series of hard and soft accountability mechanisms. Many studies understand the cadre management system, in particular, cadre evaluation, as an important institution to solve the issue of delegated discretion (Rothenstein, 2015). Mertha (2005) holds that against the backdrop of pathologies such

as corruption and local protectionism and the ambition to achieve a degree of policy standardization at the local level, the center embarked on a "soft centralization" in the 1990s by re-centralizing personnel and fiscal allocations at the central and provincial level. With respect to control over personnel allocation, Landry (2008) shows that through its authority over appointment of leading cadres the Party maintains political control over its cadres at the various local levels down to the township level, at the same time the center also manages to promote local development by rewarding cadres with career promotion for policy implementation.

The efficacy of the cadre evaluation system as a hard accountability mechanism is highly debated in scholarly research and no consensus has so far been reached on its effectiveness for policy implementation. Notwithstanding there is a general agreement that the system steers local official action to a certain extent (Whiting, 2004; Klotzbücher, et al., 2012; Schubert & Ahlers, 2012; Shih, et al., 2012; Heberer & Trappel, 2013; Choi, 2014). Soft accountability in the above sense and translated into the Chinese public administration are educational and training measures such as study sessions through which the center communicates its priorities to the local level (Schurmann, 1971 [1967]; Tsai & Dean, 2013). Pieke (2009a, p. 954) apprehends party school training as a mechanism to impart the "correct" interpretation of party ideology and party strategy to cadres, and foster loyalty toward the party center and the party line. Party schools fulfill a particular function in the establishment of a unified discourse and the development of an exclusive community, they are, so to say, the "lubricating oil" of the administrative system (Pieke, 2009b, p. 25). As an exception, Heberer & Trappel (2013, p. 1050) define the cadre evaluation system as a "multidimensional instrument" that assumes among others the function of a two-channel communication system. Higher-levels communicate their priorities to cadres from lower levels and lower levels communicate their success to their superiors (p. 1054).

In order to understand the function of cadre training and its place in China's polity, we have to relate it to the deepest preoccupations of any state at the central level, either democratic or authoritarian: The capacities to lead, manage, achieve, and account for national development priorities, and to deliver policies that solve the imminent problems its society. Cadre training acts as a soft accountability mechanism that pursues a higher degree of responsiveness from local government agencies toward higher-levels' policy priorities as well as toward the needs of the local population. For this purpose, extensive resources are being mobilized to spread contents of policy reforms, laws, and regulations etc. At the same time, cadre training tries to build capacities to ensure that local cadres not only formulate policies according to the CCP's framework of official Party ideology, but are also capable of implementing policies that can solve local problems that emerge in the economic, the social, and the environmental realm. Human capital development is

realized by teaching operational (i.e. technical and practical) knowledge and skills in order to facilitate and contribute to policy implementation at the local level. In this respect, cadre training is a field of continuing educational project which is specially devised for people who work in China's state administration.

2.1.5 Human capital development and value change

> *[…], administrative capacity is the set of skills and competencies expected of public bureaucracies so that they can contribute to problem-solving. Such capacity encompasses both the structural and procedural provisions that enable bureaucracies to perform particular functions and the individuals within these bureaucracies that are capable of meeting the expectations of their political masters and the wider public.* (Hertie School of Governance, 2014, p. 2)

A vital concern for democratic and authoritarian states is the ability to find solutions for problems in the broader context of public policy provision, and the capacity to implement these policies accordingly. At the core of problem-solving capacities are those people, who work in the bureaucracies and who are assigned with responsibilities in the process of political decision-making and policy implementation. Human capital development in public administration is thus a central feature for (administrative) capacity, as human capital is the primary source for organizational innovation and renewal (Agor, 1997 cited in Tõnnisson & Kaido, 2004).

In order to reform public administration and to increase efficiency, various governments have sought to train their public employees. By the 1990s, international organizations started to recommend developing nations to accompany public sector reforms with specific training measures for their personnel. The training staff employees go beyond the simple acquisition of professional skills and knowledge, it also seeks to change the culture of public administration.

> The reforms have sought to transform the culture of public organizations, including encouraging employees to think about citizens as "customers" to be served instead of "clients" to be managed. (Kettl, 1997, p. 452)

Public officials not only have to learn new skills and knowledge, moreover, they have to gain new shared values for which they can be held accountable (Tõnnisson & Kaido, 2004). A public administration with people who share similar values, skills, and understandings about policy-making is an important requirement for delivering policies, as it affects for example policy co-ordination between different governmental agencies (Peters, 1998). Here it is important that value change in the administration takes into consideration value changes in society. Schröter & Röber (2015) argue that civil servant training programs need to be adapted to value changes in society

and organization. Since civil servant training is a "powerful tool of professional socialization", training programs are "the most effective conveyances to help new cultural dispositions making their inroads into established organizations" (p. 27).

There is broad agreement that public employee training is important especially during periods of significant changes, such as political transition or public sector reforms (which often go hand in hand) (Klingner, 1996; Kettl, 1997; Tõnnisson & Kaido, 2004; Witesman & Wise, 2009; Witesman & Wise, 2012).

> Given the changing roles of civil servants in a transition context, training of civil service is a key element of achieving public management reform, particularly in periods of significant change and when prevailing attitudes and values support the formerly established autocratic systems. (Witesman & Wise, 2012, p. 711)

They further argue that public administrators have a key function in this regard. The transformation of ideas and rhetoric also requires a willingness on the part of key administrative actors to act in favor of reform. Since the decision about "training priorities that are sponsored, initiated or supported by agencies and departments" (Bryer, 2007 cited in Witesman & Wise, 2012, p. 711), the successful outcome of a reform largely depends on the use of administrative discretion in determining which training is available to civil servants – and which not (ibid. 711). Similarly, also Tõnnisson & Kaido (2004) argue that the development of a public administration with shared values needs strong leadership commitment and central measures.

Structural characteristics of a government, whether it is centralized or decentralized, influence the availability of training in values and skills. Witesman & Wise (2009) argue that political change promoted via skill training in civil service is best supported by a centralized government structure. Tõnnisson & Kaido (2004, p. 8) object that only centralized structures can bring about a collective value change, but admit that centralized tools facilitate the process of awareness building. However, in the end, they argue, centralized tools are no guarantee that civil servants behave accordingly, as it is the conditions that have been created to develop on their own.

The above-discussed studies bring together international experience in civil service training. Their contribution does not lie in the establishment of a clear cause-effect relationship between training and policy implementation, they provide, however, empirical insights that training is indeed conducive for value change and that the provision of skill training is vital for policy implementation in the first place and for bringing about change in development in the long run.

The theoretical frameworks of the above-cited literature were so far applied in the context of public sector reforms and regime transition. Yet, improvement of professional skills accompanied with

the goal to create new values can also be applied to the context of changing development models. A transition from an economic growth-driven development concept to a development model that pursues a reduction of social inequalities and environmental degradation, as is the case in China, is one example.

Research on sustainable development in China has repeatedly observed shortcomings in effectively implementing environmental protection policies due to a GDP is driven economic model and China's difficulties in overcoming *GDPism* (GDP 主义). The reasons are manifold and entail among others the lack of political authority of bureaucracies concerned with environmental protection, ineffective accountability mechanisms in cadre evaluation, and conflicting policy goals that lead to trade-off decisions of local governments, as well as the need of local governments their revenues for public policy provision (Wu, et al., 2013). Here, the discretionary power of public officials in leading positions is often cited to be of crucial importance. The role of leadership, in Chinese *yibashou* (一把手), has been discussed in several studies that show how the discretionary power of local leaders can be conducive but also impeding for policy implementation (Luo & Shen, 2008; Wu, et al., 2013; Cai, 2015; Pei, 2016).

Cadre training has so far garnered little attention in its role for the party-state's efforts to promote and operationalize its sustainable development concept, and thus to promote a value change in what development means and how it should be promoted. Drawing on the theoretical debate in public administration as discussed above, I argue that cadre training is an important component in the Chinese party-state's efforts to come to terms with the ecological crisis and transform its growth driven development model toward a model that pursues social equity and environmental soundness. The centralized character of cadre training as outlined in the extant literature (Pieke, 2009b; Chin, 2011; Yang, et al., 2012) influences how training with this respect is organized and what kind of skill training is provided. If, according to Yeh (2009), ecological knowledge is a technology of power and environmental projects produce environmental subjects, then cadre training is the means to construct knowledge on the ecology and on the implementation of policies and helps create those subjectivities.

2.1.6 Summary

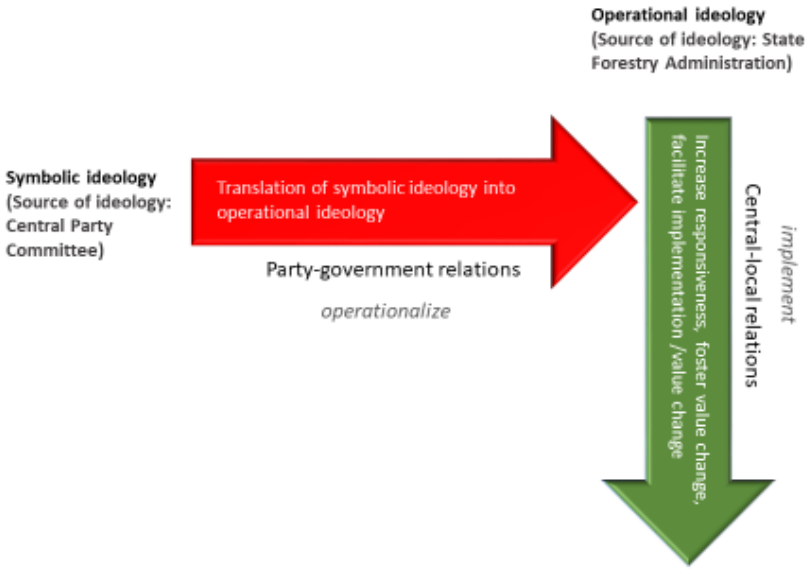
The theoretical framework of this dissertation can be summarized as follows:

- ✓ The study tackles the role of cadre training in the Chinese party-state's efforts to operationalize its vision of sustainable development, and thus in the promotion of a value change from an economic growth-oriented development model to a model of sustainable development that thrives to reduce social inequalities and environmental degradation.

- ✓ Sustainability is not understood as an achievable condition, but as a political project and a discursive regime that creates ideas and ways of thinking about nature and its intervention. Knowledge construction by means of the political instrument of cadre training is a technology of power through which the state produces subjects of implementation and exercises geo-power within its territory.
- ✓ Ideology is multidimensional with symbolic and operational features (Free & Cantril, 1967). Symbolic ideology is a unified system of abstract meanings for which the CCP claims exclusive authority (Hermann-Pillath, 2005, p. 13; Holbig, 2006, p. 7). It is formulated and stipulated in central party documents which contain the abstract ideas on development that should be operationalized by the state administrative agencies and their staff. Operational ideology refers to concrete, sector-specific policies and reform program of line bureaucracies.
- ✓ Cadre training operates on two dimensions: Horizontally, it translates symbolic ideology into operational ideology, and vertically, cadre training manages central-local relations pursuing a higher degree of responsiveness of local government agencies toward central mandates. In its function for human capital development, cadre training aims to increase the administrative capacities.
- ✓ The training structure addresses two groups of cadres: Operationalizers with decision-making power that are responsible for formulating issue-based policies within the framework of official CCP ideology and its central directives, and for supervising the process of implementation. Secondly, implementers who help the administration to enforce policies and thus increase the state's administrative capacities.
- ✓ Against the backdrop of the growing awareness that frantic economic growth at the expense of social equality and environmental soundness, training helps to pursue a value change among operationalizers and implementers. It does so not only by teaching abstract ideological concepts that demand the reconciliation of economic, social, and environmental goals but also by a set of knowledge and skills that should enable change on a more practical level.

The chart below illustrates the theoretical framework developed in this research. The model developed in the course of this research helps to explain cadre training in its complexity and thus fosters our understanding of its function in China's polity and its role in the party-state's attempt to transform its development model. Figure 3 on the next page offers an illustrative description of the theoretical framework of this dissertation.

Figure 3: Roles and functions of cadre training



Source: compiled by the author

2.2 Method

2.2.1 Case study

Case study research is a strategy for methodological exploration of a social phenomenon (Harrison, et al., 2017, p. 2) that studies the "particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995, p. xi).

> While some find that case study investigation should be descriptive and heuristic in nature, others insist that a case study is an intensive analysis of an individual unit […] stressing developmental factors in relation to the environment. (Merriam, 2009, p. 103)

In the selection of a case study Seawright & Gerring (2008, p. 294) point to three aspects that have been taken into consideration: First, a case study has to be representative as it "seeks to elucidate the features of a broader population." Second, the case should be distinctive on a relevant dimension; and third, background cases are often integrated into the analysis. The objectives are to find a representative case with a "useful variation on the dimensions of theoretical interest" (p. 296). As already explained earlier, the dissertation analyzes cadre training by using the example of cadre training in China's State Forestry Administration. The choice to conduct a case study on forestry training is based on a series of reflections with regard to forests and forestry and their relevance in sustainable development, as well as with regard to methodology and the operationalizability of my research questions.

First, since training structures are replicated in all line departments, the State Forestry Administration exemplifies these structures, although with the reservation to particularities that feature the administration's organization. Therefore the selection satisfies the requirement that the case study is representatively elucidating the features of the broader structure of cadre training in line departments.

Second, the forestry administration is one among the few bureaucracies that are subject to an inherent conflict between economic and ecological interests. While in many cases, policies are subject to inter-bureaucratic struggles between economic and environmental bureaucracies, the question of how to reconcile resource extraction and resource conservation lies at the center of the forestry bureaucracy's political portfolio. Forests are a multifunctional natural resource, as they are an important source for income generation and deliver a series of ecological services at the same time. According to Robbins & Harrel (2014), conflicts of interests emerge in three areas: the improvement of livelihoods in rural areas, the rehabilitation and conservation of ecological services, and the increase of economic output of those sectors that are dependent on timber production (i.e. forest industry and the construction sector). The task of the State Forestry Administration is to manage the often diverging interests between state, market, and societal stakeholders and, in a best-case scenario, reconcile these interests. Conflicts are thus settled as intra-bureaucratic struggles.

Third, forestry looks back a comparatively long history in China. The multiple services of forests have always been of vital interest for the state and a core issue for China's rulers (Elvin, 2008), while their management is a relatively recent phenomenon. On these grounds, the case study allows to trace and analyze the party-state's efforts to provide professional training in the sector from a historical vantage point, with a particular focus on the period after the founding of the People's Republic of China. The analysis can thus reveal experiences important for current efforts in the professionalization of training in the fields of environmental protection and resource management.

Fourth, the objective of this research endeavor was to deepen the understanding of the governance of cadre training and its role in China's efforts to turn development into a path of sustainability. Forests were one among those natural resources that became part of China's environmental agenda at a relatively early date. This allows for an analysis of what degree and how training was employed to pursue a value change from frantic resource extraction to resource conservation and sustainable forest management that aims to achieve a reconciliation with this respect.

Finally, China's forest development and recent efforts to improving their management have a close connection with Austria and its expertise in the field. At a relatively early point of my research, I

found that Austria's experts have played a significant role in these developments. The research on China's forestry training is thus also a research on the history and role of Austria in China's development.

That said, it should be noted that forest development and forest management is subject to great regional disparities. Pathologies such as rent-seeking officials who shift boundaries of national parks or illegally sell forest land to mining companies, illegal logging, as well as mismanagement (e.g. planting unsuitable tree species, cultivating monocultures that are susceptible to diseases, etc.) are still salient issues that undermine efforts in achieving sustainability in forest management. In spite of the rather mixed results with regard to ecological and societal benefits pointed out in a series of recent studies (Yeh, 2009) – Ahrends, et al. (2017) are even questioning the scale of China's reforestation results –, and the detrimental effects on other countries (*Inside Climate News*, 23 March 2016) forest development is still one among the few and early success stories in China's history of sustainable development. On a national scale, concerted efforts by central and local government contributed to a steady increase of forest area (8.66m³ billion m³ standing volume in 1976 to 15.14 billion m³ in 2013) (Xu, 2014), and helped to lift millions of farmers out of poverty (Dai, et al., 2012).

2.2.2 Data collection and analysis

The findings presented in this dissertation are based on a variety of data gathered in documents (official government documents, yearbooks, newspaper articles, research articles, etc.) and in interviews and conversations (with cadres in the forestry administration at different levels of administration, scholars, and other experts in the context of civil service training). Since China has reinvigorated professionalization in its administration in the early 1980s, reports and studies on forestry training have been produced to bring together and share different experiences within and outside of China. With the outset of the reforms of the cadre management system, the demand for the professionalization of China's public administration, and the gradual extension and enhancement of the training infrastructure China's State Forestry Administration started to investigate regularly human resources in its administration. Since then regular field investigations have been commissioned to determine the educational qualification of the local staff in China's forest regions, and training measures set to improve the knowledge transfer at the local level (Ministry of Forestry, 1987, p. 268; Qiu, 2011; Zhao, 2011a; Qiu, 2016; Zhao, 2016). More research was then stimulated when the government embarked on national forest conservation programs with the help of foreign governments and international funding organizations at the end of the 1990s.

The larger share of research on human capital development and sector-specific training in forestry is carried out by researchers of China's forestry universities and the State Academy of Forest Management (林业局国家管理干部学院). Most articles are between two and ten pages in length and discuss manifold issues entailing training management (Wu, 2010; Huang, et al., 2010), human resources in diverse forestry organizations (Chen, et al., 2012; Chen & Gao, 2013); educational and training measures in various work fields of forestry or for specific target groups (e.g. leading cadres, grassroots cadres) (Li, 2004; Yu, et al., 2008; Gao, et al., 2013; Qiu, 2016), as well as training institutions and infrastructure (Zhang, 1997; Ren & He, 2004; Zhang & Peng, 2002). Additionally, there are reports of visiting delegations abroad that recollect experiences of foreign forestry administrations and their training measures, which also reflect on China's current status and propose solutions for shortcomings (Shen, 2002; Zhang & Jin, 2005).

Most of these studies lack theoretical development, however, the material is rich in information and provides insights into issues of human capital development in China's forestry administration. They depict the improvements and failures of China's efforts to professionalize its forestry administration. Thus, the material was an important source for this research not only to gain insights into regional developments of forestry training but also with regard to solutions suggested by the authors of these studies.

Interviews were conducted in three rounds of fieldwork between 2014 and 2016. In addition, I participated in one "high-end" cadre training program for cadres from the Development and Reform Commission, Yunnan Province at Renmin University in July 2013. My own findings in the context of China's forestry administration were cross-examined and complemented with extant English and Chinese secondary literature on forest development and forestry training in China. In total, I conducted 31 expert interviews and off-the-record-talks with cadres from the forestry administration at China's five levels of state administration (i.e. center, province, prefecture, county, and township) and other bureaucracies (Human Resource and Social Safety Bureau and Environmental Protection Bureau in Chongqing), Chinese scholars, as well as current and former staff of the State Academy of Forestry Management. I furthermore interviewed two international experts involved in internationally funded reforestation and other forestry-related development projects and human capital development in China. Finally, I visited Austria's forestry research and training institutions and held off-the-record talks with the directors of these institutions, also with regard to their relations with China's State Forestry Administration.

The semi-structured interviews were based on a guideline that I had prepared in advance based on theoretical reflections with regard to central-local relations and conflicting goals of development, in particular between the economic and environmental/ecological realm. Due to the heterogeneity

of my interview partners and their varying insights into, and experiences with training processes, the interview guideline was handled flexibly and adapted according to the interview partner and interview situation. As fieldwork is part of a learning process, the interview guideline was also subject to continuous changes that resulted from experience and knowledge accumulated in the course of the research and the interviews (*Prozesshaftigkeit*) (Liebold & Trinczek, 2009, p. 40).

The interviews that I was able to register were transcribed, while off-the-record-talks were summarized. Both were complemented with field notes that I had taken during my field research activities. All interviews were transcribed by me, except for one where I had difficulties to understand the interview partner due to her strong Sichuan accent. I chose to do so, as I realized that the transcription process was a valuable experience in its own right, for I could reflect on my experience and role as interviewer and thus could improve my technical skills. Due to local language variations, I asked for assistance from another Chinese native speaker who helped me to correct and complement my transcriptions.

In order to protect my sources, I anonymized names and references in the text. Against recent developments in China under Xi Jinping, the protection of those who were willing to talk to me as a foreign researcher and pass on information takes highest priority. If asked for, I make the interviews and transcripts available to my own discretion.

The entire data material was coded and analyzed with the support of atlas.ti, a software for qualitative data analysis. Grounded theory proposes three steps in coding data material: open coding, axial coding, and selective coding (Neuman, 2011, pp. 510-515; Babbie, 2013, p. 397). Even though I departed with some preliminary theoretical reflections on the role of cadre training in China's political regime which included aspects of central-local relations, and Tilt's (2009) "competing models of sustainability," I did not refrain from open coding, as I tried to keep an open mind for empirical insights and theoretical development. The second round of coding then looked for relationships between initial codes, such as causes and consequences, conditions and interactions, strategies and processes (Neuman, 2011, p. 513). In the third phase of selective coding, I passed through the data identifying the major themes that eventually lay the groundwork for the structuring of the individual chapters of the dissertation.

2.2.3 Fieldwork and expert interviews

Between 2014 and 2016, I embarked on three fieldwork trips to China: In May 2014, I went on an exploratory fieldwork trip to Chongqing and Yunnan, in which I tried to find information that goes beyond the existing framework of cadre training at the local level as described in the extant literature. I did so by searching for more information on cadre training in the forestry administration that I had chosen to become my case study for analyzing how the conflict between

economic and environmental interests was dealt with in cadre training. Upon my return to Austria, I reframed my research design and in the following year, I spent most of my time on getting familiar with forest development in China and identifying the structures of cadre training in the forestry administration. In addition, I tried to increase my understanding of civil servant and forestry training in Austria. These inquiries led to an encounter with a Chinese delegation of forestry industrialists and cadres from China at a forestry training institute in Upper-Austria, where they had gone to for an on-the-spot investigation. The encounter turned out to be decisive for the further development of my dissertation, as the contacts I established on that occasion would act as gate-openers for my second round of fieldwork in 2015.

By the end of the year 2015, I was ready to go for another trip to China. This time I scheduled two months in which I traveled to different places encompassing Beijing, Chongqing, Fujian, and Yunnan. My endeavor was to interview cadres working at the central level organizations of the State Forestry Administration and to continue to expand my contacts at the local level. My new contacts had definitely paid off and during the two months, I conducted various interviews with cadres from forestry departments at different state levels in Beijing, Fujian, Chongqing, and Yunnan.

Last but not least, I participated in a conference in Beijing in July 2016, where I presented findings on human capital development in forestry in China and Austria from a comparative perspective. I seized that opportunity to conduct some follow-up interviews, do library research, and get in touch with new interview partners.

In *Practice of Social Research*, Babbie (2013) holds that fieldwork has its key strength in the comprehensive perspective it can give researchers.

> By going directly to the social phenomenon under study and observing it as completely as possible, researchers can develop a deeper and fuller understanding of it. As such, this mode of observation is especially, though not exclusively, appropriate to research topics and social studies that appear to defy simple quantification. Field researchers may recognize several nuances of attitude and behavior that might escape researchers using other methods. (Babbie, 2013, pp. 324-325)

The statement underlines my choice to embark on a research project with a qualitative approach using explorative methods for data collection. Official documents contain important information on institutional arrangements, they can also tell a lot about conflicts within the Chinese bureaucracy, provided the analyzer is apt to read and interpret the information accordingly. Interviewing different actors in the field of forestry training aimed to add pieces of information

that were not relinquished openly in official government documents. Thus, fieldwork allowed me to reveal discrepancies between and deviations from official discourse and practical reality.

In order to make this point clear, I would like to refer to one concrete example. For my analysis on cadre training in the context of central-local relations, I was keen on collecting training plans that according to training management guidelines should be set up at each level of government. I wanted to analyze their contents with regard to training priorities asking whether they reflect "competing models of sustainability" at different levels of administration as suggested by Tilt (2009). However, training plans were hard to lay hands on for different reasons. Some of them I found online, like central-level training outlines and annual training plans issued by the State Academy of Forestry Management, the central-level training institution in Beijing. Local training plans were to a large part not published online. Therefore, I started to ask my interviewees whether they could provide me with these documents, in most cases my request was declined with varying explanations.

One of my interviewees wanted to make me believe that training plans were classified material (Interview Director L., China, 3 November 2015), even though I had already downloaded some of them from the World Wide Web and from the website of the institution this person worked for. Other cadres professed that they did not have access to this material, as they were archived by other authorities (Interview cadres from local forestry cadre school, China, 25 November 2015), at the same time these people were not inclined to help me set up a contact with people who had access to these materials. A third interview partner pointed out that the training activities of the local forestry department (at the provincial level) did not issue any plans since training activities of each year were very irregular (Division-head. X., China, 19 December 2015).

Chinese literature on forestry training points out indeed that some local administrations conduct training only on a very irregular basis, either because leaders do not find training important at all or because they lack the necessary financial means to do so (in many cases these two factors are interrelated) (Huang, et al., 2010, p. 23; Qiu, 2011; Qiu, 2016; Zhao, 2011a; Zhao, 2011b; Zhao, 2016). I checked these statements with a scholar, who had a long-term work experience with the forestry bureaucracy. He confirmed that many local forestry authorities do not publish training plans. One reason is that these plans are written in a very poor manner or copied from training plans of other jurisdictions. In order to avoid unnecessary attention, they just do not publish these plans (Professor X., China, 18 December 2015). Without interviews I would not have pounced on this contradiction in China's training management, above all, it would furthermore have been hard to find explanations for it. Why is this information important? The deficiencies of training management with regard to training curricula can tell us a lot about the degree of

institutionalization of training management, and more importantly, about central-local relations and the center's efforts to gain control over local training governance.

Interviews also convey non-verbal information, such as perceptions of relationships. In order to retain or conserve this kind of information, I added personal notes in the summaries of off-the-record-interviews and marked them accordingly. In the retrospective, I could have put much more effort into the writing of field notes in order to avoid the loss of context that temporal distance creates. In order to capture hues and concepts with regard to the organization of cadre training, as well as perceptions of central-local relations in this context, I conducted the majority of the interviews in Chinese (with exception to my interview partners whose native language was German), however, three of my Chinese informants, who had completed post-graduate studies abroad (in the UK or in the US), insisted on using English. They saw the interview as a welcoming opportunity to practice their English. Witzel (2000) points to the importance of creating a conducive interview situation that generates narration from the interviewed person (*erzählungsgenerierende Kommunikationsstrategie*). Therefore I accepted their terms.[3]

Direct quotations in the dissertation are my own translations from Chinese or German into English. For the sake of better readability, I corrected the English interviews with non-native speakers into more readable English. These corrections did not cause any changes to the meaning of the quotes.

Expert interviews

The methodological literature on interviews distinguishes between different variations of interviews. Helfferich (2011, p. 35) asserts that the variation of forms of interviews is impressive, but at the same time very confusing. Interview forms are denominated inconsistently and a definition can refer to different criteria: In some cases, the denomination refers to a special object of research or the field of its application, in others the distinction between interview forms relates to particularities in the way interviews are conducted and later on analyzed. In my case, I decided for a sort of interview that refers to the type of person I planned to interview and his / her status of authority in the administration. Since my goal was to add pieces of information that written documents would not provide, I opted for the category of the expert interview.

The expert interview is no category of an interview in its own right but is a semi-structured interview based on a questionnaire that is arranged by topics the interviewer intends to explore. It indicates, however, the type of person to be interviewed. From a methodological vantage point, an expert is somebody who possesses information, which not everyone has access to (Meuser &

[3] In one case, the interview was conducted in the office with my interviewee's colleague sitting at the other end of the room. I could not guess whether practicing English was a personal desire or on specious grounds.

Nagel, 1991, p. 484). In other words, the expert has advanced knowledge, for example about decision-making processes, due to his / her position within the institutional or organizational environment and his / her privileged access to information (p. 443).

Based on this definition, Liebold & Trinczek (2009, p. 47)identify two fields in which expert interviews are appropriate: Firstly, the expert interview can have an explorative purpose to collect data in a specific field (*felderschließend*) (Meuser, et al., 1997 cited in Liebold & Trinczek, 2009, p. 47). Here the expert delivers important information, data, and background knowledge (structural, historical or legal data). The goal is to gain information on the context in which the focus group operates (the expert is not necessarily part of the focus group, but employs a particular function in the context). The information experts deliver are "documents" that can help the interviewer to grasp structures and situations of action of a particular focus group (Liebold & Trinczek, 2009, p. 47). Secondly, experts can be the focus group in the methodological design. In this case, interviews aim to intrigue their point of views and gain an understanding of patterns of behavior. The "insider" knowledge is important for fathoming the context in which these people act, as the organizational knowledge they possess is central to the exploration.

The informants that I approached during my exploratory phase definitely belonged to the first category of experts described by Liebold & Trinczek (2009). In order to get access to the field, I needed people who were somehow involved in cadre training in China and could help me to fill my knowledge gaps. Consequently, everyone who worked in China's state administrative departments, in particular in the forestry department, was relevant.

A problem in conducting expert interviews according to methodological standards described in the literature was the limited access to exponents of my focus group. In the authoritarian context, cadres belong to a category of social actors that have privileged access to information. Information is not only advantageous but also a source of vulnerability. It implies that cadres have to protect themselves against accusations, etc. and thus do not easily relinquish information. Depending on the level of administration and the type of work field, some cadres are more accessible than others. These circumstances resulted in a great heterogeneity of my interview partners.

I was never picky about my contacts and was satisfied with anybody who would talk to me about cadre training. The composition of my informants entailed a variety of other actors in forestry training: scholars who had taught in cadre academies; a researcher working for an international NGO who had provided training to officials in the course of the research project on participatory forest management; a director of a privately run training center that was affiliated with a local government; a cadre from a local Security Bureau; two leading cadres from a local Human Resource and Social Safeguarding Bureau; international forestry experts who have been involved

in capacity building in China's forestry sector; and finally several cadres from central and local forestry organizations.

In the interviews, I asked them to provide me with background knowledge of the structures and procedures of how and where training for forestry cadres was organized. Due to the different situative-relational statutes of my interview partners, knowledge and insights in the processes of cadre training varied significantly. Hence, comparability and generalizability were limited in the first place. Interestingly, self-perceived knowledge on the organization of cadre training of my interview partners also affected their willingness to consent to and stay in the interview. Yet, self-perception with regard to limited knowledge on the decision-making processes did not mean that these individuals could not tell me anything meaningful on cadre training. Interviews, in particular, the problem-centered interviews, are a "discursive-dialogical procedure" (Mey, 1999, p. 145) which understands the interviewee as an expert of his / her orientations and actions (Witzel, 2000), hence what these people make of their exposure or non-exposure to the decision-making process, their personal experiences with training and their resulting opinions is an essential part of the reality of cadre training.

By employing a rather indiscriminate definition of expert (Meuser, et al., 1997 cited in Liebold & Trinczek, 2009, p. 34), my interview partners gained a quasi-expert status, as they could deliver relevant information for my research topic due to simply belonging to the state administration or having had experience in the field of training officials. I considered them experts because they had somehow been involved in cadre training – either by receiving, delivering or organizing it. The resulting heterogeneity and considerable lack of access to more cadres in decision-making positions led to great frustration and insecurity with regard to the validity of my research. However, in retrospective, I realize that I had gained access to a broad range of actors involved in training and forest development. The diversity eventually helped me to grasp multiple contractions in the planning and implementation of training, diverging perceptions on the function of training for China's development, and its manifold features.

Questionnaire

The expert interview belongs to the category of semi-structured, problem-centered interviews. The literature on semi-structured interviews points to the difference between standardized quantitative surveys and qualitative semi-structured interviews. Former aim to gain specific information on a subject, while latter try to gather interpretations and representations of social relationships and patterns of socio-cultural constructions (Schneider, 2002 cited in Schulz & Ruddat, 2012). The semi-standardized structure of the questionnaire makes sure that relevant aspects are being tackled during the interview and that a partial comparability between the answers of the interview partners

is being guaranteed. Furthermore, questionnaires counteract the process of familiarization and an implicit transformation of interest during the exploration (Gläser & Laudel, 2006, p. 139).

Notwithstanding, keeping in mind the *Prozesshaftigkeit* of qualitative research (Liebold & Trinczek, 2009, p. 40), I began expanding my questionnaires during my exploratory fieldwork, as my knowledge increased with almost every conversation, and aspects I had not thought about or that had been unknown to me, but appeared to be important, were then added to the list of questions. If appropriate, I inquired about these issues in later interviews. Also, much of how I could implement my questionnaire depended on the time the informant granted me, and on the general attitude, he / she showed me and my research topic. I always tried to ask as many questions as possible, but if time was limited, I stuck to the essentials.

Upon my return to Vienna, I began to map out the structures of cadre training based on the information retrieved from my interviews in China. Similar to O'Brien (2006) in his study on people's congresses in the late 1980s, I did not attempt to code the information from the beginning but rather absorbed every bit of information. O'Brien (2006) explained his choice as follows:

> In this research, as always, I did not attempt to code informant's answers or treat them in any formal way. Instead, for an issue (local people's congresses) on which few scholars had conducted empirical research, I simply tried to squeeze all the meaning out of whatever information my interviewees chose to share. (p. 35)

My topic was not as revolutionary or as unknown to the reader as local people's congresses at that time. Even so, the purpose of my exploratory approach in the first round of fieldwork was to shed light on unspotted aspects and gain more knowledge on so far neglected features of cadre training: training on operational aspects of ideology within functional bureaucracies. The information retrieved from my encounters in China was important for the revision of my research questions and the research design. By keeping an open mind and refraining from any "formal treatment", I gained a broader insight into the field, made accessible new and interesting issues not yet discussed in the extant literature, and opened up new perspectives and alleys of future research. From this pool of highly intriguing topics, I eventually made a more focused choice on the object of research and the unit of analysis.

For the second round of fieldwork, I aimed to get interviewees that would correspond to a more discriminate definition of experts as suggested by Meuser & Nagel (1991) In addition, I prepared a questionnaire with problem-focused questions. Problem-focused interviews (*problemzentrierte Interviews*) aim at a possibly unprejudiced collection of individual actions as well as subjective perceptions and reflections of social realities (Witzel, 2000). In order to identify more about issues on central-local relations, the allocation of training budgets within the local government, the use

of training budget within the forestry bureaucracy, as well as decision-making processes with regard to the management of training curricula, I prepared a problem-focused questionnaire that I then employed with cadres involved in the management and organization of training in the forestry bureaucracy.

Thanks to the aforementioned lucky encounter with a Chinese delegation at an Austrian forestry training institute, I gained access to this category of experts for my second fieldwork trip to China. The search for informants and the expansion of my network of informants grounded on a methodology that literature on the practice of social science defines as *snowballing*.

Snowballing

As most scholars who do research in China and employ qualitative research methods, I tried to establish contacts by snowballing and sequential case sampling. In this case, snowballing can neither be understood as purposive sampling – i.e. selecting unique cases that are especially appropriate – nor can it be considered "snowball sampling" in the sense of a non-random sampling with the purpose to tap a network (Neuman, 2011, p. 269). Snowballing in my case was an "approach for locating information-rich key informants" (Patton, 1990, p. 169), through which I located as many relevant cases as possible and continued to gather cases until I arrived at a saturation point. The reason for choosing this approach is simple: at any point of my research, I could not guarantee the access to a representative sample of institutions and actors in the context of cadre training that would allow me to employ purposive or deviant case sampling.

Snowballing is a process that takes long, is exhausting, and often accompanied with a lot of "wasted" time. This can be very discouraging and frustrating. Some informants treated me with much circumspection or did not want to meet me in the first place. Also, having conducted a fruitful interview by having established some trust with the interviewee did not necessarily result in a new contact or intriguing unpublished material, so-called *neibu cailiao* (内部材料). To be frank, I still have not found an appropriate way to ask for material or contacts without feeling completely inappropriate.

Also, changing political climates affected the availability of informants and information provided, as the prevailing political climate influenced and altered perceptions which information was sensitive and which not. I once asked an informant whether he / she could provide curricula of party schools in Yunnan. My contact reluctantly sent me one example in which he omitted the name of the party school. Curricula are usually not classified material, as many party schools make curricula and training materials accessible on their websites. However, during that period Chinese

leaders were preparing for the 18th Party Congress, and the tense political climate made everybody in the state administration act very cautiously.

Experience has taught me so far that most unexpected encounters or people whom I interviewed only for the purpose of getting some background information turned out to be crucial and my most valuable contacts, as they not only delivered relevant knowledge but also made contacts with new informants. Here is one example:

Prof. Pitterle is a well-known Austrian forestry expert and retired professor from the Life Science University in Vienna who has been involved in numerous research and forestry development projects in China. I contacted him in March 2014 due to my particular interest in forestry in China and asked him to fill me in with some personal experiences in his work with Chinese forestry authorities. Prof. Pitterle was more than willing to help out. Not only did he spare much time for the interview, he also helped me to establish a contact with a cadre in Chongqing's forestry department, the deputy director of a one the municipality's forest parks. This informant introduced me to her husband, a higher-ranking cadre in the local Security Bureau and later also to a cadre who worked in a county-level forestry bureau of Chongqing Municipality.

The encounter with Prof. Pitterle was a very helpful entrance ticket into China's forestry bureaucracy, above all, he opened my eyes for an aspect of cadre training so far neglected in research but yet very important in the field of forestry training. He told me about a decade's long exchange activities between the Austrian Ministry of Agriculture, the German KfW and GIZ, and China's Forestry Administration that also comprised training programs for local forestry administrators in and outside China. This finding indicated a new field that had yet to be explored in the history of cadre training. Upon my arrival in Western China in May 2014, I continued to explore this path.

Another way to establish new contacts was to get in touch with researchers in the field of forestry, as they usually have updated and important background information. More importantly, they stay in touch with government officials. Based on this strategy, I simply contacted researchers in Kunming who had published on forestry. It so happened that I met a Chinese researcher from the World Agro-Forestry Center in Kunming. He agreed to an interview at which occasion I inquired about the center's work with local forestry administrators. He kindly called on a cadre in the forestry department of a prefecture-level city in Western Yunnan where to I traveled two days later. However, not all researchers assisted me in snowballing, especially those who did not know me. The situation in Yunnan was particular because the official in the prefecture-level office was a low-ranking cadre. Scholars with whom I had previous contacts and / or who have good relations

with our department in Vienna were always very helpful in setting up contacts, but not necessarily with high-level officials.

One of the most successful methods to expand my network turned out to be in Austria. As explained above, I dug into the issue of forestry training in Austria in order to gain more familiarity with this issue at hand in my home country. In doing so, I luckily joined an official Chinese delegation that visited Austria's forestry training institutes and a forestry industry fair in October 2015. The delegation members comprised one representative of the State Forestry Administration, one representative of the Forestry Industry Federation, and some representatives of Chinese forestry machinery enterprises. This encounter was decisive, as I finally got access to cadres working in central-level offices. Upon my arrival in Beijing two weeks later, I was able to interview a leading cadre of the State Academy of Forestry Management who was in charge of setting up the training plans for the academy. I also talked to a cadre who worked in the Office of International Cooperation of the State Forestry Administration (who used to work for the State Academy of Forestry Management) and who was thus familiar with international cooperation projects and training related to these projects. He helped me set up a contact with a local forestry cadre school in Fuzhou, Fujian Province. Last but not least, I could obtain an interview with the Forestry Industry Federation (林业产业联合会) that cooperates with the State Forestry Administration and is in charge of organizing training for forestry enterprise workers etc.

The status as a foreign Ph.D. student was not advantageous, but it was not impeding by all means. To a large degree, I had to rely on cadres to act as a medium through which I could expand my networks and get new interview partners. The attitudes of cadres at the central and local level toward me and my research differed a lot. Some were enormously suspicious and unsure about what the interview would bring about (and the consequences for their careers). In order to guard against rumors or bad reputation or similarly, they sometimes showed up to the interview in pairs or groups. Cadres often tried to turn me down by alleging that they knew little about the issue or that they were not in charge of organizing training etc. Others were quite relaxed. As a general rule, when contacts were set up from within the forestry department, cadres appeared to be more willing to talk to me than when contacts were set up by outsiders with good government relations.

"Entrance exams"

Officials in China usually asked me to provide a questionnaire in advance of the interview. Based on what they read and how they interpreted my questions, they then decided on their availability. In most cases, I had to additionally persuade them on the phone since they were quite undecided whether to consent to the interview or not. I soon found out that the questionnaire one hands over for prevision was as important as a clear and succinct self-introduction at the beginning of the

interview. Both act as “entrance exams” in their function to show the potential interviewee that one is well prepared and does not waste his / her time. In order to underline this observation, in the following, I relate to two particular experiences with regard to my self-introduction and my questionnaire.

In my first round of fieldwork, I was introduced to a cadre from the local environmental protection bureau of a district in Chongqing municipality. When I entered his office, the cadre asked me about my background, my intended research project, and what I wanted to find out. I was very nervous, as he was one among the first cadres I met in real life. Admittedly, formulating a short statement that contains this kind of information in advance had kind of slipped my preparatory work. I struggled to be persuasive and succinct, and most probably I left the impression of a messy young researcher whose whole research project was not well thought through. Consequently, the cadre snapped off the interview after five minutes claiming that he had to go to an important appointment right away (the phone had not rung once in these five minutes). I swore to myself that I would never ever find myself in this kind of situation again!

The second experience relates to my questionnaire. In Chongqing, my local contact asked me to send over my questionnaire, so he could forward it to his acquaintance in the local Organization Department. I thought that providing the whole questionnaire (that even contained possible ad-hoc questions!) would demonstrate my particular interest and preparedness in the field. Yet, the opposite was the case. I was turned down. When I inquired about the reasons for my local contact, he told me that my questionnaire was far too detailed and advised me to prepare a shorter version with more general questions for next time. The more open the questions the higher the chances cadres feel comfortable with it. The more detailed the questions the higher the risk potential interviewees turn down the interview request for avoiding to lose their face in case they are not able to respond to some of the questions. Anyway, it was not easy to find the balance between general and concrete questions in the showcase questionnaire. Usually, I had to put additional efforts on the phone to persuade my potential informant to give the interview, as my general questions sometimes were perceived as too general. The bargaining again might be another form of “entrance exam” or simply a cultural practice.

Managing interview situations

Conducting interviews is a stressful situation, the lesser experience the higher the pressure. The main stress factor is an unfamiliar situation one is exposed to and thus induces insecurity on the interviewer. Another factor is language; Chinese language proficiency is fundamental, especially when employing semi-structured interviews. The open-end questions allow for follow-up questions, however for raising them one needs to be able to follow the conversation. Much of the

ability to formulate ad-hoc questions is not only contingent on language proficiency, but also on the familiarity with the terminology. It is important not only to speak Chinese but to be able to speak what Thørgersen (2006, p. 117) coined as *Ganbunese*. Thørgersen emphasized the importance of paying attention to different social classifications in order to grasp the meanings which words can take and to be able to actually speak the language of the other. Chinese officials use a different terminology than social activists and the interviewer should be able to adapt to this terminology as it conveys preparedness and authority (p. 117). Here is one example:

When I embarked on my research project I often referred to *ganbu peixun* (干部培训), a term that is used in official CCP documents and in the extant literature in this field. However, always when I asked about cadre training using this terminology, people started talking to me about training in party schools. It took me a while to detect that if I wanted to find out more about training in the forestry bureaucracy, I had to employ the terminology *hangye peixun* (行业培训) that means "professional" or "sector-specific" training.

Interview skills imply the ability to ask the right questions and to interpret information and reactions of the interviewee. Should I ask directly or should I circumvent and try to get the information by asking a different question? In 2013, I interviewed the secretary of a party core group in a state-owned enterprise in Beijing. The secretary was the cousin of a befriended Chinese senior scholar who had accompanied me to the interview. During the interview, she intervened regularly: "What Julia wants to know is …." I was amazed at the straightforwardness of these questions. My little experience in interviewing cadres had kept me from raising important questions that were not as sensitive, as I expected them to be.

Other factors that influenced interview situations with officials or experts in China were rank, age, and familiarity with the international context. In general, I experienced that low-ranking cadres, young cadres (more or less my own age), and cadres who in their work have regular contact with foreigners showed fewer reservations. One of my contacts was the director of a government-affiliated cadre training center in a municipality whom I had met in Vienna previously. I was referred to him by my Ph.D. advisor. Director W. came to our university seeking cooperation for the establishment of a cadre training programs on urban management. What really helped in conducting the interview was Wu's relatively young age, his openness, and his familiarity with the international context. He had studied in Australia, worked in the United Nations, our difference of age was less than 10 years, and – more importantly – Director W. felt sympathetic for my academic interest in cadre training. He turned out to be a very valuable contact in China who was not only available for a follow-up interview with regard to the training institution he managed, he also helped me to establish contacts with some local cadres upon my arrival in China.

Director W. also invited me out for dinner and introduced me to his family. The mixed professional-private relationship resulted in him contacting me for a piece of advice in a family matter later on. It is very important to go beyond a purely professional relationship if the situation demands it, but at the same time, it is equally important to stick to certain boundaries that would eventually harm the relationship. Friendliness and openness are fundamental in fostering relationships, interest in the other's work, experiences, and thoughts are crucial for creating an atmosphere of mutuality.

Another influencing factor is the place where the interview is conducted. Literature suggests that semi-structured interviews should take place in a natural environment, according to the principle of naturalisticy (*Naturalistizität*). Thus, the interview should be conducted in a place that is familiar or natural for the interviewee, for example in the office or at home (Schulz & Ruddat, 2012). In contrast, many researchers in China Studies assert that the most relevant information is delivered at the dinner table. On the strength of my limited experience I cannot fully refute nor support the argument, neither appears to be axiomatic.

In one case, I had dinner with two of my interview partners who happened to be married and had a young daughter. The couple brought me to a nice and modest restaurant with great food in a nature park outside of the buzzing city of Chongqing, where we stayed overnight in an adjacent hotel. In spite of the presence of their daughter, our conversation centered on cadre training and related issues, very naturally (I really felt sympathetic to the girl who was obviously annoying herself to death). It appeared to me that both cadres found it quite pleasant to chitchat on this topic and continued to raise issues concerning it. Had we been to a different place, I guess they would have provided me with the same quality of information, however, what did matter in terms of quantity of information was that we did not have any time constraints that evening.

I reckon that time is a very much underestimated factor in the interview situation. In a prefecture-level city in Yunnan, I interviewed the section vice-director of the Technology Extension Station of the local forestry department. He did not leave the impression to be very busy nor to have any time constraints. As a consequence, I was able to ask a long list of questions which he patiently responded to. In the aftermath, he invited me out for lunch with his wife. In contrast to the above-described dinner situation, we did not raise the subject anymore. It did not seem appropriate, as lunch was, so to say, the reward for both of our works.

Sometimes dinner or lunch is not suitable for raising the research subject. Like in our cultures, Chinese regarded eating as a relaxing activity that helps them to get away from the daily stress at work or at home. Not all dinners or lunches can thus be serviced for professional purpose and the interviewer is well advised to be able to notice this change of atmosphere. Placing the research

issue at a lunch or dinner table that is considered leisure time can be perceived as very intruding and misplaced. This was the case when I was in Kunming and went on a Sunday trip with one of my contacts, their family, and friends. All of them happened to be relevant and information-rich informants as they worked in different government offices, one of them even in the forestry department of Kunming. However, when I overreached in trying to obtain more information at the lunch table, they were obviously annoyed and directly asked me to put work issues aside, since everybody wanted to enjoy the nice trip and the delicious lunch. I learned from this incident to keep the balance between information seeking and casual talking in similar situations later on.

2.2.4 Content Analysis

Since I was particularly interested in how ideas of sustainable development in the State Forestry Administration were translated into concrete training practices, I conducted a content analysis on training documents (training plans and reports on training activities) between 1998 and 2015. The analysis was conducted according to the model proposed by Mayring (2010) combined with a specific methodology of reading central CCP documents. The year 1998 as the starting point of the period of analysis was chosen because 1998 is generally understood as a hallmark or turning point of Chinese forestry politics. The "devastating flood along the Yangtze River sounded an alarm on the enduring environmental degradation and depletion of forests in the country" (Liang & Mol, 2013, pp. 66-67) and should have a great impact on forestry development.

Mayring's (2010) model of content analysis proposes 10 steps. It starts with the identification of the material to be analyzed. The material encompassed official documents on cadre training including cadre education and training plans that were issued every five years by the Central Party Committee, training plans issued by the forestry authorities whose publication usually follow five year plans of the Central Party Committee, the annual focal work points of the administration (that also contain main directives for training), and several reports on training activities published on the website of the State Academy of Forestry Management, the website of the State Forestry Administration, in the Yearbooks of Forestry, and in media outlets. Reports on training seminars were not sampled since their number was limited anyway, and their distribution over the years unequally distributed.

Mayring's (2010) model demands that the material has to be interpreted in its context of communication (p. 48). Here the analyzer has to proceed according to rules (*Regelgeleitetheit*) and theoretical reflections that are formulated in concrete research questions (*Theoriegeleitetheit*) (pp. 48-49). The central instruments of analysis are categories that allow for intersubjectivity (p. 49). He distinguishes between three ideal types of content analysis: summarizing, structuring, and explaining. The choice which type is appropriate depends on the questions that guide the analysis

and the intent of the researcher (pp. 63-67). As will be discussed later in Chapter 4, the content analysis of cadre training in China's State Forestry Administration was guided by the four questions:

- How has the central state's vision of sustainable development informed cadre training?
- How is the relationship between symbolic and operational ideology manifested in the contents conveyed in cadre training?
- How do contents relate to skills and knowledge the party-state wants its stakeholders to gain?
- What kind of skills and knowledge are attributed to the different role expectations in the process of operationalization?

The goal of the analysis was to structure the material by its content (*inhaltliche Strukturierung*) by means of filtering topics, contents, and aspects that could then be summarized. The content analysis is very close to the process of coding. However, since the content analysis grounded on a set of very specific questions on the material, the coding and analysis were done separately.

Based on these questions a set of categories was chosen according to which the material was structured. In addition, during the process of analysis new categories developed. Each time a new category was developed, the entire material was passed through in this specific category. These categories were: dimension of ideology (operational and symbolic) central-local relations, dimensions of sustainable development (economic dimension, societal dimension, and environmental/ecological dimension), level of abstraction (macro, meso, and micro), goal of training (socialization and role expectation, accompanying policies and reform agendas, other), forestry trainees (party and government cadres, enterprise management personnel, technicians, forest workers, forest farmers), as well as knowledge and skills.

The second method that complemented the content analysis was a close reading of party and government documents. Leys (Leys, 1990) once said that analyzing Chinese politics is "the art of interpreting nonexistent inscriptions written in invisible ink on a blank page." In a book review on Ladany's *The Communist Party of China and Marxism, 1921-1985: A Self Portrait* (Ladany , 1990 [1988]), Leys describes the essence of the method behind Ladany's astute analyses as follows: Firstly, the use of official documents grounds on the idea that "propaganda must necessarily entertain some sort of relation with the truth." Therefore the researcher has to be fluent in Chinese and, secondly, has to absorb huge quantities of "the most indigestible stuff." Thirdly, the researcher "must crack the code of the Communist political jargon and translate it into ordinary speech this secret language full of symbols, riddles, cryptograms, hints, traps, dark allusions, and red herrings." (Leys 1990).

The method applied here for reading and interpreting official documents was subject of a Master seminar at the Department of East Asian Studies/Sinology in the winter term 2016/17 taught by my advisor Susanne Weigelin-Schwiedrzik, who had graciously taken up my idea to offer such a seminar to students at our department. In the seminar we analyzed a series of CCP documents under her supervision, this helped me to refine my analytical skills for document analysis in China. As will be explained in Chapter 4 in more detail, party and government documents are texts with a high degree of language formalization (Schoenhals, 1992), and they are always an outcome of a compromise between various interests groups within the CCP (Weigelin-Schwiedrzik, 2017). Documents are outcomes of compromises between different interest groups in an ongoing process of negotiation and display the conflict lines of these interest groups. They diverging demands are integrated into the structure of the text.

Leys (1990) purports that "Communist document should be read [...] by concentrating first on its gaps." If China observer had done so during the early Reform period,

> would have rediscovered Deng's Stalinist-Maoist statements, and then, perhaps, they might have been less surprised by the massacres of June 4. (Leys, 1990)

What remains in the implicit is that this kind of skill requires a thorough knowledge of the discourse and events under discussion before documents are read. This is something that Weigelin-Schwiedrzik (2017) considers a precondition for being able to fully grasp the contents of the document. Yet, documents can also lead the reader more explicitly to the cleavages, conflicts, and tensions between different groups within the party-state administration and thus give hints to where to look more closely. Therefore, Weigelin-Schwiedrzik (2017) suggests that while the beginning of the document displays the nature of the compromise, the body of the document outlines the lines of conflicts between different interest groups and what the conflict is about. The task of the researcher is to find these hints, investigate these issues, and then find an interpretation of the issue at hand.

According to the theoretical reflections of this dissertation, *Opinions* and *Decisions* with regard to forestry development are an outcome of negotiations between central and local decision-makers on "what is to be developed" and "what is to be sustained" (Tilt, 2009, p. 145). Here, the analysis borrows from Tilt's competing "models of sustainability" (p. 21). In his study on pollution in rural China, Tilt found that in the context of sustainable development, the question of what is to be developed and what is to be sustained inevitably led to substantial differences in the national discourse of sustainability. These competing models of sustainability at different state levels are the core problems of policy enforcement and the resulting lack of coordination between agencies involved in environmental protection policies.

In contrast to Tilt, whose observations focus on the interaction of different government departments at the local level and their interactions, this dissertation limits the analytical to one bureaucracy and its interaction with the local governments as well as its own interactions along the horizontal and vertical lines. Conflicts between economic output on the one hand, and enhancing resource protection, on the other hand, are not only reproduced at the local level between local governments and the local forestry departments but are inherent to the forestry bureaucracy.

2.2.5 Limits

I started out the project with the initial idea to look into the central-local relations in the context of cadre training. Based on the concept of "competing models of sustainability" I wanted to find out how cadre training contents differed at the various levels of the state administration. Therefore I tried to collect cadre training plans for each level with the goal to engage in an in-depth investigation of at least two provinces/municipalities in China from a comparative perspective. However, I was soon faced with the fact that access to cadres and training plans was limited and plans did not exist at all levels.[4] The lack of a local research partner relevant in the field of forestry posed additional challenges in the search to find adequate interview partners. I, therefore, interviewed cadres who worked at different levels of the administration collected information and their impressions on training. The selection followed the snowball principle and thus was arbitrary from the viewpoint of geographic locations. This is, without doubt, a limit of this study, as it did not allow me to do an in-depth investigation in one locality, let alone a comparative study.

Due to the qualitative research approach, it is difficult to draw general conclusions, as I do not have a representative sample of forestry authorities. A more comprehensive study of this topic would need a mixed approach employing qualitative and quantitative methods. Yet, a lot of quantitative research in the field of training in the forestry administration has been conducted by researchers that work at the State Academy of Forestry Management and was accessible via its journal. These findings were valuable inputs for my study that helped me to draw more general conclusions on the situation of training within the forestry administration.

Since my topic was placed in a study on central-local relations in which I hypothesized that training would differ at the various levels of administration, I cared much about finding interview partners and informants that represented these different levels. In the end, I managed to talk to cadres involved in training work with decision-making power at the central and the provincial level. In addition, all my informants were cadres with decision-making power within their divisions.

[4] See discussion in this chapter in 2.2.3.

Except for two cadres, all my informants have been working in the administration not longer than 10 years. That's why a systematic recollection of historical memories was not possible. Nevertheless, my original endeavor to focus my research on the local level and trace changes of perceptions of sustainability over time transported via training activities could not be realized to my fullest satisfaction.

Chapter 3

Characteristics and Origin of China's cadre training system

In July 2016, when I went back to Beijing for a two-day conference, I seized the opportunity to connect with several Chinese scholars and to do some library research for my dissertation project. An acquainted scholar at Renmin University helped me to set up an interview with one of his colleagues in the Law Department who had worked at the State Academy of Forestry Management in the 1980s right after its official establishment. It was in 1983, Professor D. had just finished his BA at Northwest University of Political Science and Law when he took on to his assigned post at the Beijing Forestry Cadre Academy in Daxing in the South of Beijing. For two years he worked as a teacher and trained cadres of the forestry administration. Back then, training aimed to prepare cadres to sit qualification exams that were held in all bureaucracies. Training contents were broadly based and were intended to provide a general education in politics, philosophy, economics, history, and mathematics; a couple of courses also related to forestry. In addition, cadres took English classes and some of the successful candidates were then given the opportunity to go abroad for site visits or post-graduate studies. In 1985, Professor D. left his workplace and went to Renmin University for a Master Program in Law. After completion, the academy in Daxing wanted him back, so he resumed his work as a trainer for another two years. In 1989, Professor D. finally embarked on his academic career and enrolled in a doctoral study program again at Renmin University, where he eventually became a permanent staff member. Over the past 26 years, he has been regularly approached by the academy for training cadres on legal matters.

Professor D. was the first and only person I encountered with a longer historical memory on forestry training, as the majority of my interviewees have been workingapproximately10 to 15 years in the administration. Professor D. stroke me with his sense of empathy for cadres of that time: Cadres were stressed out by the exams they were forced to undertake. Successful passing the exam did not guarantee a better job, neither did failure lead to immediate loss of a job. Yet, passing or failing

the exam was a major source of cadres' psychological distress owed to cadres' worries about the impression they left to their colleagues.

Professor D.'s account touched me deeply, as it gave a human face to an issue that academic literature usually treats from the vantage point of procedural aspects. These studies obscure the psychological dilemma that was caused by educational measures of that time. Efforts to raise the quality *(素质) of cadres also came with a depression of self-esteem and psychological distress, especially for those who did not pass the exams.*

Organized as a reverse pyramid this chapter provides an alternative account of the character and origin of China's cadre training system. Drawing on the theoretical framework that stresses the contingency of symbolic and operational ideology, the chapter demonstrates how this relationship is manifested in the institutional setup and the organizational landscape of cadre training. In a second step, the chapter traces back the origins of the system and its development offering a new perspective on cadre training and adding new findings on its historical development.

3.1 China's contemporary cadre training system

This section maps out the features of China's contemporary cadre training structure tackling its cornerstones including the legal framework, institutions and providers of training, and the characteristics of training programs. The goal is to offer a comprehensive view of the complex structure of cadre training. Here I argue that rather than referring to one cadre training system, it is more appropriate to understand it as a structure that is constituted of several individual training systems. These systems link the symbolic and operational aspects of ideology aiming to impart skills necessary to translate abstract development paradigms into tangible policies and eventually into concrete implementing actions on the ground.

3.1.1 The legal framework of cadre training

The relationship between symbolic and operational ideology is inherent in the most basic unit that constitutes the training structure. China's public administration law distinguishes between cadres and civil servants. The term cadre, in Chinese *ganbu* (干部), is a historical concept employing different meanings in different social and political contexts. In a Communist regime, the term refers back to the Russian Revolution in which cadres were considered to be the leaders of the revolution, while the masses were their followers (Brødsgaard, 2012, p. 71). In this sense, the concept bears a social distinction based on a qualification of a person to assume a leadership position or to accomplish a political task. The party based its own organization, as well as the

organization of the state it has been ruling, on Leninist principles, and espoused the concept of cadre in the early days of the revolutionary movement (Price, 1976; Apter & Saich, 1994).

With the civil service reform in the mid-1990s the term civil servant, in Chinese *gongwuyuan* (公务员), was introduced. The *Provisional Regulations of State Civil Servants* (国家公务员暂时条例) of 1993 defined civil servants as an employee who worked in a government administrative agency (行政编制) (Chou, 2012, p. 55). The amendment of the *Civil Servant Law* (公务员法) in 2005 expanded the definition to include all employees paid by state treasury and hired according to the establishment plan (编制). Under this definition, civil servants are also employees of people's congresses, people's consultative commissions, courts, and procuratorates that were excluded in the previous statute (p. 55). The change of definition brought an increase in number from 5.3 million civil servants in 2004, to 6.5 million in 2007; about 475,000 civil servants worked in central government and its direct-administered offices outside the capital, 536,000 were assigned to posts in provincial-level governments, 1.5 million in prefectural-level governments, 2.9 million in county-level governments, and 1.1 million in township-level governments (p. 65).

The confusion of the two terms, cadre and civil servant, and the impact of the Civil Servant Law have been subject to debate in the relevant literature. Yang, et al. (2012, p. 171) assert that with the amendment in 2005 the use of the concept *cadre* has been weakened, while the concept of civil servant has gained more prominence, even though formal differences continue to exist. *Cadre* remains a broader concept that includes civil servants, all professionals from agencies, state-owned enterprises and other public institutions; *leading cadres* – even though many of them are formal civil servants – are supervised by the Party's Organization Department. New civil servants have to pass the Civil Servant Examination, whereas requirements for personnel in the establishment plan of non-administrative organizations (事业编制) are subject only to political checks. Chan & Li (2007, p. 384) point out that even though the *Civil Service Law* originally sought a differentiation between civil servants and cadres who served public assignments in hospitals, schools, research organizations etc., the civil service system was integrated into the existing cadre personnel management.

> China initially defined the problem as excessive concentration of power in the party, but ended by making political concentration of power in the party the solution. (Chan, 2016, p. 380)

The continued existence of the "old" term is not only an expression of a self-reflection of the party-state and the CCP's desire to maintain control over state personnel. The concept of cadre is historically linked with the CCP as the symbolic center and the party as the only legitimate source

of ideology. The concept of cadre bestows a specific identity on somebody who is connected with the CCP, its leadership and its monopoly on ideological orthodoxy, and establishes an identity this person takes up in relation to the source of ideology. The Western term civil service, on the other hand, symbolizes *idealiter* a neutral administrator whose symbolic attachment is not clear and not purported. Something the CCP decidedly wants to avoid.

A consequence of the continued existence of two terms is that training of government officials grounds on two legal statues: *Regulations on Cadre Education and Training Work* (干部教育培训工作条例（试行）) (Central Party Committee, 2006) (later referred to as *Regulations*) and *Provisions on State Civil Servant Training* (公务员培训规定（试行）) (Central Organization Department, 2008) (later referred to as *Provisions*). Both statutes[5] distinguish four types of career path training: newcomer training (初任培训), promotion training (任职培训), professional work-related training (专门业务培训), and on-the-job or staff job training (在职培训 or岗位培训) (Regulations 2006, Art. 13; Provisions, Art. 13). Newcomer training refers to training programs specifically devised for newly assumed staff that has to undergo at least 12 days of training. Promotion training concerns those cadres and civil servants who have been selected for promotion (higher-ranking job assignment or rise in rank). Training has to be accomplished before the new job assignment or within the first year after assignment. Vice office-level posts require a period of 30 days, while for section chief posts a training period of 15 days is compulsory.

Newcomer and promotion training are both tied to an exam that cadres and civil servants have to pass in order to keep their jobs or to be promoted. Promotion training of leading cadres is under the authority of the Organization Department. Against common belief, these trainings do not necessarily take place in party schools, but are also commissioned to cadre academies or cadre schools of other bureaucracies, such as the forestry administration, to conduct these types of trainings for their staff (e.g. the State Academy of Forestry Management under the State Forestry Administration) (Interview Director L., 3 November 2015, Interview Teacher C., 9 May 2014).

Professional work-related training, on-the-job, and staff job training aim to equip cadres with specialized and professional knowledge or skills that are most commonly related to their specific work tasks, job assignments or policy projects (工程) of a bureaucracy. For these two types of training, the statutes do not stipulate any standards with regard to the amount of training time. Training is arranged according to the particular needs of a government department in a specific

[5] In 2015, the *Regulations on Cadre Education and Training Work* were revised and two other forms of training were incorporated into the stipulations.

locality. Therefore, professional and work-related training is to a high degree departmentalized and localized.[6]

3.1.2 Institutions and providers of cadre training

Authority over the training of cadre is shared among different party and government agencies, the responsibility for the organization of training is distributed among different bureaucracies, in Chinese *xitong* (系统). A *xitong*, literally translated "system", is a group of bureaucracies from the national level to the local level that implements broad political tasks under party leadership (Zhou, 2003, p. 106).[7] Three groups of *xitong* are relevant in the context of training of civil servants and cadres: The party school *xitong* (党校系统), the government *xitong* (政府系统), and functional bureaucracies each of which constituting its own *xitong*. For example, the forestry administration is in charge of implementing political tasks related to the development and protection of forest sources, biodiversity, etc. It thus constitutes the forestry system (林业系统).[8]In the training of cadres, x*itong*s operate autonomously and their authorities over trainees are institutionally divided, however, training activities of the individual bureaucracies are interlocked and overlapping. Training tasks among the *xitong*s are distributed according to rank, position, and function of cadres, but also according to training goals.

Each of the bureaucracies has established a network of training institutions that operate along the vertical-hierarchical-geographical lines of the state administration, with one or more central training institutions where training is provided for high-level officials and key official groups. Central training institutions include the Central Party School (中共中央党校), the Chinese Academy of Governance (国家行政学院), the four Executive Leadership Training Academies (干部学院) in Pudong, Jinggangshan, Yan'an, and Dalian, and the central-level cadre academies of functional bureaucracies. At the local level, party schools, and academies of administration are set up at all administrative divisions down to the township level. Cadre schools as subordinated units of the local government departments resume the responsibility for professional and work-related training for local cadres working in the respective departments.

It is important to note that the party schools system cannot be understood as a parallel structure to the other vertically organized training systems, but as a structure that, like the Party itself, pervades

[6] See more details in Chapter 5 of this dissertation.
[7] The *xitong* system is a "technology" or "mechanism of power" of the Party to exert control over the government and society. Their purpose is to enable the Party to exercise its domination over the government (Zheng & Chen, 2015, p. 68), shape and regulate Chinese society (Zhou, 2003, p. 106).
[8] Another example for a *xitong* is the United Front Department, which has been cited in the research on party school or leadership training. The training institutions of the United Front Department are so called Colleges of Socialism (社会主义学院), their training targets non-CCP leading cadres and ethnic minorities (Shambaugh, 2008, p. 828; Pieke, 2009a, p. 139).

the state bureaucracy in its horizontal and vertical spheres. Take for example Academies of Administration that belong to the government *xitong*. The Chinese Academy of Governance is the central-level training institution under the State Council, at the local level Academies of Administration are generally joined under one roof with local party schools. However, authorities and responsibilities over trainees are "separated" and the head of the party school does not double as head of the Academy of Administration. Despite this institutional separation, the spatial proximity allows for more party control within these academies of administration.

In addition to spatial proximity, the party school system has found yet another way into the training system of functional line departments. The State Academy of Forestry Management (国家林业局管理干部学院) is the central-level training institution of China's forestry bureaucracy. The academy located in the Southern suburbs of Beijing also houses the State Forestry Administration Party School (国家林业局党校). A sign at the front gate announces that both institutions are consolidated within the premises of the building. The Forestry Administration Party School is under the supervision of an organ under the Central Party Committee, the Central State Organ Committee (中央国家机关委员会).

In contrast to academies of administration, the head of the forestry party school doubles the head of the State Academy of Forestry Management. According to regulations, he / she has to be a leading member of the forestry department in charge of party work and is supported by three vice-heads, who are likewise leading decision-makers in the forestry administration and its party organizations. Vice-heads are the executive deputy secretary, the head of the State Forestry Administration's Department of Human Resources, and the party secretary of the State Academy of Forestry Management. (State Academy of Forestry Management , 22 May 2010a). Currently, the incumbent head of both, the State Forestry Administration Party School and the State Academy of Forestry Management, is Zhang Jianlong (张建龙), who also fills the post of Minister of State Forestry Administration (State Academy of Forestry Management, Zhang Jianlong).

In order to provide additional expertise and latest policy know-how, all bureaucracies enlisted institutions of higher education as so called "training bases" (培训基地). Pieke (2009a; 2009b) holds that this development is due to gradual marketization and globalization both being strong drivers in further opening the system to new actors on the cadre training market. Famous national universities such as Qinghua University (清华大学) and Renmin University (人民大学) as well as private service providers or companies complement training supply at the central and local level.

While universities and other educational institutions have been part of the training system for a long time (see discussion further below), private training centers are a recent phenomenon.

Training centers must be accredited by local government departments and are supposed to complement the state's training with new approaches increasing the quality of national and international expert knowledge transfer (Interview Director W., 22 May 2014).[9]Opening a window of opportunity for private training providers was a deliberate decision by the Chinese leadership. Against the backdrop of the deterioration of local party school training, the central government began to slowly open the market of cadre training and "erode the monopoly" of party and government training institutions (Pieke, 2009b, p. 964). Over the past decade, these centers have mushroomed all over China offering their capacities in human resource development.

Another vital component of the training system is international collaborations. Government departments, as well as various training institutions at the central and local level, have engaged in international collaborations with foreign universities, foreign governments, and international donor or funding organizations. The China Academy of Governance collaborates with 163 partner institutions in 87 countries (China Academy of Governance, website). In the same manner, the State Academy of Forestry Management has engaged in several international collaborations with World Bank Economic Development Institute, University of British Columbia in Canada, Institute of Technology British Columbia in Canada, German Association for International Collaboration, Korea Mountain Forestry Academy, Japan International Cooperation Agency, and Japan Forest Training Institute (State Academy of Forestry Management, Introduction of the Academy). At the local level, government departments and their divisions can initiate their own collaborations. For example, at the time of my visit to Chongqing, the Chongqing Wildlife Conservation and Natural Resource Management Division of the local Forestry Department had previously initiated a collaboration with the Department of Fisheries, Wildlife and Conservation Biology, University of Minnesota for the purpose to exchange knowledge on natural reserve management (Interview Mrs. L., 8 December 2015).[10]

In some cases, collaborations have led to the establishment of international training programs that provide some cadres with the rare opportunity to undergo training abroad at partner institutions. These programs have been promoted ever since the mid-1990, the most famous is the China Leaders in Development at Harvard University. Concurrently with the promulgation of the *Civil Servant Law* in 1993, a legal framework was introduced that regulated this type of training.

[9] Research has so far not systematically tackled these private training providers. Therefore, we still know little about public-private relations in the context of cadre training, the relevance of private training centers in cadre training and their contribution to local human capital development.

[10] The process, how international collaborations are set up, has yet not been tackled sufficiently in research. According to my own observations, many of these collaborations ground on personal relationships between influential actors of the collaborating organizations. This gives rise to questions on selection standards criteria and the perceived additional benefits gained through such collaborations, in particular with regard to expertise.

Table 1: Training institutions and providers

	Party or government providers				Other providers
	Party school *xitong (Central Party Committee)*	Central Organization Department	Government *xitong (State Council)*	Functional line departments (e.g. *State Forestry Administration)*	
Central level	Central Party School	Executive Leadership Training Institutions (Cadre Academies)	Chinese Academy of Governance	Central-level academy (e.g. State Academy of Forestry Management, Nanjing Forest Police College, Center for Human Capital Development and Exchange)	Universities (e.g. Qinghua University, Renmin University, Beijing University, Beijing University of Forestry), International cooperation (e.g. Harvard School of Governance China Leaders in Development, Sino-Japanese Forestry Ecology Training Program)
Provincial level	Provincial Party School		Provincial Academy of Administration*	Local-level cadre schools (e.g. Forestry Cadre Schools)	Universities (e.g. South-West University, The South-West University of Forestry), privately run but government-affiliated training centers, international cooperation
Sub-provincial level	Prefectural and County Party School		Prefectural Academy of Administration*		

Source: compiled by the author

However, due to the prohibitive costs of these programs, international cadre training is reserved to a very small share of cadres, and an unrealistic option for grassroots cadres (Lee & He, 2014, p. 347). In most cases, cadre delegations only go abroad for site investigation (考查) but not for institutionalized training (Interview Director W., 22 May 2014; Interview Mrs. L. 8 December 2015). Table 1 offers a description of the training structure in contemporary China listing institutions and providers at the central and local level according to bureaucracies.

3.1.3 Training

Cadre training in China is based on five-year outlines (规划) and annual plans (计划). The overall responsibility for drafting outlines (规划) rests with the Cadre Education and Training Committee (干部教育和培训委员会) that is directly subordinated to the General Party Committee, and the local party committees and their subordinated cadre education/training committees at the local level (Pieke, 2009a, pp. 56-57).Training of functional line departments is incorporated into the "planning system" of the Party-state, therefore training plans of these bureaucracies ground on the more general cadre training policies as issued in the national cadre training plans as well as on the broader socio-economic development goals of the party-state.

The operationalization of the five-year plans in the functional bureaucracies is annual training plans issued, in theory, at each level of administrative division by the Human Resource and Education Office of the local authority. Management of and responsibilities for training are compartmentalized, both at the horizontal and vertical level. As will be shown in Chapter 4, the hierarchy created by the chronological sequence of their publication reflect the principle of "under the party's leadership" (党的领导) and thus pivotal standing of the source of symbolic ideology. Whereas the references within the documents place each of the operational plans in the broader goals and considerations of state development. The contingent relationship between the symbolic and the operational sphere become apparent in the planning of cadre training within China's state administration.[11]

Training at Party Schools and Academies of Administration is independent of the work fields of participants, it is thus inter-departmental or inter-organizational. In most cases, courses are devised according to the ranks or positions of cadres. Chin (2011, p. 22) describes training at the four National Cadre Academies as a "holistic" instruction with a combination of ideological and executive leadership training in which leadership skills are promoted that are both comprehensive and practical-issue or case-specific. Functional bureaucracies, on the other hand, prevailingly

[11] See more on this issue in Chapter 4.

provide professional training that relates to the work and policy fields of officials of the very bureaucracy. It includes thematic knowledge (reforms and policy contents, laws, general knowledge on the policy field etc.) as well as practical skill training (policy instruments, methods of measurements, technological devices etc.).

Training programs and teaching is where the national and the local, as well as symbolic and operational ideology enter into a direct dialogue, either explicitly or implicitly. Continuing education is a socialization process, through which members of a community learn values, norms, knowledge, attitudes and other skills that foster role performance, and group goals (Mortimer, et al., 1978, p. 422). Organizational frameworks and the learning processes within these frameworks contribute to the establishment of roles and the associated appropriate behavior. Moreover, they facilitate the establishment of thought patterns. In "thought communities" (Spillane, et al., 2002) individuals learn how to interpret and make sense of targets.

For Pieke (2009c) cadre training in party schools is part of the CCP's power cult and the "cult of eliteness." He argues that

> [c]adre training becomes of special, even pivotal interest. Like all other forms of education, we can expect that the impact of cadre training lies only partially in its formal curriculum and objectives. Cadre training also sociali[z]es into the broader formal role expectations of a cadre and the informal cultural skills and expectation of the CCP's specific power cult, turning mere officials into members of a ruling elite. (p. 27)

Similarly, training in institutions with a strong focus on operational aspects of cadre training (e.g. forestry) is not totally devoid of political content or symbolic ideology, in spite of their focus on their professional focus. However, to depict training as a mere instrument of socialization would be too simplistic as training fulfill multiple purposes and goals, among which also as facilitators of policy implementation.[12]

It becomes clear that references to "the cadre training system" in English speaking literature do not fetch the complexity of what constitutes cadre training in China. This section has provided an abbreviated overview of the complexity of China's "cadre training structure", which is constituted of several individual training systems. These systems operate separately but connect structurally and, as I will show later in this dissertation, also on the level of content. The question that arises now is how the structure, as it exists today, has come into being, whether professional training is a recent development in the history of cadre training, as depicted in extant literature.

[12] See more on this issue in Chapter 4.

3.2 Origins and development of cadre training

This section analyzes the historical development of China's cadre training system against the theoretical framework of symbolic and operational ideology. As outlined in the introduction of this dissertation, cadre training evolved along the cleavages of the red-expert paradigm and thus in the context of a political struggle over the predominance of either one or the other. The findings in this chapter, in particular on the training in China's forestry administration, shall add to our knowledge on the history of cadre training. The section displays how the party-state has built a system for training of both symbolic and operational ideology. In doing so, the historical analysis breaks up the dominant narrative of cadre training in Reform Era in extant literature that purports that the efforts to reconcile ideological and "secularized" (Liu, 2009; Chin, 2011) training were brought about with the Opening and Reform Policy in the 1980s and became more pronounced and accelerated in the 2000s.

By focusing on training in the forestry administration as an example of China's cadre training in the operational sphere of ideology, I show that efforts in the symbolic and operational realm have developed in parallel ever since the founding of the People's Republic of China. Emphasis on one or the other dimension changed with the political climate and elite struggles on redness (红) and expertise (专). In addition, contrary to what extant literature tries to convey, I demonstrate that "secularized" or operational training is not limited to managerial skills, but involves a range of other professional and technical skills that relate to the manifold work profiles in China's administration. They can be distinguished in two "ideal types" (Ray, 1970, p. 22) of experts within the red-expert paradigm: manager-administrators and scientific-technical specialists.

3.2.1 Cadre training and the red-expert paradigm

The red-expert paradigm refers to apolitical struggle over concepts of education and the question which skills to be pivotal for constructing a modern socialist China. Wang (1998, p. 279) explains that the political slogan – first popularized in speeches by Liu Shaoqi (刘少奇) in 1957 but already mentioned in Mao's speeches and writings prior to that – connoted that all cadres should combine two sets of skills and knowledge: a high level of ideological consciousness and political commitment ("redness") as well as technical knowledge and specialized abilities ("expertise"). However, the number of cadres possessing both qualities was limited (p. 279), at least at with regard to the Maoist Era. At an early point in history, the political discourse turned into a political struggle that involved all spheres of China's society. Moreover, the struggle affected the lives of numerous individuals compromising their personal and professional fates. In too many cases the struggle and its related actions caused long-lasting health damages or even death. In this

dissertation, I blend out the human tragedies caused by the struggle over redness and expertise but look at it through the lens of an inner-bureaucratic struggle analyzing its impacts on the educational system, more specifically cadre training. Cadre training is here understood as a form of elite education, designed to produce and reproduce China's political leaders, thus ruling class. Therefore, it is reasonable to assume that education at the level of institution building as well as at the level of conceptual thinking was influenced by the tensions and shifting balances of redness and expertise. The historical analysis presented here attempts to answer the question how the red-expert paradigm affected cadre training over the course of history.

The Communist victory and the resulting founding of the People's Republic of China in 1949 created an inner-bureaucratic conflict between two elite groups. At the time, the majority of its members were peasants who had earned their positions in the revolutionary fight against the KMT and the Japanese. After the proclamation of the PRC, these rural and "battle-tested cadres" (Joel, 2009, p. 18) took control of China's political and public institutions in the cities. Their rural origin and relatively little education stood in stark contrast with the urban and educated elite that used to run these organizations. These managers, professionals, and specialists were henceforth put under the supervision of peasant Communist cadres (p. 18).The coexistence between the new political elite of peasant revolutionaries and the old educational elite would herald a persevering debate over which capacities to be more important for socialist construction and over the entitlement of leadership and decision-making power.

Over the successive years, the two groups of people remained in constant conflict, and the party's official preference and emphasis over one or the other shifted between redness and expertise (Chai, 1981, p. 1215). Joel (2009) succinctly summarizes the developments of the red-expert debate and its consequences for the social fabric as follows:

> In the first years after the 1949 Chinese Revolution, economic and cultural capital were concentrated in the hands of the old elite classes, while political capital was concentrated in the hands of the new Communist elite, made up largely of peasant revolutionaries. The new regime first redistributed economic capital, dispossessing the old elites and converting the means of production into state and collective property. Although ownership was nominally public, control was concentrated in state and collective offices, and access to these offices was determined largely by possession of political and cultural capital. Having virtually eliminated economic capital, the [Chinese Communist Party] turned its attention to redistributing cultural capital, with the intention of further undermining the advantages of the old elite, and endeavor that reached its most radical point during the Cultural

> Revolution. The principal target of the Cultural Revolution, however, was the concentration of political capital in the hands of the new Communist elite. At Mao's instigation, grassroots insurgents challenged the power of local party officials precipitating two years of factional violence. The upheaval initially exacerbated tensions between the old and new elites, but Mao's simultaneous attacks on both groups ultimately forged inter-elite unity. After Mao's death in 1976, the new [Chinese Communist Party] leadership pronounced class leveling and reconciled with the old elite. This facilitated the consolidation of a technocratic class order and the emergence of a New Class, which had roots in both the old and new elites and combined their political and cultural assets. (p. 10)

While the Reform Era was ruled by a professional red-elite composed of technocrats with largely engineering background, over the past years research on elite politics has shown that the composition of the New Class of "engineer-turned-politician" (Li, 2003, p. 1) has become more diversified, with professional backgrounds in law and economics. Li (2003, p. 2) observed that starting with the 15th Party Congress the proportion of engineers has declined even though engineering and natural sciences continue to dominate the professional backgrounds. Many new young leaders majored in economic management.

This section is organized chronologically retelling the history of cadre training from the vantage point of skill development and its perceived objectives for state construction and development. Findings with regard to training in China's forestry administration are representative of other bureaucracies, although in consideration of sector-specificities.

3.2.2 The history of China's cadre training structure

Carrying out revolution and laying foundations for a communist state and society

Among the very early training facilities, the Chinese Communist Party established, were party schools that should deliver new recruits and provide ideological training for party members, first schools were built between 1923 and 1927 (Lee, 2015, p. 30). In addition to ideological education in China, under the collaboration with the Comintern, several young CCP and Guomindang (国民党) members were sent to Moscow to study at the Sun Yat-sen University between the mid-1920s and mid-1930s (Apter & Saich 1994).[13]

[13] The students who came back to China in the 1930s became known as the 28 Bolsheviks or "Returned Students." They distinguished themselves with a general orthodox interpretation of Marxism and a general loyalist attitude towards the Cominterns and their front line policy. In particular, the orthodox-Marxist approach stood in contrast to Mao's localized or sinisized interpretation, which would later gain the upper hand in the ideological struggle. This ideological struggle came to a head during the Rectification Campaign in Yan'an, when Mao consolidated his military, ideological and intellectual leadership (see more in Apter & Saich, 1994).

In these early party schools, training was not limited to teach pure ideology, instead, it promoted the development of specific skills conducive to the communist cause and / or for other political priorities. Price (1976, p. 79) found that students of the Peasant Movement Training Institute went on expeditions to villages where they practiced marching, horseback riding, and the organization of peasant associations. Similarly, during the Sino-Japanese war, training encompassed military exercises (Lee, 2015, p. 31) and aimed to groom leaders and combatants for the anti-Japanese resistance (Pieke, 2009a, p. 39).

When the Communists, after their Long March, retreated to the Chinese hinterland to form a coherent organization and ideology, a historically important period for cadre training got underway. Especially, during the Rectification Campaign, from 1942 to 1944, the CCP managed to shift the original purpose of education and developed a systematic approach to "studying" (学习). Apter & Saich (1994) explain:

> The original purpose of the education system was shifted. It had functioned as a mechanism of reassignment elsewhere in the Border Region, in the other base areas, or behind enemy lines. Now it was to become the venue for concentrated text learning and exegesis. Training went beyond discipline to a complete view of revolutionary life. Education was designed to change the principles and norms one lived by as well as one's conduct and behavior. (p. 273)

"Exegetical bonding", in the words of Apter & Saich (1994), aimed to produce ideological uniformity by intellectual and moral remolding of those who joined the Communists and followed them into Yan'an. In doing so Mao Zedong managed to build his prominence within the party becoming the "metonym for revolutionary China in this period" (Benewick & Donald, 2003, p. 68). Thus, Yan'an became the center not only of the political movement but also of political education (Apter & Saich, 1994, p. 224), where supplementary schools and all forms of part-time and on-the-job training were developed (p. 232). People were organized in study and work brigades, and the units, they were allocated to, were tied to a particular school, college, university, technical institute or training college (p. 227). A central subject of study became party history, as part of an effort to construct a party history "that placed Mao Tse-tung (sic!) at the center of the revolutionary movement" (Saich, 1993, p. 298). Small study groups were organized, especially with senior cadres, and the Central Party Committee gave orders to establish a Cadre Education Department with the task to mobilize cadres for the study of Marxism-Leninism and party history (p. 320). In addition, since literacy was a precondition for carrying out party organization and propaganda work, cadres who had joined the Communists in Yan'an and were mostly illiterate

had to learn to read and to write.

In his article on the regularization of cadre management, Vogel (1967, p. 44) points to the unifying capacity of this form of education. The training helped to establish "a broader cultural base" among cadres who came from diverse regions, who spoke different languages and who had different cultures. Susanne Weigelin-Schwiedrzik (2004, p. 81) explains that Chinese states have always grounded on a balanced relationship between center and periphery that decides over unity and division. In order to maintain power, the center has to ensure the loyalty of its periphery, better of those who administer the peripheries on behalf of the center. She demonstrates that Chinese dynasties have drawn on three means to assure their officials' loyalty: the imperial examination, taxes, and work duties that farmers provided to the state (pp. 82-83). The imperial examination system acted as a recruitment system that selected state officials who had shown, by passing competitive exams, a distinct knowledge of Confucian classics and their commentary literature.

> In this way, the bureaucracy was unified and it was ensured that officials in the most remote provinces made decisions that were normally according to criteria which the political elite would recognize. Control was an exception to the rule, thus it was even more important that the regime could rely on its officials that would behave according to the regime's expectations. (Weigelin-Schwiedrzik, 2004, p. 83)[14]

The idea behind political and language training in Yan'an grounded on an ingrained historical experience of Chinese state regimes: in order to govern China, the political center needed to rely on loyal administrators who identified with the CCP and its political project, so that they would act and make decisions in accordance with the CCP's expectations. Therefore, they needed a common language, language refers to two dimensions: a linguistic dimension in terms of lexicon and grammar; a systemic dimension in terms of verbal expressions with a common set of categories of thought.

Building a training structure for reds and experts

The founding of the People's Republic of China and the consequential development of state infrastructure confronted the Chinese Communist Party with an urgent need for skilled personnel. For staffing its administration, the party relied on "bureaucratic holdovers from the Guomindang regime while it trained new cadres to replace them" (Gold, 1990, p. 22). Between 1949 and 1952 the number of civilian cadres rose fourfold from 720,000 to 3,310,000 (Vogel, 1967, p. 40).

[14] Original in German, translated by the author.

The turn of the Chinese Communist Party from a revolutionary organization into a ruling party changed the parameters for operational ideology. Even though mass organization and propaganda remained central "weapons of the Party" (Lee, 2015, p. 33), state development urged CCP to shift its focus on skills that were contributive for the new tasks ahead in state development. Vogel (1967, p. 46) explains that between 1949 and 1955 the CCP embarked on an extensive educational project by training large numbers of cadres and the broader population; universities, high schools, and other institutions all over the country were turned over for the use as training centers. As the Chinese administrative system and planned economy developed, training institutions "continued to be established when new counties prefectures, provinces, state enterprises, and government departments were created" (Pieke, 2009b, pp. 954-955).

The structure of the training system covered all levels of government from the center in Beijing, where high-level officials were trained, to the provincial, the municipal, and the county level. According to Vogel (1967, p. 46), over 66,000 graduated from regular universities, 100,000 studied at people's revolutionary universities, and over 1.1 million cadres were trained in rotating courses. Schools and rotating classes, to which cadres in job assignments were sent, were organized by party and government agencies. High schools, colleges, universities, and cadre schools that were affiliated to the functional bureaucracies provided on-the-job technical and administrative skills training as well as cultural education. Training comprised reading, writing, arithmetic, and technical subjects (Harding, 1981, p. 75). It was during these early years that the newly founded party-state started to develop a training structure in which training work would henceforth be shared by different bureaucracies with their specializations. In doing so, the party-state set first measures to professionalize staff training.

Historical resources on forestry training as a form of staff or on-the-job training reach back to the beginning of the 1950s. In 1949, Liang Xi (梁希) took over the post as head of the Ministry of Forest Cultivation (林垦部). Liang attached particular importance to the formation of forest professionals and was instrumental in furthering the development and expansion of forestry education and training in China.[15] Under his guidance, several forestry colleges and university departments were founded across the country, and forestry cadre schools were established in Beijing, Guangdong, and Nanjing in 1952 (Wang, 2010, p. 64).

According to Richardson (1966, p. 130), in the early 1960s, there were twenty forestry colleges

[15] Liang Xi studied forestry in Tokyo and embarked on a postgraduate study on forestry production in Germany. Upon his return to China in the mid-1920s, he espoused the idea to further forestry education in China and promoted forestry education serving in several positions at universities and academic research institutions (Wang, 2010, p. 64).

and departments across the country – nine university colleges and eleven forestry departments in university agricultural faculties – that carried out intermediate-level training classes and provided forestry cadres and other staff members with customized training. Most of the university schools also ran correspondence classes, and intermediary schools arranged on-the-job instruction in forestry techniques with some training in labor control. With this respect, Richardson (p. 132) indicates a training facility in Tailing, Guangdong Province that specialized in the training of logging methods. We know little about the quality of training and its effects on forestry development at that time. Historical resources, such as government reports and propaganda material generally attest a positive relation between training and sectoral development, however, Richardson (1966, p. 132) gained a different understanding of the situation during his visit to such a training institution; he reported that even though correspondence classes were designed to supplement practical work and to give it a theoretical framework, students of these schools were mostly concerned with building up the school infrastructure rather than undergoing specialized training in forestry.

In spite of the acknowledgment that professional expertise of cadres that staff the administration was necessary to achieve the goal of the Construction of Socialism, the party, in order to stay in power, needed to continue its efforts of ideological consolidation and unity which it had started during the revolutionary period. Thus, political education remained an important pillar of the CCP's conceptualization of cadre training. A precondition of ideological unity was the construction of shared knowledge in aspects that fostered the identification of cadres with the Chinese Communist Party, its *Weltanschauung*, and to mobilize cadres in the construction of a socialist state.

The party thus continued its efforts to create a thought community by teaching its official party history. Weigelin-Schwiedrzik (1984, p. 11) explains that publications on party history at anniversaries did not aim to interpret past events but to mobilize cadres for current political tasks – a praxis that emerged during the 1930s and was continued after the founding of the People's Republic of China. Similarly, study classes at the occasion of important political anniversaries were designed to foster identification and mobilization. Weigelin-Schwiedrzik writes further, in 1951 when the party celebrated its 30th anniversary, the CCP launched a propaganda campaign to study party history. Cadres had to read and discuss politically mobilizing editorials and articles on questions regarding party history written by leading members of the Chinese Communist Party (p. 11).

By 1955, the urgent need for personnel began to level off and administrative inefficiencies came to light (i.e. the administration was overstaffed and many cadres had little work to do). Many cadre schools were closed down, while rotation classes and other specialized training programs continued to deliver training to cadres (Vogel, 1967, p. 46). With the newcomers, including defectors from the old regime, and a younger generation of university graduates who had joined the movement, the fundaments of the previous hierarchies were shaken, in particular in daily administrative work. Even though the revolutionary experience was still important, the Chinese Communist Party took a quite pragmatic approach in assigning responsibilities according to skills. As a consequence, many of the old revolutionaries were assigned positions under the leadership of new cadres, a practice that the former found hard to tolerate since they were being placed in a subordinate position to former enemies or young people who had not proven their loyalty through revolutionary commitment and combat (p. 38). At the same time, many professionally accomplished clerks who had run public institutions were put under the supervision of peasant revolutionaries with little education. Harding (1981 cited in Lee, 1992, p. 58) identified four natures of conflict between cadres that emerged during the mid-1950s: local cadres and cadres coming from other provinces, educated and non-educated cadres, junior and senior cadres, party and non-party cadres.

The conflict between educated and non-education became particularly pronounced during the Hundred Flower Campaign. Requiring both groups to undergo training, and improve their ideological and / or professional skills, was one way to attenuate these conflicts (Li & Walter, 2001, p. 1394). However, when Mao condemned intellectuals who had criticized the party and its recruitment policy as belonging to the bourgeois class, Deng followed the line and advocated to substitute intellectuals in the administration with young workers and peasants and train them as "proletarian intellectuals" and "revolutionary specialists" (Lee, 1992, p. 61). During the anti-rightist campaign many intellectuals were removed from their offices and persecuted, and leadership positions were staffed with party members. The party managed to take over primacy over its state administration through the Hundred Flower campaign staffing its functional departments with party members who rendered their outstanding services to the party through loyalty and proletarian-peasant background. For Lee, the process is "best exemplified by the concurrent appointments of top party leaders to professorships at universities" (p. 62). The Hundred Flower campaign followed by the Anti-Rightist campaign heralded a historical period in which *redness* ousted *expertise*.

The Cultural Revolution brought about a drastic change in the organizational and institutional landscape of education and training, especially for China's young forestry educational and training

system. Many party and cadre schools were closed, among which their most prominent representative, the Central Party School (Shambaugh, 2008, p. 829; Pieke, 2009b, p. 955). During these years, in particular when schools and universities did not provide systematized education, forestry experts were disposed from their posts and many were sent down to the countryside to engage in production work (Primack, 1988, p. 27).

In spite of the widespread institutional shutdown, training activities continued, even though at a minor scale and in other forms (Pieke, 2009b, p. 955). After 1968, so-called 7 May cadre schools (五七干校) were set up and became most notably known as correctional facilities for cadres and other professionals (see the literary account by Yang, 1984). According to the Historical Dictionary of the Cultural Revolution (Jian, et al., 2015, p. 220), thousands of 7 May cadre schools were set up in remote areas all across the country, millions of party and government officials, as well as college and university professionals, were sent to these schools. Education combined ideological study and manual labor, latter being understood as an educational process, in the sense that the very performance of labor was expected to provide a better understanding of the revolutionary process and to enforce a collective experience of the very operative aspects of revolution (Casella, 1973, pp. 153-154).

7 May cadre schools emphasized in a certain way the operational aspects of ideology, as they forced its inmates to perform (prevailingly agricultural) labor. From what we know, the schools did not specialize in agricultural or production sectors. However, an account by the United Nations Food and Agricultural Organization suggests that some of the schools connected to already existing local structures and the local economy. According to the UN Food and Agriculture Organization report (FAO, 1982, p. 137), several 7 May Cadre Schools in Heilongjiang Province, a province with a particularly strong forestry sector, were established to produce lower-level forest technicians during the Cultural Revolution. This might also be the reason why North East Dailing Forestry Cadre School (东北带岭林业干部学校) managed to stay open during the Cultural Revolution, as one historical resource claims (Ministry of Forestry , 1979, p. 76). From this vantage point, one could infer that 7 May Cadre Schools were institutions that focused on the operational aspects of ideology.

However, their scope was not to improve the professional skills of cadres and intellectuals, who were forced to stay there, but to change their relationship with peasants by performing labor and, at the same time, undergoing political training. In this sense, the schools did not focus on the operational aspects of ideology. Strictly speaking, 7 May cadre schools cannot be attributed to pure symbolic ideology either, instead, they addressed a different aspect of CCP ideology that has

so far not been tackled in this dissertation: work style, in Chinese *zuofeng* (作风).[16] *Zuofeng* does not refer to knowledge of ideological concepts, neither does it relate to professional skills needed to perform daily work. Instead, the concept refers to expectations with regard to attitudes, behavior, and routines. Perry (2011, p. 16) defines *zuofeng* as "durable policy-making routines and administrative habits" that permeate Chinese administrative practice and describe a "set of generally accepted problem-solving techniques." They further explain that Chinese officials use the term to indicate governmental practices that "are rooted in historically grounded administrative routines" (p. 37).

Refurbishing China's training structure for red Experts

A directive of the State Council on 17 February 1979 demanded the closure of 7 May cadre schools and pressed efforts to refurbish the training structure. While universities started to reopen in 1972, a comprehensive reinstallation of the educational system including cadre schools as well as other institutions of public life was enforced only after the End of the Cultural Revolution and the inception of the Reform and Opening Policy. After a period, in which political consciousness and family background yielded higher importance over professional expertise and education thus concentrated on ideological indoctrination and the improvement of the work style, the Chinese leadership set out to embark on a drastic policy change. Education and training should henceforth focus on the development of professional expertise, cadres and the whole working population needed to catch-up with professional knowledge and foster professional skill development. In other words, a phase of red educational policies was replaced by a phase of expert educational policies.

During the early transitional period, some forestry educational institutions that had been shut down during the Cultural Revolution took up operation and resumed their educational and training activities. However, worker-peasant-soldier students who had taken power over school administrations earlier on continued to adapt curricula in accordance with the ideals of the Cultural Revolution putting emphasis on the teaching of ideological contents, rather than on professional teaching in forestry (Primack, 1988, pp. 28-29). In addition, authority relations between student political groups and teaching staff impeded the faculty to reestablish normality and forestry teaching. The consequence was that graduates lacked fundamental professional knowledge in forestry. Only after1976 teaching slowly turned back to normality and forestry curricula were reestablished. Unqualified students who failed their exams were returned to the villages, and

[16] I would like to thank my advisor, Prof. Susanne Weigelin-Schwiedrzik, for her valuable reflections and advice. The idea that CCP ideology has a third distinct aspect and that 7 May Cadre Schools catered to the formation of this aspect was a fruit of her reflections on this chapter and of our discussions.

students who had graduated in 1972 and 1976 were reevaluated and eventually reduced in rank in case they were unqualified (p. 29).

Worse than during the 1950s, the party-state was faced with a lack of qualified workforce. However, this time it could not draw on a large number of experienced and seasoned professionals from the old regime since previous campaigns against intellectuals and the Cultural Revolution had deprived China of a large number of intellectuals and professionals and had undermined their progeny. In addition, Zhou Enlai's (周恩来) Four Modernizations (四个现代化) promoted in combination with the economic and administrative reforms prompted after 1978 changed again the parameters for operational ideology. Therefore, reforming the educational system – including cadre training – became a central feature of the overall reforms.

After the Third Plenary Session of the 11th Central Committee in 1978 where the leadership officially launched economic and administrative reforms, the forestry administration was separated from the Ministry of Agriculture and upgraded to ministerial status in 1979 (Zhang & Wen, 2008, p. 216). The Ministry joined in the state's efforts to vigorously promote continuing education refurbishing institutions and restoring formalized education and training. One of the first measures set by the newly installed Ministry was to reinstate those educational and training institutions that had yet not taken up operations in the early 1970s. Among those Nanjing Forestry Cadre School which resumed teaching in August 1979 (Nanjing Forest Police College, website). Similar requests from other provincial authorities and former schools were accepted over the following months, such as the Yichun Forestry University in Heilongjiang (黑龙江省伊春林业学校) which also immediately took up on-the-job training for cadres (Zhang, 2011).

In order to upgrade knowledge of its existing workforce, the Ministry sent forestry cadres at all levels of administration to forestry universities for a period of three to five months. English classes were arranged for the purpose to send cadres abroad for training and site visits. Training for leading cadres of county-level forestry offices and forest industry provinces comprised technical issues, forestry economy, and business management (Ministry of Forestry Department of Science and Education, 1979: 76). According to Hirano (2014), the quick restoration and development of government organizations and educational institutions specializing in forest management were first and foremost owed to Liang Xi's work and the forest management system he had led to establishing before the Cultural Revolution.

Due to the widespread destruction of China's forests that had occurred over the previous decades, the central government issued *Decisions regarding Several Questions on the Protection of Forests and the Development of Forestry* (关于保护森林发展林业若干问题的决定) (Central Party

Committee, 1981) in 1981. The circular emphasized the serious state of forest resources owed to widespread cutting, little forestation, as well as overuse and inadequate cultivation of forest resources. Degradation and mismanagement had had detrimental effects on China's timber and forest production. Unless China managed to change its path of development, agriculture, and husbandry, as well as people's lives, would inevitably suffer from serious setbacks, so the document. The circular proposed a series of measures to achieve a reversal of this development, including education and training.

Article 24 of the document goes as follows: Science, education, and production have to closely cooperate and earnestly solve the main problems in the construction of the forestry industry. Therefore efforts have to be made in forest cultivation, afforestation for combating desertification, forest monitoring technologies, new logging methods, forestry machinery, technical improvements for the forest industry, forest economy, and technology policies. The living and working conditions of technicians must be improved. The document further emphasized the importance to improve the quality of its forestry training institution and the training of technicians. Focus shall be put on the training of forest workers and leading cadres of forest districts, counties, and communes. The document concluded that forest development was a long-term concern for the *Construction of Socialism* (社会主义建设) and the transformation of nature a project of vital and lasting importance for China (Central Party Committee, 1981).

The circular signaled a growing awareness of the Chinese leadership on the relevance of forests and forestry for China's socio-economic development at that time. Yet, the change was not imminent, as it would yet take almost another two decades until an effective policy change occurred that would induce a value change from resource extraction to resource conservation.

In 1983, the Central Organization Department (组织部) launched a reform of the cadre management system. In *Questions and Answers on Party Organizational Work* (党的组织工作问答) (Central Organization Department , 1983), the leadership proposed new guidelines, policies, and regulations on cadre management including recruitment criteria, evaluation, and training (Manion, 1985, p. 203). Promotion training, as it had been first introduced in the 1950s (Vogel, 1967, pp. 44-46), was advanced, in particular for reserve cadres. Finally, the Central Party Committee mandated training that entailed study courses at Party Schools and practical work experience at lower levels (Manion, 1985, p. 223).

Efforts in cadre training pursued two objectives: First, upgrading the existing cadre corps in terms of knowledge and skill acquisition: During the Cultural Revolution, many cadres had been appointed due to their ideological commitment and family background, rather than their

professional skills or educational credentials. In order to face the challenges of the economic transition ahead, they needed to undergo professional teaching and examination. Second, the accomplishment of a generational shift in the cadre corps: In accordance with Deng Xiaoping's (邓小平) demands, cadres should possess three main characteristics, revolutionary, young, and knowledgeable (Pieke, 2009b, p. 955). Therefore a retirement age was introduced and promotion procedures altered, so that career advancement was facilitated for younger cadres. Cadre training was meant to contribute to the cultivation and preparation of young cadres for their designated offices (Manion, 1985, p. 219). Since existing party and cadre schools were not able to satisfy the high demand for specialist training, the state turned (again) to institutions of higher education for support. They should assist local government departments in delivering customized training courses to cadres (Pieke, 2009a, p. 42).

After the 1983 document, the Ministry of Forestry (林业部) ordered to conduct a survey on the situation of the workforce in the forestry sector. The situational report that was published three years later (林业部部长办公会议 1986 年 5 月 17 日讨论同通过) showed that only 3.6 percent of the workforce working in the forestry bureaucracy possessed professional expertise, this was even lower than the national average in the 1950s (Ministry of Forestry, 1987, p. 268). Consequently, the Ministry ordered all cadres of the administration to undergo training and sit exams at the Beijing Cadre Academy of Forestry Management. Subjects comprised political theory and philosophy, economy, history, arithmetics, and forestry (Interview Professor D., 11 July 2016).

Educational reforms gained real momentum in the mid-1980s when the central government issued *Decision on the Reform of the Educational System* (关于教育制度改革的决定) (Central Party Committee, 1985), in which it stated its clear and net evaluation of the educational policies of the Cultural Revolution:

> The Cultural Revolution […]not only severely damaged the educational system, made a great number of educators suffer serious ravage, and delayed a whole young generation, it also increased the gap in many aspects between our country's education and those of the world's developed countries. (Central Party Committee, 1985)

The circular was followed by a series of other central-level documents tackling adult education, such as the *Decision on Reforming and Developing Continuing Education* (国家教育委员会关于改革和发展成人教育的决定) (State Education Commission, 1987) in 1987. Continuing education addressed all people who had already started production work or had assumed a work position; continuing education was thus not limited to (leading) cadres, but encompassed workers,

farmers, technicians, and other staff members.

One essential part of the reform was staff job training (岗位培训) that pursued an adjustment of standards for certain positions in the state administration. In addition to educational reforms, training policies in the 1980s were also influenced by the leadership's initial attempts to introduce a civil service system in China. This endeavor required an administrative reorganization which determined functions, organization structures, and the number of agencies in each government agency (Chou, 2004, p. 217). Even though the reorganization of the administration became a real thing only in the 1990s, efforts in job analysis and job creation already started in the mid-1980s. Job or position fixing (岗位指定) meant to define standards and requirements for individual positions in the department and their related work fields and work tasks, while job analysis was a necessary requirement for the systematization and professionalization of the training of cadres in these positions.

In line with the central government's decision on reforming the educational system in 1985, the Ministry of Forestry issued a reform paper on forestry education in June 1986. The *Decision on Reforming and Developing Forestry Education* (关于改革和发展林业教育的决定) that strongly emphasized continuing education (成人教育)[17] (Ministry of Forestry, 1987, p. 270). For this purpose forestry universities, colleges, and other educational institutions across the country were enlisted to provide customized training for the forestry bureaucracy. Within three years all leading cadres, in particular, management cadres at division rank and above, leading cadres of big and medium-sized enterprises, technicians, and forest workers were expected to be trained and updated in managerial knowledge and technical skills. It was envisaged that by the year 1990 measures in continuing education to result in a general improvement of the educational level of cadres older than 45 years, and in a noteworthy enhancement of technical skills of 40 to 50 percent of workers (p. 270).

In the same year, the Beijing Cadre Academy of Forestry Management was ranked higher to become a state-level training institution for management cadres (Ministry of Forestry, 1987, p. 270) and the Nanjing Cadre Academy (that would, later on, become the State Academy of Forest Police) was founded (Ministry of Forestry, 1993, p. 129). The academy in Beijing was entrusted with holding degree courses, staff job training, and continuing education for management cadres with at least junior college educational level. The curriculum of the academy comprised ten subjects: forestry economy, forestry enterprise management, forestry finance and accounting,

[17] In 1987 another circular followed by the State Education Committee identifying more in detail the function, tasks, focus, and directions of continuing education (State Education Committee, 1987).

computer, forestry, forest work, politics and culture, mathematics, leadership science, and English (Ministry of Forestry, 1989, p. 223).

Also in 1986, a joint-ministerial workgroup of the Ministry of Forestry was established to set qualification requirements, and to compile education and training plans as well as training material (Ministry of Forestry, 1987, p. 270). In the following year, the Ministry of Forestry officially launched experimentation work to systematize staff job training. Several national and local conferences were organized, documents on local experiences were collected and circulated, and field investigations conducted (Ministry of Forestry, 1988, pp. 204-205; Ministry of Forestry, 1989, p. 221). These tasks were expected to be completed by the end of 1989, however, reforms were protracted due to the political events around Zhao Ziyang's (赵紫阳) removal from power and eventually with the demonstrations in 1989 that the government brought to a violent termination on 4 June.

Through his interviews, Chan (2016, p. 386) has found that Li Peng (李鹏) had already stalled the implementation of the civil service reform in October 1988. Li Peng grounded his politically motivated decision on a valid rational argument:

> If a civil service system was going to be established in accordance with the principle of management by categories, the functions, personnel, and administrative quotas of all agencies must first be clarified. Until that was accomplished, it would be impossible to determine which agencies fell under the purview of the civil service system. (Chan, 2016, pp. 386-387)

These events triggered yet another change in training policies bringing to an end a reform phase with a comparatively high degree of openness toward new ideas and diverse opinions that had pushed institution building and policies that aimed to build an expertise-driven state administration. The turnaround would have major consequences for China's training structure reinforcing advocates who pleaded to put more weight to ideological training and to strengthen those institutions that would provide such training. Notwithstanding the reformist leadership had learned from past experiences and knew that it better not turned back to educational politics dominated entirely driven by the *redness* paradigm.

Systematization and regularization of training for Red Experts

The 1990s were paramount for the development of cadre training and they were a period of systematization and regularization of cadre training in China. Systematization and regularization consisted in the expansion of training facilities on the one hand, and in measures of institution

building on the other hand. Cadre training was turned into a structure providing a sophisticated combination of ideological and professional training. The leadership had realized that each time when training inclined more to one or the other paradigm, regime stability and unity were endangered. Therefore, it set out to strike a balance between both poles, *redness* and *expertise* were to be reconciled in training contents and mirrored in the organizational landscape of cadre training.

Tiananmen and the collapse of the Soviet Union led to a severe crisis of the CCP initiating a process of self-reflection in the central leadership. Against the perception of having lost control over local cadres, the Party revised some of its cadre management policies: The *nomenklatura*-system was reformed toward more central control and many of Zhao Ziyang's measures to separate party and government authorities were reversed (Burns, 1994, pp. 463-468). In September 1990, the *Circular Regarding the Strengthening of the Work of Party Schools* (中共中央关于加强党校工作的通知) (Central Party Committee, 1990) was issued according to which party schools should "become the smelting furnace in which the strengthening of cadres' party spirit is forged" (Pieke, 2009a, p. 44). In the following years, the standing of cadre training changed substantially, not least because of Hu Jintao's (胡锦涛) efforts, who acted as President of the Central Party School between 1993 and 2002 (p. 44).

In parallel, efforts to revive reforms in the civil service sector continued by reform-minded bureaucrats. Chan (2016, p. 387) explicate that the Ministry of Personnel and the Central Organization Department took a lead and organized conferences and workshops with party and government officials and academics in universities to publicize progress and experiences[18] in the reforms and to show that they "were ready to modify and to repackage the reform objectives" (p. 387). These efforts eventually paid off, as the leadership started to revamp its civil service agenda. In 1993, the *Provisional Regulations of State Civil Servants* were promulgated and the State Council inaugurated the National Academy of Administration (国家行政学院) – today China Academy of Governance – (State Council, 1993). Pieke (2009b, p. 957) understands the academy and its local pendants as "Party Schools for non-leading cadres", whose establishment was owed to the Party's desire to get a grip on a larger share of its administrative staff.

[18] Also Pieke (2009a, p. 43) refers to sources that plans to introduce training for administrative non-leading cadres had been issued in 1986, although only a few provinces had established these schools back then. This is supported by my findings presented in this chapter showing that the forestry administration set various measures in job analysis and job creation.

> High-level non-leading cadres too are considered important enough to require a measure of ideological training to ensure their loyalty. (Pieke, 2009b, p. 957)

What Pieke (2009b) overlooks here is that the creation of academies of administration was a further refinement of China's training structure in the operational realm, namely the creation of a training system that catered to the specific needs of cadres that belonged to the expert type "administrator-managers" (Ray, 1970). Yet, the spatial and institutional proximity to party schools – most academies of administration at the local level are under one roof with the local party school – is indeed a manifestation of the party's considerations to set measures for securing the loyalty of this expert group.

Similar observations can be made in the forestry administration. The desire of the Chinese Communist Party to tighten its grip on the state apparatus and the expansion of the party school system as a consequence of the traumatic experiences in 1989 had impacts on the forestry bureaucracy and its training institutions. A direct outcome was the installation of a party school branch within the central-level training institution of the State Forestry Administration. On 1 September 1992, the State Forestry Administration Party School was established within the premises of Beijing Cadre Academy of Forestry Management (北京林业局干部管理学院) – the predecessor of today's State Academy of Forestry Management (State Academy of Forestry Management, Introduction of the Party School). The party school branch should henceforth provide ideological training to leading cadres and party members. As explained in the previous section of this chapter, the school's president doubles the president of the State Academy of Forestry Management.

Along the efforts to press for symbolic ideological retrenchment, reforms in the operational realm continued, only with a greater sense of proportion between symbolic and operational aspects of ideology. A joint-ministerial document was promulgated in 1989, *Opinions on the Several Questions on the Development of Staff Job Training* (关于开展岗位培训若干问题的意见) (State Education Commission & Ministry of Personnel, 1989) that demanded contents of staff job training to encompass political and theoretical issues, work morale, professional knowledge, and practical skills. Central and local functional departments were made in charge to set up training plans, to compile training material, and to carry out staff job training in their bureaucracies.

Job analysis and job creation were finalized in April 1991 and a total of 493 cadre positions had been defined that encompassed 296 technical, 183 administrative-managerial, and 14 economic-managerial posts (Ministry of Forestry, 1993, p. 129). Its completion gave way to an incremental systematization of training for people working in various positions and functions in the forestry

administration. Against the backdrop of reforming China's forestry enterprises, one among the first curricula to be set was the one for heads of state-run forest farms (国营林场场长岗位培训教学大纲) (p. 129).[19]

Training for forest farm heads had to combine political training on Marxism and Leninism and leadership science with more work-related training on issues such as resource management, forest farm management, financial management, forest laws and regulations, forestry technology and the economy as well as an assessment of forest projects. The curriculum was officially approved in December 1992 (Ministry of Forestry, 1993, p. 129). The novelty at that time was the introduction of classes on laws and legislation, which was much owed to developments in the institutionalization of forestry and the steady expansion of a legal body in the sector and beyond. Similar to other policy fields, such as environmental protection, forestry had not had any formal legislation prior to 1979. This changed in 1984 when the *Forest Law* (森林法) was promulgated, followed by the *Wildlife Conservation Act* (野生動物保育法) in 1988. In other words, training programs started to respond to these changes and introduced classes that tackled legal issues.

Another example of institutional change are directives stipulated in *10 Years Development Outline of Forestry Education and the 8th Five-Year Plan* (全国林业教育发展十年规划和"八五"计划) issued in 1991. The document requested the expansion of training for forest farmers and the improvement of technological extension (Ministry of Forestry, 1993, p. 130). This stipulation closely related to changes in forestry governance, more specifically to devolution policies in terms of forest tenure rights. Modeling on the agricultural sector, a household responsibility system had been introduced in the forestry sector in 1984 granted forest use rights and forest product ownership as well as reforestation and preservation responsibilities to individual households and villages. However, problems with deforestation and rapid decrease of forest resources continued to undermine the central government's economic development plan (Liu, 2001, pp. 247-252). As a consequence, the Ministry started to tackle this problem by proliferating training to those stakeholders who were assigned with the task of reforestation and forest preservation. Training

[19] In 1985, the state monopoly of timber was abolished in the collective-owned forests in the South of China, but was reinstalled in 1986 due to widespread resource extraction. The timber market was again liberalized in 1993 accompanied with a reform of forest enterprises. At the same time administrative departments licensed logging, transport and sales. A contractual management system, which gradually linked rights, responsibilities, and benefits to the market economy, was introduced. Based on the separation of owner ship and management rights, employees were allowed to contract projects from their enterprise, which determined duration, product criteria, production tasks, and bonuses. However, various factors contributed to bring forest enterprises into a resource and economic crisis. In 1991, the government selected four large state-owned enterprises in the Northeast and Inner Mongolia and other 50 enterprise groups for reform trials. The goal was to establish a modern forestry enterprise system and new economic operational mechanism (Li, et al. n.d., 3).

should be carried out by grassroots-level cadres working at Forestry Stations and Technical Extension Stations.

Grassroots-level cadres providing training to farmers was not a policy innovation of that time, but rather a continuation of a practice whose origins can be traced back to the early 1920s.[20] However, the political circumstances in the late 1990s had changed significantly: The devolution of rights and responsibilities to societal stakeholders in the 1980s came with a decreasing influence of the state on society and the individual. In order to make sure that farmers managed their plots and forests in accordance with the state's vision, grassroots-level cadres were supposed to act as transmitters of this vision by providing training, so farmers could acquire those skills the state thought necessary for them to fulfill their tasks and support the state in its efforts to recover forest land.

Similar to the 1980s, the broader educational reforms continued to affect the forestry administration and its training. The two main universities, Beijing Forestry University and North-Eastern Forestry University, as well as a series of other higher educational institutions specialized in forestry-related disciplines, were shifted under the authority of the Ministry of Education and of local governments. The Beijing Forestry Management Cadre Academy and the Nanjing Forest Police Advanced College for Professional Training remained under the authority of the Ministry (State Forestry Administration, 2002, p. 141).

In 1993, the Central Party Committee and the State Council issued the *Outline of China's Educational Reform and Development* (中国教育改革和发展纲要) (Central Party Committee, 1993). While the *Decision on the Reform of the Educational System* of 1985 had provided a statement of requirements for reform, the 1993 document displayed a more detailed picture of the developments so far and the measures to be put forward in the future. It was stipulated that one among the goals to achieve for the upcoming decade was to "sweep away the illiteracy among young adults" (扫除青壮年文盲) and to reduce illiteracy to less than five percent. In order to improve the ideological and cultural prerequisites as well as the professional skills to a majority of the working population, staff job training, continuing education, and vocational degree education had to be promoted (Art. 5). The document acknowledged the past contributions for raising the quality (素质) of the whole population but emphasized the necessity to adapt to the economic, social, and practical professional needs. Staff job training and continuing education should be organized on-demand and focus on practical efficacy. Particular attention had to be paid

[20] See more on this issue in Chapter 6.

to updating the staff knowledge. The party-state should, therefore, foster staff job training, professional qualification certification, qualification exams, evaluation, and continuing education (Art. 10).

Ensuing, the Ministry of Forestry together with other bureaucracies started to adopt a more systematic approach toward the regulation of training responsibilities within the administration. The document, *Ministry of Forestry Trial Methods for Strengthening the Management of Cadre Training* (林业部关于加强干部培训管理暂行办法) (Ministry of Forestry, 1995), issued in 1995 parceled out the responsibilities for training in the forestry administration. The term "cadre training," as used in the document, implied civil service training, advanced seminars for professionals and technicians, staff job training, and other work-related training (Art.3). It further stipulated that the State Forestry Administration at the central level would concentrate its efforts on civil servants, leading cadres of forestry enterprises at division rank (and higher), personnel in so-called key positions (关键岗位)[21] and high-level and mid-level backbone professionals, technicians, and management personnel. In addition, special topic classes should be devised for county-level leading cadres and teaching personnel of forestry educational institutions. Local forestry authorities had to arrange training according to their needs and divide up responsibilities among the local department divisions (Art. 10). The regulations were further refined in 2001 (see discussion below).

Training as a policy instrument

As shown above, after the refurbishment of cadre training in the 1980s, training contents had gradually diversified. Training aimed either to enhance the general and professional knowledge of cadres or to harmonize knowledge predispositions of cadres in specific leadership positions. In the mid-1990s a new form of training emerged employing an entirely different approach. Henceforth, training was would relate stronger to the annual work targets of the administration, and it was carried as a complementary measure to the implementation of national policies. The emergence of this new type of training is testified in an account in the China Forestry Yearbook of 1995. The report states:

[21] Key positions are a statutory set of positions that were first determined in the process of the civil service reforms in the mid to late 1990. According to the *Trial Methods for the management of key forestry positions* (林业行业关键岗位特征上岗管理暂行办法) key positions are „important positions that are concerned with the cultivation, protection, management, and use of forest resources, that guarantee of the quality of forest products, that improve economic and ecological, as well as social interests, and that safeguard the security of forestry production." (Ministry of Forestry, 1997, pp. 253-254). In 1996, the administration defined a series of positions as key positions ranging from forest farm heads and national forest park directors to forestry technical extension station heads (pp. 253-254). The *9th Five-Year Plan* in 1996 set 33 positions; in 2011 the State Forestry Administration accounted 46,283 people occupying such positions (Chen & Gao, 2013, p. 99).

> [Training] catered to the annual core work of the Ministry of Forestry. This year we organized training classes with a focus on "Reform of forest management and commodification", "Management of asset allocation of forest resources", "Property supervision and management of state-owned enterprises", "Forest management", "Reform of state-owned forest farms", "Prevention of desertification", "Construction and management in the ecological and environmental protection in forestry", "Comprehensive development of forestry" and others. (Ministry of Forestry, 1996, p. 177)

Complementary training provides different sets of stakeholders with customized knowledge and skill training in the process of project implementation. Hereby general ideas about the policy, as well as concrete issue-based skill development are combined in the training program. Training is tailored based on the trainees' functions and attributed role expectations, it focuses either on more abstract and symbolic aspects of the policy or on its concrete and operational aspects. Differences in graduations notwithstanding complementary training imparts to all trainees abstract and symbolic contents as well as concrete and operational contents.

The combination of technical training and policy contents catered to two pragmatic needs and objectives of the forestry bureaucracy. Firstly, capacity development should facilitate and contribute to the implementation of policies at the local level by means of imparting technical knowledge to relevant stakeholders (State Forestry Administration, 2003, p. 220). Under the *9th National Forestry Education and Training Plan* (林业部干部教育培训"九五"规划), a total of 740,000 cadres underwent complementary training comprising 80,000 leading cadres who worked at county and township level agencies (State Forestry Administration, 2002, p. 142).The success of national forestry programs contributed in making it a permanent feature in forestry governance. Hereafter, all national reform programs would draw on complementary training proceeding in a similar manner.

Secondly, complementary training as it emerged during that historical period eventually served the goal of an overall value change in the approach to forest management. As outlined in the theoretical chapter of this dissertation, human capital is the primary source of organizational innovation and renewal (Agor, 1997 cited in Tõnnisson & Kaido, 2004). The training seeks to change the culture of public administration (Kettl, 1997, p. 452), and new shared values give grounds for holding accountable public officials (Tõnnisson & Kaido, 2004). Complementary training in terms of awareness building was increasingly employed to push for a value change toward the preservation of forest resources, in particular, beginning with 1998/99.

In July 1998, China was beset by a disastrous flooding of the Yangtze River that caused more than 3000 deaths and around 12 billion US-Dollars in property damage (Yeh, 2009, p. 886). The flooding followed a year with sever draughts on the lower reaches of the Yellow River, in which the river had run dry for 267 days. The natural disasters were a wake-up call for both central and local governments to put an end to the

> enduring environmental degradation and depletion of forests in the country. The flooding proved that the regulation and enforcement of forest management in the past decades had failed to meet the objective of providing a sustainable forest ecosystem. (Liang & Mol, 2013, pp. 65-66)

The socio-economic and environmental impact of the floods prompted the central government to push hard for a national policy change. Six national ecological conservation and restoration programs were launched whose fiscal basis came from the center's strengthened financial ability it had gained out of the 1994 tax reforms (p. 66). Each national program was coordinated through a central-level agency that was responsible for the implementation of a series of instruments to achieve the purpose of the program (e.g. resettlement, expansion of research, and training). The Center for Natural Forest Conservation and Management (国家林业局天然林保护工程管理中心), for example, was the central-level coordinating agency for the Natural Forest Conservation Program (天然林保护工程).

The program emphasized "the expansion of natural forests and increasing the productivity of forest plantations"[22] (Zhang, et al., 2000, p. 2135). The central government invested a total of 17 billion RMB between 1998 and 2001 to get under control deforestation. The program covered 18 provinces and autonomous regions and three county-level forestry bureaus in three different provinces were selected to serve as demonstration and training sights for the whole country. Each site focused on a different aspect of the reform: Baihe Forestry Bureau of Jilin Province (吉林延边安图县白河林业局) focused on selective cutting or small-area clear-cutting methods in natural forests. Matoutan Forestry Bureau of Shaanxi Province (陕西省宝鸡市马头滩林业局) specialized in resettlement and retraining of forest dwellers. Xiaolongshan Forestry Bureau of Gansu Province (晓龙山甘肃省林业局) was concerned with the mandatory conversion of marginal farmlands to forests (p. 2136).

[22] Timber harvests "had been reduced from 32 million m^3 in 1997 to 29 million m^3 in 1998, to 23 million m^3 in 1999" (Zhang, et al., 2000, p. 2135).

Technical training was arranged for forestry cadres at different administrative levels and with different job assignments. According to official resources, fifty provincial leaders underwent training by central authorities over several weeks to "understand and support" the program. 700 forestry officials from provincial and local forestry bureaus were trained by the Center for Natural Forest Conservation and Management in order to make them "understand and implement" (p. 2136) the conservation program. Finally, forestry professionals taught thousands of local forestry cadres, key technicians, and farmers at the township and village level in forestry technologies "to regenerate, protect, and manage forests" (p. 2136).

Training contents differed in the level of abstraction based on the group of operationalizers and implementers addressed by the training. Training contents of high-level decision-makers were mainly concerned with the general outline of the policy and the more abstract goals that certain policies and reforms should achieve. This training should thus achieve a value change among operationalizers toward the mode of development. Training of lower-level cadres and farmers predominantly tackles concrete issues and techniques that concerned the implementation of the respective policy or reform. This training should help implementers to translate higher-levels' abstract ideas into concrete action on the ground.[23]

In June 2001, the State Forestry Administration organized the National Conference on Forestry Education and Training Work (国家林业局教育培训工作会议) in Shenyang City, Liaoning. According to official sources, the conference was the biggest and most prominent ever since the Reform and Opening Policy had been launched and was as a direct response to the new and added responsibilities of the forestry administration. The conference hosted 110 leaders of central and local forestry authorities, as well as the heads of the country's most important vocational schools, colleges, and universities. Its greatest concern was the question how to improve human capital development (State Forestry Administration, 2003, p. 216).

The output of the conference were two central documents – the circular *Some Opinions on Gradually Strengthening Forestry Education and Training* (国家林业局关于进一步加强林业教育培训工作的若干意见) (State Forestry Administration, 2001a) (later referred to as *Opinions*) and the *10th National Five-Year Outline on Forestry Education and Training Work* (全国林业行业教育培训今年工作"十五"规划) (State Forestry Administration, 2001b) (later referred to as *10th Five-Year Outline*) (State Forestry Administration, 2003, pp. 216-217) – as well as the accreditation of 57 educational institutions (i.e. universities, colleges, and vocational schools) as

[23] See more in Chapter 5.3.2.

local training bases (State Forestry Administration, 2002, p. 218; *Green Times*, 24 September 2001).The two documents stressed the challenges brought about by the policy shift after 1998, which together with the launch of the national forest conservation programs tested the administration's capacities in all respects.

The circular (*Opinions* State Forestry Administration, 2001a) is of historical relevance in two respects: First, it stresses a changeover from requesting cadres to complete degree courses (学历教育) to undergo regular work-related professional training (行业培训). Second, the document redefines training responsibilities between the center and the provinces.

The document stipulated that the State Forestry Administration would guide and supervise the training of the administration sets standards for training curricula and training plans of important job positions. Leading cadres at the division-level (and above) i.e. civil servants in administrative organizations (机关) and leading cadres of non-administrative organizations (事业单位), cadres in key positions and heads of counties that are involved in key forest programs shall undergo training in the Beijing Academy of Forestry Management. The academy should be elevated to become a state-level training institution. Provincial forestry departments supervise and arrange training of officials under their jurisdiction. These include county-level leading cadres below the division-level, professionals, and technicians, forest rangers, and forest farmers. The training should be carried out in 57 accredited training institutions, each forest key region should have at least one provincial-level training institution (State Forestry Administration, 2001a, Art. 4).

The ensuing *10th Five Year Outline* (State Forestry Administration, 2001b) defined five categories of trainees, the so-called "forestry staff contingent" (林业局队伍), to be addressed by the forestry training system: civil servants, managers, forestry professionals and technicians, forest rangers, and forest farmers. Human resources of all five categories were expected to be developed, so that a smooth development of both, the ecological system and the forestry industry, could be achieved (Art. 3).

The approach to combine policy reforms with trainee tailored training was a joint effort by the State Forestry Administration and the Central Organization Department. Henceforth, training as complementary measures (配套培训) was considered a successful and important method to facilitate and contribute to policy implementation and was officially backed by the central leadership. In the year 2000, Premier Zhu Rongji (朱镕基) suggested to "continue and expand" this kind of training (State Forestry Administration, 2003, p. 219). For vice-premier Wen Jiabao (温家宝) complementary training symbolized a successful policy innovation that pertained to

redness and *expertise* at the same time, and thus a successful means to produce cadres that fulfilled both requirements.

> Devising classes where [cadres] study policies, science, and technology are indispensable. It is necessary to link praxis to pursue practical results. (State Forestry Administration, 2003, p. 219)

From the vantage point of financial and structural feasibility, the expansion of training was a costly undertaking for the administrations. In order to increase the provision of training for the implementation of national reform projects the bureaucracies involved in national conservation programs began to apply for funds for special training use. For the implementation of the Three Norths Shelterbed Conservation Program (三北防护林体系工程), also known under Green Wall (绿色长城), the Chinese government and the China Bank signed an agreement with the Asian Development Bank in 1994. The Asian Development Bank would contribute an amount of 600,000 US-Dollars for technical assistance (Ministry of Forestry, 1998, p. 141). The money was earmarked for training of county-level leading cadres and managing personnel of relevant bureaucracies from regions located in the upper and middle stream of the Yangtze River. Training should help officials learn to better regulate land and protect the environment. Training programs were conducted in December 1994, June 1995, and April 1996 (p. 141).[24]

Changes in training approaches concurred with the heightened intervention of foreign actors in China's (forest) development and cadre training. Obligations of foreign governments and international organizations in China's forest development gained momentum in the 1990s. Foreign governments, banks (e.g. Asian Development Bank, World Bank), intergovernmental organizations (e.g. United Nations), and international organizations (e.g. Ford Foundation, German Association for International Cooperation, German Kreditanstalt für Wiederaufbau) invested huge amounts of money into forest development projects in China which also encompassed training measures. Although these events do not prove that changes induced into China's training practices were a direct outcome of international exposure, it still indicates a certain degree of readiness of Chinese actors to consider adaptations in the organization of training. Moreover, there are concrete examples of how the exposition to international experience altered aspects of cadre training in China.

[24] At this point, it is important to point out that while China had a reasonable interest in bringing in international expertise and assistance for solving its multifaceted problems. Likewise, international actors (e.g. international organizations, governments, etc.) pursued their own interests when playing an active part in China's development.

Chin (2011, p. 23) demonstrates that training contents and approaches developed over time *because* China looked abroad for informing its own system. In addition, several official reports of Chinese delegations dispatched to visit forestry training institutions abroad testify China's interest in new approaches. These official accounts contain recommendations for improving China's forestry training structure and training contents based on the experience in other countries (Shen, 2002; Zhang & Jin, 2005).The adoption of planning-evaluation-adaptation cycles according to the PDCA-principle (Plan-Do-Check-Act) in the planning and implementation of training seminars is one example that shows that international approaches to (public servant) training are not ignored by Chinese authorities (Interview Director L. 3 November 2015).

To summarize, complementary training catered to two pragmatic necessities of the forestry administration at that time. Policy focused training should foster the implementation of national reform programs by means of a combined transfer of policy content-related and technical knowledge. Complementary training aimed to perform a value change in the forest development model. The increased provision of training was partly realized through financial assistance of foreign actors which suggests a connection between the heightened international intervention in China and the emergence of a new approach to training. From the vantage point of educational paradigms, complementary training was not only new in terms of its approach to knowledge transfer, moreover, it marked an innovation in knowledge transfer that linked symbolic and operational ideology and reconciled requirements set by the two paradigmatic approaches, *redness* and *expertise*, to training. Chapter 4 will discuss the complementary training in more detail by using two examples of policy reforms that pursued a change in the forest development model.

The turn of the 21st century: Changing values

Literature in the field agrees that cadre training gained real momentum with the beginning of the new millennium. This judgment grounds on two observations: the modernization efforts of cadre training institutions and increased investments into the cadre training infrastructure. From the vantage point of the red-expert paradigm, the 21st century is a period in which the Chinese leadership continued to sophisticate its training structure and its approaches to training for red experts. At the beginning of the 2000s, reforms pushed for a modernization of both, operational and symbolic, aspects of training. Emphasis was placed on improving the problem-solving capacities of Chinese cadres against growing concerns in the economic, social, and environmental realm. Above all, training played a crucial role in the promotion of a value change in China's hitherto development model. At the same time, the reforms in the training structure aimed also to further assure the loyalty of cadres to the CCP and its ideals. Xi Jinping's assuming leadership

marks yet another caesura after which cadre training started to emphasize the improvement of cadres' work style.

The circular *Decision on the Strengthening and Improvement of Party School Work in the 21st Century* (二十一世纪加强和改进党校工作的决定), issued in 2000, signaled the growing momentum of cadre training, however, it was not until the rise of the fourth generation of leaders that the Party "started in earnest to put its money where its mouth was" (Pieke, 2009a, p. 49). After the power transition was settled in 2002, the newly appointed Party Secretary Hu Jintao pressed for the reorganization and reconstruction of the leadership training system under close cooperation and coordination with Zeng Qinghong (曾庆红), former head of the Central Organization Department and Hu Jintao's successor as president of the Central Party School (Chin, 2011, p. 23). Under his aegis, three new central-level training academies were opened in Pudong-Shanghai, Jinggangshan, and Yan'an in 2005. Similar to Pieke (2009a), Chin (2011, p. 19) reasons that the new executive leadership academies "represent the most dramatic change to the Party's training structure", not least because of the "sizeable allocations of financial and human resources" that were expended on the reorganization of the national training system. The Ministry of Finance (财经部) raised spending by 10.2 percent on all central cadre training institutions and on web-based learning (Pieke, 2009b, p. 958).

The institutional change was much owed to a change of mindset among influential leaders of the Central Organization Department (Chin, 2011, p. 23). Over years, they had studied public administration models in various Western countries through which they learned that

> a prerequisite for leadership innovation in public policy and management is the normative or perceptual framework and supportive environment through which the main actors in any system orient themselves towards innovation in their work: in other words, creating an organizational culture and environment that is geared to supporting innovation. [The Central Organization Department] learned that it had to create an institutional space that is dedicated to grooming leadership "entrepreneurs," managerial "first-adopters" and "diffusion agents." (Chin, 2011, p. 23)

Pieke (2009b) points to the deliberate sight selection of the schools which represent the Party's auto-narrative of its own birth, growth, and maturation: Shanghai as the place where the party was founded and where the People's Republic of China achieved its "pinnacle" (p. 51) of modernity and international opening-up, Jinggangshan as a "sanctuary revolutionary site" (p. 51), and Yan'an as "Mao's revolutionary base" (p. 51) and the cradle of cadre training. As a matter of fact, the choice of location somehow hinges on the training missions of the individual institutions. Chin

(2011) found that Pudong-Shanghai serves as a place to "change [the] vision [of cadres]" (p. 24) towards modernity, in particular, those coming from interior provinces. In Jinggangshan leading cadres from the developed coastal provinces should undergo training in Party history, and Yan'an specializes in the training on Party strategy and strategic analysis (pp. 24-25). In 2006, the three academies were joined by the Academy of Management and Economics in Dalian that addresses high-level cadres in state enterprises and financial institutions (Pieke, 2009b, p. 51).

In the forestry sector, the State Forestry Administration tried to accomplish a further standardization of training practices by regularizing its training curricula and enhancing its training methods and material. In 2007 and 2010 the Beijing Academy of Forestry Management and the Nanjing Vocational School of Security were elevated to state-level training institutions, respectively: The academy in Beijing was changed its name into State Academy of Forestry Management, and the Nanjing Vocational School in Nanjing became the Nanjing College of Forest Police. (State Academy of Forestry Management, Introduction to the Academy; Nanjing College of Forest Police, website).

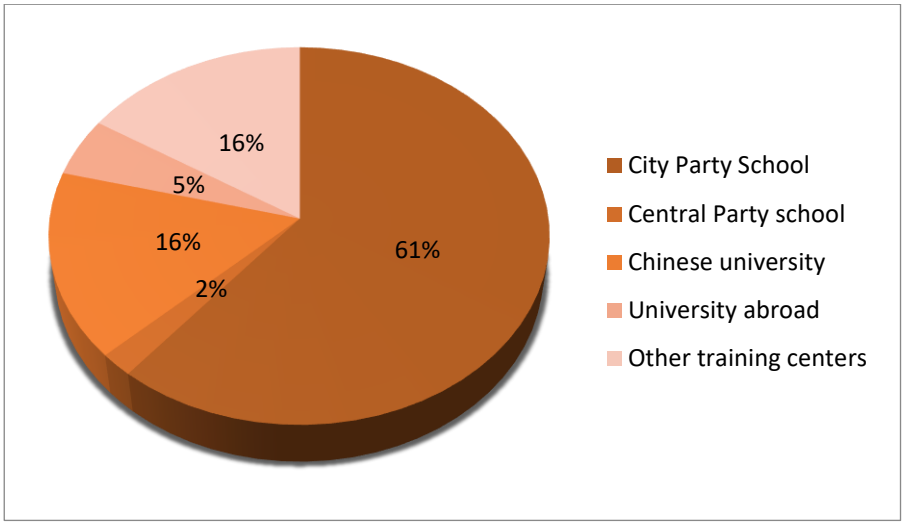
Frantic economic growth over two decades had created regional disparities, social inequalities between urban and rural population, and had put a toll on China's environment that started to have detrimental effects on China's economic development. Problem-solving capacities implied that cadres came up with new ideas to reconcile the conflicting interests between economy, society, and the environment. Hu Jintao's Scientific Development Concept and Harmonious Society were the party's answer to these mounting pressures, at the symbolic ideological level. At the operational level, efforts with regard to a value change had been initiated earlier, as showed in the previous section. The search for new ideas eventually helped to open the cadre training system to new providers.

In 2006, the central government released *Regulations on Cadre Education and Training Work* in 2006 opened the system for other institutions to provide ideological training, as long as they were accredited by a party authority (Pieke, 2009a, p. 54). Furthermore, cadre training gained much more flexibility, as individual cadres and their work units were given more autonomy in the selection of training providers (Pieke, 2009b, p. 958). My interviews with cadres who are in charge of training organization show that the selection of training instructors lies much in the authority of the local government department and speaks to three types of experts: First, experts from within the administration (i.e. leading cadres) that are familiar with the system of governance, central directives and implementation issues on the ground; second, national professionals and scholars

of diverse sectors and disciplines (i.e. scholars and professionals); and third, international experts that can feed the system with international experiences and practices.

The "erosion" (Pieke, 2009a, p. 54) of the party school monopoly created a market for universities and other higher institutions of education to advertise with expertise. Lee (2015, p. 117) found that "in the face of such domestic, intraparty, and global competition, the party school market share of cadre training has decreased." In a non-specified city the training provider mix was as follows:

Figure 4: Cadre training in an un-specified Chinese city



Source: Lee, 2015, p. 117

The intensification of training and increased pretension on improving the problem-solving capacities of operationalizers and implementers put a toll on bureaucracies and local governments that had difficulties in coming up with necessary resources to provide training. Literature shows that human capacity building in terms of cadre training has been a battled field over resources, authority, and models of development (Chin, 2011; Lee, 2015). This is most conspicuously manifested in the creation of leadership training institutions such as the China Academy of Governance in 1993, and the four National Academies of Administration in Shanghai, Jinggangshan, Yan'an, and Dalian by the Organization Department at the beginning of the 2000s. Statistics show that the State Academy of Forestry Management experienced a sharp decline in funding in 2004 and 2005, when financial allocations dropped from 28 million RMB in 2003 to 5.27 million RMB in 2004, and 2.38 million RMB in 2005 (see table 8, p. 196) (State Forestry Administration, 2005; 2006). A possible explanation for this decline could be the establishment of new state-level leadership training institutions. The increase of financial allocations procured by the Ministry of Finance might have diverted away funds from other central-level training institutions.

In spite of being faced with financial constraints, the forestry administration had to keep up with the leadership's growing demands to *enhance the quality of cadres* (提升干部素质) by bringing in more expert knowledge and advancing its training methods. One way to comply with this directive was the conclusion of international collaborations. Two international training and research centers were founded in 2000 and 2008 respectively: the International Bamboo and Rattan Training Center (国际竹藤中心) and the International Training Center for Desertification Control (国际荒漠化防治培训中心). (International Center for Bamboo and Rattan; Ci & Yang, 2005). Also, in order to increase funding for disadvantaged forest regions, the State Forestry Administration and the State Academy of Forestry Management levied international funding for training in a series of bilateral collaborations (State Academy of Forestry Management, 18 November 2013; Japan International Cooperation Agency, Project for Human Resource Development of Rehabilitation in the Central and Western Region in China).[25]

The opening of the cadre training system to national and international actors for refreshing cadre training contents and improving the problem-solving capacities of cadres led to mounting fears of disintegration within the leadership. These preoccupations were exacerbated by seemingly inexorable instances of the immoral and corrupt behavior of state officials and party members. This has recently led to a new round of ideological retrenchment, in which the CCP under the paramount leader Xi Jinping called for consolidated ideological education and training as part of a set of tools to push for increased internal state consolidation.

The *Regulations on Cadre Education and Training* of 2006 (Central Party Committee, 2006) were amended in 2015 introducing two new types of training: "Concentrated rotational training for implementing great decisions of Party and the government" (贯彻落实党和国家重大决策部署的集中轮训) and "Special topic training on essential party theories and party education" (党的基本理论和党性教育的专题培训) were put in front on the list of training formats stipulated by the *Regulations.* Ahlers & Stepan (2016, p. 37) infer from recent developments that the Chinese Communst Party "no longer values policy effectiveness or pragmatic policy solutions on their own." They raise doubts whether these ideological measures lead to more policy effectiveness and implementation. On the contrary, an effect of frequent study sessions and leading cadres spending weeks or months in party school courses where they "recite core works" might produce the opposite effect and encourage cadres to leave the civil service (pp. 37-38). In addition to the tedious duty to sit training, consolidated authoritarianism and a growingly unpredictable

[25] See more on this issue in Chapter 4.3.2.

environment in which cadres have to carry out their work, (which includes fearing personal safety) are reasonable arguments for China's clever minds not to opt for a career in the civil service in the future.

Everything suggests that the redness paradigm is once again gaining momentum in cadre training policies, even though the importance of professional expertise has never been put into question by Xi Jinping. Education remains a crucial precondition for recruitment into the party-state administration. Xi Jinping's campaigns tackle the moral grounds of cadre behavior, his ambition is change improve cadres' *zuofeng*, thus the relationship between the party and the public by bringing the party closer to the people through "serving the people, being down-to-earth, upright and corruption-free."

In September 2013 the Brenda Forde anticipated in an article in *The Diplomat*:

> Although the authorities may not characterize it as such, the campaign bears all the hallmarks of a Party rectification drive, compelling members, and cadres to examine their own work performance and engagement with the public at large. (*The Diplomat*, 2013)

From a historical perspective, this approach is similar to training in 7 May cadre schools during the Cultural Revolution. The important question for the future is whether the party can avoid that its ambition to rectify cadres' *zuofeng* goes at the expense of teaching and improving cadres' expertise.

Internationalization of cadre training

The 21st century has experienced the rise of foreign actors engaging China's cadre training, the influx was accompanied with an outflow of Chinese cadres to foreign educational institutions for training and post-graduate studies. Cadre training abroad (干部出国（境）培训) is a way to expose a small selection of cadres to international expertise and pertains to the Chinese party-state's efforts to modernize and enhance training in the operational field. New ideas and best practice models should flow into the system, so problem-solving capacities could be enhanced. However, those who are directly exposed to these ideas are proven officials whom the regime trusts the loyalty and capability to absorb, modify, and transfer these ideas in accordance with the CCP's expectations.

The push for the internationalization of training in terms of a sustained policy agenda started in the 1980s and was part of China's larger educational reform measures and the central government's decision to capitalize on Chinese university students who studied abroad. At the National Working Conference on Recruiting Foreign Talent and Returnees (国务院召开全国引

进国外人才和出国留学人员工作会议) in November 1984, the central government decided to dispatch 3000 technicians and government officials for training and study purposes abroad (Luan, 2008, p. 18). Along with this decision, the State Agency of Foreign Experts Affairs started to organize business English preparatory exams that would become a formal requirement later on (State Agency of Foreign Experts Affairs, 8 October 1999). Ensuing, cadre training abroad became formalized during the course of the civil service reforms in the 1990s, when a series of regulations were introduced including the *Provisional Regulations on Civil Servant Overseas Training* (国家公务员出国培训暂行规定). Cadre training abroad was inserted as a formal training target into the national cadre training plans beginning with 1996. Cadre training abroad should also be part of the career training plans of higher-level cadres.

Cadre training abroad gained real political momentum with China's run-up to WTO accession and its bid to host the Olympic Games in 2008. Both required China to quickly adapt its institutions and personnel to international standards. In order to achieve this goal, target groups eligible for training abroad were incrementally expanded so a higher share of cadres with diversified political tasks could gain international experience and be exposed to new policy inputs. This expansion was promoted via various official government releases and circulars by the Central Organization Department. Up to the mid / late 1990s, only central-level officials were able to embark on a study tour abroad. Accompanying the formalization of cadre training abroad in the 1990s, the *1996-2000 National Outline of Cadre Education and Training Plan* (1996 年-2000 年全国干部教育和培训规划) made cadres at department-rank the main target group of this strategy. The consideration for officials at provincial and sub-provincial level is among others reflected in the initiation of executive leadership training programs such as the one at the Kennedy School of Governance, Harvard University. Anthony Saich, coordinator of the program explained that when the collaboration between the Kennedy School and its Chinese cooperation partners was established in 1999, the goal was to focus human capacity building at the provincial level and second and third-tier cities, as there was much need to develop skills there. (Saich, A., 4 May 2015)

The subsequent national cadre training plan issued in 2001 included young reserve cadres[26] into the target group and emphasized the necessity to enable officials from Western provinces to enjoy international exposure (Central Party Committee, 2001). The particular reference to Western provinces in the plan relates to the central government's Great Western Development Program (西部大开发) initiated in the same period, which entailed plans to improve the skills of local

[26]Reserve cadres are officials whose promotion has already decided and whose instruction is consequently given particular attention to.

government officials in China's poorer regions (State Council, 2000).The policy was supported by the State Agency of Foreign Experts Affairs and its annual releases on cadre training abroad by setting quotas for provenances: 40 percent of the participants had to come from western and middle provinces, while a quota of over 50 percent was set for cadres from eastern provinces (State Administration of Foreign Expert Affairs, 2002). The State Forestry Administration set up an international collaboration with Japan through which Japanese forestry experts have come to China to train local officials from western provinces, and several Chinese delegations (from Western Provinces) have gone to Japan.[27]

Another document released during that period was the Central Organization Department's *Opinion on Strengthening the Study and Implementation of Important Thought "The Three Representatives," Doing Well the Large Scale Cadre Training Work* (关于深入学习贯彻"三个代"表重要思想，做好大规模培训干部工作的意见) (Central Organization Department, 2003). The circular emphasized the need to increase training for county-level cadres at division-level. Even though no explicit reference was made with respect to cadre training abroad, some local governments responded to this circular by reporting on training activities abroad that involved county-level cadres. Following the circular, the Party Committee of Beijing claimed that between 1999 and 2004 the Beijing Municipal Government had dispatched 636 leading government and party cadres to several countries including the US, England, Germany, Canada, Australia, the Netherlands, and Denmark. Among those 636 cadres, 201 were leading cadres at district and county level. The average costs rose to 12 million Renminbi each year (*Global Entrepreneurship Website*, 7 July 2004).

The formal expansion of the target group as promoted in central-level documents suggests having indeed led to an increase in the number of Chinese government officials going abroad.[28] Drawing on scattered data retrieved from various Chinese sources including government releases, newspaper articles, and research papers allows a grasp of the extent and the relative growth rate of international activities over years. Taking these pieces of information as a reference, the number of government officials crisscrossing borders for training and study purposes rose considerably after the mid-1990s and in particular after the turn of the 21st century. On an aggregate level, the numbers show an increase from 138,000 cadres by 1995 to 257,000 cadres who had undergone

[27] See more on this issue in Chapter 4.2.3.

[28] However, gathering reliable and consistent data on the real extent of training abroad and the distribution of educational and training opportunities is a rather hopeless undertaking for a young researcher. Moreover, the current political environment has made officials and their governments become very careful to put a figure on these activities. Government statistics with this regard are not disclosed and those who have access would not reveal them (to me).

training at 64 foreign institutions between 2008 and 2011 (*People's Daily*, 13 May 2001; Sun, 2005, p. 1; *Xinhua*, 11 January 2011).

The vigorous promotion of international exchange under the cadre training plan in 2001 and the resulting increase of travel activities soon started to burden local governments' budgets. In addition to that, local malpractices had resonance in the public. Problems such as repetition of training emerged owed to the lack of quality checks, and reports on excessive leisure time activities of the participants becoming public raised doubts on the true intentions of these training programs and their net gains (Luan, 2008; Liu, 2007). Cadre training abroad soon gained the reputation of being merely an occasion for officials to travel abroad on public expenses (*People's Daily*, 13 September 2006). Malpractice added up to the already high pressures local governments were subjected to during a time when popular unrest became a serious political problem for local governments (Göbel & Ong, 2012; Tanner, 2004). As a consequence, counter-measures were taken both at central and local level by issuing restrictions and by reducing overt official promotion of the policy in central-government circulars.

Table 2: Cadres going abroad between 1990 and 2011

Year	Number of cadres
1990 –1995	138,000
2002	14,583
2003	19,925
2004	28,915
2009	76,467
2010	ca. 70,000
2008 – 2011	257,000

Source: compiled by the author, data drawn from *People's Daily*, 13 May 2001; Sun, 2005, p. 1; *Xinhua*, 11 January 2011.

At the central level, directives with regard to international cadre training shifted from setting quantitative goals to qualitative policy measures. In doing so, national cadre training plans reduced the emphasis on the issue notably. In contrast to previous training plans, the national cadre training plan issued in 2006 refrained from setting any specific targets for cadres to go abroad for study and training purposes and reduced the target group to reserve cadres (Central Party Committee 2006). Ensuing, the *2010-2020 Cadre Education and Training Reform Outline* (2010-2020 年干部教育培训改革纲要) (General Office of the Central Party Committee, 2010) changed the target scope making mid-career backbone teachers the main target of the policy. This approach aimed to increase cost-efficiency. Instead of sending high numbers of cadres abroad, the focus should rather

be put on the improvement of Chinese instructors and their ability to impart international expert knowledge and experience to Chinese officials at home (Luan, 2008b, p. 38).

Training programs under this format were set up for example at Nanyang Technological University in Singapore, where the *Training-of-Trainers Executive Leadership Program* for senior officials from Jiangsu was launched in April 2011. The program's goal was to introduce new concepts and applications in the areas of public administration and governance based on the Singaporean experience. Upon return to China, participants were expected to train and mentor at least ten other local officials in Jiangsu (*Nanyang Technological University*, 26 April 2011). However, what appeared to be a measure of professionalization did in reality change little in the practices of sending cadre abroad. Yang, et al. (2012, p. 181) point out that measures aiming at the improvement of knowledge transfer within China fail due to the lack of a professionalization in the field of instruction. Interviews with my informants have shown that unlike in other countries and their civil servant training systems, "trainer" is no profession in the context of Chinese cadre training. Expertise can take different meanings depending on the purpose of the training program. Accordingly, leading cadres are invited to share their work experience; at lower levels, grassroots-levels are almost exclusively trained by their superiors. By the same token, experts in terms of scholars (either Chinese or foreign) are invited to share their knowledge and experience, but again the selection of the lecturer and the training are little systematic.

In order to reduce the extent of international travels in general, national rules and regulations on managing training abroad were amended in 2008 limiting the number of days that government officials could stay abroad. The document stressed that local governments had to strictly enforce the existing regulatory framework (General Office of the State Council, 2008). Several of my informants told me that the specific amount of days cadres can spend abroad varies between the central and the local level as well as between the provinces, as a general rule though central level cadres are subjected to tighter restrictions (five days including travel days). Finally, in order to streamline decision-making on the selection of programs and candidates, the State Agency of Foreign Experts Affairs was downgraded and shifted under the responsibilities of the Ministry of Human Resources and Social Safeguarding.

At the local level, governments began to release orders to curb excessive travel activities. Already in 2004, the Yunnan provincial government issued a strict interdiction of any cadre training abroad autonomously organized by its sub-local administrations. Permission had to be exclusively granted by the Provincial Foreign Experts Affairs Bureau (*Xinhua*, 18 August 2004). In late 2006, the Provincial Party Committee of Sichuan limited officials' participation in training activities abroad

to once a year, a similar directive was published by the provincial government in Anhui in 2007 (*People's Daily,* 13 September 2006; Liu, 2007, p. 36).

Whether these restrictions were effective is arguable. Interviews with coordinators of international training programs at Kennedy School of Governance and the Venice International University suggest that the number of cadres participating in established international training programs has remained unchanged. At Venice International University which program focuses on sustainable development and environmental protection issues, the numbers continued to increment between the year of the program's establishment and 2013.Venice International University experienced an increase in the number of cadres from 274 in 2003 to 623 in 2015/6, with a peak in 2010 when the program offered training to 949 participants (see table 3 below). Notwithstanding the more rigorous regulations enacted in 2008 affected the organization of the program. According to the program coordinator of Venice International University, the Chinese government became much more "fiscal" with regard to sending cadres abroad (Interview Mannino, I., 15 April 2015).

Table 3: Training Statistics, Venice International University

Year	Participants	Courses
2003	274	4
2004	553	14
2005	640	17
2006	674	20
2007	835	24 (5)
2008	766	23 (6)
2009	909	26 (5)
2010	949	27 (6)
2011	894	28 (4)
2012	893	19 (4)
2013	921	21 (4)
2014	466	13
2015/6	623	17

Source: TEN Center Venice International University (2013, p. 18).

Note: The statistics on the number of courses each year organized in China were compiled by the author based on VIU's official reports published each year. They can be retrieved online: http://www.univiu.org/research-training/research-ten/ten-publications/report-of-activities (10 January 2016)

The new regulations, in particular with respect to the newly set limit of days cadres could stay abroad, compelled foreign partner institutions to compress program in duration (Interview Saich, A., 4 May 2015). While during the first years of collaboration courses at the Venice International

University lasted for two weeks, duration was eventually reduced to five to ten days. Similar experiences were made at Kennedy School of Governance, where duration was cut from five or six to four weeks. In addition, Chinese collaboration partners made more use of the introductory classes taking place in China by increasing the number of participants to enjoy international expert knowledge inputs (Interview Mannino, I., 15 April 2015). Yet, table 3 shows a sharp decline from 921 participants in 2013 to 466 participants for the years 2015 and 2016.

Collecting consistent data and reliable information on changes after Xi Jinping's accession to power and his policy agenda was even more difficult than gathering material with regard to policies of his predecessors. Interviewees repeatedly referred to major changes and more obstacles in setting up international collaborations and international cadre training programs. However, they became quite vague when it came to providing specifics. By analyzing the information and statements collected through document research and interviews it became clear that Xi Jinping brought noticeable change both on the institutional and organizational level of cadre training abroad.

Already by autumn of 2012, the State Agency of Foreign Experts Affairs emphasized that training programs abroad had to be related to the specific work tasks of the department whose cadres embark on a study tour abroad (State Administration of Foreign Expert Affairs, 2012). In addition, international cadre training programs organized at the provincial level should be technical in nature, rather than providing generic management tools to leading cadres (Interview Division-head X., 18 December 2015). Applications must be convincing also with regard to the choice of the collaboration partner, who must offer expertise that suits China's current policy priorities (Interview Mrs. F., 14 December 2015; Interview Mrs. L., 8 December 2015). Finally, training subsidies per cadre were set at 12 US Dollar per day applying to all cadres nationwide (Ministry of Finance, 2013; Ministry of Finance, 2014) and training budgets per cadre were reduced to a national quota (Interview Director W. 5 December 2015).

The director of a privately run training center in Chongqing explained that the more rigorous institutional framework had great implications for setting up new international collaborations and even for arranging training programs that took place in China (with international expert knowledge input). For an envisaged cooperation between the training center and a foreign university (negotiations had started in late 2013), the greatest challenge was to cover the costs that come with the program, especially if the foreign collaboration partner would not provide faculty and training material for free. The training center in Chongqing had to compensate travel and accommodation costs of the foreign experts coming to Chongqing, teaching material as well as other program costs

by means of levying training fees from the participants. Due to the reduced training subsidies per cadre, the training center tried to organize a course with a higher number of participants, so expenditures could be covered by the fees paid by the individual cadres. However, the biggest challenge of this strategy was to find a collaboration partner within the local government who had the formal or informal authority to gather cadres from diverse government offices who would participate in the training seminar (Interview Director W. 5 December 2015), fee-based training cannot be imposed on government departments (Interview Division-head X. 18 December 2015).

Similar to 2008, well-established international training programs such as those at Kennedy School of Governance and Venice International University showed a stable number of participants in their training programs even after regulations became stricter in 2008 (Interview Saich, A., 4 May 2015; Interview Mannino, I., 15 April 2015). Thus, except for the need to make some arrangement in terms of duration, the repercussions of the policies were not significant. The reasons why these programs remained relatively untouched by the changing political environment might lie in their stable long-term relationship and their secured funding by the foreign institutions as both Venice International University and Kennedy School of Governance provide faculty and housing for free. Also, the continued political priority given to environmental expertise and technologies, as well as the international standing of Kennedy School of Governance might both be crucial factors for maintaining these collaborations as they were.

Yet, Venice International University experienced a sharp decline in participants from 921 in 2013 to 466 in the year 2014. Likewise, interviews with various government officials confirm that site visits (考察) abroad were curtailed. Did Chongqing dispatch around twenty delegations per year, the number was decreased to two after Xi had taken office (Interview Director W. 5 December 2015). Cadres informed me that regulations have become stricter for cadres working in central-level institutions than for those working in local agencies. Xi Jinping and China's changing political environment might not be the explanation for the decrease of training activities at the Venice International University. Another might be corruption charges against the former Italian minister of environment, Corrado Clini, who had initiated the collaboration with China in the first place. The uncertain prospects of the TEN Network and its collaboration with China were mentioned by the program coordinator in the interview I conducted in May 2015.

3.3 Conclusion

This chapter tackled the institutional set-up and organizational landscape of cadre training. It unfolded the composition of institutions of symbolic ideological training and operational ideological training and how they fit into China's political-administrative system. The first part

presented the state of the art of cadre training in contemporary China, while the second section traced its historical development.

The bird's eye view of cadre training together with the historical analysis of its development has revealed a new perspective on cadre training showing that the commonly used term "system of cadre training" or "cadre training system" is an inadequate description. I argue instead that it is more accurate to refer to cadre training as a multilayered structure that is composed of individual training systems that pervade the horizontal and vertical lines of bureaucracy. The structure has to be understood as a comprehensive structure in which party and government departments at central and local level share responsibilities over the training of operationalizers and implementers. The individual training systems have similar set-ups and organize training at all administrative levels (i.e. center, province, prefecture, county, and township). The idea behind such a complex structure is to manage the relationship between symbolic and operational aspects of ideology. Operational skills should facilitate the operationalization of the symbolic ideology and the implementation of sector-specific policies. The postulate of symbolic-operational contingency is not a product of political visions and discussion during the Reform and Opening Policy in the 1980s but is almost as old as the Chinese Communist Party. It is an essential component of how the party envisioned a party-state structure that eventually materialized after the founding of the People's Republic of China.

Section two presented a new historical narrative of state officials training in China relinquishing that the structure was conceptualized and eventually developed as a training system that addresses two types of state officials: "manager-administrators" and "scientific-technical specialists" (Ray, 1970). Over time, training was professionalized and systematized for both groups. A determining factor in the historical development was the struggle over redness and expertise as paradigms of education (that eventually also decided over recruitment into the party-state administration). The weight that is given to either one or the other by the leadership strongly influenced training policies and institutional change in the field.

This chapter has shown how symbolic and operational aspects of ideology have been translated into the structure of cadre training and how the relationship between them has determined the institutional set-up and organizational landscape of cadre training over time. The next chapter shifts its focus back to contemporary China and analyzes how the two dimensions of ideology relate to each other on the level of content.

Chapter 4

Translating Ideology into Training Practices

In July 2013, I was invited to join the cadre training seminar on Questions and Study on Ecological Civilization and Circular Economy (生态文明与循环经济研究问题) *a Renmin University, Beijing. At that time, I was working on my MA thesis to graduate from the Department of Political Science, National Chengchi University in Taipei. The lecture was part of a "high-end" training program for cadres from the Development and Reform Commission of Chuxiong, Yunnan Province, which encompassed daily lectures on a variety of topics ranging from agriculture, media, and sustainable development over a period of one week. The class I participated in was taught by a Professor Y. from the Department of Economics, a zealous promoter of the introduction of low carbon economy, circular economy, and green economy in China. In her 90-minutes lecture she drew the bow from Hu Jintao's Scientific Development Outlook and Ecological Civilization to the concept of circular economy that advocated waste reduction and pollution avoidance by creating a closed cycle between resource use and production (In China, the concept became part of the official political discourse with the adoption of the 11th Five-Year Plan).*

During the lecture, my eyes wandered around the classroom to the participating cadres. Some of them were eagerly listening to Professor Y.'s explanations, others were indifferent or abstracted, some played on their phones, and one cadre had fallen asleep. After the lecture, I engaged in conversations with some of them (they too were curious about my role and my research on China). I asked questions about their impressions of the program and whether they found it useful for their work. Some of them revealed that the training at Renmin University was far more interesting than the training they usually underwent in Yunnan, the immediate contact with experts in the field was interesting as well as the knowledge they gained. However, several cadres expressed doubts with regard to the usefulness of the training program or indicated their dissatisfaction. A young cadre, who had previously started his job assignment in the local Development and Reform Commission, pointed out that the program and the lectures were far too theoretical. He suggested that trainers should apply a more

practical approach and tackle concrete issues. Even though the challenges that cadres faced in Yunnan differed quite a lot from those in the capital or other provinces, training would be more useful if it focused on the experiences, solutions, and ideas of different places in China.

When I re-read the field notes of this participant observation some years later when I was way into my Ph.D. studies, I started wondering how the training as offered at Renmin University fits into the whole picture of cadre training. How does the rather abstract and theoretical lecture on Ecological Civilization relate to the more concrete professional on-the-job training in the forestry administration? What role does the tension between the symbolic and the operational, as well as the abstract and the concrete play in the context of central-local relations?

Liang & Mol (2013, p. 66) claim that the main three reasons why forest development in China has experienced a visible turn in the new millennium were the floods that prompted the policy change, the launch of the national forest development programs that was made possible due to the increase fiscal revenues of the central government, and the forest tenure reform that gave forest land into farmers' hands. I argue that such analyses should also address policy documents and their relation to political practice. Documents are the carriers of discourses as much as they are part of the creation and development of discourses and of bureaucratic practices that relate to forests and their management. Documents communicate with different agencies, government levels, and interest groups. They are thus part of a process that seeks to change the parameters of development and the culture of public administration and to create new shared values. More importantly, documents are central in the organization of forestry governance as they define roles and role expectations that are then further consolidated in training practices.

This chapter takes a particular interest in the communicative process between party and government as well as between central and local authorities in the context of human capital development. The analyses presented here highlight the role of government papers in the communication between actors and in the organization of forestry governance.

Section one discusses theoretical reflections on government papers in general, and language politics in China in specific. It then presents an analysis of government papers– two of them issued by the central authorities of the State Forestry Administration and one promulgated by the central government (i.e. Central Party Committee and State Council). The analysis shows that government papers carry the conflict lines of different actors and are outcomes of negotiation process at different stages of development. The documents portray changes in the vision of sustainable

forestry management over time, a vision that shifted from resource extraction to resource protection, to find a reconciliation between economic, social, and environmental interests. In doing so, I show that central authorities have reacted to complaints, interventions, and resistance of local actors.

Section two focuses on training plans as a particular sort of government papers. It inquires on how plan come into being and how different plans that transport symbolic and operational aspects of ideology relate to each other. It shows that training plans are not a mere means of communication between party and state organs, and between central and local forestry authorities. Above all, they are vital in the process of translating symbolic into operational ideology, and abstract principles of training policies into concrete training programs.

Section three analyzes documents as representations of the state's vision on the role of training in its attempt to change the parameters of how to think about and relate to policy implementation in the context of sustainable forest development, the most concrete form of operationalization. It demonstrates that documents are an essential part of the process of organizing forestry governance in China, as they ascribe roles and expectations to those actors that the state includes in its governance strategy.

4.1 Governing papers and governing with papers

4.1.1 Documents as "graphic artifacts" in central-local relations

Document analysis is not new to the research on China. On the contrary, for a long time, official documents enclosed to the public and international observers were the main sources observers relied on to analyze what was going on in China and where China was heading to. After the founding of the People's Republic of China, foreign researchers were effectively barred from access to field work and even after the launch of the Reform and Opening Policy in 1978 access to sources and to actors continued to be restricted (Thørgersen, 2006, p.11). The ability to read and interpret official documents – that is to detect the hidden meanings by looking into the representation of information and the keywords or key expressions (提法) employed – was thus fundamental skill researcher had to develop in order to discern political changes in China.

Beginning with Deng Xiaoping's Southern Tour, the number of foreign researchers and students, academic exchange programs, and collaborative projects started to grow considerably (Thørgersen, 2006, p.12). The facilitated access to China and its civil, state, and corporate actors have opened new avenues for research and has contributed to a diversification of resources ever since. Due to this for us scholars undoubtedly positive trend, the ability to decode (解读) party and government

documents as a research technique, that has to be learned and practiced, took a back seat. Notwithstanding, documents remain a central element in politics, not only in China.

Leys (1990) points out that the idea that underlies the use of (Chinese) official documents is that "propaganda must necessarily entertain some sort of relation with the truth." Hull (2012, p. 1) goes further and holds that government papers are "graphic artifacts" that shape the governance of an administrative entity, moreover governing paper is central to governing the entity. In his study on city planning in Islamabad Hull emphasizes the importance to address two aspects of government documents: Firstly, their claim to "represent, engage with, or constitute realities 'in the world' independent from the process that produce documents" (p. 5); secondly, "the process how texts are produced, used, and experienced through procedures, techniques, aesthetics, ideologies, cooperation, negotiation, and contestation" (p. 5).

> A planning map is not only an ideological projection of a bureaucratic vision of the city; this vision is embedded in the technical and procedural processes that link a map to roads, structures, streams, and documents. (Hull, 2012, p. 5)

Governing papers and controlling the communication flow within its administration have been a main concern for the Chinese Communist Party and is central to its governance and power strategy. One important aspect of this strategy is language formalization. In his seminal work, *Doing things with words in Chinese Politics*, Schoenhals (1992) argues that language formalization is a form of power that is managed and manipulated by the Chinese state:

> The subject of the use and abuse of formulations is subject to constant strategic deliberation at the highest levels of the CCP. In some cases, the process of policymaking is indistinguishable from the process of policy formulation. Policy implementation at all levels is affected by concerns with questions like: How should this be put? What happens if we put it like that? Will putting it like this put people off? What do they mean by putting it differently? Can we really let them put it like that? (p. 3)

Schoenhals (1992) explains that the Chinese political discourse is not so much restricted with respect to content as to form, which is a much more powerful tool than the direction of contents, as "it goes right through the whole range of possible responses" (pp. 20-21).

Even though Schoenhals' (1992) analysis was published in 1992 and he mainly drew on party documents from the Maoist Era, his theoretical observations are still valid in today's China. The nature of official documents continues to be grounded on a centralized formalization of language that goes along with replication and mimicking in the myriad of party and government organizations along vertical and horizontal lines of bureaucracy. In addition, recent studies affirm

the continuity of the importance of formalized language through which the party-state maintains and extends its influence. In her research on the training of international correspondents at Qinghua University, Dombernovsky (2016) finds that students are taught in the use of terminology, because "inappropriate choices of language could have 'fatal consequences'." (p. 186)

Mayring (2010, p. 56) proposes to consider text material as a "chain of communication." This understanding is even more fittingly for official documents that are issued by a high-level authority with the goal to direct actions of other and subordinated government agencies. This implies that are sole carriers of information. Kristin Asdal (2015, p. 88) objects this view holding that texts or documents are not finalized acts of communication but they are part of reality. Textual work helps different actors to negotiate and modify this reality and to establish the issue and the relevant situation (p. 77). Issues can be modified and transformed in texts, therefore a text may signify and mean different things and can be translated in very different ways (p. 75). According to this understanding, documents are not simply carriers of discourses, but they are an active part of creating and developing discourses.

Discourses on development models are usually contested. They are constituted by differing ideas and expectations of interest groups on the outcome of development. This is also the case in China's one-party regime where the Chinese Communist Party declares exclusive authority over ideology (Hermann-Pillath, 2004, p. 13), but the discourse on what kind of development and how this development should be achieved is a contested field in which different actors have different interests and try to expedite them accordingly. According to Susanne Weigelin-Schwiedrzik (2017), government documents are an outcome of a compromise between interest groups whose differing demands are integrated into the text structure. While the first paragraphs of the documents refer to the nature of the compromise achieved, the body of the document portrays the conflict lines.

However, not all documents present finalized outcomes. The Chinese bureaucracy has developed a sophisticated system of graphic artifacts that differ in nature and are issued at different points of the negotiation process between central and local governments. Moreover, central-level documents, including *Decisions*, *Opinions*, *Outlines*, and *Plans*, have different implications for the addressees of the document.

4.1.2 The representation of interests in government papers

This section presents the findings of a close reading of three documents on human capital development in China promulgated at the turn of the century when China prompted a change of its development model that yielded higher importance to environmental and social concerns. The

analysis elaborates how conflicting interests within the administration were represented in the documents in the context of a shifting development paradigm in forestry, and how these interests were heard by central authorities and eventually integrated into its development model. In other words, the documents demonstrate that changes in China's development paradigm over the course of years were owed to the conflicts in China's state administration and the government's efforts to achieve a compromise.

As already pointed out elsewhere, the year 1998 was a landmark for the forestry administration and its portfolio and a turning point for China's forest development. The devastation brought about by the flooding at the upper and middle reaches of the Yangtze River led to a radical shift in forest development, almost half a decade before Hu Jintao's concepts of Scientific Development View and Harmonious Society heralded a more comprehensive high-level political change with respect to China's overall development model.

In the second half of 1998, the State Forestry Administration and the central government agreed on a series of measures to push for a political change in China's forest development at all levels of administration. Most prominent were the amendment of the *Forest Law* and the logging ban in China's natural forests (State Forestry Administration, 9 December 2000). Over the following years, various documents were published that promulgated the leadership's decision to promote a shift from forest resource extraction to the protection and conservation of forests. The so-called "six great key forest programs" (六大林业重点工程) gained particular momentum in the efforts to make this transformation possible. Concurrently, a new era began for cadre training, as training and education were expected to facilitate the implementation of these programs and to build up human resources that would enable this change of policy and value.[29]

One among the most important documents with regard to the human capital building at that time was the State Forestry Administration's circular *Several Opinions on Gradually Strengthening Forestry Education and Training Work* (国家林业局关于进一步加强林业教育培训工作的若干意见) (later referred to as *Several Opinions*) (State Forestry Administration 2001a). The document starts out with a general appreciation of the past efforts in training under the 9th five-year plan followed by a paragraph that stresses the policy change prompted in 1998 and its consequences for forestry training. The main message of the document is enclosed in the first and the last sentence of the second paragraph and reads as follows:

[29] See more on this issue in the historical section in Chapter 3.

> As the Central Party Committee and the State Council have recently given prominence to the construction of an ecological environment, forestry is now facing an unprecedented opportunity. […] The new situation requires that we change our thoughts and views as well as work functions, closely center on the core work of forestry, and push for a comprehensive development in a new phase of forestry education and training work. (State Forestry Administration 2001a)

In other words, due to the policy change the administration was facing unprecedented challenges in both the capacity to implement new policies, as the administration had been assigned to carry out new and more tasks (i.e. national conservation forest programs), and in convincing actors involved in forest development to embrace a new model of development that yielded higher importance to the protection of forest resources.

This sequence of the paragraphs – in the first place the reference to past efforts, and the main message of the document in second place – is very common in official documents of this type. It manifests the existence of diverging interests within the government – as some actors had obviously not changed their "thoughts and views" – and is a rhetorical expression of the center's efforts to reconcile them and find a compromise that satisfies each of them. Different opinions are not only heard out at conferences and meetings where central and local decision-makers convene but are incorporated into the structure of official government papers. In this sense, the retrospect on past efforts of unspecified groups of actors followed by an explicit postulation or request for change is a deliberate strategy to accommodate the different interests within the bureaucracy and get those people on board whose transaction costs are highest.

The logic of the structure is also related to the nature of the document under analysis. *Opinions* (意见) are issued when a bargaining process between different actors is ongoing and informs about the different actors' opinions, as well as the state of the negotiation process. When the central government decided to press for a policy change, thus value change, the State Forestry Administration had to mediate between different interest groups and convince them to fight alongside the central leadership. In order to come to a compromise, it was important to directly address those groups who feared most the possible negative impacts brought about the policy change and eventually set measures to assure their loyalty.

Who were those groups and what were their concerns?

The re-organization of the forestry administration in 1998, when the Ministry of Forestry was downgraded to an economic planning commission, had detrimental effects on local forestry authorities, as some of them were abolished or incorporated into other institutions (Xiong, 2004

cited in Zhang 2008, p.227). The new conservation policies, most prominently the logging ban and the prohibition of "large-scale clearing of remaining primary and secondary forest on sloping lands" (Weyerhaeuser, et al., 2005, p. 239), posed a big challenge to local forestry authorities. Log production had been a major source of income for the forestry authorities, hence in order to compensate the loss of income created by the logging ban, local forestry authorities sold planting material to local farmers who, however, preferred other types of planting material. The loss of income also affected local governments as tax revenues declined sharply (Xu, et al., 2006, p. 601). In addition, Weyerhaeuser, et al. (2005, p. 245) found that the scale of the task overstrained local authorities: Lack of time and (skilled) personnel, as well as a strict quota system, were major obstacles in their implementation. On top of that, forestry authorities took all the blame when failing the implementation of the conservation policies.

By the same token conservation policies affected China's forest industry and forest farmers. Farmers' responses and willingness to cooperate were quite diverse and depended much on the household composition, fertility of the land, its distance to the main house, as well as to the agricultural activity the household had hitherto been engaged in (Weyerhaeuser, et al., 2005, pp. 244-245). Generally speaking, farmers experienced severe reductions in their incomes (Xu, et al., 2006, p. 601), and in interviews, farmers and local government authorities unanimously stated that the forest conservation programs had to be "combined with a rural development program to create alternative livelihood options" (Weyerhaeuser, et al., 2005, p. 245).

The State Forestry Administration in Beijing was well aware of the decisive role local forestry authorities and governments, in particular, those at the county level, played in the enforcement of a policy change. Against the backdrop of financial losses of these agencies and their close contact with local farmers, it was necessary to put more efforts into forging their loyalties. Therefore the document explicitly acclaimed past efforts of those who had already complied with central mandates by putting this acknowledgment in the first paragraph, thus on top of the document. In order to convince those who had yet not yielded, the so far gloomy experience brought about by the policy change needed to be converted into a more positive prospect. Hence, the document employed another rhetorical instrument: It depicted the policy change pressed by the central government as an "opportunity" (机遇) rather than a „challenge" (挑战).

> As the Central Party Committee and the State Council have recently given prominence to the construction of an ecological environment, forestry is now facing an unprecedented opportunity. (State Forestry Administration, 2001a)

The State Forestry Administration's acknowledgement of the crucial role of county-level cadres in the implementation of the programs is further reflected in the stipulation that conveys authority over the training of leading forestry cadres and county government leaders involved in national forest programs to the State Forestry Administration at central level (State Forestry Administration 2001a, Art. 3). The decision to incorporate county government leaders into the forestry training system and to take on the responsibility for their training shows that the center intended to firmly control the process of value change and wanted to make sure that policies and directives would be directly imparted to these actors, who were directly involved in the implementation of the forest programs.

For training, the State Forestry Administration issued a separate document shortly afterward, in which it outlined its vision how the capacities of forestry actors should be improved by training. Two months after *Several Opinions* had been circulated, the State Forestry Administration issued the *10th Five-Year Outline of Forestry Education and Training* (全国林业行业教育培训工作"十五"规划) (State Forestry Administration, 2001b) communicating the general training policies and directives for human capital development in the forestry administration for the subsequent five years.

In contrast to *Opinions*, *Outlines* (规划), and *Essential Points* (纲要) are documents issued by higher levels with the purpose to inform lower levels policies in human capital development and give general directives how to implement them. In this sense, plans always begin with the same set phrase:

> With the hereby issued document, we ask you to cope with the local implementation and enforcement and to report to the State Forestry Administration the local five-year education and training plans formulated and improved according to the present plan. (State Forestry Administration, 2001b)

Plans have a standardized structure and are divided into several sections. Although the plan communicates general principles of the national policy framework and implies a certain degree of obligation of lower levels to accomplish higher levels' mandates as stated in the plans, the directives are formulated in a way to leave enough leeway to local authorities for tailoring measures according to local development needs and conditions.

The main objective of the *10th Five-Year Outline of Forestry Education and Training* formulated was to build human capital and knowledge power for the construction of forest ecology and the development of a prospering forestry industry. Similar to *Several Opinions* (State Forestry

Administration, 2001a), the five-year plan starts out with a retrospective on the efforts in the human capital building during the preceding five-year period pointing to main achievements in this respect. Again, this structural choice aims to rhetorically reward those who have exerted efforts and set measures in the field of human capital building. However, a big share of local authorities had not set many stores by training. Even worse, they disregarded directives to provide training and channel precious revenues they had left into training. Against this backdrop, the plan passed from appraisal to admonishment calling into attention the persisting problems in forestry training:

> Forestry education and training work is not balanced, there are several local forestry departments and divisions whose education and training work is very weak; education and training budgets come from a single channel and investments in training are insufficient; several education and training bases are in poor conditions, this affects the quality of training that should be gradually enhanced; the improvement of education and training and the coordinated use of human resources was insufficient; the incentive and constraint system of education and training work is not sound yet. These issues and problems constrain, to different extents, the development of education and training work. Therefore all levels of the forestry administration have to pay pronounced attention to them and have to seriously tackle these issues in the future. (State Forestry Administration 2001b, Art. 1)

Since the State Forestry Administration (correctly) believed that reasons for drawbacks in forest development were partly owed to insufficient knowledge of many of its staff members and to the yet not accomplished value change, intensifying training and education were considered an important measure to tackle these shortcomings. Therefore, the document determined three areas the State Forestry Administration and its line agencies had to work on: firstly, an investigation of the current situation of expertise in the administration and a prediction of the estimated need of human capital; secondly, the expansion and improvement of forestry training in educational institutions to produce a higher number and better trained cohort of new foresters; and thirdly, scientification (科学化), standardization (规范划), and systematization (制度化) of forestry training at central, provincial, and county level.

The document stipulated a total number of 16 million staff members who were expected to undergo training in the upcoming five years. Training formats encompassed complementary training for the implementation of the six key forest projects, training for leading cadres of non-administrative units and civil servants, continuing education for technicians, training of managers of forestry

enterprises, skill training for forest workers, and general improvement of the educational level and educational credentials of the forestry staff.

In 2003, after the new generation under the leadership of Hu Jintao and Wen Jiabao came to power, the central government issued *Decision of the Central Committee and the State Council on Improving Forestry Development* (中共中央国务院关于加快林业发展的决定) (later referred to as *2003 Decision*) (Central Party Committee, 2003) which can be read as a call to order of government departments, their local agencies, and government local authorities to take seriously the development of forests and their function for China' economy, society, and environment. Unlike the above-discussed types of documents, *Decisions* (决定) yield the highest importance in the hierarchy of documents as they are issued by the highest authorities of China's party-state: The Central Committee of the Chinese Communist Party and the State Council presided over the entire party-state administration. These documents imply a binding order for the implementing and enforcing agencies to comply with the *Decision*. According to Weigelin-Schwiedrzik (2017), *Decisions* signal the accomplishment of a compromise between diverging interests.

The *2003 Decision* was drafted when China entered a new political phase under a new leadership that pressed for an overall change of China's development model demanding that henceforth economic growth should not be pursued at the expense of social inequalities and environmental degradation. The document starts out with a strong and unprecedented statement in its introductory sentence:

> Ecological construction and ecological safety are the two big issues that humanity faces in the 21st century, and it is also the fundamental basis for China's sustainable socio-economic development. (Central Party Committee, 2003)

With this statement, the leadership officially acknowledged something that should apply to China's overall national development, but that had previously been recognized already in forest development: The hitherto development model was depriving the country of its basis for future (economic) development. Forests, so the document continues, were the main pillar of the terrestrial ecological system, forestry an important service to the public, as well as a relevant industry. Hence, Ecological Construction (生态建设), the provision of forest products, and forestry work were of exceedingly great significance for China.

The document makes it very clear that resource conservation remains the main priority in China's new forest development model. Taking a steadier tone the document demands in the third paragraph:

> Forestry does not only have to satisfy the multiple needs of society for timber and other forest products, it must satisfy to a higher extent the improvement of the ecological situation and safeguard the territory's ecological security. Ecological requirements have already become a priority for the society. China finds itself in a period of important changes and shifting trends, it is now experiencing a historical transformation of main goals from the production of timber to ecological construction. (Central Party Committee, 2003)

The subsequent paragraph in the document displays why the leadership thought a sharper tone was necessary and cites the various shortcomings and erroneous trends that had persisted despite the policy change in 1998: forest depletion, desertification, shrinking wetlands, depletion of biodiversity, illegal logging and forest land reclamation, failure to ban illegal hunting of wild animals and indiscriminate digging of wild plants, and forest fires and diseases. One solution for coping with these issues was training, education, and research. Therefore the document requested authorities to focus on the training of foresters as well as enforcement and inspection staff, to whom it was necessary to provide legal education and ecological moral education. In addition, research should be conducted in areas such as forest disease and fire prevention, forest resource, and ecological control.

The *2003 Decision* makes explicit the shortcomings in development and communicates clearly that forest resource conservation has to take unconditional priority over resource extraction. However, while the earlier two documents emphasized that resource conservation yielded higher importance over resource extraction, the *2003 Decision* explicitly refers to the multiple functions of forests, including their socio-economic function. In doing so, the Chinese leadership acknowledged that a simple shift from resource extraction to resource conservation was not the solution for China's manifold problems, in particular for its rural population. Therefore the document defined the goals of China's forest development as follows:

> The sound management of existing forest resources, the expansion of newly planted forests, the implementation of the Land Sloping and Conversion Program, the optimization of forestry structures, the increase of forest resources and the functions of the forest ecological system, the increase of efficient provision of forest products, and income of forest workers and rural population. (Central Party Committee 2003, Art. 2)

Several Opinions (State Forestry Administration 2001a) and the *10th Five-Year Outline of Forestry Education and Training* (State Forestry Administration 2001b) refer to conflicts within the State Forestry Administration, specifically between the center and local agencies. Whereas the *2003 Decision* (Central Party Committee, 2003) invokes the existence of conflicting interests

between the central government's policy on forest resource conservation, the economic interests of local governments and local forestry authorities, and the vital interests of farmers to be able to make a living.

The rest of the document lays out a more detailed description of the single directives on forest development and concludes with a *pronunciamento* that all places and all departments should join the leadership's efforts, and strive hard for turning China into a country of beautiful mountains and rivers, ecological harmony, and a country whose Socialist Modernization is based on sustainable development.

The close reading of the three documents in this section demonstrates that the preparations for an overall ideological shift with respect to China's development model started before Hu Jintao and Wen Jiabao climbed the upper echelons of the party-state. In the field of forest development, the central government had recognized sooner than in other fields of development that economic and ecological interests needed to be reconciled, as forest resource depletion would eventually rob the country of its fundaments for future development.

The documents presented here show that despite the policy shift in 1998, the underlying problems in forest development had obviously not been solved by 2003. On the contrary, erroneous trends had persisted, partly because farmers and their concerns had been excluded from the development concept. Research on rural development has shown that increased burden of local governments, in particular after the tax reform in 1994 and the privatization of Township-Village Enterprises led local governments to charge farmers higher and illegal taxes (Miao, 2004; Weigelin-Schwiedrzik, 2008; Göbel, 2010). Similar to agricultural policies, the shift from resource extraction to resource conservation in forestry did not integrate the farmers' concerns.

The *2003 Decision* (Central Party Committee, 2003) reacted to those developments. Using a steady tone, the document sought to bring in line local governments and government agencies with current policy directives on the conservation of forests. However, despite the clear priority given to the ecological dimension of forest development, the leadership emphasized the need to find solutions for reconciling conservation policies with policies that would provide income for rural households and the forestry industry. It is thus no coincidence that the *2003 Decision* was followed by the launch of trial experiments for the reforms in the collectively-managed forests, where issues addressed in the *2003 Decision* such as illegal logging and land reclamation, illegal trade of wild animals and plants were more widespread and more difficult to bring under control than in state-managed forests.

4.2. Training plans and central-local relations

The section above analyzed three documents understanding them as being part of a communication and negotiation process between interest groups in the context of central-local relations. This section continues the analytical work focusing more closely on one type of official documents: training and education plans. Similar to other official party and government documents, training plans within a bureaucracy are an outcome of a series of interactions between central and local decision-makers (inspections, survey, conferences, meetings, etc.). They are the result of conferences in which decision-makers of both central-level and local-level authorities enter into a negotiation process over issues of (sector-specific) development and human capital development. They thus display conflict lines within the administration.

The section takes on a new analytical perspective and looks at training plans from the vantage point of symbolic and operational ideology. Here the main question that arises is how training plans of different party and government bureaucracies connect with each other. The analysis presented asks the following three questions: How do training plans come into being? How do plans of party and government organizations and their contents relate to each other? How systematic is the communication system between central and local authorities?

4.2.1 The genesis of training plans

The organization of cadre training in China is based on five-year outlines (规划) and annual plans (计划).The overall responsibility for drafting the *National Outline of Cadre Education and Training* (全国干部教育和培训规划) rests with the Cadre Education and Training Committee (干部教育和培训委员会), which is directly subordinated to the Central Party Committee and is composed of a series of decision-makers of the relevant party and government agencies (Pieke 2009a, pp. 56-57).

National cadre training plans inform about the cadre educational policies setting the general directions and targets for the training of party and government cadres. They establish minimum requirements (e.g. the number of hours of rotation training or web-based training), quantitative targets[30] (e.g. how many cadres of each category have to undergo training within the five-year period), and which cadre group(s) to be particularly addressed in the period of the respective five-year plan.

Based on the plans issued by the Central Party Committee, the other bureaucracies then promulgate their own tailored training plans, where the process goes as follows:

[30] These numerical goals are then distributed among the various Party organizations and government departments.

Training in individual bureaucracies, such as the forestry administration, is set up according to outlines issued every five years by the central-level Department of Personnel Affairs and Education (人事教育司). These outlines are incorporated into the comprehensive "planning system" of the Party-state and are therefore based on the general policies of cadre training and human capital development, national development goals as formulated in the five-year outline on China's socio-economic development, as well as sector-specific development targets. They, therefore, have to respond to directives and requirements stated in the outlines of the Central Party Committee and the Ministry of Human Resources and Social Safeguarding.

While the Central Party Committee's training plans address the personnel of party and government organizations, the scope of plans issued by the State Forestry Administration, and similar administrations, is much broader. Forestry education and training plans attend to the entirety of the staff that works in the administrative and non-administrative organizations. In addition, they give directions on the training of foresters at vocational schools, colleges, and universities. That's why these plans are titled *National Outline of Forestry Education and Training* (全国林业局教育和培训规划) as opposed to *National Outline of Cadre Education and Training* (全国干部教育培训规划) that give instructions on the training of *cadres* only.

Five-year training outlines are texts with a formalized structure and language. Outlines issued by the State Forestry Administration begin with a general address to the various government agencies and non-administrative organizations as well as the major state-owned forest enterprises located in Inner Mongolia, Jilin, and Heilongjiang. The rest of the text structure is divided into two parts: While the first part discusses achievements, experiences, and shortcomings of the preceding five-years, the second part lays out the guiding thoughts, principles, main tasks, and training objectives of the upcoming five years.

From the vantage point of content and language, plans are very vague so that they leave great leeway to local forestry authorities for setting up tailored training and education plans in accordance with their specific forestry development strategies and focal work points. Local department and division heads are requested to organize training according to the principles agreed on. For Schurmann (Schurmann, 1971 [1967]) this form of communication is a specific form of ideology and its organization.

Schurmann (1971 [1967], pp. 38-39) defined practical ideology as "rules which prescribe behavior and thus are expected to have direct action consequences." Practical ideology is a communication system with a common set of categories of thought and a common language. The characteristic of this communication system is the way how information on policy directives and leadership

intentions is verbally expressed. Policy orders are put in general terms, so that they can be applied to, and carried out, under diverse economic, social, and cultural conditions. The terms have no exact definition and leave great leeway to local policymakers. At the same time, the lack of definition is compensated with a precision in the use of key terms. This way, terms, and concepts are avoided to become too vague and too abstract. This communication system is a closed system that is unintelligible to outsiders, as meanings and use are orally transmitted in discussion sessions and study classes. This assures the leadership that the intent of its decisions is communicated through "the length and breadth of the organization" (p. 61).

Five-year outlines in the forestry administration are operationalized in annual training plans. As will be explained in Chapter 5 in more detail, the responsibilities for training are parceled out to the different administrative levels on the vertical level and to the individual department units on the horizontal level. Under this regime, the individual department units at each administrative level submit their training applications to their respective Office of Personnel Affairs and Education by the end of the year.[31] The office then evaluates the applications and issues a list of all courses to be held during the same year organized by all agencies and organizations subordinated and affiliated to the administration, including those devised by the Office Personnel Affairs and Education for its own staff. Since education and training is a policy directive in its own rights, meetings and training sessions are organized for those cadres who are involved in the formulation of educational measures and in the drafting of training plans (State Academy of Forestry Management, 27 July 2010).[32]

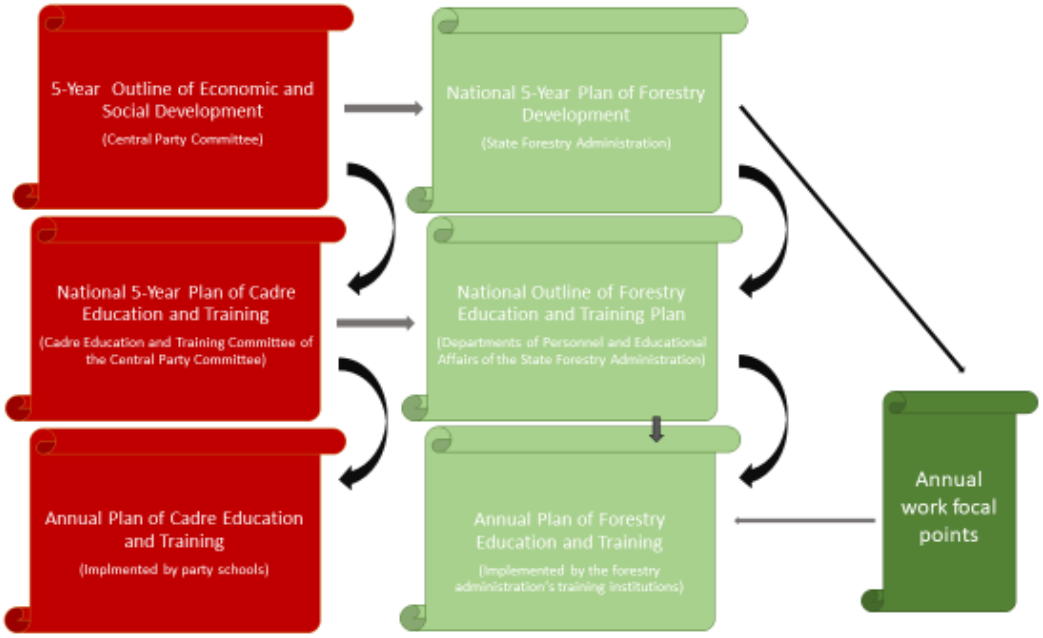
The annual plans are usually issued between the end of February and beginning of March on the websites of forestry authorities and on a sort of e-learning website where cadres can manage their training applications (培训网络*).*They contain a list of training seminars of each department and organization providing the following information: the topic of the training, the cadres addressed in these seminars, the number of cadres expected to participate, as well as the place and date of the training. The implementation of training classes is assigned to be carried out by the forestry administration's training institutions. At the central level, these are The State Academy of Forestry Management (国家林业局管理干部学院), the Center for Human Capital Development and Exchange (国家林业局人才开发交流中心), and the Nanjing Forest Police College (南京森林警

[31] In Fujian, the Department of Forestry sets the 31 December as deadline (Fujian Provincial Forestry Department, 26 November 2014.

[32] Recently, human capital development has been incorporated as a hard target into the cadre responsibility system (see Chapter 5.1.3).

察学院). At the provincial level, there are forestry cadre schools that implement the training plans of the province.

Figure 5: Drafting and issuing training plans



Source: compiled by the author, published in a slightly different version in Marinaccio (2017).

4.2.2 Three principles of planning

The genesis of training plans reveals the existence of a hierarchy between documents issued by party organs and documents issued by government departments. The hierarchy is organized along the symbolic-operational continuum that places symbolic ideology as a springboard for operational ideology. Studying the process how plans come into being is an important part of the analysis of the planning process of training, yet it is not enough. In order to get a deeper understanding of how training is planned and how the different documents involved in the process are connected with each other on the discursive level, it is necessary to look more closely into the plans and investigate how their contents relate to each other. This section investigates the principles behind the planning of forestry training. For this purpose, the period of the 12th five-year plan period selected as a showcase.

It has to be noted that the *12th National Outline of Forestry Education and Training* (全国林业教育培训“十二五”规划) (State Forestry Administration, 2012) was drafted under slightly different conditions than its predecessors. The Chinese central government formulated a comprehensive human capacity building strategy in 2010 penned in three central documents: The

National Outline and Essential Points for Medium and Long-term Human Resources Development 2010-2020 (国家中长期人才发展规划纲要（2010-2020 年）), the *National Outline and Essential Points of Medium and Long-term Reform and Development of Education (2010-2020)* (国家中长期教育改革和发展规划纲要（2010-2020 年）), and the *2010-2020 Essential Points of the Reform of Cadre Education and Training* (2010-2020 年干部教育培训改革纲要). The strategy was formulated at the end of the period of the *2006-2010 National Outline of Cadre Education and Training* (2006-2010 年全国干部教育和培训规划) and postponed the drafting of a new five-year plan to the year 2013 when the Central Party Committee issued the *2013-2017 National Outline of Cadre Education and Training* (2013-2017 年全国干部教育和培训规划). Similar to cadre education and training plans before, the three outlines of 2010 acted as the main reference for human capital development in China's party-state administration and beyond.

In the operational sphere, the planning process starts with the promulgation of the national five-year plan on China's national socio-economic development as a result of the so-called *lianghui* (两会), the National Committee of the Chinese People's Political Consultative Conference (中国人民政治协商会议全国委员会) and the National People's Congress (全国人民代表大会) which convene every five years. The *12th Five-Year Plan* (中华人民共和国国民经济和社会发展第十二个五年规划纲要) was issued on 16 March 2011 and set the directives as well as goals for China's socio-economic development for the upcoming five years. Due to the policy crosscutting nature of forestry, the outline identified forestry as an important component in several policy fields, including agricultural development, poverty alleviation, green development, resource conservation, and climate change mitigation. The plan emphasized the importance of continuing the implementation of China's major natural resource conservation and restoration projects, such as the Natural Forest Conservation Program, the Sloping and Conversion Program, the Grassland Conversion Program, as well as other policies that addressed issues such as sandification, erosion, etc. The plan introduced the "two shields and three belts strategy" (两屏三带战略) (Art. 25) defining five regions where China would continue to strengthen its resource conservation efforts.

Among others, the outline also dedicated one section to human capital development calling for an adjustment of education to the emerging needs of socio-economic development. The introductory sentence of Article 29 proclaims:

> […] Strengthening the construction of all sorts of human resources that are needed for the Construction of Modernization, for a faster transformation of the economic development

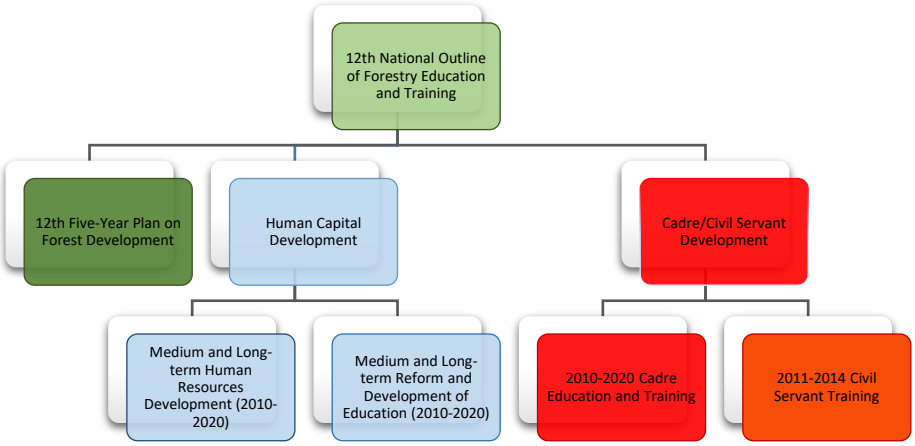
model and for guaranteeing the provision of human resources for the realization of scientific development. (Art. 29)

Following the *12th Five-Year Outline* on China's socio-economic development, the State Forestry Administration issued its *12th Five-Year Outline on Forest Development* (林业发展"十二五"规划) in July 2011. On 5 January 2012, nine months after the *12th Five-Year Plan* and six months after the promulgation of the forestry administration's *12th Five-Year Plan on Forest Development*, the administration issued the *12th Forestry Education and Training Plan*. (State Forestry Administration, 2012)

Similar to other high-level government papers, training outlines are an outcome of a series of interactions between central and local decision-makers (inspections, survey, conferences, meetings, etc.). They are the result of conferences in which decision-makers of both central-level and local-level authorities enter into a negotiation process over issues of (sector-specific) development and human capital development. In the case of the forestry bureaucracy, relevant conferences are the National Conference of Forestry Department Heads (全国林业厅局长会议), the National Conference on Human Resource Work in Forestry (全国林业人才工作会议), and the National Conference on Forestry Education and Training Work (全国林业教育培训工作会议).

The first paragraph refers to those government papers that provided the framework for the present outline. This encompassed two circulars on human capital development – the *National Outline and Essential Points for Medium and Long-term Human Resources Development 2010-2020* and the *National Outline and Essential Points of Medium and Long-term Reform and Development of Education (2010-2020)*– two directives on education and training in the public servants–the *2010-2020 Essential Points of the Reform of Cadre Education and Training* and the *2011-2014 Outline for Civil Servant Training in Administrative Agencies* (2011-2015 年行政机关公务员培训纲要) – as well as the*12th Five-Year Plan of Forest Development* (林业发展"十二五"规划) issued in July 2011 (State Forestry Administration, 2012).

Figure 6: Building plans



Source: compiled by the author

Section one of the document introduces the hallmarks of the directives on national development and human capacity development as demanded by the central government and the responsibilities assigned to the forestry administration in their achievement. This goes as follows:

> The Chinese government and its sector-specific departments face manifold challenges in the realms of industrialization, informatization, urbanization, marketization, and international integration. China is subjected to environmental and resource-related pressures as well as economic transformation. For tackling these challenges and pressures human capital development is of high importance, therefore the Central Party Committee and the State Council formulated a comprehensive strategy (State Forestry Administration, 2012, Art.1).

The role and responsibilities of forestry were captured in the concepts of *Four Positions* (四个地位) and *Four Missions* (四大使命) (State Forestry Administration, 2012, Art.1). Former implies that forestry is paramount in the operationalization of China's sustainable development strategy, Ecological Construction, Great Western Development Strategy, as well as in climate change mitigation. Latter refers to the importance of forestry in the realization of scientific development, the construction of Ecological Civilization, climate change mitigation, and the solution of the *Three Rural Issues* (*Qiushi*, 16 August 2009).

The third paragraph identified two main challenges the forestry administration would face in the upcoming five to ten years: Firstly, due to the reform of the collective forest tenure rights and socio-economic transformation in China, the administration had to absorb increasingly high numbers of people into its workforce, many of whom lack professional education and experience in forestry. Secondly, forestry plays an important role in climate change mitigation, socio-

economic development, and in the provision of environmental services. Due to its multiple functions, the portfolio of the administration and its staff had expanded remarkably, yet the number of staff needed to accomplish the variety of tasks was comparatively small. In the period of the *12th Five-Year Outline* the administration would have to incorporate over 20 Million people into its work contingent (i.e. cadres, professionals and managers, forest workers, and forest farmers), this meant that the administration needed to train them accordingly. However, due to the inadequacy of educational, both in vocational education as well as in higher education, whose production of foresters did not meet the actual demand of workforce in the forestry sector, and the lack of sufficient funding for education and training, the administration would have major problems in carrying out this task (Art.1).

The *Four Positions* and *Four Missions*, two concepts that first came up in a speech by Wen Jiabao (温家宝) in 2009 then elaborated by party theorists, display the policy cross-cutting nature of forestry and its central position in various national development agendas as understood by the Chinese leadership under Hu Jintao and Wen Jiabao. The ideological concepts connect with other ideological concepts and national development strategies, such as the "Three Rural Issues". Despite this high-level acknowledgment of forestry and its multiple functions, on the practical level, the rhetorical importance attached to forests and did not match the structural predisposition of the forestry administration which carried the main responsibility for their development.[33]In other words, paragraph makes explicit the clash between the central leadership's expectations on the forestry administration and the concrete (structural) challenges the administration faces in meeting these expectations.

In order to meet these expectations and face the challenges ahead, the forestry administration needed to strengthen professional on-the-job training as well as improve and expand the education of foresters. Section four of the document presents three main goals and duties to be accomplished by the forestry administration in the upcoming five years: The number of people of different trainee groups addressed by the forestry training system to undergo training. A quantitative and qualitative improvement of vocational education in order to strengthen the fundaments for human capacity development in China's various forest regions. More and better forestry education in the realms of three ecological systems (forests, barren lands, and wetlands) and biodiversity protection, as well as the adjustment of the discipline by incorporating new subjects into curricula that should

[33] As explained in the previous section, the structural weakness was in parts owed to the historical policy change in 1998, when resource conservation started to yield higher importance than resource extraction and industrial development in many regions. The policy change significantly limited the possibilities of revenue generation for local forestry authorities and thus to implement other policies such as in the realm of human capital development.

facilitate the fulfillment of the administration's three main functions (i.e. the improvement of the forest ecology, the development of the forestry industry, and the prospering of an ecological culture). With regard to professional on-the-job training, the plan stated that emphasis would be placed on leading government and party cadres, and on managerial and technical *backbone cadres* (Art. 3). Training should be expanded in the education and training of forestry cadres, human resource training in the forestry industry, skill training of forest workers, and applied technical training for forest farmers (Art.3).

As explained above, the more general five-year outlines are operationalized in concrete training measures listed in annual training plans. Training targets are meted out over the five-year period.[34]These plans list detailed information on training seminars of each department unit to be held in the current year. The first annual plan of the State Forestry Administration was issued two months after the *12th National Outline of Forestry Education and Training* (State Forestry Administration, 2012) on 20 March 2012 containing a list of 79 training programs to be held in the upcoming year. The document addressed ministerial-level departments and subordinated organizations of the State Forestry Administration and training would comprise staff members working at central-level departments and organizations, as well as cadre groups that operate at the local level and the central-level takes responsibility for their training.

Annual plans anticipate the contents of the training and the type of skill training (i.e. technical, managerial etc.). In many cases, the plan already informs about when and where the training will take place. Table 4 is an extract of a training plan showing training seminars organized by the Department of Resource Protection in 2012. Eight central-level training programs on a variety of topics were planned addressing cadres of various administrative levels and organizations. Training covers a series of contents and different sorts of skill, including managerial and technical aspects, as well as introductions to relevant laws and regulations. For example, The 16th Training Class for Leading Cadres of State-level Nature Reserves was planned to be a five-day training program to be held in Guangdong Province (most probably in the local provincial forestry cadre school or in the premises of the provincial department). Issues to be tackled encompassed wild plant and animal protection, disease protection, nature reserve construction and management, wetland protection.

[34] Unfortunately it was not possible to analyze this interesting translation process from the center to the locality more profoundly. As will be explained in more detail in Chapter 5.1.3, in the planning of training programs authorities take into account to a certain extent cadres' suggestions and needs. However, eventually the decision on what should be trained and which trainees should be addressed by the training is an outcome of a negotiation process within the department unit and those who are assigned with the task to organize training.

Table 4: Annual Training Plan 2012

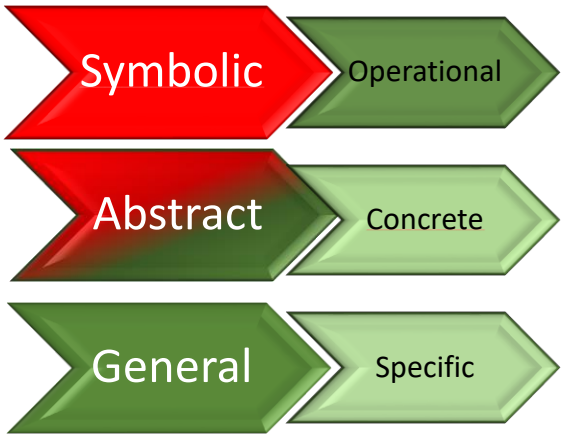
Title of the training program	Contents	Participants	Place and time
16th Training for leading cadres of state-level nature reserves	Wildlife protection, wild plant protection, prevention, and control management, nature reserve establishment and management, wetland protection, master planning of protection zones, capital construction, forest land and forest rights management	Division heads of nature reserves and of forest conservation district who have not yet participated in the training; total 54 people	7 days, Beijing
Panda protection management capacities	Study of management and policies, ecological surveys	Grassroots-level protection management personnel; Sichuan 30 people, Shaanxi 12 people, Gansu 8 people, total 50 people	3 days, Sichuan
Protection and safeguarding of species with extremely small populations	*National Program on the Protection of Species with Extremely Small Populations*; business management , techniques	Staff in charge of conservation bureaus (stations) and supervision staff from across the country; 2-4 persons each, total 100 people	5 days in September, Zhejiang
Demonstration nature reserve	Establishment and management of demonstration nature reserves, conservation techniques	Persons in charge of provincial-level protection departments, working staff of conservation districts and one person of each demonstration nature reserve; total 100 people	5 day, place t.b.a
Second training on national key protected wild plant resource survey	Pilot scheme investigation and exchange, investigation of technical regulations	forestry industry groups of all provinces, regions, and prefectures, every 3-4 persons, total 150 people	5 days in April, Beijing
Off-site conservation	Off-site protection contents and characteristics, how to enforce off-site protection	Staff in charge of conservation bureaus (stations) and supervision staff from across the country, 2-3 persons each, representatives of botanical gardens, each 1; total 100 people	5 days in June, Xinjiang
2012 spring term training on bird tagging	Bird tagging techniques, wireless tracking, satellite tracking technology	Technical staff for bird tagging of the country's forestry bureaucracy, each province 2-5 persons	10 days , 10-20 May
Wildlife breeding and utilization management	Wildlife Protection Law, enforcement of wildlife protection regulations, wildlife commerce management methods, wildlife domestication and	Working staff assigned to wildlife protection management of provincial-level forestry departments, each 2 persons	1-20 August

	breeding management methods, product standards management system

Source: extract from State Forestry Administration (2012)

Looking at the above-described process, it is possible to discern three principles of planning: From the symbolic to operational, from the general to the specific, and from the abstract to the concrete. The hierarchy created through the genealogical procedure and the chronological sequence of promulgation reflect the dominant position of symbolic ideology manifested in the principle under the party's leadership (党的领导). While five-year outlines give general and abstract guidelines and directives on China's national development strategy as well as educational and training strategies, outlines drafted in government departments, in this case the State Administration of Forestry, are the result of a translation process of these mandates into sector-specific directives and policies that go in line with central directives, at the same time they respond to specific needs of the administration. In this process, symbolic ideology is translated into operational ideology. Yet, five-year outlines drafted by the State Forestry Administration are still very abstract and vague. This operationalized, but still very abstract ideology is then concretized into detailed lists of training seminars issued annually by the administration.

Figure 7: Translation process in training plans



Source: compiled by the author

4.2.3 Local practices

The process so far analyzed concerned the central level and its ministerial-level work units. At the provincial level, the procedure is, in theory, replicated and plans issued by the provincial party committee and forestry authorities are tailored to provincial policy and human capital development needs. Going back to Schurmann's (1971 [1967], p. 58) statement that a systematically structured organization has a likewise systematic flow of information, the question arises to what extent the

above-explained planning process remains systematic once it traverses the transparent boundary between the central and the local state.

With regard to the party school system, Lee (2015, p. 38) explains that the process of local training plans starts within the local party committee that consults with other relevant party and state agencies. Together they draft the annual training plans and set targets. The implementation of the training classes is assigned to the party school. Party school administrators are part of the cadre responsibility system and are thus evaluated on their ability to meet the targets formulated in the training plans, so Lee. In terms of compliance with higher-level mandates, Lee illustrates that local party schools are under the managing authority of the local party committee. She points out that the "within-locale authority relationship" is a double-edged sword with the effect that interests of local party committees are aligned with their party schools. This generates strong incentives for fostering local development, rather than developing approaches that would improve "system-wide" development (p. 35).

In theory, training plans within the forestry administration follow the directives that flow from the center to the localities, but they also pay attention to the directions and targets of provincial cadre training plans, local development plans, as well as the work focal points in local forest development.

When I started out my field research, my original plan was to analyze a closed cycle of training plans starting from the central, over the provincial, to the very local level. At a relatively early point, I realized though that this endeavor was doomed to fail, as my requests to get access to training plans was denied. After some time, I started to tackle this issue in my interviews asking several people's advice, who had better insight into government practices than I.

One of my informants at the State Academy of Forestry Management explained that the existence of training plans at the local level depends on the role of forestry in a specific region. Thus, regions, where forests have a minor importance in the local economy, do not issue plans at all, because training classes are rarely organized (Interview Director L., 3 November 2015). However, when I inquired about training plans at the Provincial Department of Forestry in Yunnan – a province with rich forest resources and home to China's most precious biodiversity hotspots – my local interview partner informed me that the department did not issue any annual plans at all. Training activities were irregular in the department's units and the variations from one year to the other were high. Some of the agencies might not organize any training activity in one year, while only one or two in the following year. Under this condition it did not make any sense to set up annual training plans, he explained (Interview Divison-head X., 15 December 2015). A noted forestry scholar from

Beijing University argued that another reason for the absence of training plans at the local level was that the plans were very poorly written or had just been copied either from other provinces or from the previous years. In order not to draw any unnecessary attention from higher levels, these plans were shut away, my information explained (Interview Professor X. 8 December 2015).[35] This concurs with Lee's (2015, p. 35) findings that line agencies share curricula.

The inconsistencies in the planning of cadre training at the local level reveal far more about the administration and its central-local relations than I initially assumed and confirm the picture portrayed in the literature on central-local relations so far. The system of communication is not as coherent and systematic as official regulations require or higher levels envision it to be. One of my informants stated that training activities are "not systematic and rather irregular" (培训不是制度化，比较灵活的) (Interview Professor Y., 8 July 2016). As such, the lack of planning gives clues about the structural realities of local forestry administrations, leadership priorities, and their training management, as well as about the relationship between the central and local forestry authorities. The example of Yunnan shows that systemization of training in terms of systematic planning at the local level is not necessarily linked with the relevance of forestry in the region, but is affected by other factors.

This section has discussed the role of training plans are essential components of the communication system between party and government agencies and between central and local authorities. The formulation of plans is an act of translation from symbolic to operational ideology, from abstract and general principles in concrete and specific training measures. Similar to other government papers, training outlines portray the conflict lines between different actors in the systems, as such, they formalize these conflicts and expectations into written statements. In addition to being a means of communication and materialized acts of translation, documents assume the third function in China's administrative system: They are part of the administration's attempts to organize forestry governance. As such, they reveal how the administration understands forestry governance and tries to organize it. The last section of this chapter tackles this issue more closely.

4.3 Organizing forestry governance

According to the *12th National Outline of Forestry Education and Training,* the staff of the State Forestry Administration makes up some 1.645 million people, among which the administration accounts for 90,000 party and government cadres, 357,000 forestry technicians, 188,000 forestry

[35]I suspected that my status as a young foreign researcher did not contribute much to encourage cadres to provide me with the material I was so desperately looking for.

enterprise managerial staff, 170,000 highly-skilled talents, and 840,000 workers. In addition, there are 450 million forest farmers (State Forestry Administration, 2012). The statistical data (brought up to round figures) displays the existence of an official categorization of trainees.

In this section, I demonstrate that the categorization of trainee groups is part of an attempt to organize forestry governance in China and that training is designed as a technology of power. It tries to direct a specific way of thinking about what forest development is, and how to operationalize and implement related policies. Knowledge construction produces subjects of operationalization for whom policy implementation becomes "a category in relation to which they think and act" (Yeh, 2009, p. 885). Documents are an essential element in this process as they set up categorizations and define role expectations. They are cardinal in the state's efforts to define role expectations and play an active part in the creation of subjects of operationalization. National plans on education and training not only reflect the party-state's understanding of how forestry governance should be organized, they are also part of a process that negotiates and modifies the reality of governance (Asdal, 2015).

4.3.1 Defining subjects of operationalization

The categorization formulated in the document refers to trainees addressed by forestry training system and reminds of an internationally common categorization of stakeholders [36] that distinguishes between state, market, and societal stakeholders, and of a traditional Communist categorization of China's society into cadres, workers, and peasants, that further differentiates between manager-administrators and scientific-technical specialists. Categorizations always come with a definition of responsibilities, functions, and role expectations. By the same token, statements on skill and knowledge requirements reflect role expectations of trainee groups by those who make those statements.

Historical documents show that already in the 1980s when China started to promote more vigorously educational policies in the realm of cadre and continuing education, government papers distinguished between cadres, managers, technicians, and farmers as groups addressed by the forestry training system. As opposed to today, training was not yet customized to specific needs of the different professional groups, but rather aimed to provide general further education to China's adult and working population. This was necessary, as the Cultural Revolution and campaigns had accounted for a huge loss of China's minds and had undermined the development of human capital development.

[36] For a further discussion on the term stakeholder and stakeholder interests in China's forestry development see Chapter 6.

The idea of systematization and standardization of training came with the first attempts to introduce a civil service system in the mid-1980s and early 1990s.Administrative reforms pursuing a higher degree of professionalization and efficiency resulted in a more detailed distinction between professional groups and their knowledge requirements in the forestry administration starting with the 1990s. As presented in the historical chapter of this dissertation (Chapter 3.2.2), first customized curricula for different professional groups in the forestry sector were set up at the beginning of the 1990s, among the first was the training curriculum for heads of state-run forest farms (State Forestry Administration, 1992, p.129).

The *National 10-Year Development Outline of Forestry Education and the 8th Five-Year Plan* (全国林业教育发展十年规划和”八五”计划) issued in 1992distinguished between leading cadres at the county-level and above, leading cadres of large and medium-sized forestry enterprises, technicians and professionals, workers, and forest farmers (Yearbook of Forestry 1992: 130). Against the backdrop of the enactment of a provisional civil servant law in 1993, the subsequent *9th National Outline of Forestry Education and Training* in 1995 inserted *civil servants* as a separate category that was distinguished from leading cadres (State Forestry Administration, 2001, pp. 141-142).[37] Training for civil servants entailed foreign language classes (i.e. English) and “processing official documents” (State Forestry Administration, 1995, p. 177). These efforts notwithstanding, it was not until the beginning of the 21st century that the administration pushed for more concerted systematization and standardization of training practices.

One among the first measures of standardization was the endorsement an official categorization of trainees addressed by the forestry training system and the definition of sets of skills and knowledge these trainees were expected to possess. At the National Conference on Forestry Education and Training Work in Shenyang, Liaoning Province in June 2001, the State Forestry Administration enshrined five categories of trainees, the so-called “five contingents of forestry” (五支林业队伍) entailed:

- civil servants (公务员队伍)
- managers (经营管理者队伍)
- forestry professionals and technicians (林业专业技术队伍)
- forestry workers (林业工人队伍)

[37] What is not clear from the historical resources is to what degree the earlier trainings had been customized at this point of history, however historical records show a clear breakpoint occurred at the turn of 21st century, when the State Forestry Administration started to define what kind of skills and knowledge these groups should acquire by means of training. These developments in the State Forestry Administration came with a parallel expansion and modernization of the party school system (see Chapter 3.2.2).

- forestry farmers (林农队伍)[38]

  (State Forestry Administration, 2001, pp. 141-142).

The *10th National Five-Year Outline of Forestry Education and Training* issued in 2001 adopted these categories and formulated training objectives in conjunction with them. As discussed in section 4.1.2 of this chapter the outline set two main objectives (总体目标) to be achieved in the upcoming five years: First, the upgrading of skills, knowledge, and educational credentials of the people who were engaged in forest development, and the reconciliation of economic interests with resource conservation. Training was expected to be customized to the professional needs of the five trainee groups. The document can be understood as a form of formalization of role expectations with a clear definition of what kind of expertise is expected each trainee group to possess. Table 5 summarizes these expectations: In the first place, the plan and its stated objectives have to be understood in their historical context, as skill and knowledge requirements are tied to the political requirements of the historical period when the plan was drafted.

In 2001, China was about to join the World Trade Organization, hence foreign language skills that few people had so far acquired and a thorough understanding of the organization's regulations were premised so China could play a more prominent role in international politics and economics. Also, the internet had slowly started to take off and the leadership was well aware of the usefulness for China's public administration, in particular in respect to the state-society communication. The requirements for leading cadres to familiarize with information and communication technology were part of more concerted efforts of the Chinese government to "apply technological advances to the public administration" (Holliday, et al., 2005, p. 241) starting with 1999. Finally, the requirement that leading cadres, enterprise managers, as well as professionals and technicians should have a thorough knowledge of laws and regulations indicate the gaining momentum of this field in China's political decision-making process at that time.

[38]The subsequent training plans in 2006 and 2012 preserved the formula even though "civil servants" would not be treated as separate category anymore but incorporated into the category of "leading party and government cadres." Latter encompassed the categories civil servants, management or leading cadres of service organizations (事业单位), and heads of county and township forestry authorities (State Forestry Administration, 2006; State Forestry Administration, 2012).

Table 5: Roles and expertise

Stakeholders	Skills and Knowledge	Level of abstraction
Leading cadres	"CCP ideology", "directives, policies, laws, and regulations of forestry", "development strategy of the country's socio-economic sustainable development", "modern theories of forestry", "modern management science", and "informatization"; computer and language skills, forestry technology, economics, trade and finance	Macro
Forestry enterprise managers	"Professional forestry knowledge", "modern management", "policies, laws and regulations", "modern forestry theories", "emerging industries and commerce", "WTO regulations" (train future managers with high political sophistication, professional understanding, and foreign language skills)	Macro
Professionals and Technicians	Strong credentials in science, "innovation capacities", and the "capacity to successfully disseminate practical technology"; update knowledge on forestry and forestry technology by continuing education; "informatization", finance and taxation, laws and regulations, and modern management	Meso
Forest Workers	High cultural level and strong job skills	Micro
Farmers	Become forestry technical experts with a certain level of culture mastering planting techniques and other practical techniques, farmers involved in the six key forest programs should undergo ecological protection awareness education, tree and grass planning techniques	Micro

Source: compiled by the author, data drawn from State Forestry Administration (2001b)

Outside of historical contextualization, the plan displays the administration's understanding of forestry governance and role expectations toward each trainee group in the context of forestry governance. Starting with the highest ranking trainee group, leading cadres are bestowed with decision-making power and are thus assigned with the responsibility to formulate and push through sector-specific policies within the framework of symbolic ideology. These operationalizers are expected to have a comprehensive understanding of the principles and concepts of national development. At the same time, operationalizers need to be familiar with the policy field they are working in, as they must formulate policies on solid grounds. Last but not least, as decision-makers,

they need to develop skills that allow them to push through decisions and forge loyalty of their subordinates, thus leadership skills.

Managers of enterprises assume similar responsibilities but operate in a different professional environment. Like administrative decision-makers, they need to have a solid understanding of the larger context they are operating in, as well as sector-specific knowledge so they can develop their enterprises.

Technicians and professionals are responsible for setting up reforestation plans, the selection of tree species, the development of new technologies and methodologies to promote forest development. In other words, this trainee group is expected to find technical solutions for the implementation of policies and reforms. According to the document, the State Forestry Administration expects them to regularly update their sector-specific knowledge as well as develop innovative thinking for finding possible solutions for newly emerging problems. Since the practical conversion of these technical solutions into real action on the ground is mostly done by forest workers and farmers, technicians and professionals need to have the ability to impart relevant practical skill to others and teach them to apply knowledge.

The two trainee groups at the bottom of the list, workers, and farmers, are expected to be knowledgeable in the daily practice of their work. The professional group of forest worker includes a vast spectrum of people working in a variety of forestry organizations, such as protection stations and forestry stations. They have to conduct surveys as well as monitoring. Forest farmers should be familiar with the planting and the tending of trees, and those involved in conservation activities should obtain basic knowledge of the principles of conservation and ecological protection.

The contrasting juxtaposition of the different trainee groups and their attributed skill and knowledge brings to light an interesting graduation of abstraction of expertise among the stakeholder groups. The level of abstraction of the expertise ascribed to leading cadres and managers is located at the macro-level as it concerns contents that are more abstract in content. The expertise of professionals and technicians is situated at the meso level; although their skills and knowledge are technical in nature, the level of sophistication is rather high. In contrast, knowledge and skills of workers and farmers are technical but more practical in nature, their daily work encompasses planting, tending, and monitoring. On the continuum of abstraction, their expertise is located at the micro-level.

Although expected expertise of trainees can be represented on a continuum that gradually passes from the abstract to the concrete, the analysis of training seminars presented in Chapter 5.2.3 will show that the abstract never stands without the concrete in the training, and, conversely, the

concrete never stands without the abstract. Being part of a "thought community" necessitates that its members can connect with both ends of the continuum, even though to different extents. The importance of creating a link between the symbolic and the operational as well as between the abstract and the concrete is an integral aspect of China's training structure.

This section has shown that documents are part of a chain of communication (Mayring, 2010, p. 56) between different authorities in the party-state administration. In addition, the administration uses government papers to define role expectations of trainees addressed by its training system. The act of definition in party-state documents should not be carelessly dismissed as a senseless or hollow ceremonial. Asdal (2015) reminds us that

> [p]aperwork does not simply describe an external reality 'out there': Documents also take part in working upon, modifying, and transforming that reality. (p. 74)

Therefore, documents constitute an important part of the organization of forestry governance. Yet, this form of communications can only define how trainees are expected to think about and relate to forest development and its operationalization. The process of organizing forestry governance needs, therefore, a technology that conveys these expectations to the respective trainees. As will be demonstrated in the following section, training is thought to act as a technology that facilitates and contributes to the creation of subjects of operationalization.

4.3.2 Creating subjects of operationalization

As discussed in the historical chapter of this dissertation, complementary training as a policy instrument to facilitate policy implementation has emerged in the mid-1990s and was first designed to accompany national forest conservation programs. This section analyzes the organization of complementary training in the context of two forest reforms as examples of how China attempts to facilitate the operationalization of the more abstract goals of sustainable forestry management into concrete policies on the ground: The Natural Forest Conservation Program launched in 1998 was part of a radical policy shift from forest resource extraction to resource conservation in forest development. Whereas the National Reform of the Collective Forest Tenure System (全国集体林权制度改革) promulgated 10 years later aimed to respond to the need to create income sources for farmers and insert forestry in the state's efforts of poverty alleviation. The analysis demonstrates that training in China is designed as an instrument that accompanies the implementation process by reinforcing role expectations to "operationalizers" and "implementers" as formulated in its government papers. Training tries to direct the way how these trainees should think and relate to the implementation process. While documents define subjects of operationalization, training proceeds to create subjects of operationalization.

The Natural Forests Conservation Program was one among six national forest rehabilitation and conservation projects embarked on after the 1998 floods. It was a direct response to a series of natural calamities, in particular, the devastating flooding at the upper and middle reaches of the Yangtze River that had caused major damages to the environment and the local population. The flooding was a consequence of the decades-long depletion of forest resources and served as a wake-up call for both central and local governments to put an end to this enduring degradation and depletion in the country (Liang & Mol, 2013, pp. 65-66).

> It became apparent to both the central and regional governments that the ecological conditions of the upper reaches of the Yangtze and Yellow River basins were directly related to the economic welfare and ecological security of the middle and lower reaches of these basins. (Xu, et al., 2006, p. 598)

The program aimed to expand natural forests and increase the productivity of forest plantations (Zhang, et al., 2000, p. 2135). It covered 18 provinces and autonomous regions and between 1998 and 2001, the central government invested a total of 17 billion RMB to get under control deforestation (p. 2135).The program was coordinated by the Center for Natural Forest Conservation and Management (国家林业局天然林保护工程管理中心)a coordination office under the leadership of the State Forestry Administration.

In order to facilitate smooth implementation, the forestry administration promoted customized training for different actor groups involved in the process of implementation. Work experience should be collected and concentrated in three county-level forestry bureaus that served as training bases for cadres from regions designated for the program: Baihe Forestry Bureau of Jilin Province focused training on selective cutting or small-area clear-cutting methods in natural forests; Matoutan Forestry Bureau of Shaanxi Province specialized in resettlement and retraining of forest dwellers; and Xiaolongshan Forestry Bureau of Gansu Province was concerned with mandatory conversion of marginal farmlands to forest (Zhang, et al., 2000, p. 2135).Technical training was provided to forestry cadres at different administrative levels and with different job assignments. According to official resources, fifty provincial leaders and around 700 forestry officials from provincial and local forestry bureaus were trained by the Center for Natural Forest Conservation and Management, and forestry professionals taught thousands of local forestry cadres, key technicians, and farmers at the township and village level in forestry technologies (p. 2136).

Based on this experience the circular *Several Opinions* (State Forestry Administration, 2001a) established the framework for the training of trainee groups in the context of all national forest development programs. Similar to the documents discussed in section 4.3.1, the framework

displays a graduation of abstraction in the contents that were to be conveyed to different trainee groups. Operationalizers were expected to have a thorough understanding of the national political context, how these policies related to each other, as well as the more abstract goals of the policies. Whereas implementers were counted upon to obtain skills and knowledge that directly related to their work on the ground and that would help to translate abstract principles into concrete action. (See table 6 below).

Table 6: Complementary training for the implementation of national forest program

Stakeholder groups	Skills and knowledge	Level of abstraction
Forestry leading cadres of all regions with key forest programs, forest program managers and technicians, leading cadres of local governments	Special topic training: major policy lines of key projects, policies and forestry guidelines and laws, relevance and function of the construction of forestry ecology in the Great Western Development Strategy, management and organization of key forest projects, quality standards and quality survey, economic accounting, monitoring and evaluating ecological benefits, theories of the construction of forestry ecology, theories of modern management science, methods and advancements in reforestation techniques, breeding techniques, pest and disease control techniques, desertification prevention, biotechnology, informatization	Macro and meso
33 forestry key positions	Forestry professional key staff-job training: knowledge popularization on forestry policies, laws, and regulations, law enforcement awareness	Meso
Forest farm heads of collective ownership and village forest farms technicians, township and village forest protectors, forest planting and nursing households, directors of collective enterprises in forest regions	Forest farmer use technology training: forestry science knowledge popularization, environmental protection awareness, reforestation techniques, practical enrichment	Micro

Source: compiled by the author, data drawn from State Forestry Administration (2001a)

Complementary training as had been experimented with during the mid-1990s and formulated into a conceptual training framework at the beginning of the 2000s was started to be systematically employed in succeeding national reforms. One of these more recent examples was the National Reform of the Collective Forest Tenure System that was officially launched in 2008 and coordinated by the National Department of Rural Forestry Reform and Development (国家林业局农村林业改革发展司).

The reform grounded on a model developed in Fujian in the late 1990s and on experiences gained from experimental points in Fujian and Jiangxi. The experimental phase was initiated the *2003 Decision* (Central Party Committee, 2013). Fujian and Jiangxi were selected as experimental sights where forestland user rights were re-delineated and redistributed, villagers could choose whether to reject or accept the reform. The reform resulted in well-defined rights for specific forest plots (Xie, et al., 2016, p. 117). In 2008, the central government elicited the reform to a national level including all collectively-managed forests across the country (State Council, 2008).

Also in 2003, the State Council issued *Opinions on Doing Well Training Work for the Reform of the Collective Forest Tenure System* (关于做好集体林权制度改革培训工作的意见) (General Office of the State Council, 2008) stating as follows:

> By undergoing training, a branch of forest reform workers should be cultivated that are politically reliable, knowledgeable in the policy, professionally competent, and with a firm working style; forest farmers that understand the forest reform policy, support the forest reform work, understand technology, are able to cultivate [trees], improve the management [of forests], and adapt to a Socialist Market Economy. Training ensures a smooth advancement of the forest reform work, as well as the promotion of the Construction of Modern Forestry and the prosperity of forest farmers. (General Office of the State Council, 2008)

According to the document, training was expected to accomplish a series of objectives: it should foster the understanding of, and the support for, the policy among forestry actors, at the same time training should act as a capacity building mechanism and convey necessary skills and knowledge that contribute and facilitate the policy's implementation. Similar to the other government papers discussed in this Chapter, *Opinions on Doing Well the Training Work for the Reform of the Collective Forest Rights System* (General Office of the State Council, 2008) reveals the existence of different graduations of abstraction in the contents of training different trainee groups.

At the national level, the State Academy of Forestry Management organized several training programs for cadres, professionals, and technicians from different administrative levels down to

the county level. Training took place in Beijing and other places, in particular in those provinces that had conducted trial experiments before the official launch of the reform (Interview Director L. 7 July 2016; Interview cadres from local forestry cadre school, China, 25 November 2015) One of these programs was conducted in December 2009, when a total of 187 cadres of local forestry departments convened for a seminar on the "Reform of the Collective Forest Tenure System." Participants were division heads of provincial forestry departments involved in the implementation of the reforms, personnel that carried out the statistical reporting, and local forestry cadres. Lectures encompassed contents ranging from "arbitration of land contract disputes", "inspection methods", "standards and requirements of statistical work", "explanations on how to do statistical reporting", "public finance system", "forest insurance", "forestry mortgages", "logging management", and "transfer of forest tenure rights" (State Academy of Forestry Management, 22 May 2010a).

At the local level, complementary training addressed county-level leading cadres at the division rank and heads of county-level forestry bureaus, grassroots forestry cadres, as well as the forest farmers. County-level cadres had to be well-informed about the relevant policy statements and laws which included: the central government's *2003 Decision*, the *Forest Law*, the *Rural Land Contract Law*, and the *Property Law* (State Forestry Administration, 2008).

Training for grassroots-level forestry cadres related to a greater extent to the concrete workflows and the technical operationalization of the reforms. Legal issues were reduced to the selection of specific elements that could then be explained to farmers. The training on the ground with farmers should convey the objectives of the reform, the main policies, and the concrete modes and steps of the policy implementation process. All of which had to be explained in a manner that was easy to understand (通俗易懂). Training also included the use of forestry production techniques (always under due consideration of the local particularities) and the document pointed out that it was important that farmers should understand that they were the subjects (主体)[39] of the forest reform (State Forestry Administration, 2008).

Going back to the three fundamental principles behind the planning of training – from symbolic to the operational, the abstract to the concrete, from the general to the specific – we observe that

[39] The concept of subject, in Chinese *zhu ti zuo yong* (主体作用), is an ascription to the role of farmers in the reform process that became popular, among others, in the implementation Rural Tax and Fee Reform. Thørgersen (2012, p. 28) explains that the concept tallies with the slogan *yi ren wei ben* (以人为本) coined by Hu Jintao and Wen Jiabao and has gained momentum during their ten years of leadership. Villagers should be the subject of the reforms and thus actively involved in the planning and implementation of the projects.

the same principles apply to the organization of training. Figure 8 below offers an illustrative description the interplay of the three dimensions in the context of complementary training in China.

Figure 8: Levels of abstraction in complementary training

Source: Compiled by the author

The two examples discussed in this section show that training is understood as an important instrument of public policy in China's forest development. The top-down approach should ensure that knowledge on the policies and their objectives, the relevant laws, and specific technical skills facilitate smooth implementation. The underlying objective of this conceptual training framework is to ensure the solidification of roles in the forestry governance. Trainees are assigned roles and a very narrowly defined set of tasks according to which they are supposed to operate. In other words, training has the function to impart to trainees how they should think about and relate to policy implementation.

4.4 Conclusion

This chapter centers on the role of government papers in Chinese politics. The underlying assumption of the presented analyses is that official documents are not merely hollow statements but entertain a relation to the political reality in China. The different sections of the chapter tackle several types of official documents in the context of human capital development in China identifying three distinct features:

First, government papers are part of a communication and negotiation process in which actors within the system negotiate their visions of development and expectations of its outcomes. Government papers are outcomes of compromises, although these compromises are not finalized but continue to be negotiated. The nature of the compromise and the conflict lines of interest groups are inserted in the text structure. These shape the state's vision of development and modify it over time.

Second, government papers have a translatory function. Focusing on training plans, a specific type of official documents in the Chinese party-state administration, the analysis demonstrates that training plans, as part of the planning process of training, translate strategies of human capital development on three dimensions: from the symbolic to the operational, from the abstract to the concrete, and from the general to the specific.

Third, government papers are statements on how the administration understands forestry governance and a vital part of its efforts to organize forestry governance. The forestry training system addresses five groups of trainees who are involved in forest development. Government papers on human capital development prescribe roles as well as expectations on their respective expertise and contribution to the operationalization of the party-state's vision of sustainable (forestry) development, and to the implementation of related policies.

The chapter shows that the central state in China has a clear vision of how human capital development should facilitate and contribute to achieving a change of value in China's development model. Notwithstanding, government papers, as mirrors of inter-administrative conflicts, hint that the implementation and enforcement of this strategy do not proceed unobstructed and that the centers' vision to facilitate the operationalization of sustainable development by means of training does not remain uncontested by local actors. The following chapter, therefore, investigates the structures and organization of forestry training in China looking into the training at different levels of the State Forestry Administration.

Chapter 5

Structure and Organization of Forestry Training

On 3 November 2015, I embarked on a 90-minutes ride from the Beijing metro-stop Jishuitan in Xicheng to Huangcun Xidajie in the city's southern outskirts, where the State Academy of Forestry Management is located. There I had an appointment with a cadre who was in charge of setting up curricula and of the organization of training programs. On my way to the academy, I felt excited and nervous at the same time. It had taken me almost two years to get access to this institution, moreover, the cadre I was about to encounter was what literature calls an "information-rich key informant". The interview was an important breakthrough in my research and I knew that I had to do things right!

When I arrived in Huangcun Xidajie, I exited the underground station on a dusty road, my lungs filled with heavily polluted air. In the surroundings, I did not spot a single tree or grassed area. I took a right turn and walked along the road in search of the academy. When I arrived at its main gate, I stood in front of a huge grey non-descript building with a court in front of it, at its left and right sides were two neatly cut green lawns with some fir trees planted on them. The building and the court were fenced and next to the entrance there was a small hut with a police officer guarding the entrance. In the middle of the court, a stone monument was installed to welcome the visitor. On a screen placed on top of the monument, the announcement of ongoing training seminars and a welcome address to its participants were displayed.

I entered the grey building and found myself in a likewise grey corridor with office doors on each side. The excruciatingly cold and indistinguishable atmosphere continued into the office of Director L. whom I was supposed to meet. At the far end of his office, a table with two computers was placed right next to the window. The room smelled of smoke. Director L. was a very kind looking man in his 50ies, he offered me a seat and some hot tea on a moldy, old couch next to the door. At the opposite side, an old scarlet-red metallic cupboard stood against the wall. Even though I was not unfamiliar with administrative offices in China, I was still taken aback by this lack of

atmospheric environment where forestry cadres were supposed to learn more about forests. Neither from the outside nor from the inside could one recognize that the building was a training institute for people who earn their living with the management of this natural resource. It was simply an exchangeable public building.

This bewilderedness about the excruciatingly cold and indistinguishable appearances would accompany me the following months when I visited a local forestry cadre school, and other central and local administrative offices of the forestry administration. My impression was further contrasted with my visits at two of Austria's Forest Training Institutes in Ort/Gmunden and Ossiach. Both institutes were located in marvelous surroundings of forests, lakes, and mountains. On the inside, the training institutes were crammed and cluttered with posters, samples of timber products, and padded animals in display cabinets. Both disposed of an adjacent machinery park and an exercise forest for training purposes. In one of the institutes, the incumbent director welcomed me to his wooden designed office in which his basset occupied a central position on the floor (we had to literally step over him). The dog, so the director explained to me, was not only an authority in the office but also in the field, as it was a trained sniffer dog for forest parasites.

With this contrast in mind, I started my interview with Director L. Since then I have kept wondering what such an environment means for the administration of forests in China, and for the professional sense of self of Chinese cadres who work in this field.

This chapter unfolds the structure of training in China's State Forestry Administration from the central to the local level. The first section focuses on how management responsibilities are parceled out among central and local forestry authorities analyzing their relationship with each other. Section two tackles the spatial dimension of forestry training folding out where forestry training takes place and interpreting the role of these places in the governance of forestry training. Second three presents the findings of a qualitative content analysis of reports on cadre training in the State Forestry Administration with a focus on the period between 1998 and 2015.

5.1 The management of forestry training

This section analyzes aspects of management in cadre training in China's State Forestry Administration, it shows the contingent relationship between the structure of the administration and its portfolio with the structure of the administration's training system, and the sensitive relationship between central and local forestry authorities over issues of management.

5.1.1 China’s State Forestry Administration

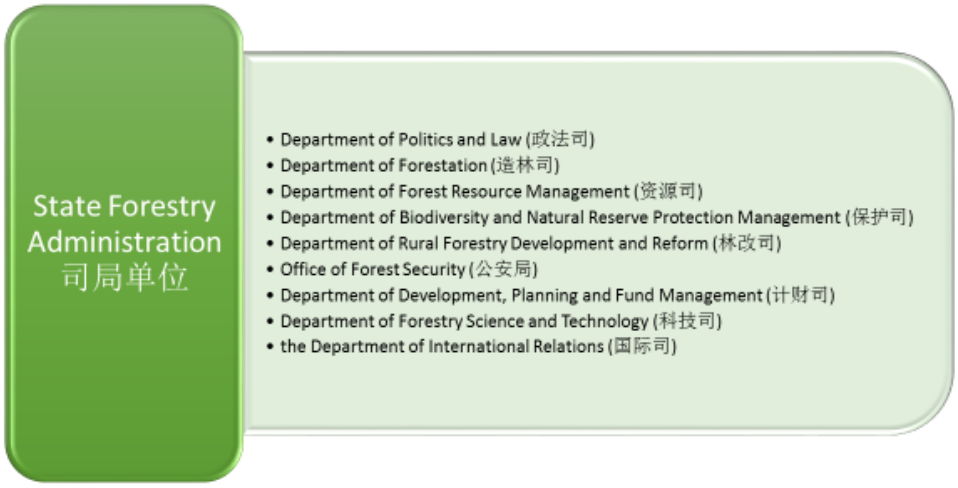
The State Forestry Administration is a body for specialized economic administration under the State Council. Its portfolio comprises the drafting and supervision of the implementation of forest laws, regulations, and international conventions; the management, organization, coordination, and guidance of policy areas encompassing forestry industry, forest resource development and conservation, and biodiversity protection. More specifically, the administration is responsible for the following tasks:

- The protection, development, and supervision of forests, grassland and wetland resources and the implementation of the national forest development strategy (reforestation, greening, mountain closure, fire prevention and disease control, supervision of license-based logging, transportation of timber and bamboo, carrying out the national forest resource inventory and statistics, etc.).
- The protection of biodiversity and the control of import and export of endangered species (fauna and flora).
- Management of forest land and forest rights, state-owned forest state-owned forest companies, as well as the development of forestry industry and wood product industry.
- The guidance of cultivation of commercial forests (timer, economic, fuel-wood, herbal medicine production, bamboo forests, and forests for special purposes) and landscape forests.
- Guidance of forestry science and technology, education, and foreign affairs.
  (The State Forestry Administration, website)

The State Forestry Administration at the central level is composed of nine ministerial-level agencies that share the diverse political work tasks as outlined above: the Department of Politics and Law (政法司), the Department of Forestation (造林司), the Department of Forest Resource Management (资源司), the Department of Biodiversity and Natural Reserve Protection Management (保护司), the Department of Rural Forestry Development and Reform (林改司), the Office of Forest Security (安全局), Department of Development, Planning and Fund Management (计财司), the Department of Forestry Science and Technology (技术司), and the Department of International Relations (including the Center for International Collaboration Projects) (国际司). In addition, the central administration has several directly subordinated organizations, such as the State Academy of Forestry Management and the State Forestry Press. Both organizations take up important functions in the realm of the administration’s sector-specific training, as the former organizes and provides training, while the latter produces training material. The structure of the

ministerial-level department units is replicated at the local level, however, units and portfolios tend to be merged further down the administrative levels. (State Forestry Administration, National Forestry Organizations)

Figure 9: State Forestry Administration (central-level)



Source: compiled by the author, information drawn from the website of State Forestry Administration (State Forestry Administration, National Forestry Organizations).

Depending on the basic category, literature most commonly distinguishes between six forest regions: Northeast, Northwest, Southeast, Southwest, South Central, and North China Plains. Across China, there are eight forest biomes in six climatic regions[40] with 23 major forest types that range from tropical forests in the South, boreal forests in the North, wetlands along the Eastern coasts, to grassland and deserts in the far West (Dai, et al., 2011, pp. 1067-1068). Forest land is either state-owned or collectively managed or individually managed. State-owned forests are managed by logging enterprises, state-owned forest farms, and nature reserve agencies that take responsibility for management and logging operations (Liu, 2001, p. 240). Collective management includes lands of townships, administrative villages, and village household groups employing diverse management models (e.g. contract or lease, shareholding cooperatives, etc.). The ownership of trees, however, is a more complicated issue as trees can be state-owned, collectively owned, privately owned, or managed based on mixed ownership. (p. 240)

With the forest tenure right reforms, the Chinese government has started to endow a huge share of farmers with property rights. According to the latest forest inventory the share of individually

[40]Cold temperate zone; II: Mid- temperate zone; III: Warm-temperate Zone; IV: Subtropical zone; V: Tropical zone; VI: Plateau climate zone (Dai, et al., 2011, p. 1067).

managed forests has increased, the ratio of state-owned, collective, and individual forests has changed from 41:38:21 during the period between 1999 and 2003 to a ratio of 39:29:32 between 2004 and 2008 (UNESA, 2014). In other words, state-owned forestland accounts for 40 percent of the national total, while collectively and individually managed forests amount to over 60 percent (170 million ha) of the national total (UNESA, 2014). However, due to low stocking levels, collective forests carry only 45 percent (13.6 billion m^3) of the total forest volume (Yi, et al., 2013, p. 826).

Uneven distribution, varying physical characteristics, changeable climatic conditions, and different management responsibilities require that central authorities consider these variations in their policies and their demands on local forestry authorities with regard to policy implementation. Hence, similar to other policy fields, forest policies ground on the sensitive relationship between central control and local flexibility (Goodman, 1986, p. 3). What applies to national forest development policies also applies to training measures and the governance of training in the forestry administration.

5.1.2 The principle of *fenji guanli fengong zeren* (分级管理分工责任)

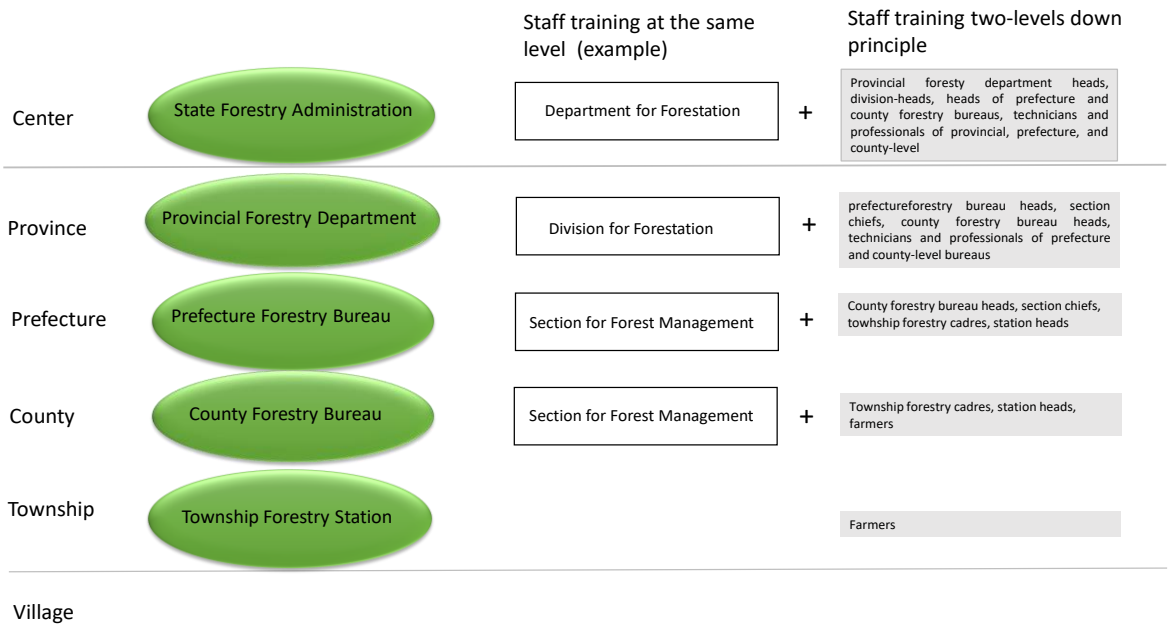
The structure of forestry training is closely linked with the structure of the State Forestry Administration, its portfolio, and the division of work tasks among the individual department units or divisions. Training responsibilities are entrusted to forestry authorities along the vertical lines (纵向) (i.e. from the central to the local) of the forestry administration and along the horizontal lines (横线) (i.e. units or divisions) of each administrative level (Huang, et al., 2010, p. 22). The parceling out of authority over and responsibilities for training among central and local forestry authorities was enshrined in the 1995 *Ministry of Forestry Trial Methods for Strengthening the Management of Cadre Training* (林业部关于加强干部培训管理暂行办法) (Ministry of Forestry, 1995) and confirmed in *Some Opinions on Gradually Strengthening Forestry Education and Training* (国家林业局关于进一步加强林业教育培训工作的若干意见) (State Forestry Administration 2001a) issued in 2001.

At the vertical level, training authority is parceled out to four hierarchically structured administrative divisions: central, provincial, prefectural, county. Each level of administration supervises the training of its own staff and trains forestry cadres one or two levels below within their administrative jurisdiction. This means that the State Forestry Administration at the central level organizes training for central-level staff and specific cadres groups from across the country (mostly leading cadres and cadres in key functions). Provincial-level forestry departments (厅)

arrange training for the staff that works in the department-level divisions (处), in addition, training is arranged for cadres of prefecture-level and county-level forestry authorities. Prefecture-level bureaus (局) train the staff of their sections (科), and cadres working at the county and township level. County-level forestry bureaus (局) organize training for cadres in the county-level offices (科) and for forestry cadres that work in forestry organizations at the township-level (站).Stations (站) that are installed at the township-level, the lowest level of the state administration, carry out training activities with societal stakeholders (i.e. forest farmers and farming communities). They are supported in their work by cadres that work in the county-level forestry offices.

Higher levels do not have any authority over decisions with regard to the training programs organized by lower-level departments and bureaus (except for central training mandates in the context of national policies). Therefore, local forestry authorities retain a high degree of autonomy over where what, and how they organize training for their employees.

Figure 10: Parceling out training responsibilities



Source: compiled by the author

The explanations and figure 10 illustrate the division of authority and responsibility of forestry training China's State Forestry Administration. While the authority over training plans within a jurisdiction are parceled out to the various administrative levels following a one-level down principle, the authority over cadres follows a two level-down principle. According to this principle, the State Forestry Administration regularly convenes several types of cadres in key positions that

work in the sub-provincial departments or bureaus for training programs in its central-level training institutions.

The targeted cadres predominantly hold leadership or key positions in prefecture-level and county-level forestry bureaus. Recently, the center has also started to fashion web-based training for Forestry Station heads who work at the township-level. In doing so, the center passes over the provinces to avoid the filter through which central directives are usually conveyed to cadres from sub-provincial levels. Cadres in decision-making power and responsible for supervising the implementation of policies are so being directly communicated the center's priorities and core understandings of policies. Thereby the center avoids that regional interests and development priorities leave their mark on or distort interpretations. One of my interviewees used a very suitable parable to explain the rationale behind this strategy:

> It's like the granddad who wants to educate his grandchild by passing over the father because he does not trust the father or thinks that the father cannot educate his son well enough. (Interview Director W., 5 November 2015)

Local autonomy over training plans notwithstanding, the center retains undivided authority in the context of national forestry programs and national reforms, in which local forestry departments have to fulfill higher-level training targets. National coordinating agencies are either installed or appointed for overseeing the implementation of the project and its accompanying training measures. Training plans are set up at the central level and training mandates decreed to the local forestry departments of those regions and jurisdictions that are designated for the programs. The goal is to diffuse essential contents of the program or the policy and foster understanding of its objectives. Usually, training starts before the actual implementation work gets started:

> [The] Sloping and Conversion Program, […] actually started in 1999. So in 1998, they [the forestry authorities in Kunming, Yunnan] organized training for lower-level government officials. This kind of training gives them a better understanding of the policy, how to apply the policy, [and] on the implementation of this policy. Like in 2005, we had a new policy, the forest tenure reform, there also, after the government had [embarked on] this policy, […] the provincial-level […] organized the training selectively for officials at the prefecture-level. They [i.e. cadres from the provincial level, a note from the author] come and tell them about the policy. (Interview Forestry Expert H., 8 May 2014)

From a procedural vantage point, the organization of training seminars works is as follows: Each year the State Forestry Administration (central level) issues a list of training programs that are going to take place within the same year. Announcements of the individual training programs are

issued in due time, provincial-level authorities then select cadres from their jurisdictions to participate in the central-level training programs. The same procedure applies to the provincial level, where, after the provincial forestry department releases the information on what, when, and where a specific training is going to take place, prefecture and county-level forestry authorities select the participants to complete the training.

Training "invitations" are also received by other party or government departments, for example, the Environmental Protection Bureau or the Organization Department. Participation in the training of other line bureaucracies is optional, whereas training mandated by the Organization Department or the Human Resource and Social Safeguarding Bureau are compulsory. In the latter case, the forestry department has to dispatch somebody to undergo the training. The decision on the participant depends on the topic of the training program and the work field of the cadre, ultimate decision-power over the selection of participants resides with the unit heads.

At horizontal level, the training system is further compartmentalized with the individual agencies being responsible for organizing the training of their staff (at the same level and below). Each year the agencies submit their applications for training to the Human Resource and Education Office (人事教育司/处) and are then allocated a certain amount of training budget. In order to adjust training contents to the practical needs of cadres – official documents refer to this as improving the focus (针对性) and effectiveness (有效性) of training – feedback mechanisms were introduced to gather the needs of training for local cadres.

Feedback is reeled by the distribution of evaluation sheets at the end of a training program and by surveys conducted by field research groups (调研组). Central research teams are dispatched across China to inquire on the needs of cadres at lower administrative levels (Interview Director L. 3 November 2015), at the same time provincial forestry agencies conduct their own surveys and adapt their training supply accordingly. One of my informants from a provincial-level Division for Wildlife Conservation and Nature Reserve Management explained as follows:

> [….] before setting up our training program, we first conduct some surveys. We send a questionnaire to the prefecture level forestry bureau and the nature reserve management bureaus and ask several questions about what subject, where, when, how many people. Something like that.
>
> […..] when we design the contents of the programs, we only draw on the feedback we got from telephone calls or people who have come to our office and asked some questions. Then we realize which subjects they are easy to get confused with, we explain these issues during the program. And every program we have at least half a day for discussion. We

> divide people into different groups, depend[ing] on how many people are in the class. We sit in the group and we listen to them and what […] they discuss, then we can get some feedback from them: Do they still have problems to enforce the law? Or, do they still have some questions about understanding the law?
>
> (Interview Mrs. F., 14 December 2015)

On the question whether these programs are useful and help cadres to face pressing local challenges, my informant replied:

> […] I do see progress. For example, we receive phone calls from local people. After we give them [i.e. cadres] explanations during the training course, we get fewer phone calls [on these matters]. (Interview F., 14 December 2015)

From the above described, it is possible to identify three factors that influence the set-up of (provincial-level) training plans: central-level training assignments with regard to specific national policies, lower-level cadres' individual suggestions and requests, the provincial authorities' own judgment on in which fields cadres should improve their knowledge and skills.

5.1.3 Drawbacks in training management

In theory, the principle of local autonomy and compartmentalization should ensure flexibility to local needs and a more effective transfer of specialized knowledge to cadres that work in the diverse policy fields (i.e. reforestation, planning, biodiversity protection, park management, etc.).In practice, however, the system bears a series of deficiencies: First, the lack of a coordinated long-term strategy for continuing education, which is; second, exacerbated by the lack of coordination among department units and with other government departments; third, unequal and insufficient distribution of training budgets. The three issues should be discussed in more detailed in the following.

Changing policy needs and priorities can affect the training budget allocation of local forestry agencies as in one year the work field of one agency yields higher importance or receives more attention than others (Interview Mrs. F., 14 December 2015; Interview Division-head X., 15 December 2015). By the same token, when one policy measure gains importance over others in one department unit so training with regard to the first field is suspended or postponed.

> […] we don't organize wildlife recognition training programs every year. Like in one year we have the budget, so we plan it and do the training. Then the following year there might be something more urgent, so we put these priorities first, and do not do any wildlife recognition training. (Interview Mrs. F., 14 December 2015)

To put it in other words, the contingency of training on policy-reforms coupled with resource constraints hinder a sustainable and long-term planning of professional training in which cadres can further qualify or specialize in their field.

The fragmented structure does not encourage the coordination of training activities between agencies, let alone between different government departments (since each *xitong* sets up its own training plans). Given the cross-cutting nature of forestry with other policy fields such as air, water, and soil protection, the compartmentalization is highly problematic.[41] China's administration is fragmented and the idea of establishing a super-ministry for resource management and environmental protection continues to fail due to intrinsic administrative interests of the involved administrations, training seminars with cross-policy or cross-departmental approaches are thus an exception rather than the rule and have to be organized by the local government (i.e. the local Department of Human Resource and Social Safeguarding or Organization Department). This implies though that the organization of such training programs relies on reform-minded and visionary high-level government officials who are aware of the cross-cutting nature of certain policy fields, are convinced of the value of inter-departmental trainings and the necessity of inter-departmental training programs for promoting sector-specific reforms, and identify forestry as a paramount reform sector in their jurisdiction.

One example that such programs are possible is a training program on Chongqing Urban Forest Construction in Chongqing was conducted between 2009 and 2011. The program was an outcome of a bilateral collaboration between the Chinese Government and the Swiss Government, the Sino-Swiss Management Training Program, which had started in 1993. Chongqing's municipal Organization Department was the executing agency, but the brain behind the project was Chen Cungen (陈存根), the incumbent head of the municipality's Organization Department at that time, who was a trained forester.[42] The training program was related to a forest development project embarked on under the leadership of Bo Xilai in 2008 (重庆市人民政府关于实施森林工程的决定). The training gathered cadres from different government departments whose departments were involved in the implementation of the project. In addition to the Forestry Department, the other participating government departments included: the Policy Research Office, the Legislative

[41] One way to overcome this departmentalization would be to streamline bureaucracies with crosscutting portfolios, in Beijing, for example, the forestry department was merged with the department of landscape gardening.
[42] Chen Cungen holds a Ph.D. from Vienna University of Life Sciences. In the 1980s, he was the first Chinese PhD student at the University of Life Science in Vienna and completed his PhD on forestry under the guidance of Professor Alfred Pitterle in 1987 (Interview Pitterle, Vienna, 27 March 2013).

Affairs Office, the Development Rand Reform Commission, the Transport Commission, the Finance Bureau, the Urban Planning Bureau, etc. (Chen , 2010, p. 1).

My informant from the Chongqing Forestry Department, who had been a participant in the program, explained why the training was so special, and how it differed from usual training programs organized within the forestry administration:

> […] Usually training is conducted by the forestry department, you ask the forestry staff of 38 counties to come together and we have some lectures. This is some kind of training. But the training [under the Sino-Swiss cooperation] was different.
>
> […] The training program wanted to promote action-learning, so you should learn from your action and you should take action after learning. In this kind of training we have set a very specific objective, namely, you have to solve the problems that occur in the urban forest management. After one year we had to provide very specific guidelines on measures how to solve the problems we meet in urban forest development. After the first year, we produced this book [annotation: she shows me the book] that was a collection of essays written by the participants. The training program is like a kind of project already, not just a simple training where you go, listen, and then you go back to your unit. [In] this kind of training we really had some kind of output. The output was these essays on different measures to solve these problems. In addition, we submitted a proposal to the local People's Congress, a legislative proposal. In other words, based on the results of this training program, we made some proposals.
>
> […] This kind of output is very unique, compared with other training programs, because the ordinary training there would not have such an output. But this training program was quite special, so we could achieve very good results. I also think that this cross-departmental training was a very good way for other departments to familiarize with the problems we encounter in the forestry sector.
>
> (Interview Mrs. L., 21 May 2014)

From the statement above it is possible to identify two factors that made the training in Chongqing was special: First, it gathered a series of state stakeholders from different government departments who inevitably would have been involved in the implementation of a municipal policy. Second, the training was output oriented and did not just simply transfer higher-level priorities and policy contents to cadres of subordinated government agencies, but pursued to help cadres to cope with the problems that arise in the process of policy implementation.

The example reveals the crucial role of leadership in the implementation of innovative training schemes. According to research by Witesman & Wise (2012, p. 710), the provision and relevance of training are most likely to occur "when public administrators espouse a belief that such training is necessary for reform." They further argue that administrative discretion determines what kind of training is available to civil servants and which is not, and thus can have a "meaningful effect on the speed and trajectory of administrative reform efforts within a developing nation" (p. 711).

However, reform-minded leaders that espouse the belief that training is conducive to reform are an exception to the rule for various reasons. Cai (2015, p. 99) shows that the political risk connected with institutional innovations is relatively high in China's state administration and reforms are not necessarily conducive to promoting individual careers. In addition, good performance in the organization of training does not influence promotion prospects neither does it bring financial bonuses. Even though the implementation of innovative training schemes does not bear any political risks, it still might be costly and burdensome with regard to organization.

Cai (2015, p. 100) further points out that in China mainly the party secretary and government heads concentrate enough power to overcome structural and financial obstacles for setting in place a training. However, if training bears little measurable effects, few party secretaries or government heads willingly spend their energies on overcoming political obstacles, unless they are convinced that training does make a difference. In fact, Chinese literature on cadre training in the forestry department as well as government documents shows the lack of conviction among decision-makers that training facilitates reform. These studies and documents repeatedly point to shortcomings in the formalization and systematization of training, and the lack of importance attached to training by individual department leaders or heads of department agencies (Gao, et al., 2013, p. 28).

In order to overcome this lacking sense of duty and conviction, the State Forestry Administration's Human Resource and Education Department organized conferences and training seminars for department and agency leaders responsible for human capital development to accompany policy implementation. One such conference was organized in Lanzhou in 2010 (State Academy of Forestry Management, 27 July 2010). According to a report on the training, 26 leading cadres of forestry departments from Jiangxi, Hunan, Sichuan, Guizhou, Tibet, Shaanxi, Gansu, and Qinghai gathered in Lanzhou to learn more about the value of human resources development. The training seminar entailed sessions such as "How to foster learning skills, and the construction of a learning squads", "New trends and tasks in forestry education and training", and "Interpreting the *Outline of the National Medium and Long-term Program for Talent Development (2010-2020)*" (the latter had been previously issued). In addition, a site visit was organized at the Xiaolongshan Forest

Farm, a forest farm enlisted as one of the 40 official forest farm training bases (State Academy of Forestry Management, 27 July 2010).[43]

In the past, Chinese scholars in the field suggested that education and training work should be inserted as a work target into the cadre responsibility system of leadership groups (Zhao, 2011a, p. 30).[44] Eventually, these appeals were heard and the forestry administration started to incorporate training into its cadre responsibility system. The *12th National Outline of Forestry Education and Training* requested that forestry education and training work and its scientific development had to be incorporated into the cadre evaluation system (State Forestry Administration, 2012).

In the cadre responsibility system department leaders are made responsible for the performance of their departments and achievements of the annual work tasks. Each year, the forestry departments and bureaus at the various administrative levels determine annual work points be accomplished within the same year that are then subject to evaluation at the end of the year. Since recently, these work tasks also include issues of human resource development. In the jargon of the forestry administration, the target is defined as *gradually strengthening of the construction of forestry talents and squads* (进一步加强林业人才队伍建设). The nature of its sub-criteria varies from one period to the other and from one place to the other.

Among the five works tasks under evaluation in 2016 in Fujian Province (Fujian Provincial Government, 2016) was "the completion of the 2016 task to resettle military cadres" (完成 2016 年度军转干部接收安置任务).[45] Evaluated was not only the number of former soldiers incorporated into the administration (mostly as foresters) (接收军转干部) but also the communication of the plan to the lower-levels of administration (计划沟通). The task was worth two points out of the total 100.[46] The 2011 annual evaluation sheet of Jiangxi Province gave, in addition to the target of incorporating excessive rural workforce, four out of one hundred points to the target "urban forest policy project" that had been launched in 2011 (Jiangxi Provincial Government, 2011).The achievement of the target was assessed by counting the amount of expert knowledge transfer activities and on-the-job training organized in the same year (开展国家森林

[43] See more on training farms and their role in China's forestry training system in Chapter 5.2.2.
[44] Reforestation targets are veto targets in the cadre evaluation system.
[45] As will be shown in Chapter 5.3.4 this target is a major impeding factor for human capital development in grassroots organizations in China's forestry administration.
[46] The evaluation sheets of provincial-level forestry departments of the year 2016 (省林业厅 2016 年度绩效管理指标体系) contained five work points or tasks that were subject to assessment: Agricultural Modernization (18 points), Strengthening the development force of villages (24 points),Ecological Protection Control (34 points), Strengthening and innovating societal control (16 points), Doing well the 2016 annual army professional replacement and public affairs (8 points) (Fujian Provincial Government, 2016)

城市创建工作专家指导和业务培训工作). The low weight attributed to training in the evaluation system raises questions on the effect of such measures, it, however, shows a rising acknowledgment of higher levels on the relevance of training measures in the context of policy implementation.

The third problem related to the compartmentalization of the forestry training system is the allocation of financial means that, in parts, explains regional disparities in the provision of forestry training. The budget allocation system based on the revenue-generating capacities of the local forestry departments is – besides historical - one among the main political reasons for regional disparities in training provision and the lack of training at the very local level. It influences the capacities of local forestry departments to respond to the demands of higher levels, to deliver necessary sector-specific training for their staff, and thus to facilitate and contribute to problem-solving (if one assumes that training has indeed an effect on the administrative capacities).

The Chinese state bureaucracy is a system of complex relationships between the vertical (*tiao* 条) and horizontal lines (*kuai* 快) of the political-administrative system. Chinese administrative units distinguish between leadership (领导) relationships that imply binding orders and professional (业务) relationships that are based on non-binding instructions. In China's decentralized administration, leadership relationships are often with local governments at the same administrative level, as governments have the authority over budget and personnel allocations (Mertha, 2005, p. 797). Local governments face financial constraints as they have to render a large share of local revenues to the central government. Although local governments shoulder the larger share of service provisions, such as education and healthcare, they are left with an allotment that covers only the basic operating expenses (Wu, et al., 2013, p. 12).

Due to the mounting responsibilities, local governments favor revenue generating departments over non-revenue generating departments. Scholars agree that this state of dependency is highly problematic, as the *kuai* relationship gives discretionary power to the local government for attaching varying political values to its government departments and diminishes the central government's influence on local policy implementation (Mertha, 2005; Kostka, 2014; Wu, et al., 2013). Kostka (2014, p. 29) explains that local government department leaders receive mixed signals: on the one hand they are asked to fully implement binding work targets, but on the other hand these demands do not always match with a corresponding increase in financial resources. Consequently, cadres make trade off-decisions and opt for those targets that are more conducive to them and their career. Wu, et al. (2013) come to the conclusion that

> Cadres enthusiastically fulfill the parts of their assigned responsibilities that are rewarded and ignore those that are not. Career Communist Party cadres enthusiastically fulfill assigned responsibilities that expand their budgets and ignoring those that do not. Communist Party cadres, in short, appear to be card-carrying members of the species *hommo* (sic!) *economicus*. (p. 31)

Training budgets are part of the overall budget of local forestry authorities and are allocated by the Department of Finance of the local government. While forests as a natural resource enjoy a relatively high degree of appreciation and value both among the government and the Chinese society, forestry as an economic sector and as a profession has a comparatively weak status (Interview Mr. B., 7 July 2016). At the national level, forestry accounts for only a small proportion of China's GDP. While agriculture comprehensively contributes 9.5 percent to China's GDP, forestry merely accounts for 4.2 percent (National Bureau of Statistics, 2015, p. 60). The provinces Fujian, Hunan, Guangxi, Yunnan, Anhui, Guangdong, and Jiangxi account for the highest gross output values in forestry (p. 398).

Table 7: Gross output value of agriculture in 2014

	Total	Farming	Forestry	Husbandry	Fishery
1 Billion Yuan	10222.61	54771.5	4256	28956.3	10334.3
Percent	100	53.6	4.2	28.3	10.1

Source: National Bureau of Statistics (2015, p. 398)

As a consequence, many local forestry departments are subjected to a constant lack of resources and, in some cases, to a struggle for administrative survival (Interview Bao Y., 7 July 2016; Xiong, 2004 cited in Zhang, 2008, p. 227). In their study on training provision in national nature parks, Gao, et al. (2013, p. 28) have found that training budgets of most divisions across China are insufficient. The survey they conducted shows that 65 percent of nature parks do not have any budget at all for providing sector-specific training to their staff, and parks that have funds available find them inadequate to satisfy their demands. Only five percent of the sample under investigation agree that training budgets are sufficient.

Against this backdrop, central authorities have started to mitigate disparities, by raising funds for training projects that benefit local forestry departments and bureaus of disadvantaged regions.[47] In addition, jurisdictions that are covered by the national forest development programs receive their budget for training from the project money. However, these measures can only punctually solve

[47] See discussion in Chapter 4.2.3.

issues of insufficient funding. In the light of these events, inserting training work as a target into the cadre responsibility system appears to be a logical step, but it might not wipe out the roots of the problem that underlies the financing of cadre training. Also, increasing the quantity of training provided does not necessarily improve the quality and effectiveness of training.

5.2 Central and local "training bases" (培训基地)

This section focuses on the spatial dimension of training and discusses where forestry training takes place. It demonstrates that training is not confined to the premises of educational institutions, but also includes organizations where abstract policy statements are operationalized and translated into concrete policy action. Places are not irrelevant aspects of the organization of forestry training and the choice of the spatial environment is not indiscriminate.

5.2.1 Central training academies and colleges

The State Forestry Administration has three central-level training institutions: The State Academy of Forestry Management (国家林业局管理干部学院), the Center for Human Capital Development and Exchange (国家林业局人才开发交流中心), and the Nanjing Forest Police College (南京森林警察学院).

Among the three institutions, the State Academy of Forestry Management has a central political function. Located in Beijing's Southern suburbs it promotes knowledge transfer within the administration and implements the State Forestry Administration's training plans. The academy was founded in 1951 as a cadre school of the then Ministry of Forestry. After its closure during the period of the Cultural Revolution, the academy was reopened in 1979 and later on upgraded to the Beijing Cadre Academy of Forestry Management (北京林业管理干部学院) in 1983 (State Academy of Forestry Management, Introduction of the Academy). During the 1980s and 1990s, the academy was important in the implementation of cadre management reforms and the related educational policies in China's forestry administration.[48] Along with another round of administrative reforms in 2008, the academy was upgraded to a state-level training institution and changed its name to State Academy of Forestry Management.

Its training programs address key cadre groups, including leading cadres and civil servants who work in the administrative organs of the administration, county leaders of counties with key forest projects, high and mid-level cadres of state-owned forest regions, managers of big and medium-sized forestry enterprises, as well as nature reserves and forest park directors. Over the past decades,

[48] See more details on this issue in Chapter 3.2.2.

the academy has sophisticated its curriculum and now offers a variety of courses for these target groups.

One of the academy's main tasks is to conduct career path training for cadres of the State Forestry Administration. As discussed in detail in Chapter 4.2.2, staff job training, newcomer training, and promotion training are not so much practical in content but touch upon a variety of issues related to forestry and other aspects of state administration. They are based on the idea to build up a set of shared knowledge among people with similar responsibilities and work tasks and to convey role expectations.[49] In this respect, Chinese training programs do not distinguish much from executive leadership training in the forestry service of other countries.

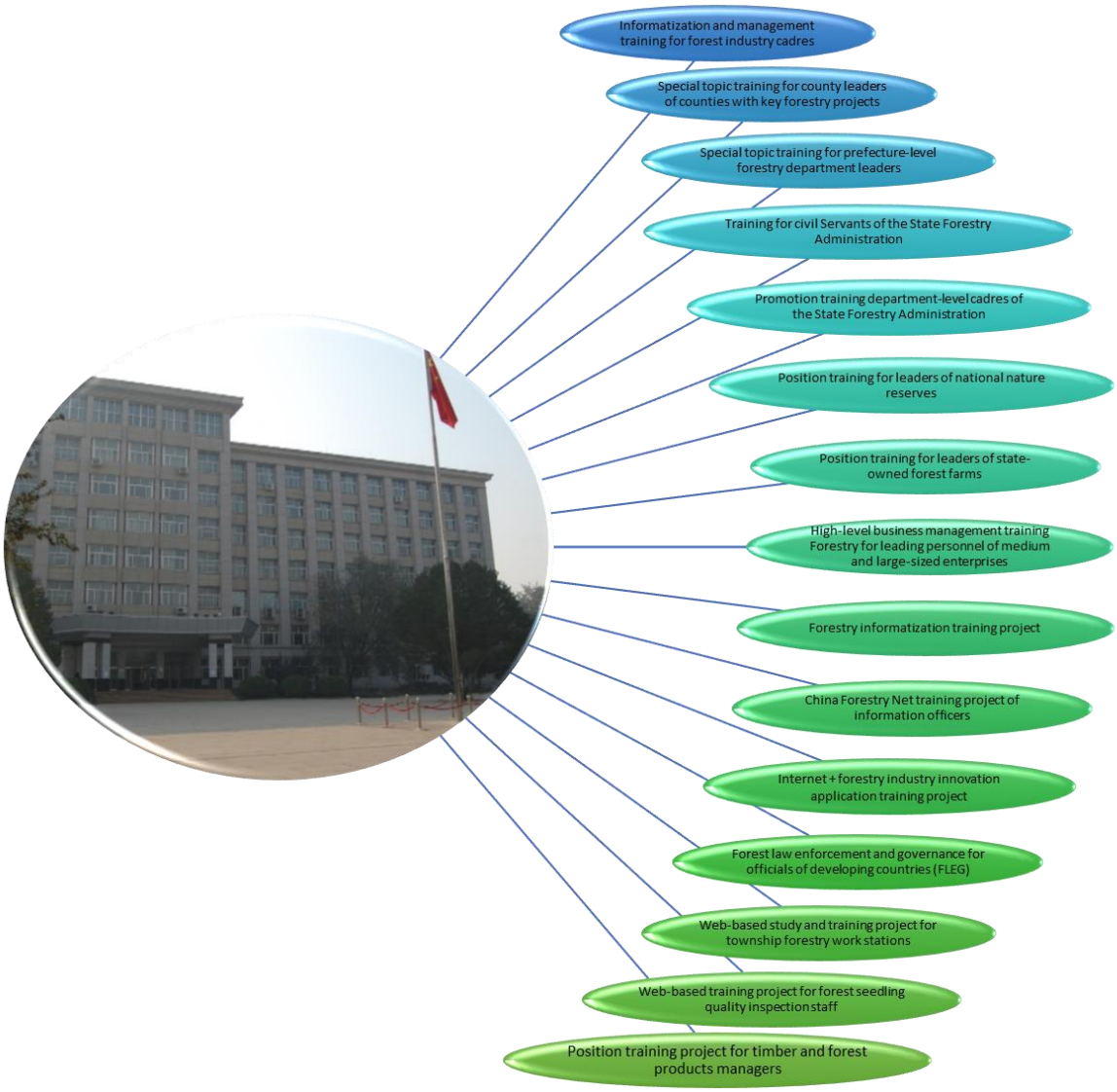
Contents of the training comprise general knowledge on forestry management and forest development, forest laws, regulations and policies, civil service law, and leadership training such as team building. In addition to career path training, the academy has developed customized on-the-job training programs for all sorts of other managing cadres: For example, training for timber and forest product managers touches upon aspects of marketing strategies and business finance, customer relationships, specialized knowledge on wood cultures, classification of standards and physical characteristics of timber, and interior design. In the administration's recent efforts to enhance its knowledge transfer to, and human capacities at the township-level, the academy has started to oversee and provide web-based training for heads of township-level Forestry Stations and other township-level forestry personnel (State Academy of Forestry Management, Introduction of the Academy). Web-based training for quality inspectors tackles issues such as the examination of seedlings and the determination of their viability of by means of x-ray examination, precautionary measures in the use of equipment, reporting, and laws and regulations (State Academy of Forestry Management, 1 December 2015).

The academy can be commissioned (委托) to organize training seminars for local forestry departments, individual department units, or other government and party organizations. If a local forestry department commissions training to the academy, the local forestry authorities are responsible for covering the participants' travel costs[50], while the academy provides the teaching personnel as well as board and lodge (Interview Division-head X., 15 December 2015). One of my interviewees in Yunnan explained that the local forestry department and Yunnan's forestry cadres do not regard the training at central-level institutions as a tedious duty, but rather as a welcomed

[49] See more in section 5.3 of this chapter.
[50] Local forestry authorities usually try to distribute cost among the departments and bureaus that send their staff for training. So the arising costs are shared and do not burden the budget of the provincial Department of Forestry. (Interview Division-head X., 8 December 2015)

opportunity. At the time the interview was conducted, my informant told me that he was in negotiations with the State Academy of Forestry Management to arrange a training seminar on forest industry development (林业产业发展培训班). When I asked him, why the training would take place in Beijing and not in Kunming, he explained that one of the main reasons was the concentration of expert knowledge in Beijing. If the training took place in Kunming, he would have difficulties in finding trainers with relevant expertise (Division-head. X., 19 December 2015).

Figure 11: Training programs at the State Academy of Forestry Administration



Source: The list of training programs was compiled by the author with data drawn from the website of the State Academy of Forestry Administration (State Academy of Forestry Management, Training Programs).

Note: The photo of the academy was taken by the author during one of her research trips to China.

My informant's account conforms to reports on the provision of forestry training in local forestry cadre schools and training units of state-owned forest enterprises. Qiu (2016, p. 32) reports that many of them lack training personnel with expertise in areas where up-dated knowledge and

solutions are dearly needed. According to the research, the China Jilin Forest Industry Group (吉林森林集团) cannot provide training in specialized sectors such as eco-tourism, capital finance, and securities markets. Qiu's report also points to insufficient linking between university training and the practical needs of the administration. In Yunnan, Sichuan, and Guangxi graduates that start to work in the forestry administration have little expertise in sustainable forest management and forestry industry development (p.32). Qiu infers that the development of university and college curricula lags behind the current needs of forestry development. Another problem is that few graduates from forestry universities and colleagues are inclined to work in the forestry administration as civil servants or in forestry organizations and enterprises) (p. 32).

Training organized by the academy – whether commissioned or not – does not necessarily take place in the academy in Beijing but also in forestry cadre schools across the country. The training location is usually selected according to region's experiences in a specific field or policy. For example, a series of training on the reform of forest land tenure rights were organized in Fujian, where the reform was initiated in the first place in 1998. The province is widely regarded as a best practice province or model region in this realm (Interview cadres from local forestry cadre school, 25 November 2015).

Against the background of China's increasing engagement in developing aid, the academy – among other state agencies and ministry – has been "contracted" (承办) by the Ministry of Commerce (商务部) to provide training for forestry officials of developing countries such as Liberia, Burundi, and Sudan (State Academy of Forestry Management, 28 October 2013). Training seminars tackled aspects of forest management and desertification combat (*Xinhua*, 10 July 2014). In the past, the academy was also involved in a training program on land management and food security provided to North Korean government officials (State Academy of Forestry Management, 29 May 2008).

Training provision to officials of other countries is by far a new development as China exported its knowledge to other countries already during the Cultural Revolution, although these capacity building measures have had quite different implicit goals and aimed to spread a specific *Weltanschauung*.

> During the Cultural Revolution, the Chinese government spent great efforts and resources on "exporting revolution" (communism and revolutionary war) to developing countries, particularly in Africa and Southeast Asia. Since the reform and opening up, China gradually abandoned the ideology-driven foreign policy. However, with China's more recent rise, what has emerged instead is the so-called "China model" featuring authoritarian

> capitalism. China is actively promoting this new model of China's political and economic development in Africa through political party training programs, which constitute a key component of Chinese foreign policy toward Africa. (Yun, 2016)

This recent development of China actively engaging in S&T development in developing countries was preceded by two decades of China being a recipient country of such programs. As shown in Chapter 3, international collaboration in China's forest development has continued ever since the mid-1970s. It intensified especially during the 1990s when international organizations and foreign governments started to pour money into China for forest development. A good share of this money went into technical assistance and training of local cadres. Since the late 1990s, the State Academy of Forestry Management has signed various international collaboration projects with training purpose. Among its cooperation partners the academy lists the World Bank Economic Development Institute, the University of British Columbia in Canada, the Institute of Technology British Columbia in Canada, the German Association for International Collaboration (GIZ), the Korea Mountain Forestry Academy, the Japan International Cooperation Agency (JICA), and the Japan Forestry and Forest Products Research Institute (State Academy of Forestry Management, Introduction to the Academy). Some of these collaborations aim to bring foreign expertise into the country and to give a very small share of forestry officials the chance to undergo short-term or long-term training abroad. Others aim to fund local training activities, in particular in disadvantaged places.[51]

While the State Academy of Forestry Management is a professional training institution that prevailingly addresses management cadres (管理干部), the Center for Human Capital Development and Exchange, as an organization subordinated to the State Forestry Administration, has a more comprehensive portfolio with regard to personnel management. The center was established in 1998 when against the background of administrative reforms the Center for Vocational Skills Appraisal and Guidance (国家林业局职业技能鉴定指导中心) and the Office for Evaluation of Technological Qualification Assessment (国家林业局专业技术资格评定办公室) were merged. In its educational function, the center provides training to civil servants and other staff members of the forestry administration, including technicians and professionals (State Forestry Administration, 2009).

The Nanjing Forest Police College is quite exceptional, as it specializes in the training of forest police officers and forest firefighters providing on-the-job training for these two professional groups. Over the past 60 years, the school has experienced a series of structural changes: Originally

[51] See more in section 5.3.

founded in 1953 as Jiangsu Province Nanjing Forestry School (江苏省南京林业学校), it changed into Nanjing Forestry School of the Ministry of Forestry (林业部南京林业学校) only after one year of existence. In 1994, the school started to concentrate on the training of forest police officers and firefighters and was later upgraded to become a fully-fledged undergraduate college (本科院校) in 2010. The college was jointly established between the Ministry of Security and the State Forestry Administration but belongs to the forestry *xitong*, it is thus a subordinated organization of the State Forestry Administration (Nanjing Forest Police College, website).

Table 8: Annual budgets of central-level training institutions

Year	State Academy of Forestry Management (in 10,000 Yuan)	Nanjing Forest Police College (in 10,000 Yuan)	Center for Human Capital Development and Exchange
2014	2098	4200	2089
2013	2718	2467	1714
2012	1604	2100	1365
2011	1484	no data available	1276
2010	4288	2154	No data available
2009	no data available	no data available	No data available
2008	2645	4300	No data available
2007	1770	4335	No data available
2006	1265	4261	No data available
2005	238	3250	No data available
2004	527	9181	No data available
2003	2850	15550	No data available
2002	2305	10770	No data available
2001	591	908	No data available

Source: compiled by the author, data drawn from China Forestry Statistical Yearbooks of the years 2001 to 2014

Note: The annual budget consists of central-level allocations and other funds raised (自筹). Data provided in the statistical yearbook depicts a rather inconsistent picture of resource allocations. It might also be the case that some numbers are not correctly displayed. For example, the numbers for 2010 might have been swapped.

Compared to other central training institutions, such as the Central Party School or the Chinese Academy of Governance, the State Forestry Administration‘s training institutions have a comparatively small budget. In 2014, the State Academy of Forestry Management had available a total budget of 21 million Renminbi (State Forestry Administration, 2015, pp. 180-183).[52] In

[52] As a comparison, the Austrian National Forestry Research Academy has an annual budget of 21.6 million Euros (BFW, 2015, p. 2), its local forestry training institutions dispose of approximately 1.5 million Euros only for training measures (E-mail correspondence with Wolfgang Jirikowski, director of Forestry Training Institute Ort/Gmunden).

contrast, the Central Party School was allotted 421 million Renminbi (Central Party School, 2015, p. 7) (Central Party School, 2015, p. 7) and the Chinese Academy of Governance' budget amounted to 216 million Renminbi in 2015 (China School of Governance, 2016, p. 6) (China School of Governance, 2016, p. 6). According to the China Forestry Statistical Yearbook, the Nanjing Forest Police College tends to be better funded than the State Academy of Forestry due to its dual function as a college to train forest police officers and forest firefighters and as an institution that provides continuing training for these two professional groups.[53]

5.2.2 Local forestry cadre schools and other training bases

At the local level, cadres of provincial and sub-provincial forestry authorities undergo training in forestry cadre schools or affiliated colleges that are listed as so-called training bases, in Chinese *peixun jidi* (培训基地). Similarly to the State Academy of Forestry Management, cadre schools are institutions of continuing education for cadres of (local) forestry administrative and non-administrative organizations, as such they execute the provincial forestry department's training plans and cater training to the provinces' cadres, professionals, and technicians (Interview cadres from local forestry cadre school, 25 November 2015).

Cadre schools have been reduced in number over time, as many of them turned into colleges that provide college degrees in various disciplines. Nowadays cadre schools are to a large extent incorporated into the structures of local forestry vocational colleges. The term *training base* is not confined to institutions of education, but rather refers to an officially accredited facility that provides space for training of the administration's staff. Interestingly all these places share the same characteristics: They provide room for training (e.g. conference or meeting room), for lodging and for eating. The distribution of training bases varies considerably across China, reasons for the regional disparities are both historical and political. This disparity becomes more tangible when comparing Fujian and Heilongjiang with other provinces in China.

Fujian and Heilongjiang are both flagships for China's timber production and forestry development, in particular, Heilongjiang. Today, both regions dispose of three or four "training bases" respectively, all of which are distributed across the two provinces. Historically, Heilongjiang has been the province with the highest concentration of institutions of forestry education. In 1986, the province was home to the Northeast Forestry University, two provincial-level cadre academies, and eleven forestry cadre schools in various counties around the province. Fujian province is adjacent to Jiangsu Province which is home to the equally well-known Nanjing

[53] Unfortunately I could not gather any comprehensive information on budget development of the Center for Human Capital Development and Exchange and how much money the organization spends on training.

Forestry University, another of the four big State Forestry Universities (中国林业大学).[54] In other words, training personnel, expert knowledge, and training supply are abundant in both provinces.

Figure 12: Geographical distribution of China's forestry training institutions

Source: compiled by the author with google maps, data drawn from the website of State Forestry Administration, Training bases; Illustration published in Marinaccio (2017).

Yunnan lists only one official "training base" in its capital Kunming and due to the province's prominence for its biodiversity and natural forests three of China's nationally most renowned research institutions have been established there: the Kunming Institute of Botany (中国科学院植物研究所), a research institute of the Chinese Academy of Science and an important institution for national and international research, the Yunnan Forestry Academy of Science (云南林科学院), and the Southwest Forestry University (中国西南林业大学). However, given the vast territorial expansion of the province and the remoteness of many of its counties the concentration of training and research institutions bears challenges for the local forestry department to reach out to its cadres and beyond. Since infrastructure is a decisive factor in the economy, the province has put efforts into its improvement, while train connections are still slow and bus rides over distances of 300 km take almost eight hours, the province has now air-connections into almost all its prefectures.

[54] China's four State Forestry Universities are Beijing Forestry University in Beijing, Northeast Forestry University in Har'erbin, Nanjing Forestry University in Nanjing, and Southwest Forestry University in Yunnan.

Figure 13: Airports in Yunnan

Source: Kunming Newsport (Kunming Newsport, 2013)

On many occasions, training for forestry cadres does not take place within the premises of educational or training institutions but is organized in alternative places. The choice of the location depends on a variety of factors: Firstly, some training is conducted outdoors due to the nature of knowledge conveyed in the training, for example, wildlife recognition training that takes place in the forests (Interview Mrs. F., 14 December 2015). Secondly, lack of striking distance to educational institutions with disciplinary specialization makes it necessary for some local forestry authority to organize training in alternative places, such as hotels or in the conference room of the forestry department (Interview Mrs. L., 21 May 2014).

Structural inadequacies are also a reason why the State Forestry Administration has started to promote web-based training for low-ranking cadres, who can undergo such training in the office space of their work unit. On my field research in 2014, I went to Baoshan Prefecture (保山市) in Western Yunnan, where I conducted an interview with a cadre from the local Technical Extension Service. He explained that there were no educational institutions in Baoshan where training for forestry staff could be organized. Therefore, most of the training is either web-based or in form of article submissions through which cadres show that they have further educated themselves (自己学习). Online training programs are prevalently audio or video registered lectures or assignments that have to be submitted in written form. The software has a control function and interposes questions that regularly pop up in side-windows. The cadre undergoing the lecture is so required to listen or watch the whole lecture once he/she starts. My local interview partner complained that

even a short break for dealing with one's physical necessities is not possible.For conferences and or other training cadres of Baoshan have to commute to the provincial capital Kunming, the itinerary comprises either an eight hours bus ride or a one and a half hours flight by plane (Interview Mr. Y., 14 May 2014).

In other cases, considerations were to organize training are more pragmatic and related to the availability of equipment and facilities in a place. One of my interviewees in Yunnan explained that during the winter season the administrative offices are cold and do not dispose of any heating. That's why the forestry agencies opt for organizing the training in a local hotel, where seminar rooms provide a more comfortable environment (Interview Mrs. F., 14 December 2015). I encountered a similar case on my visit at the Fuzhou Forestry Cadre School, where the school was currently re-constructing its dormitory and the adjacent restaurant. The lack of these two facilities resulted in the cadre school not offering any cadre training at all until the completion of the construction works. For the time being, cadres of the prefecture and the adjacent jurisdictions that would usually undergo training in the Fuzhou Forestry Cadre School were sent to one of the other two provincial-level cadre schools in Sanming City or Nanping City (Interview cadres from local forestry cadre school, 25 November 2015).

With boarding, lodging, and comfort as common features, other types of facilities qualify for becoming a "training base." During one of my field trips to Chongqing, I stayed at the Longhua Guesthouse (龙华宾馆) in Chongqing's Jinyun Mountain Park (缙云山公园). As it turned out the guesthouse was listed as one of the official training centers of the Ministry of Land and Resources (国土资源部). The Guesthouse solicited its location in a natural environment where cadres can disconnect with their daily responsibilities. In addition to the guesthouse, the park was also used for site visits in the framework of training programs for forest park managers. (Figure 14 below).

Organizing training – or building training institutions – in appealing places with natural surroundings has become popular in China, this holds true particularly for party schools. Party schools such as the Central Party School in Beijing, but also the Fujian Provincial Party School in Fuzhou are both located in the cities' suburbs adjacent to or surrounded by natural beauty. The Central Party School is situated close to the famous Fragrant Hills (香山), while Fujian's Party School was built at the foot of Drum Mountain (鼓山), the city's recreational park for city dwellers.

Figure 14: Cadre training base of the Ministry of Land and Resources

Source: Brochure collected by the author at the Longhua Guesthouse

A possible reasoning behind the strategy to organize training in places off the city center might be to give cadres the opportunity– or compel them – to leave their daily work and responsibilities behind. Another explanation pointed out by one of my informants is the goal to build a connection between administrators and the natural resources they manage, this is particularly important for cadres from bureaucracies such as forestry and land management (Interview Mrs. L., 22 May 2014; Interview activist C., 21 May 2014; Interview activist C. 11 December 2014). A third reading is that some training takes place in those places, where the actual implementation of policies is taking place or, to use the words of Herbert Kaufman (2006 [1960]), where "the words of policy statements […are translated] into action" (p. 4).

As mentioned above, Chongqing's Jinyun Mountain Park is used for site visits in the framework of training programs for forest park managers. Most programs in the forestry administration comprise sight visits where participants can observe places where the translation of policy statements into action was put into place. This is owed to the training system's pretense that training should facilitate the operationalization of development goals. With this respect, forest farms are another example of alternative places where forestry training takes place. Forest farms are responsible for a series of work tasks encompassing the fulfillment of tree planting and forestation goals set by higher levels, forests tending, fire prevention, disease control, prohibition of illegal logging, and forest clearance. Depending on the forest management regime there are state-owned and collective forest farms. Some of these farms, provided they demonstrate an outstanding performance, are nominated demonstration sights which then serve as training sights for cadres of the region and across China.

For Sebastian Heilmann (2011) demonstration sights are part of a policy process in China that aims to diffuse successful policy instruments for emulation across the country. According to his research, the idea goes back to the revolutionary period and the approach was much owed to the impact of John Dewey's pragmatist philosophy. Dewey's plea for social experimentation resulted in the establishment of numerous experimental sites in various policy fields all over China, foremost in the agricultural sector. The most prominent experimenters were exponents of the Mass Education Movement and the Rural Reconstruction Movement (p. 79). While model districts, where intensive experimentation took place, were used as demonstration and training centers for other districts, the movement would extensively promote these models to as many places as possible, and as rapidly as possible (p. 80). In the early 1950s, the method was elevated to a CCP-controlled general method of leadership (Heilmann, 2008, pp. 9-10)

Well before Heilmann's theorization, the role of demonstration farms as training sights and for policy diffusion in forestry was noticed by international observers in the early 1980s. A report by the UN Food and Agriculture Organization (FAO, 1982, p. 137) stated that state-selected demonstration farms in agriculture and forestry became a widely used platform for training for communes, production brigades, and teams. These farms were production-oriented and carried out experimental research programs. For this purpose, the farms were supported by a staff of educational and research institutions that visited communes from time to time to give on-the-spot training or to conduct research programs. One of the demonstration farms the delegation of the UN Food and Agriculture Organization visited was Leizhou County in Guangdong Province, the delegation's reported its impressions as follows:

> […] There is a state-run forestry demonstration farm in Leichow (sic!) County in Kwangtung (sic!)Province. The state Forestry Bureau in Leichow County was established in 1954 and currently administers ten forestry farms scattered throughout the county with a total area of 69,000 ha. This bureau also runs a forestry research institute. Through the initiative of this bureau and the research programs carried out by it, the surrounding communes and production brigades have been able to learn and copy new methods of afforestation and soil and water conservation, and, as a result, forestry and its role in water and soil conservation has become a major contributory factor to the agricultural and general economy of the whole county. As a result of integrated planning and improved agroforestry practices, the yields of the land have almost doubled, leading to increased revenue and greater prosperity for once impoverished areas. (FAO, 1982, p. 137)

The account shows that demonstration sights served to build up local capacity involving both state and societal stakeholders. Up until today, the central government continues to select demonstration sights in different regions so that diverse experiences are joined (Interview Director L., 7 July 2016), training fulfills the premises of linking theory with practice (理论联系实际) and thus symbolic ideology with operational ideology. These farms then function as "training bases" for cadres of other places in China. The Forest Farm Association, an association affiliated to the State Forestry Administration,[55] regularly issues news on China's best-performing forest farms and lists those farms that act as official training bases (Forest Farm Association, 11 April 2013). In the process of qualifying for becoming a demonstration farm, international collaboration can contribute quite prominently in improving the operations of forest farms, in particular in their attempt to become more sustainable.

In the course of the early 2000s when China started its preparations for a national reform of the collective forest tenure system, the State Forestry Administration began to seek international advice and developed a particular interest in forest associations and multifunctional forestry in Austria and Germany. Between 2008 and 2012, three delegations came to Austria where excursions and site visits were organized to some of Austria's local forest associations (*Waldwirtschaftsgemeinschaft*) and other forest enterprises (BFW Ossiach 2008; 2012). With Germany, the Chinese government signed a Memorandum of Understanding which was then followed by a German-funded project realized by the German Association for International Collaboration (GIZ) in three of China's southern provinces: Fujian, Hunan, and Hainan. The goal was to help China to develop forest farms using sustainable forestry practices. Three forest farms were selected: Fujian Zhangping Wuyi State Forest Farm (福建漳平五一国有林场), Hua Yanxi in Hunan (花岩溪国有林场), and Daodong Farm (岛东林场) in Hainan. The GIZ together with China's forestry authorities and Chinese researchers developed a training guide for these farms that managed between 4,000 to 6,000 hectares of forest land. In order to foster knowledge transfer, the forest farms in Fujian, Hunan, and Hainan became national training sights for cadres and local training sights for societal stakeholders[56] (Interview von der Heyde, B., 27 October 2015).

Fujian Zhangpin Wuyi State Forest Farm started trial works (试点工作) in April 2008. The State Forestry Administration suggested the forest farm be included in the project with the GIZ for several reasons: Firstly, the forest farm managed a share of state-owned and collectively managed

[55] The association declares itself as inter-regional, inter-departmental, and inter-sectorial (Forest Farm Association, n.d.).
[56] The forests of southern provinces are prevailingly under collective management regimes, therefore training measures were also directed to local forest farmers.

forests, so it kind of played into the reforms in collective forest tenure reform. Secondly, Zhangping Wuyi Forest Farm had been trying to obtain a sustainability certification from the Standard of Forestry Council. After intensive collaboration with German experts, the forest farm finally achieved its goal and earned the certificate in March 2011. The farm not only proved to be competitive in timber production (Fujian Provincial Department of Forestry, 31 December 2011), but also provided clean water and air, safeguarded and protected biodiversity, and shared revenues with the local collectives (Interview von der Heyde, B., 27 October 2015). Due to this success, the forest farm was incorporated into the Forest Farm Association's list of official "training bases". According to reports published on the website of Zhangping Wuyi Forest Farm, several site visits have already been conducted by delegations of different provinces and counties (Fujian Zhangping Wuyi State Forest Farm , 26 March 2013; 28 April 2014; 24 June 2014).

The discussion above demonstrates that forest demonstration farms are not only part of a policy process with the purpose to diffuse models – of state-accorded successful implementation of national policies in specific localities – to other places in China. More importantly, they loom large in China's cadre training system as expressions of successful outcomes in the operationalization of abstract ideas into concrete policy action, places where cadres can learn more about the concrete steps of operationalization.

5.3 Explicit and Implicit objectives of the training

This section tackles the objectives of training in China's forestry administration. Section one presents a typology of training programs that distinguishes programs according to their objectives. The typology is an outcome of a content analysis of training contents published in reports on training programs and other relevant material. Section two provides empirical evidence that training in China's forestry administration is a vital part of the promotion of state policies directed to China's poorer regions. This applies, in particular, the Great Western Development Campaign (西部大开发) that was launched at the turn of the century. However, among its explicit objective to foster state development, training pursues the implicit objective of state integration. The example of the campaign on Gradually Improving Xinjiang's Socio-Economic Development (进一步促进新疆经济社会发展) as part of the Great Western Development Strategy in section three shows that the state integration underlies the objective of state development. The section explains how training of government departments, such as the forestry administration, forms an integral part of national development strategies.

5.3.1 Typology of training programs

> *Like all other forms of education, we can expect that the impact of cadre training lies only partially in its formal curriculum and objectives.* (Pieke, 2009c, p. 27)

All forms of education are a form of socialization and integration, in which members of a community learn values, norms, knowledge, and attitudes to foster role performance and group goals (Mortimer, et al., 1978, p. 422). The learning process contributes to the establishment of roles, the associated appropriated behavior, and facilitates the establishment of thought patterns. In these "thought communities" (Spillane, et al., 2002) individuals learn how to interpret and make sense of targets. It goes without saying that this does also apply to cadre training in general, and forestry training in particular. Forestry training is not less part of a socialization and integration process than any other form of education in China. Yet, looking at forestry training from the vantage point of its role in the operationalization of China's sustainable development concept, forestry training is a means for knowledge construction through which the state produces thought communities within the administration and subjects in the operationalization process.

Curricula have not been a core issue in the research on cadre training, yet several researchers have included curricula analysis in their studies. Tran (2003) and Guo & Wei (2009: 13-14) provide samples of training curricula employed in Shanghai Municipal Party School and Hebei Provincial Party School, respectively, giving an account of the topics taught at the schools (Theory of Socialism with Chinese Characteristics, Economic and Social Development, etc.). Pieke (2009a, pp. 89-97) looks at teaching and research from the vantage point of academic disciplines. Here he cautions the reader that despite the familiarity, disciplines have "their unique history in China" (p. 90).

> Academic disciplines, in China as elsewhere, are not only a way of looking at and understanding a specific aspect of reality […]; they are also centrally involved in the creation and maintenance of these aspects as separately knowable entities that can than (sic!) be acted upon, managed and controlled by governing institutions (Rose & Miller, 1992, cited in Pieke, 2009a, p. 90)

Chin (2011) approaches teaching offered in the three national executive leadership academies in Yan'an, Jinggangshan, and Pudong-Shanghai[57] through the lens of the dichotomy of innovation and preservation. He finds that each of the three academies schools has its own agenda and place in the effort to reconcile the tension between these two poles. Finally, Lee (2015, pp. 157-176)

[57] The leadership academies were founded under leadership of the Central Organization Department in 2005.

analyzes how party school curricula have changed against the backdrop of marketization in the reform era.

I propose a typology of training programs in the State Forestry Administration according to their objectives. Table 9 gives a summary on the four types that have emerged in a content analysis of curricula of training programs at the State Academy of Forestry Management and official reports on training activities published by the academy and the State Forestry Administration between 1998 and 2015. In spite of overlaps, each type exhibits a clearly defined cleavage that distinguishes it from the other three with respect to the objectives pursued. Furthermore, the four types differ in the level of abstraction of training contents.

Table 9: Objectives and types of cadre training

Type	Objectives	Training examples
Type one	Socialization, clarifying role expectations, thought communities	Newcomer and promotion training
Type two	Construction of shared knowledge among specific groups of cadres, thought communities	staff job training, training for cadres without any professional background in forestry
Type three	Conveys specific skills for specific work tasks	Customized skill training
Type four	Fosters understanding of policy or reform and aims to facilitate implementation	Policy accompanying training (e.g. National Reform of Tenure Right System)

Source: compiled by the author

Type one and type two, both pursue a form of integration and socialization into China's state apparatus and / or the forestry administration. Training is a way through which members of a community learn values, norms, knowledge, attitudes and other skills that foster role performance as well as group goals (Mortimer, et al., 1978, p. 422). Type one refers to newcomer and promotion training program that the administration carries out on behalf of China's personnel bureaucracy (i.e. Organization Department and Ministry of Human Resource and Social Safeguarding). All cadres are required to undergo these training otherwise they cannot hold the posts they have been assigned to. In terms of contents, these trainings impart a standardized set of knowledge to the participants that should familiarize them with the expectations that are attached to the status as a cadre and / or to a specific rank in China's state bureaucracy, rather than preparing them for their specific positions in the forestry administration and their specific operational work tasks. However, the forestry administration can tailor the program in accordance with its political portfolio and insert related topics.

The programs of newcomer and promotion training devised by the State Academy of Forestry Management includes a standardized set of classes on topics with regard to appropriate behavior expected from cadres and conveys a series of secondary (enabling) competences (e.g. “improving legal awareness, preventing duty crime”, “the arts of cadre language and expression”, “developing department-level cadre skills”, “civil service etiquette”), career planning and other soft skills (e.g. “career planning” “conversation and communication skills”, “handling and writing of official documents”, “how to smoothly change roles, quickly become competent in one’s position”), and some general lecture on forestry related issues (e.g. “theories and development trends in China’s modern forestry” and “hot issues in global forestry”) (State Academy of Forestry Management, 21 May 2009; State Academy of Forestry Management, 22 September 2010).

The purpose of the type two training programs is to establish a set of shared knowledge among cadres that have certain features in common. The commonality is either the position or rank of cadres, their operational area (i.e. forest region), or their level of preparedness in the forestry profession. Training programs for cadres in similar positions are operational in content, knowledge and skill development is closely linked with the cadres’ work fields. Some of the training programs are customized to the work field of the cadres and are thus very different one from the other. For example the training program for heads of Forestry Stations includes topics such as “management and construction of forestry stations”, “forestry law enforcement”, “developments and trends of forestry technology”, “trees and culture”, “forestry extension service”, etc. (State Academy of Forestry Management, 5 November 2015). While an advanced training program for big- and medium-sized enterprise management staff encompasses issues like “current forestry development strategies”, “forestry enterprise reform and development”, “forestry industry structural adjustments”, “reform, operation, and management of the forest tenure ship system and management strategies”, “marketing and public relations”, “financial administration and capital operations”, “human resources and organizational building”, and “improving leadership capacities” (State Academy of Forestry Management, 21 May 2010).

Another group of cadres with common features are those who are based in the same operational area or region (inter-provincial). Training programs tackle a wide range of topics but feature regional political concerns and core areas. These training programs have a different setup, as its participants are cadres, professionals, and technicians working in different positions and work fields of the administration. The goal of the program is to familiarize cadres with the challenges faced in different policy fields in the region and deliver updates on policies and forestry developments. Training usually involves site visits for demonstration purposes.

For example, in June and September 2010, two special study classes were organized in Hangzhou (Zhejiang Province) and Taiyuan (Shanxi Province), respectively. The program of the *36th Special Study Class on the Construction of Forestry (in Coastal Areas)* (三十六期（沿海地区）林业建设专题研究班) encompassed a series of lectures on "ecological tourism", "forestry and climate change", "the construction and management of welfare forests", "coastal shelter forests", "wetland protection", "forest fires", "reform and deepening of collective forest tenure system", "forest resource management", "forest project planning and management", and "forest health." A roundtable was organized with local county heads who talked about their experience in fire protection, and a site visit was conducted at the Shangyu Coastal Shelter Forest Construction and Lin'an Forestry Industry Development Site. (State Academy of Forestry Management, 7 July 2010).

The *37th Special Topic Class on the Construction of Forestry (in the Three Norths Region)* (三十七期（三北地区）林业建设专题研究班) encompassed lectures that were similar to those in Hangzhou, for example, "reform and deepening of the collective forest tenure system", "forest fires", and "forestry and adaption to climate change", etc. Adapting to the particular regional circumstances, lectures tackled "theory and practice in the governance of the Three Norths Protection Program and the Loess Hill region", "management and development trends in the implementation of the Natural Forest Protection Program", "China's current situation of desertification, countermeasures, and prevention." A keynote speech and a discussion table on "the development of forestry industry" was organized as well as site visits to a walnut plantation in Linshi County and a red date plantation in Taigu County, to the botanical garden in Pingyuan County, to the Pingyuan reforestation project in Qixian County, and to the Shanxi Province Container Nursery Research Center (State Academy of Forestry Management, 23 September 2010).

The third group is cadres which commonality is their lack of professional background in forestry and therefore need to be introduced into the essentials of forests and forestry, and the political portfolio of the administration. The forestry administration – like other government departments – is confronted with is a high cadre turnover rate of leading and non-leading cadres that are transferred from one department to the other. Eaton & Kostka (2014) have analyzed the effects of frequent cadre turnover on environmental policy implementation in China. They argue that cadres with different work background from other administrations can contribute to solving the implementation problem, as they are able to reduce coordination problems. The downside is, however, that officials with short-time horizons are more interested in producing quick and visible results (that are conducive for their careers) and thus "are likely to choose the path of least

resistance in selecting quick, low-quality approaches to the implementation of environmental policies" (p. 359).

From the vantage point of professionalism, cadres who are transferred to the forestry administration without any knowledge on the administration's core work pose a risk to the department not only in terms of vested interests but also with regard to the feasibility of their political decisions (Interview Director L., 3 November 2015). Therefore crash courses were developed that should help these cadres to gain essential knowledge in a very short period. The program touches upon a wide range of topics more or less covering the essentials of the political portfolio of the State Forestry Administration: "forest ecology", "reforestation", "forest resource investigation and monitoring", "pest and disease control", "forest fires", "forest laws and regulations", "forestry industry development", "forest economy", "wetland ecological system protection", "biodiversity protection", "forestry and climate change adaption", "crisis management and forestry emergencies", "decoding the spirit of Third Plenary Session of the 18th Party Congress", "Great View of Forestry Construction from the Perspective of Ecological Civilization", etc. (State Academy of Forestry Management, 5 May 2013).

Type three that emerged from the content analysis refers to training programs with purely technical contents. They address specific cadres and impart skills these cadres need for their work assignments. These course programs range from computing and file archiving management for administrative personnel that works in the administrative offices (State Academy of Forestry Management, 22 May 2010; State Academy of Forestry Management, 10 June 2010) to forest inspection and survey techniques for technical personnel in agencies involved in planning tasks and statistical work (State Academy of Forestry Management, 2 January 2013). These programs can also be regarded as measures that accompany administrative reforms, such as informatization and e-governance. Nevertheless, their nature is quite different from the above-described two types of training, as the focus is put on a specific set of skills and knowledge that is necessary for carrying out the general work agenda of the forestry administration.

Type four refers to training that accompanies the implementation of policies and reforms, thus they are instruments of public policy. These training programs are designed for the dissemination of contents and objectives of policy programs and should equip people involved in the policy implementation process with the relevant skills and knowledge. Training is organized at different administrative levels targeting different groups of operationalizers and implementers. This training as a training category in its own right and has emerged in the course of the 1990s. Historical sources show that the upcoming of complementary training was contemporary with the increased

engagement of international funding organizations and foreign governments in forest development.[58] As discussed in Chapter 4.3 complementary training is organized in a top-down approach that should ensure that knowledge on policies and their objectives, relevant laws, and specific skills facilitate smooth implementation. The complementary training aims to solidify roles in the governance of forestry. By assigning stakeholders with roles and a pre-defined set of skills training conveys how they should think about and relate to policy implementation.

The four types presented in this chapter have emerged in a content analysis of reports on training activities, the majority of which were published on the website of the State Academy of Forestry Management and thus correspond to the variety of teaching conducted at the academy. However, training program frameworks are centrally designed thus resembling each other at different levels of administration and in different training institutions across China. Thus, the reports not only reflect the spectrum of training provided by the academy, but training provided by forestry authorities across China not excluding regional variations.

5.3.2 Training and human capital development

As discussed in Chapter 4, forestry training is part of the state's planning system. Although it caters to the specific needs of the administration, the administration's development strategies and policies are part of the broader goals of national state development. I continue my analysis of forestry training and show that the Chinese party-state sees human capital development, in terms of sector-specific training, as a vital part of its state development.

In 1999, the Chinese government officially initiated the Great Western Development Campaign that became the centerpiece of its *10th Five-Year Plan* (中华人民共和国国民经济和社会发展第十个五年规划纲要) (Magee, 2006, p. 25). The government planned to invest an approximately 8.4 billion US Dollars for four key tasks in Western China: infrastructure development with an emphasis on water resource, the improvement of the ecological condition with a focus on desertification, soil erosion, flood prevention, industrial development, as well as science, technology, and education (Yin, et al., 2005). The *10th Five-Year Plan* issued in 2001 then set specific goals for the campaign that ranged from improving the ecological and environmental situation, over increasing market competitiveness of local products, expanding urbanization, to reducing rural poverty and regional income disparities (Holbig, 2004, p. 349). The south-western regions were upgraded as an ecological problem zone, and the Northwest was identified as a

[58] See Chapter 3.2.2 for more information on its historical development.

geographic macro-region suffering from a notorious shortage of water that led to rapid desertification causing serious consequences for the whole China (p. 349).

Upon its official launch, the objectives of the Great Western Development Strategy were integrated into policy statements of relevant departments involved in the strategy (infrastructure, propaganda, forestry, etc.), and consequently in the national cadre training plans and the training plans of these government departments and commissions (Central Party Committee, 2001, Art. 4).

In forestry, the Natural Forest Conservation Program and the Land Sloping and Conversion Program initiated in 1998 were designated to accompany the Great Western Development Strategy. The Land Sloping and Conversion Program alone had a budget of over 40 billion US dollars primarily targeting the environmental rehabilitation of Western China (Yeh, 2009, p. 886). Both projects tackled issues of soil erosion, flooding, and desertification, and aimed to improve the precarious ecological conditions in the western regions (Yin, et al., 2005, p. 17).

Upon the launch of the program, the forestry administration together with other ministries presented plans for the training of cadres and other personnel in the first half of 2000 (Holbig, 2004, p. 348). The *10th National Outline of Forestry Education and Training* (全国林业行业教育培训工作“十五”规划) established the implementation of the of Land Sloping and Conversion Program and the Natural Forest Conservation Program as a political priority and ranked continuing education of middle and high-ranking technicians from Western regions third in a list of total six targets. Leading cadres, project management personnel, technicians, as well as local government leaders were expected to undergo special topic classes that informed about general directions, policies as well as laws and regulations of the programs.

The outline defined the framework for skill development as follows: At the symbolic classes conveyed abstract contents, these encompassed the importance and function of the Construction of Forest Ecology. Trainees had to understand the two theories of Construction of Forest Ecology and Modern Management Science. At the level of operational ideology, project organization and management, investigation and assessment of ecological benefits, and economic accounting were regarded as important knowledge and skills to acquire. At the micro level of operationalization, training should encompass methods and techniques in afforestation, breeding, pest and disease prevention, desertification control, and combat of afforestation, biotechnology, and information technology. Continuing education for technicians had to focus on new knowledge, new theories, and new technologies so that a new awareness and innovative spirit could be cultivated. Technicians had to undergo training at least 12 days each year and register in the continuing education system. Training had to comprise issues such as information technology, finance,

taxation, international trade, law, and modern administration. The plan set a target of 400,000 professionals and technicians to be trained in the five-year period. (State Forestry Administration, 2001b)

Since the Western regions were key regions for Ecological Construction but had relatively weak education and training structures, the State Forestry Administration declared the regions to become a top priority for forestry education and training work. Training would address first and foremost leading cadres, project personnel, and technicians in regions with key projects. The richer eastern regions should cooperate with Western regions by means of financial investments, teaching personnel, and provide other assistance (State Forestry Administration, 2001a, State Forestry Administration, 2001b).

First large-scale training for county-level cadres involved in the Natural Forest Conversation Program, the Land Sloping and Conversion Program, the Three Norths Shelterbelt Program, and the Shelterbelt Development Program along the Yangtze River Basin took place between May and September 2001 (State Forestry Administration, 2002, pp. 219-220). In the following year in August, a training program on drought-resistant afforestation techniques in Qinghai Province was arranged. Participants came from those 12 provincial forestry departments that were involved in the Three Norths Shelterbelt Program and the Land Sloping and Conversion Program and worked in forestry organizations concerned with research, forestation, and sprout cultivation. In addition, officials from minority areas of Jilin Province, Henan Province, and Hebei Province joined the training. The training comprised five days of in-door training sessions with lectures and discussions on a variety of issues related to forest ecology, desertification, and the national forest development programs. Expertise and experience on tree species and planting techniques gained in Jilin, Hebei, and Henan were shared and discussed among the participants. Finally, a three days sight visit tour was organized to forestation demonstration sights in Pingan County (Land Sloping and Conversion Program), Datong County (Natural Forest Conservation), Gonghe County, and Huangzhong County (State Forestry Administration, 2003, pp. 191-192).

In 2006, a study on human capital development in Western regions was published (西部地区林业人力资源整体性开发研究) according to which Western regions had a total workforce 8.5 million (including forest farmers and forest rangers), which made up 44.7 percent of the total workforce in forestry in China. The stratification of forestry cadres was as follows: 11.58 percent civil servants, 19.53 percent enterprise managing personnel and technicians, and 68.89 managing personnel and technicians working in service organizations. In terms of educational levels, those who graduated from vocational schools or below made up 66.95 percent, those with a college

diploma 32.74 percent, and master degree 0.31 percent. The study concluded that in order to enhance human capital development, it was necessary to improve the educational level of forestry staff in the western regions both in quantitative and qualitative terms, to foster the working conditions in terms of social insurance and better payment, and to promote popular science education and education on ecology and environment (State Forestry Administration, 2007, p.331).

The quality of education and training hinges on the quality of the local training structures and the teaching personnel. Already in the 10th National Outline of Forestry Education and Training in 2001 the State Forestry Administration acknowledged that

> Western and peripheral regions are China's most important regions for the Construction of Forest Ecology, yet they are those regions with a relatively weak forestry education and training base (State Forestry Administration, 2001b, Art. 4)

Yet, the statement was placed in a little eye-catching position: namely in very last section of the document ranking third among eight specifications on Safeguarding Measures (保障措施). The study on human capital development published in 2006 changed priorities with this regard and the *11th National Outline of Forestry Education and Training* not only stressed the importance of the Western regions in China's ecological construction and but also acknowledged the problem of its weak training structures. This acknowledgment was placed in the core section of the document which defined the main targets of the training plan. Moreover, the document stressed the necessity to build-up training structures in these regions so conditions under which education and training work was conducted could be improved. Again the plan demanded that structural assistance should be provided by the Eastern Provinces (State Forestry Administration 2006, Art. 4).

Whether forestry departments of eastern provinces have lived up to the center's expectations is questionable and cannot be answered here. However, given resource shortage as a general condition in the forestry administration, in particular with regard to training budgets, it is possible that the request to channel money into other provinces was met with resistance from the richer forestry departments. While regions with a strong timber industry delivered their tax revenues to the central government, economically weak regions under the Great Western Development Program received a huge share of central-level subsidies. Consequently, the ball remained at the center that had to come up with a solution for providing more financial resources for the training of officials from western regions. One of these was seeking international help.

In 2009, the State Academy of Forestry Management signed a cooperation with the Japan International Cooperation Agency (JICA) and launched the *China-Japan Project for Human Resource Development of Rehabilitation in the Central and Western Region in China* (中国中西

部地区康复人才培养项目). For a period of four years (2010-2014), training was provided to forestry cadres from disadvantaged places in China. In the cooperation four provincial forestry departments and their forestry training institutes were involved: Sichuan Province and the Sichuan Provincial Forestry Cadre School (四川省林业干部学), Shaanxi Province and Shaanxi Provincial Forestry Education and Training Station (陕西省林业教育培训站), Guangxi Zhuang Autonomous Region and the Guangxi Forestry Cadre School (广西林业干部学校), as well as Ningxia Miao Autonomous Regions and the Ningxia Vocational College for Combating Desertification (宁夏防沙治沙职业技术学). In the passage of four years, 2,416 cadres were trained, 12 experts were invited to China, and four delegations of each 25 cadres were dispatched to Japan to undergo training there. The Japanese International Collaboration Agency invested a total amount of 34.51 Million Renminbi into the project (State Academy of Forestry Management, 18 November 2013; Japan International Cooperation Agency, Project for Human Resource Development of Rehabilitation in the Central and Western Region in China).

Had the focus of training been put on technicians and leading cadres under the 10th and 11th five-year periods, the *12th National Outline of Forestry Education and Training* (全国林业教育培训"十二五"规划) targeted in particular grassroots-level cadres. According to the plan, grassroots cadres were insufficient in number and lacked technical expertise. Efforts had thus to be made to train a greater share of them. The plan set a quota of 500 grassroots cadres per year so that within five years all backbone cadres could undergo training. In addition, each year some 100 excelling technicians should be sent to western regions for temporary duties (挂职锻炼)[59] or to provide service.

Based on the assumption that expertise and knowledge are an important fundament for development in general, temporary transferred duty in the context of the Great Western Development Strategy can be understood as a redistributive measure in China's knowledge transfer system. The adaption of a knowledge transfer system that reorganizes the distribution human resources and their expertise within the country to more disadvantaged regions is perceived as an effective measure that contributes to the reduction of regional disparities in development in the long run.

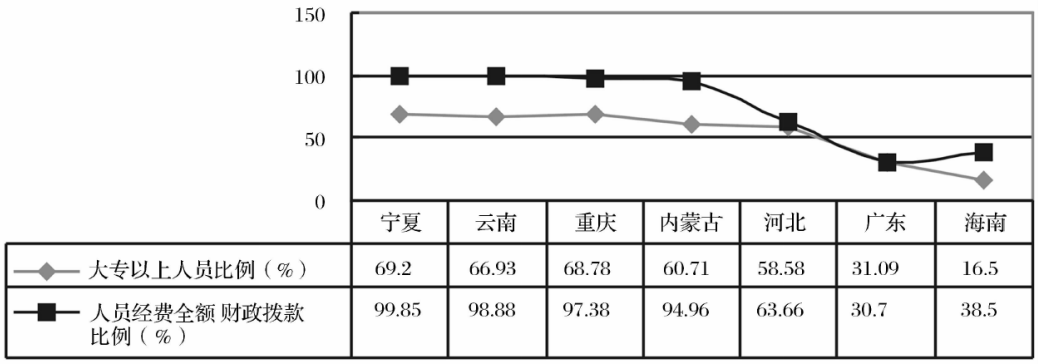
[59] Temporary duty is a work-based training in which cadres are assigned by their current work unit to a different unit in order to gain experience in a different work environment and duties. The cadre's performance during this time is evaluated from both the dispatching and receiving unit which determines whether the cadre can continue to serve his transferred duty and whether he/she gets promoted or not (Tsai et al., 2015, p. 12). According to Tsai et al. (ibid.), temporary duty had first appeared during the Rectification Movement in 1957 and originally addressed cadres of central or provincial Party Committee members to be transferred to remote locations and hardship postings for the purpose of exposure and training, after which they would often be rewarded with promotion.

Tsai & Kou (2015) interpret the revived tradition to send cadres into the country-side to work at the forefront is part of a new vision of the contemporary Chinese Communist Party on the sort of skills its most promising future leaders are expected have. Cadres that are selected for promotion are known as reserve cadres (后备干部). After having made their way onto the reserve list, these officials are put to the test by rigorous training and evaluation, a process that the authors define by using the allegory of "baptism of fire" (p. 10). Once reserve cadres have adduced evidence of their hard and soft skills, they are eligible for promotion to high positions across the country which afford them with great decision-making power (p.13). In addition to ideological training at China's central training institutions, reserve cadres have to learn "hard skills" (p. 12) by embarking on a period of work-based training, where they are "generally assigned to carry out the most urgent, difficult, dangerous or onerous work" (p. 12).

However, Tsai & Kou (2015) have found evidence that the effectiveness of this approach is highly questionable, as officials on temporal duty are more concerned with complying with their new superiors' wishes (who are also responsible for the evaluation of the candidates) and with keeping a low profile in their temporary working environment (p. 14). Drawing on these findings, it is arguable whether the dispatching highly capable technicians to less developed regions with the purpose to channel expertise toward these places really helps to reduce disparities in regional development. Instead, other measures appear to be far more effective.

In a study on regional disparities among grassroots government agencies in China's forestry administration, Chen, et al. (2012) found that the educational level of cadres working in Forestry Stations in Ningxia was comparatively high to other provinces. In Ningxia, 69.2 percent of the staff had a college degree or higher, compared to its richer counterparts in Guangdong and Hainan where the percentage accounted for 38.11 and 52.7, respectively. The reason behind this rather unusual stratification in Ningxia is a policy promoted by the provincial government that bears 99.85 percent of personnel expenses of its local Forestry Stations. The authors come to the conclusion that better payment attracts higher-qualified personnel (p. 79).

Figure 15: Financial allotments and educational levels in Forestry Stations



	宁夏	云南	重庆	内蒙古	河北	广东	海南
大专以上人员比例（%）	69.2	66.93	68.78	60.71	58.58	31.09	16.5
人员经费全额 财政拨款比例（%）	99.85	98.88	97.38	94.96	63.66	30.7	38.5

图 1　林业站从业人员学历与人员经费拨付渠道的关系

数据来源：国家林业局全国林业站本底调查统计数据（2010 年，内部资料）

Source: Chen, et al. (2012, p. 79)

As outlined above, the Great Western Development Strategy in the field of forestry has been supported by national forest development programs, in particular, the Natural Forest Conservation Program and the Land Sloping and Conversion Program. Training conveys general knowledge on forestry ecology, the political guidelines of the programs, and regulations, as well as technical knowledge such as planting techniques and pest and disease control. The programs organized by the State Forestry Administration were usually arranged on an interregional level, this means that cadres from the various provinces involved in these particular programs come together to participate in the training.

As explained in Chapter 4, training plans are set up according to a specific logic and principles that reflect the central position of symbolic ideology. The plans establish the general doctrines and guidelines for cadre training and place training in the broader goals of state development. In this sense, forestry training caters to the specific needs of the administration and its trainee groups in the context of prescribed state development. The example of the Great Western Development Strategy presented in here provides empirical evidence that an explicit goal of forestry training is not only the promotion of its sector-specific policies but to promote state development on the whole.

5.3.3 Training and state integration

The Great Western Development Strategy continues to be a core political concern in the State Forestry Administration's human capital development policy. Section 5.2.1 presented a list of training programs offered at the State Academy of Forestry Administration. Recently, the academy has started to offer course programs that address one specific province of China's western regions: Xinjiang. The programs stand out for their particular set-ups and are thus worthwhile to be

analyzed in depth.

The State Forestry Administration started to design a customized training program for cadres from Xinjiang in 2010, when the first two rounds of the *Xinjiang forestry cadre training program* (新疆林业干部培训班) were organized in May and October 2010. Most of the training programs that address cadres from specific forest regions take place in local training institutions. This is not the case for the Xinjiang program, forestry officials from Xinjiang are summoned for training at the State Academy of Forestry Management in Beijing. Moreover, while training programs normally last between three to five days, the Xinjiang training lasts up to one month (State Academy of Forestry Management, 22 May 2010b; State Academy of Forestry Management, 20 October 2010). Furthermore, the Xinjiang training programs distinguish also in their contents.

In 2011, the State Academy of Forestry Management and the Provincial Department of Forestry of Xinjiang Uyghur Autonomous Region jointly organized a training program on *Xinjiang Construction of Modern Forestry* (新疆建设现代林业) for 112 division-level cadres and forest farm heads. Training contents included forest-related issues such as "case studies on the enforcement of forestry law" and "special topics on forestry." Site visits were organized to places that implemented national forest programs, such as the Desertification Prevention Program, the Land Sloping and Conversion Program, and the Reform of the Collective Tenure System. In addition to these operational contents, teaching also encompassed lectures on "points of special political interest", "minority characteristics", and "capacity construction", "current trend in politics", "leadership science", "development of Xinjiang" (State Forestry Administration, 2011, p. 270; State Forestry Administration, 2012, p. 303).

In 2012, another one-month training program was organized, this time Xinjiang forestry cadres were lectured by scholars and experts of China's most important party and forestry training institutions including the Central Party School, China Academy of Governance, China Renmin University, Beijing Forestry University, National University of Defense Technology, China Forestry Science Academy, and experts working in the State Forestry Administration (State Forestry Administration, 2013, p. 216).

The training programs for cadres coming from Xinjiang are distinctively different from other training programs that address cadres coming from Western regions. Latter commonly focus on operational aspects of policies with the goal to update knowledge and to provide an exchange platform for cadres to foster mutual understanding. The Xinjiang program is, instead, more similar to career path training such as newcomer training and promotion training that convey role expectation and aim to integrate cadres into the broader context of China's state administration

and its national development policies. The reasons for this set-up can be found in considerations that go far beyond forest development.

There is widespread agreement among scholars who have studied the Great Western Development Strategy that the policy was conceptualized as a program of state integration (Goodman, 2004; Holbig, 2004; Shih, 2004; Becquelin, 2004) and a

> 'civilizing mission' directed to minority ethnic groups after two decades of decentralization and localism. (Yeh, 2009, p. 889).

As the examples of cadre training in the context of the Great Western Development Strategy and of Xinjiang show, cadre training in general, but also training in the forestry administration in particular, is part of a mechanism the central government deploys to achieve state integration by managing the relationships between central and local governments as well as between the center and its peripheries. The goal of professionalization in terms of increasing the educational levels and credentials as well as in terms of creating a shared knowledge basis among those who are assigned with the similar tasks of policy implementation is an essential aspect of state integration in China (and of any other state), as it allows for the possibility of development. Only when the Chinese party-state achieves both ends, the reduction of disparities in regional development and the loyalties of its staff to the state-administration, can Chinese Communist Party continue to legitimize its power.

The ecological disasters that happened at the end of the 1998 and the impossibility of further excluding the disadvantaged provinces from having a share of China's modernization thrive have provided the central government with a unique possibility for its project of state integration: Shifting ecological construction to western and peripheral regions was one way to decrease the "distance" (Weigelin-Schwiedrzik, 2008) between the center and the periphery. However, the real winners of this new development approach are China's rich provinces. Yeh (2009, p. 887) argues that the proposed program on ecological construction was less an undoing of Western China to be the provider of natural resources, but rather a re-inscription of territorialization (p. 887) in which Western China that continues to provide natural resources in form of ecological services. Yin, et al. (2005) stress a similar argument by point out that the reasons behind the action and the large-scale ecological projects were a growing awareness of the central and the local governments that the welfare and ecological security of eastern provinces directly related to the ecological conditions in Western China.

The intentions behind the training programs devised for cadres from Xinjiang go even further and join the state's efforts to avert the disintegration of the province. It is not a coincidence that the

training programs in the State Academy of Forestry Administration were launched in May 2010, only a few months after the riots in Xinjiang had broken out in 2009. They can thus be seen as a soft measure of among a series of coercive measures the central government has put in place for holding its grip on Xinjiang, its government officials and professionals, and the local population.

5.4 Conclusion

This chapter has tackled China's forestry training system analyzing several aspects of training management and organization. Section one shows that training in the forestry administration is linked with the structure of the administration and its political portfolio. Parceling out the responsibilities of training at the horizontal and vertical level it should increase the efficiency of knowledge transfer within the administration, however, while devolution leaves indeed important leeway to local authorities to tailor training according to their needs, compartmentalization in combination with a strong degree of fragmentation leads to a series of inefficiencies.

Looking at training from the vantage point of a policy, the role of individuals in the governance of training is crucial. Reform-minded leaders who attach importance to training as a vital element in pushing forward reform and changing values, can overcome fragmentation and achieve a degree of coordination which is needed for realizing reforms in a policy field with a policy cross-cutting nature. The center appears to have acknowledged the problem of local leaders' neglect and has started to set measures by inserting human capital development as a target into the cadre responsibility system. Notwithstanding, the weight attached to this target is very low and definitions of what human capital development vary from one locality to the other In addition they are coupled with policy targets that yield more weight and higher importance (e.g. restructuring the rural economy).

Section two of the chapter discusses the spatial dimension of forestry training and its substance. Similar to the party school system, forestry training takes place in training academies and local cadres schools specialized in forestry. In order to bring in more expert knowledge, the forestry administration collaborates with institutions of higher education that provide continuing education for forestry staff. As section 5.2.2 shows, knowledge transfer is not confined within the premises of educational institutions but takes place in several alternative places that encompass guesthouses or meeting rooms within the forestry department, forest parks, and forest farms. While former is often chosen due the lack of educational institutions in a locality, latter play an important role in the training structure as places where abstract policy statements are translated into concrete action.

The last section of the paper shows that contemporary forestry training pursues different objectives. Some aim to socialize and integrate cadres into the state service by imparting principles the

administration is based on, and by conveying secondary (enabling) skills such as communication and leadership skills. Others introduce the political agenda of the line department or a set of job-related knowledge aiming to create a shared knowledge base among people who work in the administration and / or in similar positions. Several training programs provide customized skill training that should help cadres to fulfill their work assignments. Finally, training programs can act as instruments of public policy accompanying (national) policies and reforms. They are expected to facilitate and contribute to policy implementation.

The section also demonstrates that forestry training is an integral part of state development in China. Human capital development is indeed understood as an important measure to achieve this goal. Human beings are important "means and contributing factors to economic growth, social development and environmental protection" (Marinaccio 2017). Notwithstanding, in the context of the relations between the center and its peripheries, sector-specific training toes the central government's political efforts to foster state integration. (Forestry) training is one among a set of political tools with which the center tries to get a grip on local officials in China's periphery.

So far forestry training has been discussed within the framework of training state officials. Forestry, however, is a field with multiple stakeholders that encompass, besides the state, also market and societal stakeholders. In order to achieve the operationalization of its symbolic ideology, the party-state cannot make a halt at the lowest level of its state administration but has to reach out to these non-state stakeholders and incorporate them into its knowledge transfer system. The illustration of China's forestry training system in section 5.1.2 shows that cadres at the lowest level of administration are responsible for providing training to farmers and village communities.

The next and last chapter of this dissertation concentrates its attention at these grassroots-level cadres and their role as transmitters of the state's vision of development and analyzes the premises of knowledge transfer between state and societal stakeholders.

Chapter 6

Grassroots Cadres as Trainers

In November 2014 I embarked on a journey from Kunming to Baoshan, a city with roughly two million inhabitants – according to Chinese standards a small city – located in the West of China's most south-western province Yunnan. Over almost eight hours, the coach crossed over beautiful landscapes with hills covered in green forests illuminated by a cloudless blue sky. When I finally arrived at my travel destination I decided to walk the 30 minutes from the bus station to the hotel. Near the bus stop, there was a farmers market where farmers sold their eatables, including local grapes and other delicious fruits. Approaching the city center I found a relaxed atmosphere, the city's flair reminded me on townships in Taiwan with bustling local businesses. But maybe my impression biased, warm temperatures and a clear blue sky that conveyed the impression of being on a tropical island, rather than in the world's largest CO2 emitter that regularly makes headlines with overcast skies and fog-burdened megacities.

I met Mr. Y., the vice-section head of Baoshan's Technical Extension Service General Station, at the entrance gate of the local forestry administration building. He showed me into a room with people going for their daily business. After I was briefly introduced to the station head we went to Mr. Y.'s office, where we started our conversation. Mr. Yang explained to me the structure of the technical extension service of China's forestry administration, told me about his work as a technical extension officer and how the service station tried to improve forest management in the area by providing technical advice to local farmers. He also described the kind of training he, as a technical extension officer, usually underwent. I was surprised to hear that training mainly consisted of self-study, listening to lectures via a web-portal, and writing articles that he had to submit in an electronic system (that most probably nobody would ever read).

It was then when I realized that China's forestry training system also reached into society, however, knowledge transferred via the hierarchically organized system tended to become thinner and less knowledge-intensive the lower the administrative

level. This prompted me to wonder what kind of contents grassroots cadres imparted to farmers, how farmers reacted to this knowledge transfer, what were implicit objectives behind the educational measures of China's technical extension service, and how technical extension service related to forestry cadre training.

As shown in Chapter 5, China's forestry training system is a knowledge transfer system that caters to the different needs of forestry staff in its administrative and non-administrative agencies in the context of state development. The knowledge transfer is organized hierarchically providing expertise inputs to cadres of all state-levels. Over time, the emphases of who should be the main addressees changed over the course of time (and development), and changes can be read as reactions of the central government to emerging problems in the course of development and policy implementation.

As shown in the historical chapter of this dissertation, the central government started to realize quite early that the crucial actors for the operationalization of its vision of development were cadres at the county level and below. In addition, forestry is a policy field with multiple stakeholders, this applies even more for the post-Mao Era that saw the abolishment of the communes and the introduction of a household responsibility system. Similarly to agriculture, fishery, and husbandry, the success or failure of forest development depends much on the ability and the willingness of those who cultivate forest land, thus to a large part of farmers.

The last chapter of this dissertation touches upon state-society relations in the context of forestry training analyzing the knowledge transfer from the state to rural society. I argue that the Forestry Technical Extension Service is a means through which the Chinese party-state conveys operational aspects of ideology to societal stakeholders in forestry. While propaganda is a strategy of political control and ideological manipulation (Cai, 2016, p. 1) that disseminates ideas of state development, technical extension complements traditional propaganda with a human capacity development approach that passes on technical, practical skills that are expected to contribute to the operationalization of these ideas. Grassroots-level bureaucrats gain particular importance in this approach: as trainers the party-state expects them to function as transmitters of its will.

6.1 Stakeholder interests in forestry and state expansion

This section defines the term *stakeholder* as employed in this chapter and introduces the academic discussion on the relations between the Chinese state and rural society in the post-Mao period.

6.1.1 Stakeholder and the devolution of forest rights

The term *stakeholder* was originally developed in organizational studies. One among the first definitions was proposed by Freeman (1984, p. 46) and referred to an individual or a group in an organization who can affect, or is affected by, the achievement of the organization's objectives. Forestry is an example of a policy field where different stakeholders influence forest development and whose interests (and lives) are affected by institutional and organizational changes.

According to Liu, et al. (2004, p. 95), China's forestry sector is – similar to forestry in many other societies – composed of three types of stakeholders whose interests are often in conflict with each other: state, market, and societal stakeholders. The State Forestry Administration has the task to coordinate these interests and find ways of cooperation. Stakeholder interests and conflicts vary across China and depend to a large extent on the local management regime of forests. Roles and responsibilities of stakeholders have evolved over time due to economic and societal transformation. Contractions, in particular between state and market or societal stakeholders, have been main drivers for institutional changes and new policies.

Table 10 provides an overview of the main stakeholder groups, their functions in forestry, and the main objectives they pursue in forest development. The group of state stakeholder refers forestry authorities at the different levels of the administration, from the center to the township, and state collectives. Whereas societal stakeholder can be distinguished between single households, farmer cooperatives, and collectives. Interestingly, the classification lists state-managed forest farms as market stakeholders. This classification masks the double-role and interests of the state, and thus the potential conflict that can emerge due to this situation.

In China, two categories of forests are recognized: State-owned forests are used for watershed protection, wildlife habitat conservation and limited timber extraction (Yang, et al., 2015, p. 253). Collective forests are managed by individual households that obtain forestland contracts which allow them to engage in a variety of commercial operations on their designated forest plots. In eco-compensation programs, such as in the Land Sloping and Conversion Program, the state buys back development rights from local communities with the objective to safeguard the provision of ecological services. Contracts are established between communities, farmers, and the government. The amount of compensation and period of compensation depends on the classification of the function of the forest land.[60] Liu et al (2008) estimated in 2008 that the Land Sloping and

[60] China classifies its forests further based on their function: protected forests, special-purpose forests, timber forests, fire-wood forests and economic forests.

Conversion Program "directly benefited 120 million farmers and 20 million households nation-wide" (p. 9480)

Table 10: Forestry stakeholders in China

Stakeholder type	Stakeholder	Function	Main objective
State	State Forestry Administration	Forestry sector administration	Ensure sustainable forest management
	Provinces and prefectures: Forestry departments Counties: forestry bureaus Township and villages forestry stations	Forestry sector administration	Protect and cultivate forest resources and promoted forestry sector development
	State collectives	Forest ownership	Forest cultivation and protection
Societal	Households Farmer cooperatives/communities Collectives	Forest utilization and management	Harvesting; protection of soil and water resources; fuelwood and NTFPs; and spiritual forests
Market	State forest farms		Harvesting; environmental protection; natural landscape and historical site protection
	Foreign investors		Generate income and raw material base for processing
	Middlemen and private companies State timber companies	Forest product marketing	Economic returns
	Small-scale private enterprises Medium-scale private or state enterprises, large foreign investment enterprises	Processing	Economic returns

Source: originally drawn from Liu, et al. (2004, p. 95), modified by the author

The factor that has influenced most state-society relations and forest development in the People's Republic of China is the regulation of tenure rights of forest land and forest resources.

> Tenure arrangements are important because they strongly influence motivations of households to engage (or not) in viable forest management activities and whether these

> occur in turn strongly affects the long-term ecological viability of the forest resource. (Dai, et al., 2013, p. 400)

Over the course of the 20th century, management responsibilities as well as ownership rights changed frequently (Liu, 2001, p. 245) and were decentralized after the inception of the Reform Policy in the 1980s.The repeated efforts of the government in the context of forest management and forest ownership not only manifest political ideologies of ownership distribution but were also reactions to conflicts and outcomes of national forest development. Decentralization did not always improve forest management and rural livelihoods (Jiang, et al., 2014, p. 320). In 2001, when China was way into its reforestation efforts, Liu (2001) cautioned:

> […R]adical and frequent changes in property rights over a very brief period of time have had profound impacts on forest management and the livelihoods of rural people. In the long term, the most serious consequence is that frequent policy reversals have left rural people with a complete lack of confidence in the security of the ownership rights they currently enjoy. Insecure tenure may also make rural people reluctant to invest in reforestation, as they may feel uncertain as to how they will benefit from their labor. (p. 245)

Indeed, lack of tenure confidence has been a major reason for continued deforestation and illegal cutting, as well as lack of interest of farmers to plant trees. Researchers have repeatedly pointed out that harvest quotas exacerbated the situation and spurred illegal logging and rent seeking. In addition, they produce high administrative costs and were little efficient (Qin & Xu, 2013, p. 156).

Jiang, et al. (2014) identified three historical periods of tenure reforms in the People's Republic of China: From 1949 to 1979 when a dual tenure model (state-owned and collective-owned) was established and eventually enshrined in the second Constitution of 1975. From 1980 to 1999, when use rights were separated from land ownership. With the inception of market reforms in the late 1970s, responsibilities of forest management were decentralized, forest utilization and management handed over to households, communities, and private enterprises. From 2000 to now, when continued forest degradation and public protests led to a new round of reforms. Two additional categories of forest lands were defined, commercial and ecological welfare forests (Dai, et al., 2009). Against the backdrop of high financial and tax burdens of farmers, the designation of collective forest land as ecological welfare forests with restricted harvest spurred further protests (Jiang, et al., 2014, p. 325). In 2000, the central government encouraged local governments to launch experimentation work in forest tenure reforms and in 2003 a new round of reform went underway. Two main components of the reform were the formal recognition of use rights for forest

lands, and the free transferability of management rights (Jiang, et al., 2014, p. 325). This round of forest tenure reforms proved to be much more successful. Yi, et al. (2013) found that

> [f]orest tenure reform that began in 2003 significantly strengthened owners' perceptions of tenure security and increased forestry investment. Contracted property rights have significant and positive effects on tenure security and investment, but the perception of security does not stimulate investment in a statistically significant way. (p. 49)

With the last round of tenure right reforms, these use rights were increased up to 70 years. Households can lease, share hold, mortgage, or transfer use rights. The range of use of forestland stretches from livestock grazing, crop planting, tourism, a collection of non-timber forest products etc. (Jiang, et al., 2014, p. 253). Today, state-owned forestland accounts for approximately 40 percent of the national total, while collectively and individually managed forests amount to over 60 percent (170 million ha) of the national total (UNESA, 2014).

With the introduction of forest tenure rights, the state has delivered individual households and farming cooperatives with more "control over trees and other forest resources" (Qin & Xu, 2013, p. 156), thus more autonomy. At the same time, expansion of forestry institutions (i.e. laws and regulations), distribution and classification of land also incorporated farmers into the state's project of (ecological) modernization, thus expanding the state's sphere of influence. This paradox is at the center of a perennial debate in China Studies on the relations between the state and rural society in China (Shue, 1988; Weigelin-Schwiedrzik, 2008; Klotzbücher, et al., 2012; Gao, 2017).

6.1.2 The reach of the state

A contested theme in academia is state-society relations in rural China and the question how the state attempts to exert influence on farmers so that latter cooperate with the state's vision of forest development. With the inception of the Reform and Opening Policy, the abolishment of the collectives in 1983, and the successive introduction of a contract responsibility system, the party-state induced the beginning of a far-reaching socio-economic transition that would alter the conditions for the scope of action of society as well as of the state.

In the late 1980s, Vivienne Shue (1988) argued that Deng Xiaoping's reform aimed to shatter the "honeycomb" structure of rural China for curbing localism. By enlarging its reach, the party-state tried to integrate the rural society into its modernizing state. She held that rural cadres' dual loyalties – they served as agents of the state but also as protectors of the rural society (i.e. agents and buffers) – would be altered in the process of marketization in the post-Mao Era. Against the backdrop of socio-economic transition, Julia Strauss (2009, p. 1165) contends that the flip side of

the retreat from the state-run economy and high levels of political indoctrination is, in fact, the state's attempted expansion of capacity in service delivery and regulation of emerging markets and social actors. Similarly, Weigelin-Schwiedrzik (2008) claims that abolishment of communes and the introduction of a contract responsibility system provided farmers with more autonomy by gaining growing economic independence. The loss of the charismatic leader Mao Zedong also meant a loss the party-state's "last institution in the countryside that could act on [its] behalf" (p. 221) as the party was the "only connection between state and rural society and between center and periphery." (p. 221). As a consequence, and "local networks have taken over" (p. 220). Today, the central state needs local support, both of cadres and farmers, in order to implement policies at the countryside; without this support, "the state demands are met with negligence and no change is possible" (p. 224).

Studies on China's forest development support the hypothesis on the importance of local support. In their research article, He & Lang (2015) studied the implementation of state-led compensation programs in Baoshan Prefecture (保山市) in Western Yunnan. In the course of the Land Sloping and Conversion Program in Yunnan, local district governments promoted the plantation of walnut trees for the implementation of the eco-compensation program. Farmers welcomed walnut tree species, for practical and pragmatic reasons. Crucial factors for successful implementation of the policy were, so the authors, that walnuts were easy to transport and store, and market perspective was favorable (p. 754). However, the reasons why the policy ultimately gained local support were more complex:

> Although walnut was planted as an economic tree for its nut harvest, farmers were paid compensation for the longer period commensurate with the standard for ecological trees. The walnut is nationally classified as a double-purpose tree species, with the plantation pattern determining its purpose in use. A plantation density of more than 2250 individual trees per ha is regarded as ecological use and is eligible for 16 years of subsidy, while trees planted less densely are considered economic trees with only a 10-year subsidy. To motivate farmers the local government designed walnut plantations for nut production with only about 525 individual superior seedlings planted per ha. To qualify for the 16-year subsidy the county forest department also provided hard-shell walnut seeds for direct sowing in fields along with the superior soft-shell walnut seedlings. The local government implied to the farmers that they would be able to cut down the hard-shell walnut trees when the program ended. This practice has been widely applied in Baoshan prefecture to provide a greater incentive for local participation and is expected to create better economic returns.

> However, it will reduce the overall ecological benefit from the afforestation of walnut as ecological trees. (He & Lang, 2015, p. 754)

What the account does not say is that by successfully implementing the policy – i.e. tree plantation that, in theory, promote local economic development and foster the provision of ecological service – local officials not only got good evaluations, and the local forestry administration gained revenues by selling planting material to local farmers (Weyerhaeuser, et al., 2005, p. 243). In other words, local support was gained, because the policy and tree selection benefited both, farmers and grassroots cadres.

However, not all tree species selected by local district governments were welcomed by farmers. Before promoting the planting of walnut trees, the Longyang District (隆阳区) government selected pear trees to be grown in Pingzhang Village. However, the decision was met with local farmers' negligence for several reasons: In interviews with local cadres, He & Lang (2015, p. 753) that the selection by the former district head turned out to be a bad decision. Farmers were not familiar with cultivation and harvesting, the pears did not taste very good. In addition, due to the remoteness of the village and bad infrastructure, transportation ways were long for the ripe fruits. This led to a loss of market value. As a consequence farmers did not care for the trees. Moreover, interviews with farmers revealed that, once the compensation payments for the cultivation of pear trees would run out, farmers intended to cut them down (pp. 753-754).

From the above, it should be clear that for guaranteeing a successful outcome the inclusion of farmers' and their needs into the decision-making process is vital. However, several studies show that in many cases their opinions and experiences are not heard by local governments (Weyerhaeuser, et al., 2005; Klotzbücher, et al., 2012; Hammond, et al., 2015). Yeh (2009, p. 887) holds that paternalism is a constitutional part of China's narrative of ecological construction. She points to the limitedness of this historical interpretation, as the narrative promotes that deforestation, cultivation of steep hillsides, and conversion of pastures to farmland are a result of population growth and the inability and reluctance of local farmers to manage their forests without state intervention. This conviction, she continues, ignores "a long history of local forest management in China" and the fact that many of China's environmental issues were to a large part state-inflicted and outcomes of political campaigns.

6.2 Knowledge transfer in China's state-rural-society relations

One of the problems cited in He & Lang (2015) is that farmers had little knowledge on pear trees, their cultivation, management, and harvesting practices. Consequently, the trees were in bad health. This gives rise to the question what measures local governments set prior and during the promotion

rural policy that help farmers to gain necessary knowledge. This section tackles the knowledge transfer between state and rural society and focuses on the role of grassroots cadres and their transfer practices.

6.2.1 Symbolic and operational aspects of knowledge transfer

In order to disseminate knowledge on sustainable forest management practices to farmers, the forestry administration entrusts education and training work to a series of affiliated associations and organizations at the grassroots level. These organizations act as "transmitters" between state and society. Grassroots-level organizations communicate policy directives, laws and regulations, and provide technical assistance to local households and farming communities. These organizations include Forestry Stations (林业工作站), Technical Extension Service (林业技术推广), and Agriculture (Forestry) Radio and Television Schools (农（林）业广播电视学校).[61] The organizations are incorporated into the training structure of the forestry administration, in the sense that their leaders undergo training arranged by the respective forestry authority.

From the vantage point of symbolic ideology, classical propaganda instruments, such as TV-programs and other media are employed to convey the more symbolic and abstract aspects of sustainable forest development encompassing the principles of sustainable development, conventions, laws, and regulations, as well as the state and its agencies as the regulators of development.

In 2007, the Agriculture (Forestry) Radio and Television Schools started to air *Forest Ecology and Industry Development* (林业生态和产业发展) that was produced for educational purposes and was expected to be used in the training of village cadres and village party members. Each episode lasted about 20 Minutes, some were set-up as plain documentaries, others were a mixture of documentary with expert knowledge input and re-enacted scenes in China's countryside. The TV-Show was an attempt to convey principles of sustainable development tackling diverse issues of forest development from different angles. In doing so, the program transported the state's narrative of sustainable forest management and official historiography of China's forest depletion: state intervention and regulation are showcases of necessary deeds for a better future.

In order to promote sustainable development as a viable option for farmers, the program presented farmers and cooperatives that had started to orient their activities according to principles of

[61] For market stakeholders the Federation of Forestry Industry (林业产业协会) organizes training on policies and new regulations (Interview cadres from Federation of Forestry Industry, 8 October 2015).

sustainable development and had been successful in reconciling the goals of promoting economic output with a responsible handling of natural resources and their protection.

Other episodes informed about new policies decisions or tackle legal issues explain farmer's rights and responsibilities. Here, the TV-show introduced government organizations farmers can turn to (e.g. to examine the quality of seeds they purchased). Naturally, the work of these state organizations was depicted positively and emphasized their role as mediators in conflicts that arise between interest groups. Not accidentally, the scenes that re-enacted for example conflict constellations between market and societal stakeholders (i.e. seed shop owner and farmer) placed those products that the state wanted farmers to plant, such as walnuts. The program also related to forest development as an international development issue informing about international conventions which China was part of. It emphasized the party-state's willingness and efforts to implement these conventions and the farmers' important role in this endeavor.

Propaganda is a strategy of political control and ideological manipulation. In his book, *State Propaganda in China's Entertainment Industry*, Cai (2016) shows that the CCP draws on a multilayered repertoire to publicize its party doctrine and employs a "plethora of mass entertainment and popular cultural activities and pursuits …as a practical tool by the official propaganda bodies" (p. 1). From the vantage point of practical operationalization, propaganda in form of dissemination would have a limited effect. Since practical operationalization necessitates technical knowledge and practical skills, the Chinese party-state complements propaganda with the provision of technical assistance to farmers that are expected to be conducive for development and its operationalization.

For conveying technical aspects of tree cultivation, disease prevention, transportation, and storage to farmers, the forestry administration – similar to the Ministry of Agriculture – has established a technical extension service system that is vertically organized from the center to the township. Grassroots forestry cadres working in Technical Extension Service Stations and Forestry Stations carry out technical training with farmers.[62] Farmers can visit the stations to obtain help from the staff (Hammond, et al., 2015, p. 51), and extension officers cruise around the villages to investigate forest development in the villages and transmit forestry related knowledge to them (Interview Mr. Y., 14 May 2015).

[62] Agricultural extension service stations in the broader sense are organized by sub-sectors. Counties have crop, livestock, agricultural machinery, aquaculture, and economic management stations, some counties have also specialized crop management, plant protection, horticulture, soil and fertilizer technology stations, or stations specialized on locally important agricultural products (Hu, et al., 2009, p. 304).

According to official resources, there are 25,337 Forestry Stations all across the country (State Forestry Administration, 2014, p. 318). There are three alternative models of organizational arrangement: a Forestry Stations are either independent with a work agenda that exclusively focuses on forestry in one township (独立设站); the Forestry Station is set up at the county level and responsible for all the townships (跨乡镇站); the Forestry Station is integrated into the township's agricultural service center (农业服务中心). According to a survey by Chen, et al. (2012, p. 77), 59.7 percent of the stations are independent, 28.72 percent are integrated into agricultural service centers, 8.55 percent are cross-township set-ups, and 3.02 percent have a different form of set-up. From the vantage point of leadership relationships, Forestry Stations are either under the authority of the local forestry authority (29.15 percent), under the system of dual control between the local forestry authority and the township government (37.69 percent) or subordinated to the township government (33.16 percent). Institutional set-up and authority relationship of Forestry Stations depend on local forest resources and thus the relevance of forestry for the local economy.

Forestry extension is nothing specific for China but a widespread practice in many countries, in particular in developing countries.

> Technical extension is the dissemination of relevant information and advice to farmers and a mechanism for delivering information and advice as an input in modern farming. (Agbogidi & Ofuoku, 2009, p. 99)

The UN Food and Agriculture Organization has been using technical extension ever since the 1960s.Traditionally its extension service focused on knowledge transfer by teaching landowners about forest management and conservation (Ma, et al., 2012, p. 87), here technology and market-oriented extension were central aspects of extension service (FAO, 2005). Over the past decades, methods have altered, today extension promotes "problem-solving and participatory and multi-stakeholder approaches to enhance the contribution of trees and forests to sustainable land use and food security" (FAO, 2005). However, despite changes in the international discourse of extension service, research in the field indicates that the traditional model of transfer of knowledge is still a widespread practice, while participatory approaches, such as peer learning, are still an exception from the rule (Ma, et al., 2012, p. 87).

Although technical extension service is a widespread practice in many developing countries, China's technical extension service bears particular features, in particular with regard to its role in the relations between the state and rural society.

6.2.2 Historical development in China

Historical records prior to the 1980s seldom distinguish between agricultural and forestry extension service, as these services were often combined under one authority. Until the 1980s, Chinese sources cited Technical Extension Stations in the broader context of agricultural development which encompassed husbandry, staple food production, re- and afforestation, timber harvesting, soil conservation, as well as water irrigation control (Chao 1961). The lack of distinction is partly owed to the administrative development of the forestry sector. Forestry repeatedly changed back and forth between being an administration in its own right and being submerged under the authority of the Ministry of Agriculture. Some accounts suggest though that between 1950 and 1980 – a period that witnessed numerous attempts of administrative streamlining – extension service in some provinces was indeed more specialized on forestry than in others (Ministry of Forestry, 1987, p. 152). Even today, forestry extension service is not necessarily separated from general agricultural extension service, as the former can be integrated into the latter.[63]

Similar to other institutions and approaches in the People's Republic of China, the technical extension system has its roots in the revolutionary period. According to Huang (2005), technical extension centers first emerged in the late 1920s as an invention of educational institutions. At the National Education Conference in May 1928, the Sun Yat-sen University submitted a proposal to support the government's capacity in the promotion of agriculture by means of establishing technical extension stations in the country-side. In June, the National Government issued *Guidelines on Agricultural Extension* (农业推广规程) determining that technical extension stations should serve as additional training facilities to the already widespread demonstration farms.

After the founding of the People's Republic of China, the party-state began to promote policies and efforts to establish a nation-wide technical extension system. In 1952, the National Agricultural Work Conference issued *Opinions on Enriching Agricultural Institutions, Strengthening Agricultural Technical Guidance* (关于充实农业机构，加强农业技术指导的意见) and proposed to set up Agriculture-Forestry-Water Irrigation Bureaus (农林水利局) at the county level with a technical workforce of ten to fifteen people, as well as related technical

[63] Anderson, et al. (1996) expound why an extension service that integrates agriculture and forestry is problematic. Extension service that blends forestry and agriculture under one organizational umbrella does not take into account sector-specific characteristics. Forestry extension and agricultural extension differ in several aspects: the time scales in forestry are much larger than in agriculture, resource rights and tenure management is different (trees and crops may have different legal status), many forest users do not have forestry as a primary or full-time occupation, very often forestry products and services are of low value and have a small impact on GDP, and forestry struggles with managing ecological processes and ecosystems instead of replacing or substituting them.

extension stations at the district-level (区) with a workforce of ten people (Huang, 2005) Ensuing, the Ministry of Agriculture issued two documents in 1954 and 955 that regulated aspects entailing work tasks and responsibilities, financing, facilities, site selection, staffing, and training for the extension personnel. [64]

Chao (1961, pp. 233-235) found that, according to an article in the People's Daily, some 8,000 stations had been established across the country with nearly 50,000 workers and staff employees in December 1955. In Liaoning, Beijing, and Shanghai stations were installed in every district. These stations contributed to the promotion of agricultural production by carrying out technical guidance according to the specific nature of work and local needs, summing up, and popularizing the local masses' experience in production increase. In some areas, popular technical organizations were established through the support of the Communist Youth League who taught farmers how to use new agricultural techniques. The goal was to train large numbers of "peasant technicians" (农民技术员).

In 1959, the change in China's economic structure brought about changes to the technical extension stations. Due to the launch of the Great Leap Forward and the instruction of communes some provinces abolished the district level as a separate administrative division. Subsequently, many of the extension stations were closed, while those provinces that kept the district level also preserved the stations. Another blow to the organizational landscape of the technical extension service came with the inception of the Cultural Revolution. Most extension stations stopped operations due to widespread institutional dismantlement. Another reason was that many technicians were sent down to the villages to engage in productive work or they changed profession.[65] However, technical assistance continued in some form. In Hunan, some districts established so-called Science Experimental Stations (科学实验站) that absorbed some experienced farmers as technicians (Huang, 2005).

According to Huang (2005), Technical Extension Stations were re-established in the course of the 1970s based on a model that had spread in Hubei Province during the late 1960s and early 1970s. In September 1979, the Fourth Plenary Session of the 11th Party Congress issued its *Decision on Some Questions for Accelerating Agricultural Development* (关于加快农业发展若干问题的决定). The directive promulgated that extension work had to be taken up again and experimentation,

[64] *Regulations on Agricultural Technical Extension Station Work* (农业技术推广站工作条例 (1954), and *Instructions on Agricultural Technical Extension Station Work* (于农业技术推广站工作指示) (1955).
[65] Huang (2005) forgets to mention is that another reason for the loss of technical expertise was the death of numerous scholars during the campaigns in the 1950s and 1960s.

demonstration, extension, as well as technical training at the county level and below had to be promoted.

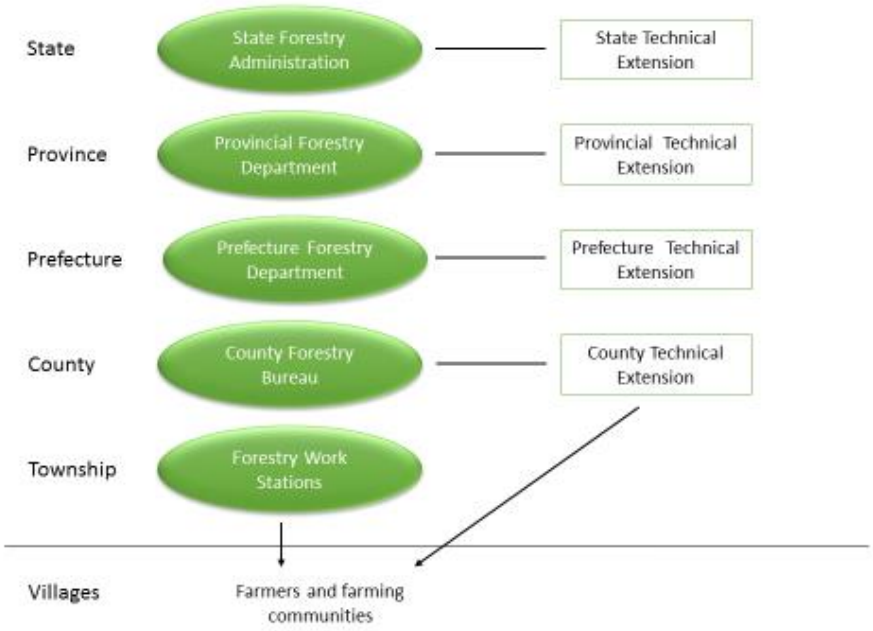
By the mid-1980s, Technical Extension Stations were re-installed in every rural county and township, even in remote regions (Hu, et al., 2009, p. 304). However, gradual marketization of the economy and efforts to streamline the state administration beset the extension service during the 1990s and the early 2000s. In order to curb administrative inefficiencies and reduce financial burdens of local governments, sub-stations were merged, administrative rights were shifted from the county bureaus to the township governments, and the extension system was encouraged to earn its own income through commercial activities (p. 304). Huang et al. (2001) have studied the impact of this commercialization on agricultural extension service and found that there were measurable detrimental effects on the service provided to farmers. Extension officials spent more time searching ways to generate more revenues rather than providing technical extension to farmers. As a consequence, farmers had not seen extension personnel for years (Huang, et al., 2001; Shi, et al., 2003; Hu, et al., 2009).

6.2.3 Grassroots cadres as agents of the state in contemporary China

China's technical extension service is a service unit (事业单位) in China's State Forestry Administration that is hierarchically organized from the state level to the county level. Lower-level agencies engage in a professional relationship (业务) with their respective higher-level agencies, at the same time they are in a leadership relationship (领导) with local governments and have to assist them to enforce and implement local policies. According to the principle of *fenji guanli fengong zeren* (分级管理分工责任), technical extension officers undergo professional, sector-specific training organized by their respective higher-level agencies in local and central training institutions of the State Forestry Administration. Subsequently, technical extension officers are expected to go about the villages and convey their newly acquired knowledge to societal stakeholders. (Figure 16).

One example to describe the process of knowledge transfer between state and rural society is the introduction of new tree species. In the following, I offer an analysis of the knowledge transfer from the state to rural society by using the example of the promotion of walnut trees in Western Yunnan during the Sloping Land and Conversion Program. The Land Sloping and Conversion Program was an eco-compensation program and thus a concrete policy program to operationalize China's vision of sustainable forest development. As explained above, the promotion of walnut trees was one way to implement this policy, walnut tree plantation was expected help local economic development and provide ecological service.

Figure 16: Structural organization of technical extension service



Source: compiled by the author

In 2005, the Yunnan provincial government started to promote the plantation of walnut trees and other tree species with a double purpose, i.e. tree species that provided income generation opportunities to local farmers and improved the provision of ecological services in the region. The policy followed the implementation of two national forest conservation and rehabilitation programs, the Natural Forest Conservation Program and the Land Sloping and Conversion Program. As it turned out, relatively early after their launch of both programs had negative impacts on farmers' incomes as well as on the income of local government agencies depriving them of their source of income. One way of compensation was to provide farmers with planting material for the forestry program (Weyerhaeuser, et al., 2005, p. 250). Therefore, the Yunnan provincial government launched a training offensive promoting the plantation of walnut and chestnut trees.[66] In order to facilitate the cultivation of these new tree species, extension officers of the whole province gathered in Kunming for training. The training provided these cadres with knowledge on how to plant and cultivate these tree species. Upon return to their prefectures and counties, the participants of the training spread out to diffuse the newly acquired knowledge and conducted training with forestry station personnel and local households (Interview Forestry Expert H., 8 May 2014).

[66] A newspaper report states: "Yunnan Province ranks first in terms of the size of planting area, yield and output value. Yunnan had 2.73 million hectares of walnut plantation areas in 2014, which produced 770,000 tons. 25,000 tons of oil-tea camellia has also been harvested from 233,333 hectares of plantation areas and 8000 tons macadamia nuts have been harvested from 73,333 hectares of land" (*China Daily*, 22 April 2015).

The forestry extension service compiled training material that should help farmers to capture the basics of the new species. Over the years it turned out that the training material was inappropriate, as farmers not only showed little interest in the publications, they were reluctant to read long explanations in Mandarin. High illiteracy and poor education among farmers in some regions pose a challenge to extension officers in the dissemination of information, in particular, technical knowledge. Therefore, authorities in Yunnan Province produced training material that should convey basic knowledge in a very simplified and easy to understand manner.

Illustrations on Walnut Cultivation Techniques (核桃栽培技术图解) (Zhou & Huang, 2008) published by the Yunnan Nationality Press is divided into three sections that touch upon issues of planting, cultivation, and disease control. Each page of the book contains an illustrative chart and a short and simple explanation of Chinese characters (Figure 17). The extension officer who gave me the book explained:

> Before, we used a lot of words in our training. Now we use fewer words but refer to pictures. We give them to the local population and they understand the message. We improve this kind of training methods and training material every year. (Interview Mr. Y., 14 May 2014)

He & Lang (2015) have found that farmers welcomed walnut tree species, for practical and pragmatic reasons (see discussion above). Crucial factors were, so the authors, that walnuts were easy to transport and store, and market perspective was also favorable.

Figure 17: Extension Service Training Material in Yunnan

Source: Zhou & Huang (2008, pp. 1-7)

6.3.4 Challenges in contemporary technical extension service

Literature on technical extension service in China indicates to the shortcomings of technical extension service in China. They can be recapped in four major shortcomings that are somehow

interconnected and to a large part personnel-related. One issue that was repeatedly pointed out by cadres during my fieldwork, and confirmed by a series of studies, is the imbalanced ratio between extension personnel and rural population. My informant in Baoshan Prefecture told me that he had to cover four counties over a territory of approximately 19,000 km² together with two other extension officers. This is a major constraining factor in extension work.

> The coverage of our service is very small. It's mainly because the people [i.e. extension staff] are few in number, but the farmers are a lot. [67] (Interview Mr. Y., 14 May 2014)

Another problem is the low level of professionalization of extension personnel in particular, and of grassroots-level cadres in general. During my fieldwork in Chongqing, I learned that Shizhu County in Chongqing had two township-level forestry officers and only one of them had completed a formal training in forestry. Similarly, Weyerhaeuser, et al. (2005, p. 245) have found that in Nujiang, Yunnan Province only a third of forestry officials have a proper background in forestry. Almost 50 percent of the forestry staff is composed of former soldiers without any prior professional training in forestry or agriculture. They are unable to do basic forester work, such as surveys which are, however, a crucial instrument in program planning and implementation. Weyerhaeuser, et al. (p. 245) also report that forestry agencies have little choice but to absorb these ex-soldiers into the administration, as the quotas are assigned by the government. By the same token, local governments have equally little choice but to comply with higher-level mandates, as the absorption of surplus rural labor has become a hard target in the cadre responsibility system.[68]

This structural reality stays in sharp contrast to the work duties assigned to grassroots cadres, in particular, those at the township-level. Forestry Stations at the township-level assist the township government in the implementation of forestry policies and have to carry out an array of work tasks; they prepare annual forestry plans, check afforestation results, verify annual logging quotas and logging sites in forests managed by collectives and local farmers, help to investigate and handling land tenure conflicts, protect forest resources, and provide technical assistance to local farmers (Zhou & Unna, 2006, p. 76). They also select and employ forest rangers among the village population who, for example, manage and protect public benefit forests (Liang & Mol, 2013, p. 72). Working at the lowest administrative level, grassroots cadres have to handle different

[67] As already mentioned above, a similar situation unfolds in the Forestry Bureau one of Chongqing's counties, where two forestry officers are responsible for four townships and 26 villages (Interview Mrs. S., China, 1 December 2015).

[68] See discussion in Chapter 5.1.3.

expectations from state and society, and are therefore crucial actors in helping to find solutions for the reconciliation of economic and ecological interests.

The lack of personnel is exacerbated by the lack of trained personnel which is party owed to China's sector-specific training system. Hammond et al. (2015, p. 51) attest China's extension service to suffer from a "disconnection in the knowledge transfer process:" While high-quality knowledge, techniques, and strategies are developed at higher levels, the mechanisms that pass these down to smallholders are unreliable and slow, so their finding.[69] In fact, a township-level forestry cadre I met during my field research explained that she usually participated in training in the county office building. Training was not conducted by any scholar or other experts in the field, but by section chiefs of the county forestry authority.

> There aren't any teachers coming to train people but them [she indicated to the official that was sitting next to us; note from the author]. For example, if the section of forestry industry trains, then section chief Tan conducts the training. If it's the forest resource section, then section-chief Liu trains. If it is the land conversion office, then section-chief Ma is the trainer. They talk a little bit. [But] there aren't any teachers or PhDs from outside who come to deliver training. (Interview Mrs. S., China, 1 December 2015)

Since grassroots forestry cadres are usually responsible for a variety of tasks including water management and agriculture, sector-specific training is provided by the relevant higher authorities (i.e. forestry bureaus, agricultural bureaus, and water management bureaus) (Interview Mrs. S., China, 1 December 2015). Consequently, training is highly dependent on the knowledge transfer within these administrations, and therefore on the structural conditions of these administrations as well as the attention they direct to grassroots-level cadres in specific regions. In addition, compartmentalized training does not foster capacities for the finding of cross-policy solutions, especially because training at the level of administration focuses on the transfer of policy-related knowledge, but does not adopt an approach of human capital development that aims to foster the skills and capabilities of grassroots cadres.

Hammond et al. are not alone in their judgment. Over years, the State Forestry Administration has repeatedly pointed to the deficiencies at the local level in official documents. Above all, it has identified the lack of knowledge and skills of cadres to transmit knowledge as the main obstacle for sustainable forest management. Only recently, the center has started to set counter-measures

[69] It is important to bear in mind regional variations. Chapter 5.2.2 explained that intensity and extensity of training in a forest region depends on the structural and financial predispositions of the local forestry authorities. These vary considerably across China and do not necessarily depend on the relevance of forests or forestry in a region.

in order to come to terms with the problem. In its *12th National Outline of Forestry Education and Training* (全国林业教育培训“十二五”规划), the State Forestry Administration officially acknowledged the insufficient knowledge base and training opportunities for grassroots cadres: knowledge is outdated and those without a professional background in forestry outnumber those with professional expertise.

The acknowledgment was followed by the introduction of a web-based training program for staff of Forestry Stations provided by the State Academy of Forestry Management. The program is similar to other staff job training and aims to achieve a standardized and shared knowledge base for employees in these specific forestry organizations. Contents encompass forestry laws and regulations, cultivation techniques, forest resource management, forest protection, workstation management, and other contents subsumed under term “comprehensive quality and skills.” Latter include political-economic theories, field research, communication and coordination skills, writing official documents, and computer skills (State Academy of Forestry Management, 2015).

This advance shows that after years of reprimanding local forestry authorities for their negligence in human capital development the center has not only acknowledged the problem at the grassroots level but finally started to take it to its heels by providing professional training to these cadres. Notwithstanding, the solution provided so far is halfhearted: Most grassroots organizations across China lack necessary technical equipment, including computers. In a survey, Chen, et al. (2012, p. 78) show that most Forestry Stations across China have little office space, in some counties Forestry Stations even have to share cars. In Gansu, 5.2 stations come with one car, but at least most of the stations have motorcycles at their disposal. Many of the stations do not possess computers; while Forestry Stations in Beijing have 2.52 computers per station, stations in Fujian, Xinjiang, Yunnan, Anhui, Chongqing, Hubei, Shanghai, and Jilin own only one computer per station on average. In Shanxi and Gansu computer equipment is available in every four and five stations, respectively. These findings give rise to doubts on the effectiveness of the State Forestry Administration’s approach to improve the average professional level of grassroots personnel by means of web-based training, and on the willingness of the center to tackle the issue in earnest, as these structural realities surely are not unknown to decision-makers at the center.

Finally, literature in the field also criticizes the incapacity of local forestry staff to respond to local farmers’ needs.[70] This incapacity together with the lack of trained personnel is identified as main determinants why technical extension service is inefficiency for forest development in China. As

[70] Studies in other fields confirm this assessment and show that the problem cited here is not sector-specific, but generally applies to grassroots organizations and policy implementation in rural China (Klotzbücher, et al., 2012).

a consequence farmers react with negligence (Weyerhaeuser, et al., 2005) and turn to private companies for help and technical inputs (Hammond, et al., 2015, p. 51).

In her study on ecological modernization in Western China, Yeh (2009, p. 887) holds that paternalism is a constitutional part of China's narrative of ecological construction. She points to the limitedness of this historical interpretation, as the narrative promotes that deforestation, cultivation of steep hillsides, and conversion of pastures to farmland are a result of population growth and the inability and reluctance of local farmers to manage their forests without state intervention. This conviction, she continues, ignores "a long history of local forest management in China" and the fact that many of China's environmental issues were to a large part state-inflicted and outcomes of political campaigns. Processes of decision-making and processes of knowledge transfer in China are closely related, as both are organized hierarchically and tend to adopt paternalistic approaches.

Notwithstanding, the case study by He & Lang (2015) in section 6.1.2 and other research discussed in this chapter show that the selection of tree species by the local government is a crucial element in order to convince local farmers to cooperate. Technical extension service cannot always make up for the bad decision-making of local leaders. Moreover, Technical Extension Service Stations and Forestry Stations have a leadership-relation with the local government, this means that they have to comply with their decisions and have to assist the local government to implement its policies. The fragmented structure of China's party-state administration is therefore crucial the study of technical extension service and its impact on local development.

The identification of shortcomings does, however, not explain why central authorities do not exert more efforts to solve these issues, even though they have long realized what the problem is and how to solve it, namely by providing better education to grassroots cadres and better funding of grassroots organizations. Publications like those of Chen, et al. (2012) on the structural realities of Forestry Stations are surely disseminated within the system to a large part published by research personnel that works in the State Academy of Forestry Administration.

One viable explanation might be that the professionalization of grassroots cadres is not a priority for the administration. Weigelin-Schwiedrzik (2008) uses the notion of "distance" to capture the relationship between state and rural society. The structural grounds for this distance are that historically the village is not part of the state structure, thus village cadres and village institutions are not paid by the state. The spin-off of rural China as a historical continuity is necessary due to the "sheer vastness of the country" (p. 218), otherwise, the Chinese government would have a big

budget issue. Therefore, the relationship between the central state and grassroots cadres grounds on the latter's loyalty.

> As long as rural cadres comply with state policies, the state regards the distance between center and periphery as an advantage; however, problems come up as soon as the loyalty of the cadres is unilaterally directed toward their local constituency and conflicts arise between the central and the local perspectives. Whenever crisis has to be dealt with, grassroots level cadres tend to align themselves with the local population especially as they do not have to fear any financial disadvantages as a consequence of their disobedience. (Weigelin-Schwiedrzik, 2008, p. 218)

The introduction of a training program for staff of Forestry Stations signals that the center is beginning to realize the disadvantages the distance to rural society has been creating, especially as the state has viable interests in bringing forest resource management under control. Notwithstanding, the warning bells have yet not begun to ring piercingly. Therefore the provision of web-based training which only benefits a small portion of grassroots cadres is more of a symbolic act and can rather be interpreted as a signal to grassroots cadres that the center is turning its attention toward them and demands their loyalty. Other research on rural development has shown that policy priority and central funding are two important factors for bringing local governments to implement policies. In their research on the implementation of the New Rural Cooperative Medical Scheme, (Klotzbücher, et al., 2010) found that a major contributing factor to the success of the implementation of basic medical care was central government funding. Therefore, it can be assumed that human capital development and sufficient structural funding of China's grassroots forestry organizations are not yet a priority.

6.3 Conclusion

Extant literature looks at technical extension as a form of development assistance that disseminates relevant information and advice to farmers. It is "a mechanism for delivering information and advice as an input in modern farming" (Agbogidi & Ofuoku, 2009, p. 99). This perspective conceals the extension service's collocation in China's party-state and knowledge transfer system and therefore cannot provide an adequate explanation of what lies behind the provision of information, what determines the selection of information provided, and the scope of action it enables or restrains.

Extension service to farmers in China carried out by grassroots forestry cadres is an institutional extension of the party-state's training system in the context of central-local relations. While cadre training as a political instrument makes sure that central ideas on development and related skills

are conveyed to cadres, extension service is a political instrument through which grassroots cadres transfer this knowledge on behalf of the party-state to local farmers. Therefore the organization and implementation of training follow the same principles as the training system of officials working in the administrative and non-administrative organizations of China's state administration.

Chapter 4 has shown that training is organized according to three principles and it helps to translate symbolic ideology into operational ideology, general, abstract ideas of development into concrete, issue-based policies. It also reveals that the forestry training system distinguishes between five categories of trainees addressed by the system and organizes training contents in accordance with their role expectations. The hierarchization of trainees correlates with a scaling of abstraction of the training contents at three levels of abstraction: macro, meso, and micro. Farmers are located at the lowest end of the hierarchy, their work is less knowledge-intensive than for example technicians or professionals that are responsible for setting up reforestation plans or for conducting satellite surveys and analyze the data accordingly. Farmers cultivate land and are therefore expected to be experts in the cultivation of forest land, the tending of trees, and their protection. Training thus tackles predominantly issues of technical nature that concerns their daily duties.

Situated at the far right end of the symbolic-operational continuum, technical extension service provides practical knowledge to farmers within the framework of symbolic ideology. The training of farmers does not pursue the goal of human capital development, but similar to the training of officials prescribes roles and tries to solidify them by training. The knowledge transfer from state to rural society also encompasses symbolic aspects of ideology that are conveyed by means of educational programs and other forms of propaganda. Technical extension complements traditional propaganda Chinese party-state conveys the symbolic and operational aspects of ideology to societal stakeholders by complementing propaganda with technical extension.

The historical analysis shows that technical extension service is not a modern form of "enclosure" (Klotzbücher, et al., 2012)[71] that has been developed after the "state's retreat" in the 1980s. Instead, technical extension service as an institutional component of China's knowledge transfer system in the context of central-local relations was developed at a very early point in China's Communist history, as early as cadre training. Thus the system was designed as a political tool to direct development according to the paradigms of state development formulated and publicized by the Chinese Communist Party.

[71] Klotzbücher, et al. (2012) borrowed the notion from James Scott.

The chapter demonstrates that the knowledge transfer system is undermined by several personnel-related shortcomings. Acknowledging that deficiencies in human capital development are a major obstacle for bringing forest management on a sustainable path, the State Academy of Forestry Management began to arrange web-based programs for staff in Forestry Station; however, surveys show that many forestry stations lack the necessary equipment to undergo web-based training. Even though this raises doubts on the real impact such measures can have on the human capital building at the grassroots-level, the step taken by the center should not be airily dismissed as a useless attempt, but rather as a signal of the possibility of an imminent policy change.

Chapter 7

Conclusion

> *Public opinion in the United States contains a paradox. The American public is symbolically conservative: It cherishes the symbols of conservatism and is more likely to identify as conservative than as liberal. Yet at the same time, it is operationally liberal, wanting the government to do and spend more to solve a variety of social problems.* (Ellis & Stimson, 2012, p. i)

This summary introduces *Ideology in America* by Ellis & Stimson (2012) in which the authors provide an explanation for the ideological puzzle found in the American electorate ever since the 1960s. This dissertation borrows from the US-American debate on symbolic and operational ideology and transfers the theoretical debate from the democratic USA to authoritarian China. While Ellis & Stimson (2012) studied ideology in US-American society trying to understand voters' thought patterns and behavior, this dissertation analyzes ideology in China's party-state administration trying to explain the institutional and organizational premises that shape thought patterns of Chinese state officials and their behavior.

The Chinese Communist Party rules an authoritarian one-party regime claiming to be the only legitimate source of ideology which sets the parameters of state development. Yet, shifting the attention to specific issues of development (e.g. environmental pollution, social welfare, etc.) and the approaches to solve problems that emerge in these fields, we observe a great variety of instruments adopted across China. Thence the question: Is there a symbolic-operational paradox in China?

Not so long ago, many China observers dismissed party ideology as something hollow and artificial; a sordid attempt to keep alive the memory of a revolutionary past when China's Communist Party had won the minds of a great part of society for the Communist cause by promising to eliminate class structures and achieve social justice and equality, in particular, for the weakest members of society. Embracing Deng Xiaoping's pragmatism that abandoned the rhetoric of class struggle and introduced private property, many heralded the end of ideology and China's forthcoming joining the club of democratic countries. Yet, the party's rhetoric slowly returning to

Marxism, most exemplary claim for ideological unity (思想统一). Against Marxism regaining foothold in China's official rhetoric, the rather pragmatic approaches adopted to promote administrative and economic reforms, presented an obvious paradox between expectations and reality.

Indeed, it has become difficult to believe that party-state actors have committed themselves to merely one ideology. From the operational vantage point, Chinese politicians draw on a plethora instruments to face challenges in the economic, social, and environmental realms. Central and local leaders embrace new technologies, experiment with international experiences and best-practice models, and apply them, in modified versions though, in their jurisdictions. Although the party's leadership has made clear, once and for all, that it refuses the adoption of a Western-style democracy in China (绝不照搬西方政治制度模式) (*Theory*, 8 January 2018), it has not eschewed to allow public participation to a certain degree. Albeit, control of participation is a necessary deed for maintaining power – not only in China.

The central leadership urges officials at all levels of administration to find solutions for local development issues leaving them with great leeway in the experimentation of policy instruments (Heilmann, 2008). Despite this flexibility, it insists on the irrevocable claim and premise that measures must serve the promotion of state development within the prescribed framework of party-ideology (Hermann-Pillath, 2005). Therefore, the more relevant question to ask in the Chinese context is: How does the party, against this diversity, avoid a symbolic-operational paradox and bring its officials to think and act in accordance with its official ideology. The key to understanding the mechanisms, and to the thinking about the consequences, is found in the knowledge transfer system within China's party-state administration.

The objective of this research is to situate the training of Chinese party-state officials in the context of the leadership's endeavor to change from an economic growth-driven development model to a model that reconciles conflicting economic, social, and environmental interests. It analyzes the role of training in the party-state's attempt to operationalize its vision of sustainable development. Tackling two kinds of relations – party-government relations and central-local relations – the dissertation seeks to give answers to three questions on 1) the characteristics and the origin of China's training structure, 2) the role of training in the interaction between different authorities in the promotion of policies, and 3) its effects on local political practices and development.

My theoretical framework draws on a multidimensional concept of ideology that distinguishes between abstract ideas (symbolic) and issue-based, concrete policy proposals (operational). Looking at training through the lens of symbolic and operational ideology, I reveal that the training

of China's party-state officials has to be understood as a structure, rather than a system, that is composed of a series of separate systems (*xitong*) under the authority of party and government organizations; each *xitong* is assigned to carry out training for the staff working in its agencies at all levels of administration. The concept of symbolic-operational ideology allows grasping not only the function of the training structure in the context of party-government relations but also the function of the single system in the context of central-local relations. What holds these systems together is symbolic ideology that acts as a "lubricant" on the structural, the organizational, and the discursive level.

The idea that underlies the structure and the organizational processes of training is to establish an intimate connection between symbolic and operational aspects of ideology. Training operates at the horizontal as well as at the vertical level: At the horizontal level, it translates abstract parameters of development into sector-specific policies. While at the vertical level, it joins other political instruments to increase the responsiveness of local agents to higher-level mandates. Yet, unlike the cadre evaluation system, training is designed not only to communicate higher levels' priorities but also to provide a set of skill and knowledge that should enable officials to act in accordance with the parameters set by party ideology.

In other words, officials addressed by the training system should gain a thorough understanding of the party's vision of development formulated in abstract ideological concepts; at the same time, they should acquire sector-specific skills and knowledge that enable them to formulate concrete policies and to take concrete political action in their professional fields. Fostering operational skills is as much an important element in the party's legitimization strategy as promoting symbolic ideological unification and the reproduction of leaders (Pieke, 2009c). For maintaining legitimacy (Holbig & Gilley, 2010, p. 17), ideological reform on the symbolic level is not sufficient; because only provided that the party is capable of practically solving the problems of its people, it can maintain its legitimacy. The complementarity of symbolic and operational training helps the party's objective to transform its *Weltanschauung* into consistent action (Schurmann, 1971 [1967], p. 23).

Neither the concept of training nor its structure are fruits of political debates and visions that have materialized during the Reform Era but were already developed at an early point in the history of China's Communist Party. When the party started to build up its power base in Yan'an, it developed a distinct training method: "Exegetical bonding" (Apter & Saich, 1994) aims to produce ideological uniformity by intellectual and moral molding, thus shape the behavior of cadres. Intellectual molding also refers to operational knowledge and skills that are needed to

operationalize the abstract ideas and implement policies that were formulated in the framework of these ideas.

During the revolutionary period, the promotion of practical skills, such as writing, reading, propaganda, and organization of associations, as well as military skills was pivotal for carrying out the revolutionary mission and fighting its enemies (Price, 1976). The founding of the People's Republic of China along with the construction of a state administration necessitated training to become more differentiated as the Chinese Communist Party had to take control over the direction of development in different policy sectors. This is why the beginnings of forestry training in China date back to the early 1950s.

The historical development of China's cadre training structure has been influenced by the educational paradigms of redness and expertise in China's political discourse, looking at training through the lens of these two paradigms brings to light how the systems of symbolic and operational training developed in different historical periods after 1949. The formation of the operational branch of China's training structure in the 1950s was interrupted with the rising influence of the redness paradigm. The Cultural Revolution and its 7 May cadre schools aimed to modify attitudes, behavior, and routines of cadres and other members of society, rather than to train operational skills. When, at the inception of the Reform and Opening Policy, Chinese leaders embarked on an overall educational project that addressed not only cadres but also the entire adult and working population, the goal was to reverse the outcomes of educational policies of the previous decade. Hence, training policies focused on the improvement state officials' operational skills (as well as China's entire adult population). For this purpose, the training structure was reestablished whose fundaments had been set up in the 1950s.

Once refurbished, the party-state proceeded to professionalize the training of officials. The institution of academies of administration in the course of the establishment of a civil service in the 1990s was indeed an outcome of these efforts. However, the academies cannot be understood as an entirely new institutional invention nor as a pure western import. Academies of administration are an institutional evolution, rather than being an expression of the party's awakening that teaching administrators pure ideology alone was not conducive for China's ability to face challenges emerging with its socio-economic transformation and its further international integration. They are yet another *xitong* that provides sector-specific training to a distinct professional group working in China's party-state administration.

In the meantime, efforts to promote the professionalization of training were also exerted in other bureaucracies, such as the forestry administration. The main driver behind the leadership's

endeavor was not to make public administration more *efficient;* but the awareness that the legitimacy of the party depended to a large degree on the capability of those who formulated and implemented policies to face the challenges ahead and find practical solutions for problems in the economic, social, and environmental realms. This realization was further nurtured by "political fallouts" (Tsao & Worthley, 2009, p. 89) when government officials mishandled unforeseen challenges and crisis, such as the SARS epidemic in 2003, several natural disasters in the years 2007 and 2008, and scandals in food and toy export (p.89).

The measures set to professionalize training structure resulted in the establishment of customized training programs for different professional groups in training institutions across China. The investigation of programs offered by the State Academy of Forestry Management has brought to light that programs not only distinguish in content but pursue different objectives: First, the socialization of state employees, the clarification of role expectations, and the creation of an administrative thought community. Second, the construction of shared knowledge among cadres that a) hold similar positions, b) operate in the same region, or c) have no professional background in forestry and thus need to gain the necessary basic knowledge. Third, the provision of specialized skill training for specific work tasks. Fourth, the facilitation of policy implementation by training as a form of complementary measure. Latter should play an important role in the implementation of policies that aimed to achieve a value change from resource extraction to resource conservation in China's forestry sector.

The structure of the forestry training system is similar to the party school system, with central-level training institutions in Beijing (and one in Nanjing for forest police officers and firemen) and local forestry cadre schools. The responsibility for training and authority over cadres are parceled out vertically: While the center retains authority over cadres in leading positions and key job, local forestry authorities carry out training for forestry cadres in their jurisdiction. In addition to the vertical departmentalization, the organizational processes of training are further compartmentalized at the horizontal level. Department units at each level of administration are responsible for applying and conducting training of its staff.

The scope of training, in terms of contents and in terms of trainees addressed, is much more extensive than existing literature suggests. Forestry training addresses several groups of trainees, encompassing (leading) cadres, professional and technical staff, and other professional groups that work for organizations under the authority of central and local forestry authorities. In addition, since farmers are important stakeholders in forest development and pivotal in sustainable forest management, the system stretches out beyond the state's boundaries in order to reach these

stakeholders. Grassroots cadres act as trainers providing technical extension service to the local rural population.

Training contents differ and depend on where the trainees are located in the hierarchy of professional groups; the levels of abstraction and complexity of training contents decrease along with this hierarchy. The training of leading cadres is located on the macro level; it is predominantly concerned with the abstract principles of symbolic ideology (party ideological concepts) and general knowledge of operational aspects (forest development), as these trainees are assigned with the responsibility to formulate policies. On the meso level, technicians and professionals undergo training that is knowledge-intensive and technical/scientific. They are expected to bring in the necessary technical and scientific expertise for policies that are decided by leading cadres. At the bottom of the hierarchy are grassroots cadres and workers employed in grassroots organizations, whose training is reduced sharply in complexity. The micro perspective only conveys those aspects of a policy that are directly related to its practical implementation. Similarly, the state-led knowledge transfer to rural society by grassroots cadres focuses on imparting practical techniques, such as cultivation of tree species, disease control, and harvesting methods.

Despite varying degrees of abstraction that constitute the training contents, training for all trainee groups establishes a connection between abstract and symbolic principles and concrete operational practices. Site visits to forest farms and counties that are assigned to national forest development programs complement the abstract contents of in-class training with the experience to observe their practical operationalization. By the same token, traditional instruments of propaganda, such as TV-shows and banners, convey the more general and abstract ideas promoted by the party-state as a complement to practical training such as tree planting and harvesting.

My study on forestry training shows that reforms and policies in State Forestry Administration are transported via the vertical structures of the system from the center to the local level via training mandates. In order to achieve a higher degree of responsiveness at the local level toward higher-level mandates, it is not sufficient to focus on cadres in terms of party officials. Instead, education has to integrate those who formulate policies, those who implement them, and those who translate "the words of policy statements […] into action" (Kaufman 2006 [1960]: 4). Thus, the assumptions that training aims at the reproduction of China's ruling elite (Pieke, 2009c) and the reconciliation of the party's ambition to preserve rule and facilitate innovation (Chin, 2011) does not fully capture the role of training in China's political-administrative system. What extant literature overlooks is that the translation of abstract ideas into concrete prescriptions of actions has the purpose to direct

the way of thinking about development and action of *all* professional groups involved in sector-specific development.

Analyzing Chinese government papers one realizes that the center has quite a clear vision of how training should be organized in order to facilitate and contribute to policy implementation and bringing about a change in China's development. Documents portray the central government's expectations on different professional groups employed in the administration and involved in forest management. The classification of trainees into leading cadres, enterprise managers, professionals and technicians, workers, and peasants, as well as the organization of their training contents, exposes that the center understands training as a way to organize (forestry) governance. In addition, it displays how the Chinese Communist Party understands state and society.

At the top are leading cadres who are expected to develop and formulate policy programs. Professionals and technicians should contribute with the necessary technical knowledge to find solutions for local problems of development, and local low-level cadres are assigned to assist with the implementation. At the bottom of the hierarchy are farmers who should, with the advice of experts, cultivate land according to what the state establishes to be development and how it should be developed. This demonstrates that despite the all-encompassing socio-economic transformation China has experienced over the past decades, the persistent ideology of organization of state and society has not changed at all. Moreover, it suggests that the Chinese Communist Party has never departed from a traditional Chinese concept of state-society organization that shaped imperial China: Over centuries, dynasties distinguished between those who ran state affairs, those who helped state officials to implement mandates and find solutions for local problems, and those who were governed. The difference to contemporary China is that professional groups have become more diversified and thus also their distinction in the official discourse.

Notwithstanding the central government's distinct vision stated in government papers, on the practical level, training falls short these expectations. The investigation into the training system of China's State Forestry Administration shows that training is subjected to dynamics similar to other policy fields. The system is fragmented and compartmentalized. The distribution of training institutes and the availability of training budgets is disparate across China. They depend to a large extent on the economic strength of the local forestry sector but also on leaders who are committed to the idea that training fosters reform (Witesman & Wise 2012). In theory, compartmentalization should make the system more flexible and responsive to local needs, as well as channel expert knowledge more efficiently to the units and staff addressed by the training.

Compartmentalization in combination with resource constraints, however, lead to inefficiencies and hinders coordination even in the same forestry department in a locality. Training is organized according to the local department unit's policy needs and thus does not take a comprehensive approach to improve the overall professional level of the local staff. Leaving the responsibility for finding sufficient funding to local forestry authorities, only those departments invest precious financial resources into additional training activities that have leaders who are committed to the idea that training can promote reform. Lack of training budgets, training institutions, access to expert knowledge influence local development, as local cadres cannot gain necessary inputs for finding adequate solutions for local problems. Many elaborate and costly training programs are implemented because local governments or departments manage to attract third-party funding, mostly from foreign funding organizations who pursue their own interests in China. Despite the exposure to international expert knowledge and modern approaches to civil servant training, these training programs are selective localized, they, therefore cannot contribute to achieve an overall professionalization of the forestry sector across China.

The problematic financial conditions of sector-specific training are exacerbated by the high importance the Chinese regime yields to symbolic ideology. The distribution of training budgets favors those institutions whose training addresses higher-level cadres, particularly leading cadres, and those training institutions which are under the authority of party organizations. Instead of channeling more money into the professionalization of staff in sector-specific departments, particularly at the lower levels of administration, precious budgets are devoured by prestigious central-level training institutions, such as the Central Party School and China's National Executive Leadership Academies. And high-quality training is provided to those cadres who already have a high level of education, but not to those who need it most.

In addition, time and travel budgets are wasted in pointless study sessions on ideological directives. In spite of the much-praised pragmatic turn and China's efforts to improve the problem-solution capacities of its state officials, the value of symbolic ideology continues to yield more weight than operational ideology (Jing & Zhu, 2012; Yang, et al., 2012), even though expertise has become a central prerequisite for entering the prestigious club of party cadres and China's state administration (Shih, et al, 2012). The rise of Xi Jinping and the recently concluded People's Congress in March 2018 suggest that this trend will continues and will be intensified. It remains to be seen what the recent decision to solidify party control over government functions and to centralize the party's power over state and society will bring for the provision of professional training in sector-specific administrations.

Another problem that undermines professionalization in China's forestry sector is the central government's problematic relationship with rural society and the "distance" (Weigelin-Schwiedrzik, 2008) the former maintains to the latter. Over decades a plethora of studies have brought evidence that the shortcomings in China's forest development emerge at the county and township level. The key to solving these issues is to improve the local state's capacity to find ways to reconcile economic and environmental interests and to satisfy the needs of the rural population without harming the natural environment. The precondition for this capacity is sufficient funding of these organizations and the professionalization of their staff. Against local governments' duties to absorb rural surplus labor into its agencies, despite their professional inadequacy, the request to award more attention to these levels becomes even more urgent.

Notwithstanding, professionalization alone will not do away the inadequacy of technical service provided to farmers and the sometimes insensitive approaches adopted by grassroots cadres – both have been determined as major obstacles in gaining the rural population's support for the central government's new development model. The roots for both shortcomings are found in the conception of technical extension as an institutional extension of the state's training structure. The knowledge transfer from the party-state to rural society operates according to the same principles as the knowledge transfer from central to local authorities, even though the addressees are farmers who do not maintain a relationship based on loyalty with the state and who are outside the institutional and organizational premises that shape officials' thought patterns and behavior.

My dissertation offers a new perspective on training in China's party-state administration and opens new avenues for further research in this research area and beyond. For historians and scholars engaged in the study on China's Cultural Revolution, the institution of 7 May cadre schools is a yet not fully explored and, above all, a timely topic, as many of those who witnessed these schools (either because they were sent there or because they managed them) are growing-old and will soon not be able to share their personal insights anymore. More research should be done on the role of training in local development. The analytical framework of fragmented authoritarianism (Lieberthal 1991) could be a good starting point for students of Political Science. Another possible topic to explore are recent efforts to professionalize grassroots (forestry) cadres. The findings presented in this dissertation suggest that this has yet not become a priority of the State Forestry Administration; however, the installation of a training program (web-based) at the State Academy of Forestry Management indicates a possible forthcoming policy change. It is important to continue to follow these developments and investigate the consequences for central-local relations, as well as for state-society relations. With respect to the professionalization of grassroots cadres, the technical extension service could provide an intriguing case study. Further

research on this topic should consider the findings of this thesis, namely that the function and shortcomings of technical extension service as a form of training provided by grassroots cadres to farmers cannot be analyzed without taking into consideration the direct connection with China's cadre training structure.

References

Agbogidi O. M. & Ofuoku, A. U., 2009. Review: Forestry extension: Implications for forest protection. International Journal of Biodiversity and Conservation, 1(5), pp. 98-104.

Ahlers, A. L. & Shen, Y., 2017. Breathe Easy? Local Nuances of Authoritarian Environmentalism in China's Battle against Air Pollution. The China Quarterly, (published online, 14 December 2017).

Ahlers, A. L. & Stepan, M., 2016. Top-level design and local-level paralysis: Local politics in times of political centralization. In: S. Heilmann & M. Stepan, ed. China's Core Executive: Leadership Styles, Structures and processes under Xi Jinping. Merics Paper on China, No. 1, pp. 34-39.

Ahrends, A., Hollingsworth, P.M., Beckschäfer, P., Chen, H., Zomer, R.J., Zhang, L., Wang, M., Xu, J., 2017. China's fight to halt tree cover loss. Proceedings of the Royal Society B Biological Sciences, 284 (1854).

Ammons, D. N., 2007. Performance measurement a tool for accountability and performance improvement. Chapel Hill: School of Government.

Ang, Y. Y., 2016. How China escaped the poverty trap. Ithaca: Cornell University Press

Apter, D. E. & Saich, T., 1994. Revolutionary Discourse in Mao's Republic. Cambridge: Harvard University Press.

Asdal, K., 2015. What is the issue? The transformative capacity of documents. Distinktion: Journal of Social Theory, Issue 16, pp. 74-90.

Aufrecht, S. & Li, S., 1995. Reform with Chinese characteristics. Public Administration Review, 55(2), pp. 175-182.

Babbie, E. R., 2013. The Practice of Social Research. 6th Edition. Cengage Learning.

Baldwin, A., 2003. The Nature of Boreal Forests. Space & Culture, 6(4), pp. 415-428.

Becquelin, N., 2004. Staged Development in Xinjiang. The China Quarterly, Issue 178, pp. 358-378.

Benewick, R. & Donald, S. H., 2003. Treasuring the Word: Mao, Depoliticisation and the Material Present. In: R. Benewick, M. Blecher & S. Cook, ed. Asian Politics in Development: Essays in Honor of Gordon White. London: Frank Cass, pp. 66-83.

Bennett, M. T., 2008. China's sloping land conversion program: Institutional innovation or business as usual?. Ecological Economics, 65(4), pp. 699-711.

Bernstein, T. B. & Lu, X., 2003. Taxation without Representation in Contemporary Rural China. Cambridge: Cambridge University Press.

BFW, 31, December 2015. Jahresabschlussbericht. Online: http://bfw.ac.at/cms_stamm/010/pdf/jahresabschluss_2015.pdf (22 March 2018).

Brødsgaard, K. E., 2002. Institutional Reform and the Bianzhi System in China. The China Quarterly, Issue 170, pp. 361-386.

Brødsgaard, K. E., 2012. Cadre and Personnel Management in the CPC. China: An International Journal, 10(2), pp. 69-83.

Brødsgaard, K.E. & Zheng, Y., 2004. Bringing the Party Back in: How China is Governed. Singapore: Eastern University Press.

Brombal, D., 2017. Urbanizzazione e sostenibilità in Cina. Verso un cambiamento trasformativo. Annali di Ca'Foscari Serie Oriental, Issue 53, pp. 305-335.

Burns, J. P., 1987. China's Nomenklatura System. Problems of Communism, Issue 5, pp. 36-51.

Burns, J. P., 1994. Strengthening Central CCP Control of Leadership Selection: The 1990 Nomenklatura. The China Quarterly, Issue 138, pp. 458-491.

Cai, S., 2016. State Propaganda in China’s Entertainment Industry. New York, London: Routledge.

Cai, Y., 2015. State and Agents in China: Disciplining Government Officials. Stanford: Stanford University Press.

Campbell, A., Converse, P. E., Miller, W. E. & Stokes, D. E., 1960. The American voter. New York: John Wiley & Sons.

Casella, A., 1973. The Nanniwan May 7th Cadre School. The China Quarterly, Issue 53, pp. 153-157.

Central Organization Department Policy Research Office, 1983. 当的组织工作问答. Beijing People’s Press.

Central Party Committee, 1981. 关于保护森林发展林业若干问题的决定. Zhongfa [1981] 12 hao.

Central Organization Department, 2003. 关于深入学习贯彻“三个代表”重要思想，做好大规模培训干部工作的意见. Zhongzufa [2003] 26 hao.

Central Organization Department, 2008. 关于印发《公务员培训规定（试行）》的通知. Zhongzufa [2008] 17 hao.

Central Party Committee, 1985. 关于教育制度改革的决定 . Zhongfa [1985] 12 hao.

Central Party Committee, 1990. 中共中央关于加强党校工作的通知. Zhongfa [1990] 15 hao.

Central Party Committee, 1993. 中国教育改革和发展纲要. Zhongfa [1993] 3 hao.

Central Party Committee, 2001. 2001 年—2005 年全国干部教育培训规划. Zhongfa [2001] 4 hao.

Central Party Committee, 2003.中共中央国务院关于加快林业发展的决定. Zhongfa [2003] 9 hao.

Central Party Committee, 2006a. 中共中央关于印发《干部教育培训工作条例(试行)》的通知. Zhongfa [2006] 3 hao.

Central Party Committee, 2006b. 2006 年—2010 年全国干部教育培训规划. Zhongfa [2006] 21 hao

Central Party School, 2015. 中共中央党校 2015 年部门预算公开. Online: http://www.ccps.gov.cn/administration/201504/t20150417_59327.html (22 March 2018).

Chai, T. R., 1981. The Chinese Academy of Sciences in the Cultural Revolution: A Test of the "Red and Expert" Concept. The Journal of Politics, Issue 4, pp. 1215-1229.

Chan, H. S. & Li, E. S., 2007. Civil Service Law in the People's Republic of China: A Return to Cadre Personnel Management. Public Administration Review, 67(3), pp. 383-398.

Chan, H. S. & Li, E. S., 2009. Putting the Cart before the Horse: Accountability or Performance?. The Australian Journal of Public Administration, 67(3), pp. 383-398.

Chan, H. S., 2004. Cadre Personnel Management in China: The Nomenklatura System, 1990-1998. The China Quarterly, Issue 179, pp. 703-734.

Chan, H. S., 2016. The Making of Chinese Civil Service Law. The American Review of Public Administration, 46(4), pp. 379-398.

Chen, C., 2010. 中瑞合作管理磬徐凝项目重庆行动学习子项目：重庆城市森林建设管理研究. Chongqing: Chongqing Municipality Press.

Chen, K., Tang, Y., Yang, J. & Gong, W., 2012. 中国基层林业工作站建设发展差异分析. China Forestry Research, 25(5), pp. 76-80.

Chen, L. & Gao, L., 2013. 基层林业关键岗位干部现状分析及对策研究. Forestry Economics, Issue 10, pp. 99-103.

Chen, P. G. & Goren, P. N., 2016. Operational Ideology and Party Identification: A Dynamic Model of Individual-Level Change in Partisan and Ideological Predispositions. Political Research Quarterly, 69(4), pp. 703-715.

Chin, G. T., 2011. Innovation and Preservation: Remaking China's National Leadership Training system. The China Quarterly, Issue 205, pp. 18-39.

China Academy of Governance, website. 国家行政学院概况. Online: http://www.nsa.gov.cn/web/a/xygk/ (9 May 2017).

China Daily, 22 April 2015. Yunnan sets out to promote vegetable oil industry. Online: http://www.chinadaily.com.cn/m/yunnan/kunming/2015-04/22/content_20509780.htm (3 March 2017).

China School of Governance, 2016. 国家行政学院 2016 年部门预算. Online: http://www.nsa.gov.cn/web/uploads/soft/160415/国家行政学院 2016 年部门预算.pdf (22 March 2018).

Choi, E. K., 2014. Patronage and Performance: Factors in the Political Mobility of Provincial Leaders in Post-Deng China. The China Quarterly, Issue 212, pp. 965-981.

Chou, B. K., 2004. Civil Service Reform in China, 1993–2001: A Case of Implementation Failure. China. China: An International Journal, 2(2), pp. 210-234.

Chou, B. K., 2012. Does "Good Governance" Matter? Civil Service. International Journal of Public Administration, 31(1), pp. 54-75.

Ci, L. & Yang, X., 2005. National Capacity Needs Self-assessment for Global Environmental Management. UNDP/GEF-CPR/03/G31/A/1G/99. Online: https://www.thegef.org/sites/default/files/ncsa-documents/378_0.pdf (23 March 2018).

Converse, P. E., 1964. The nature of belief systems in mass publics. In: D. E. Apter, ed. Ideology and discontent. New York: Free Press of Glencoe.

Dai. G., Zhang, S., Wen. C. & Li, Y., 2012: Assessment of the contribution of forestry to poverty alleviation in the People's Republic of China. In: FAO, ed. Making forestry work for the poor. Assessment of the contribution of forestry to poverty alleviation in Asia and the Pacific. Online: http://www.fao.org/docrep/016/i2732e/i2732e01.pdf (24 March 2018).

Dai, L., Zhao, F., Shao, G., Zhou, L. & Tang, L., 2011. Major Forest Types and the Evolution of Sustainable Forestry in China. Environmental Management, Issue 48, pp. 1066-1078.

Dai, L., Zhao, F., Shao, G.; Zhou, L. & Tang, L., 2009. China's classification-based forest management: Procedures, problems, and prospects. Environmental Management, Issue 43, pp. 1162-1173.

Dai, L., Zhao, W., Shao, G., Lewis, B. J., Yu, D., Zhou, L. & Zhou, W., 2013. The progress and challenges in sustainable forestry development in China. International Journal of Sustainable Development & World Ecology, 20(5), pp. 394-403.

Delang, C. O., 2017. China's soil, pollution and degradation problems. La Vergne: Routledge.

Démurger, S., Fournier, M. & Shen, G., 2005. Forest Protection Policies: National guidelines and their local implementation in northern Sichuan. China Perspectives, Issue 59, pp. 1-16.

Devine, C., 2015. Ideological Social Identity: Psychological Attachment to Ideological In-Groups as a Political Phenomenon and a Behavioral Influence. Political Behavior, 37(3), pp. 509-535.

Dombernoswsky, L., 2016. Training Responsible Journalists in China: Guiding Domestic Opinion, Gaining Foreign Audiences. Journal of Current Chinese Affairs, 45(3), pp. 175-200.

Dong, L., Kriesi, H. & Kübler, D., 2015. Urban mobilizations and new media in contemporary China. Farnham, Burlington: Ashgate.

Eaton, S. & Kostka, G., 2014. Authoritarian Environmentalism Undermined? Local Leaders' Time Horizons and Environmental Policy Implementation in China. The China Quarterly, Issue 218, pp. 359-380.

Economy, E., 2014. Environmental Governance in China: State Control to Crisis Management. Daedalus, 143(2), pp. 184-197.

Edin, M., 1998. Why Do Chinese Local Cadres Promote Growth? Institutional Incentives and Constraints of Local Cadres. Forum for Development Studies, Issue 1, pp. 97-127.

Ellis, C. & Stimson, J. A., 2012. Ideology in America. Cambridge: Cambridge University Press.

Ellis, C., 2012. Public Ideology and Political Dynamics in the United States. American Politics Research, 40(2), pp. 327-354.

Elvin, M., 2008. The Retreat of the Elephants: An Environmental History of China. New Haven: Yale University Press.

FAO, 1982. Forestry in China. Online: http://www.fao.org/docrep/016/ap364e/ap364e00.pdf (4 May 2015).

FAO, 2005. Equitable partnerships, markets and forest extension. Online: http://www.fao.org/docrep/016/ap364e/ap364e00.pdf (30 April 2017).

FAO, 2012. Roles of forests in climate change. Online: http://www.fao.org/forestry/climatechange/53459/en/ (30 August 2017).

Fen, S. N., 1986. The May 7 Cadre Schools in the People's Republic of China. 1968-1976. Administration & Society, 18 (1), pp. 29-43.

Fewsmith, J., 2004. Promoting the Scientific Development Concept. China Leadership Monitor, Issue 11, pp. 1-10.

Foreign Affairs, 10 May 2017. China's Factory Shutdowns: Clearing Out the Industrial North to Clean the Air. Foreign Affairs. Online: https://www.foreignaffairs.com/gallerys/2017-05-10/chinas-factory-shutdowns (21 March 2018).

Fox, J., 2007. The Uncertain Relationship between Transparency and Accountability. Development in Practice, 17(4&5), pp. 663–671.

Free, L. A. & Cantril, H., 1967. The political beliefs of Americans. New Brunswick: Rutgers University Press.

Freeman, E. R., 1984. Strategic Management: A Stakeholder Approach. Boston: Pitman.

Fujian Provincial Forestry Department, 26 November 2014. 福建省林业厅培训管理暂行办法. Online: http://fjforestry.gov.cn/InfoShow.aspx?InfoID=74214&InfoTypeID=5&LanMuType=718 (14 May 2017).

Fujian Provincial Government, 2016. 省林业厅 2016 年度绩效管理指标体系,

Gao, L., Chen, L. & Yang, L., 2013. 国家级自然保护区干部教育培训现状分析及对策研究. Journal of State Academy of Forestry Management, Issue 3, pp. 26-29.

Gao, M. C., 2017. Vital factors for Chinese rural development: The reach of the state and lineage identity in villages. Journal of Asia Pacific Economy, 22(4), pp. 547-559.

Gao, X., 2003. One Man's Bible. London: Flamingo.

General Office of the Central Party Committee, 2008. 关于进一步加强党政干部因公出国（境）经费管理暂行办法. Zhongbanfa [2008] 9 hao.

General Office of the Central Party Committee, 2010. 2010-2020 年干部教育培训改革纲要. Zhongbanfa [2010] 18 hao.

General Office of the State Council, 2008.关于做好集体林权制度改革培训工作的意见. Guobanfa [2016] 83 hao.

Gläser, J. & Laudel, G., 2006. Experteninterviews und qualitative Inhaltsanalyse. Wiesbaden: VS Verlag für Sozialwissenschaften.

Global Entrepreneurship Website, 7 July 2004. 北京：干部出国培训不搞学历教育. Online: http://www.qqcy.com/News/NewsInfo1.aspx?News_1ID=8547 (3 December 2015).

Göbel, C. & Ong, L., 2012. Social Unrest in China. Europe China Research and Academic Network (ECRAN), Long Briefing. Online: https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Asia/1012ecran_gobelong.pdf (22 January 2016).

Göbel, C., 2010. The Politics of Rural Reform in China: State Policy and Village Predicament in the Early 2000s. Abingdon/New York: Routledge

Gold, T. B., 1990. The Resurgence of Civil Society in China. Journal of Democracy, 1(1), pp. 18-31.

Goodman, D. S., 1986. The Center and Province in the People's Republic of China: Sichuan and Guizhou 1955-1965. Cambridge: Cambridge University Press.

Goodman, D.S., 2004. The campaign to "Open up the West": National, provincial-level and local perspectives. The China Quarterly, Issue 178, pp. 317-334.

Gregory, R., 2012. Accountability in Modern Government. In: G. B. Peters & J. Pierre, ed. The SAGE Handbook of Public Administration. Los Angeles, London et al.: SAGE, pp. 681-698.

Guo, W. & Shan, W., 2009. The Local Party Schools and Cadre Education and Training: Expectations and Realities. EAI Working Paper 151. Online: http://www.eai.nus.edu.sg/publications/files/EWP151.pdf (22 March 2018).

Hammond, J., Yi, Z., McLellan, T. & Zhao, J., 2015. Situational Analysis Report: Xishuangbanna Autonomous Dai Prefecture Yunnan, China. World Agroforestry Centre East and Central Asia. Online: http://m.extbg.cas.cn/visitxtbg/201506/P020150602346580944789.pdf (21 March 2018).

Harrison, H., Birks, M., Franklin, R. & Mills, J., 2017. Case Study Research: Foundations and Methodological Orientations. FQS Forum Qualitative Social Research/Sozialforschung, 18(1), pp. 1-17.

He, J. & Lang, R., 2015. Limits of State-Led Programs of Payment for Ecosystem Services: Field Evidence from the Sloping Land Conversion Program in Southwest China. Human Ecology, 43(5), pp. 749-958.

Heberer, T. & Trappel, R., 2013. Evaluation Processes, Local Cadres' Behaviour and Local Development Processes. Journal of Contemporary China, 22(84), pp. 1048-1066.

Heilmann, S., 2008. From Local Experiments to National Policy: The Origins of China's Distinctive Policy Process. The China Journal, Issue 59, pp. 1-30.

Heilmann, S., 2011. Policy-Making through Experimentation: The Formation of a Distinctive Policy Process. In: E. Perry & S. Heilmann, ed. Mao's Invisible Hand: The Political Foundations of Adaptive Governance in China. Cambridge: Harvard University Press, pp. 62-101.

Helfferich, C., 2011. Die Qualität qualitativer Daten: Manual für die Durchführung qualitativer Interviews. 4. Edition. Wiesbaden: VS Verlag.

Hermann-Pillath, C., 2005. Culture, Economic Style and the Nature of the Chinese Economic System. Journal of Current Chinese Affairs - China aktuell, 34(2), pp. 32-52.

Hertie School of Governance, 2014. 2014: Administrative capacities. The Governance Report. Oxford: Oxford University Press.

Hirano, Y., 2014. The Historical Background of Forest Professionals in the People's Republic of China: Focusing on Liang Xi, the First Minister of Forestry. Asian Studies, 60(2), pp. 1-17.

Holbig, H. & Gilley, B., 2010. Reclaiming Legitimacy in China. Politics and Polity, 38(3), pp. 395-422.

Holbig, H., 2005. Wissenschaftliches Entwicklungskonzept ", „ Harmonische Gesellschaft " und „ Eigenständige Innovation ": Neue parteipolitische Prioritäten unter Hu Jintao. China aktuell, 34(6), pp. 13-19.

Holbig, H., 2006. Ideological Reform and Political Legitimacy in China: Challenges in the Post-Jiang Era. GIGA Working Paper No. 18. Online: http://repec.giga-hamburg.de/pdf/giga_06_wp18_holbig.pdf (21 March 2018).

Holbig, H., 2009. Remaking the CCP's Ideology: Determinants, Progress, and Limits under Hu Jintao. Journal of Current Chinese Affairs, 38(3), pp. 35-61.

Hu, R., Yang, Z., Kelly, P. & Huang, J., 2009. Agricultural extension system reform and agent time allocation in China. China Economic Review, Issue 20, pp. 303-315.

Huang, J., Chen, L., Chen, L. & Zhang, S., 2010. 林业干部教育培训管理问题及创新思路研究. Journal of State Academy of Forestry Management, Issue 1, pp. 21-25.

Huang, J., Hu, R., Zhang, L. & Rozelle, S., 2001. Farm pesticides, rice production, and human health in China. EEPSEA Research Report-RR3. Online: https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/21603/IDL-21603.pdf?sequence=1 (21 March 2018).

Huang, P., 2005. 中国农业科技与推广体制的变迁（之四）. Online: http://blog.sina.com.cn/s/blog_71ae008c01011ndh.html (2 March 2017).

Hull, M., 2012. Government of Paper: The materiality of bureaucracy in urban Pakistan. Berkeley: University of California Press.

Inside Climate News, 23 March 2017. China's Success Regrowing Its Forests Has a Flip Side: Deforestation Elsewhere. Online: https://insideclimatenews.org/news/22032016/china-success-regrowing-its-forests-has-flip-side-deforestation-carbon-emissions (24 March 2018).

International Center for Bamboo and Rattan. 国际竹藤中心简介. Online: http://www.icbr.ac.cn/Item/1.aspx (22 March 2018).

Japan International Cooperation Agency. Project for Human Resource Development of Rehabilitation in the Central and Western Region in China. Online: https://www.jica.go.jp/project/chinese/china/0702352/materials/c8h0vm000001da54-att/brochure.pdf (22 March 2018).

Jian, G., Song, Y. & Zhou, Y., 2015. Historical Dictionary of the Chinese Cultural Revolution. Lanham: Rowman & Littlefield Publishing.

Jiang, S., Lewis, B, Dai, L., Jia, W., An, Y., 2014. The reform of collective forest rights in China and its implementation in the Fushun City Region. Annals of Forest Research, 57(2), pp. 319-332.

Jiangxi Provincial Government, 2011. 江西省人民政府办公厅关于印发江西省开展创建省级森林城市活动的意见. Ganfutingfa [2011] 46 hao.

Jing, Y. & Zhu, Q., 2012. Civil Service Reform in China: An Unfinished Task of Value Balancing. Review of Public Personnel Administration, 32(2), pp. 134-148.

Joel, A., 2009. The rise of the red engineers: The Cultural Revolution and the origins of China's new class. Stanford: Stanford University Press.

Jóhannesson, I. A., Norðdahl, K., Oskarsdottir, G., Pálsdóttir, A., Pétursdóttir, B., 2011. Curriculum analysis and education for sustainable development in Iceland. Environmental Education Research, 17(3), pp. 375-391.

Jost, J. T., Federico, C. M. & Napier, J. L., 2009. Political Ideology: Its Structure, Functions, and Elective Affinities. Annual Review of Psychology, Issue 330, pp. 307-337.

Kaufman, H., 2006 [1960]. The Forest Ranger: A study in administrative behavior. New York: Resources for the Future.

Kettl, D. F., 1997. The global revolution in public management: Driving themes, missing links. Journal of Policy Analysis and Management, 16(3), pp. 446-462.

Klingner, D. E., 1996. Public Personnel Management and Democratization: A View from Three Central American Republics. Public Administration Review, 56(4), pp. 390-399.

Klotzbücher, S. et al., 2012. Farewell to Diversity? New State Zones of Health Care Service in China's Far West. Journal für Entwicklungspolitik, 28(1), pp. 58-79.

Klotzbücher, S., 2006. Das ländliche Gesundheitswesen der VR China : Strukturen, Akteure, Dynamik. Frankfurt/Wien: Lang.

Klotzbücher, S., Lässig, P., Qin, J. & Weigelin-Schwiedrzik, S., 2010. What is New in the 'New Rural Co-operative Medical System'? An Assessment in One Kazak County of the Xinjiang Uyghur Autonomous Region. The China Quarterly, Issue 201, pp. 38-57.

Kostka, G., 2014. Barriers to the Implementation of Environmental Policies at the Local Level in China. Policy Research Paper WPS7016. Online: http://documents.worldbank.org/curated/en/102001468220778402/pdf/WPS7016.pdf (22 March 2018).

Kung, J., Cai, Y. & Sun, X., 2009. Rural Cadres and Governance in China: Incentive, Institution and. The China Journal, Issue 62, pp. 61-77.

Kunming Newsport, 2013. 云南新建四大机场将变卖巫家坝机场土地'筹钱. Online: http://xw.kunming.cn/yn-news/content/2013-07/27/content_3365175.htm (2 Mai 2017).

Ladany, L., 1990 [1988]. The Communist Party of China and Marxism, 1912-85: A Self-portrait. London: Hurst & Co Publishers Ltd.

Lam, T.C. & Chan, H. S., 1996. China's new civil service: what the emperor is wearing and why. Public Administration Review, 56(5), p. 479–484.

Landry, P. F., 2008. Decentralized Authoritarianism in China: The Communist Party's Control of Local Elites in post-Mao-era. Cambridge: Cambridge University Press.

Lee, C. & He, X., 2014. Go East, Young Cadre: Experiments in Inter-Provincial Training of Party and State Managers in China. Development and Change, 45(2), pp. 329-352.

Lee, C. P., 2015. Training the Party: Party Adaption and Elite Training in Reform Era. Cambridge: Cambridge University Press.

Lee, H. Y., 1992. From revolutionary cadres to party technocrats in socialist China. Berkeley: University of California Press.

Leys, S., 1990. The Art of Interpreting Nonexistent Inscriptions Written in Invisible Ink on a Blank Page. The New York Review of Books.

Li, B. & Walter, A. G., 2001. Career advancement as Party patronage: sponsored mobility into the Chinese administrative elite, 1949–1996. American Journal of Sociology, 106(5), pp. 1371-1408.

Li, B., 2004. 树立科学发展观做好林业教育培训工作. Journal of Beijing Academy of Forestry Management, Issue 2, pp. 3-12.

Li, C., 2003. Educational and Professional Backgrounds of Current Provincial Leaders. China Leadership Monitor, Issue 8, pp. 1-19.

Li, W., 2004. Degradation and restoration of forest ecosystems in China. Forest Ecology and Management, Issue 201, pp. 33-41.

Liang, C. & Yang, D., 2007. The China Environment Yearbook (2005), Volume 1: Crisis and Breakthrough of China's Environment. Leiden: Brill.

Liang, D. & Mol, A. P., 2013. Political Modernization in China's Forest Governance? Payment Schemes for Forest Ecological Services in Liaoning. Journal of Environmental Policy & Planning, 15(1), pp. 65-88.

Liebold, R. & Trinczek, R., 2009. Experteninterview. In: S. Kühl, P. Strodtholz & A. Taffertshofer, Hrsg. Handbuch Methoden der Organisationsforschung. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 32-56.

Liu, A. P., 2009. Rebirth and Secularization of the Central Party School in China. The China Journal, Issue 62, pp. 105-125.

Liu, D., 2001. Tenure and Management of Non-State Forests in China since 1950: A Historical Review. Environmental History, Issue 2, pp. 239-263.

Liu, J., Wu, J., Yuan, J. & Zhou, P., 2004. Enhancing Community Participation: Participatory Forestry Management. In: J. Plummer & J. G. Taylor, ed. Community Participation in China: Issues and Processes for Capacity Building. London/Sterling: Earthscan, pp. 93-138.

Liu, J., 搞好年轻干部出国培训的几点体会. *Chinese Party and Government Cadre Forum*, 220(3), p. 36.

Liu, J., Li, S., Ouyang, Z., Tam, C. & Chen, X., 2008. Ecological and socioeconomic effects of China's policies for ecosystem services. PNAS, 105(28), pp. 9477-9482.

Lo, C. W.-H. & Tang, S.Y., 2007. Institutions, Regulatory Styles, Society and Environmental Governance in China. London/New York: Routledge.

Lora-Wainwright, A., Zhang, Y., Wu, Y. & Rooij van, B., 2012. Learning to Live with Pollution: The Making of Environmental Subjects in a Chinese Industrialized Village. The China Journal, Issue 68, pp. 106-124.

Luan, Y., 2008. 清末五大臣出洋考察与干部出国培训之比较. Journal of Hetian Teachers College, Issue 2, p. 36-38.

Luan, Y.J., 2008. 干部出国培训的理想思考. Journal of Shaanxi Administration School, Issue 2, pp. 36-38.

Luan, Y.J., 2008b. 干部出国培训的理想思考. *Journal of Shaanxi Administration School*, Issue 2, pp. 36-38.

Luo, X. & Shen, J., 2008. Why city-region planning does not work well in China. The case of Suzhou-Wuxi-Changzhou. Cities, 25(4), pp. 207-217.

Ma, Z., Kittredge, D. B. & Catanzaro, P., 2012. Challenging the Traditional Forestry Extension Model: Insights from the Woods Forum Program in Massachusettes. Small-Scale Forestry, Issue 11, pp. 87-100.

Manion, M., 1985. The Cadre Management System, Post-Mao: The Appointment, Promotion, Transfer and Removal of Party and State Leaders. The China Quarterly, Issue 102, pp. 203-233.

Marinaccio, J., 2017. Training in Austria's and China's Forestry Administration: A comparison of Human Capital Development. International Journal of Public Administration. Online publication, February 2017.

Mayring, P., 2010. Qualitative Inhaltanalyse: Grundlagen und Techniken. Weinheim: Beltz.

Menzies, N. K., 2007. Our forest, your ecosystem, their timber: Communities, conservation, and the state in community-based forest management. New York: Columbia University Press.

Merriam, S. B., 2009. Qualitative research: A guide to design and implementation. San Francisco: Jossey Bass.

Mertha, A. A., 2005. China's "Soft" Centralization: Shifting Tiao/Kuai Authority Relations. The China Quarterly, Issue 184, pp. 791-810.

Meuser, M. & Nagel, U., 1991. ExpertInneninterviews – vielfach erprobt, wenig bedacht. Ein Beitrag zur qualitativen Methodendiskussion. In: D. Garzand & K. Kraimer, ed. Qualitativ-empirische Sozialforschung: Konzepte, Methoden, Analysen. Oppladen: Westdeutscher Verlag, pp. 441-471.

Mey, G., 1999. Adoleszenz, Identität, Erzählung. Theoretische, methodische und empirische Erkundungen. Berlin: Köster.

Miao, W., 2004. 农民增收缓慢的原因，影响及其对策. Online: http://www.people.com.cn/GB

/guandian/1035/2446687.html (1 March 2018).

Ministry of Finance, 2013. 关于引发引动临时出国（境）费管理办法的通知. Caixing [2013] 516 hao. Online: http://xzzf.mof.gov.cn/zhengwuxinxi/zhengcefabu/201312/t20131227_1030433.html (22 January 2016).

Ministry of Finance, 2014. 关于引发引动短期出宫培训费用管理办法的通知. Caixing [2014] 4 hao. Online: http://xzzf.mof.gov.cn/zhengwuxinxi/zhengcefabu/201402/t20140228_1048 556.html (22 January 2016).

Ministry of Forestry Department of Science and Education, 1979. 为实现林业现代化培训干部. Forestry Economy, Issue 2, p. 76.

Ministry of Forestry, 1987. 中国林业年鉴 1949-1986. Beijing: China Forestry Press.

Ministry of Forestry, 1988. 中国林业年鉴 1987. Beijing: China Forestry Press.

Ministry of Forestry, 1989. 中国林业年鉴 1988. Beijing: China Forestry Press.

Ministry of Forestry, 1989. 中国林业年鉴 1988. Beijing: China Forestry Press.

Ministry of Forestry, 1993. 中国林业年鉴 1992. Beijing: China Forestry Press.

Ministry of Forestry, 1995. 林业部关于加强干部培训管理暂行办法. Linren tongzi [1995] 159 hao.

Ministry of Forestry, 1996. 中国林业年鉴 1995. Beijing: China Forestry Press.

Ministry of Forestry, 1997. 中国林业年鉴 1996. Beijing: China Forestry Press.

Nanjing Forest Police College, website. Online: http://www.forestpolice.net/web/Article.aspx?classname=%C0%FA%CA%B7%D1%D8%B8%EF (3 March 2017).

Nanyang Technological University, 26 April 2011. Senior Chinese officials to undergo ‘Training-of-Trainers’ programme in public administration and governance in Singapore. Online: http://www.ntu.edu.sg/ChinaAffairsOffice/MediaHub/2011/Pages/13.aspx (22 January 2016).

Nathan, A. J., 2003. Authoritarian Resilience. Journal of Democracy, 14(1), pp. 6-17.

National Bureau of Statistics, 2015. 2014 中国统计年鉴. Beijing: China Statistics Press.

Neuman, L. J., 2011. Social Research Methods: Qualitative and Quantitative Approaches. 7th Edition. Boston: Pearson.

O'Brien, K. & Li, L., 1999. Selective Policy Implementation in Rural China. Comparative Political Studies, 10(66), pp. 167-187.

O'Brien, K., 2006. Discovery, Research (Re)design, and Theory Building. In: M. Heimer & S. Thørgersen, ed. Doing Fieldwork in China. Honolulu: University of Hawai'i Press, pp. 27-41.

Oi, J., 2000. Bending without Breaking: The Adaptability of Chinese Political Institutions. Working Paper No. 61. Online: http://siepr.stanford.edu/sites/default/files/publications/61wp. pdf (29 August 2017)

Patton, M. Q., 1990. Qualitative evaluation and research methods. Beverly Hills: SAGE.

Pei, M., 2016. China's Crony Capitalism. Dynamics of Regime Decay. Cambridge, London: Harvard University Press.

People's Daily, 13 May 2001. 一项事关全局的战略性任务—"九五"期间全国干部教育培训工作情况综述. Online: http://www.people.com.cn/GB/shizheng/19/20010513/463566.html (10 June 2015).

People's Daily, 13 September 2006. 特别策划干部培训非要出国吗?. Online: http://politics. people.com.cn/GB/30178/4809164.html (10 June 2015).

Perry, E., 2011. Embracing Uncertainty: Guerrilla Policy Style and Adaptive Governance in China. In: E. J. Perry & S. Heilmann, ed. Mao's Invisible Hand: The Political Foundations of Adaptive Governance in China. Cambridge: Harvard University Asia Center, pp. 1-29.

Peters, G. B., 1998. "Managing horizontal government: the politics of co-ordination. Public Administration, Issue 76, pp. 295-311.

Pieke, F. N., 2009a. The Good Communist: Elite Training and State Building in Today's China. Cambridge: Cambridge University Press.

Pieke, F. N., 2009b. Marketization, Centralization and Globalization of Cadre Training in Contemporary China. The China Quarterly, Issue 200, pp. 953-971.

Pieke, F. N., 2009c. The production of rulers: Communist party schools and the transition to neo-socialism in contemporary China. Anthropology/Antrophologie Sociale, 17(1), pp. 25-39.

Popp, E. & Rudolph, T. J., 2011. A Tale of Two Ideologies: Explaining Public Support for Economic Interventions. The Journal of Politics, Issue 3, pp. 808-820.

Price, J. L., 1976. Cadres, Commanders, and Commissars: The Training of the Chinese Communist Leadership, 1920-1945. New York: Westview Press.

Primack, R. B., 1988. Forestry in Fujian Province, People's Republic of China, during the Cultural Revolution. Arnoldia, Issue 48, pp. 26-29.

Qin, P. & Xu, J., 2013. Forest land rights, tenure types, and farmers' investment incentives in China: An empirical study of Fujian Province. China Agricultural Economic Review, 5(1), pp. 154-170.

Qiu, Y., 2011. 吉林、黑龙江两省林业教育培训调研报告:《全国林业教育培训"十二五"及中长期规划》吉林、黑龙江省调研组. Journal of State Academy of Forestry Management, Issue 1, pp. 31-36.

Qiu, Y., 2016. 云南、四川、广西三省（自治区）林业人才和教育培训调研报告: 全国林业人才和教育培训“十三五”规划编制第五调研组. Journal of State Academy of Forestry Management, Issue 4, pp. 30-34.

Qiushi, 16 August 2009. 高度重视林业的改革和发展. Online: http://www.npc.gov.cn/npc/xinwen/szyw/zhbd/2009-08/16/content_1513443.htm (27 February 2018)

Racko, G., Strauss, K. & Burchell, B., 2014. Economics Education and Value Change: The Role of Program Normative Homogeneity and Peer Influence. Academy of Management Learning & Education, 55(2), pp. 175-182.

Ray, D., 1970. "Red and Expert" and China's Cultural Revolution. Pacific Affairs, 43(1), pp. 22-33.

Ren, Y. & He, S., 2004. 深化学院内部改革加快国家级培训基地建设. Beijing Academy of Forestry Management, Issue 4, pp. 57-60.

Richardson, S. D., 1966. Forestry in Communist China. Baltimore: John Hopkins University Press.

Richardson, S. D., 1990. Forests and Forestry in China: Changing Patterns of Resource Development. Washington, Covelo: Island Press.

Robbins, A. C. & Harrel, S., 2014. Paradoxes and Challenges for China's Forests in the Reform Era. The China Quarterly, Issue 218, pp. 381-403.

Romzek, B. S. & Dubnick, M. J., 1987. Accountability in the Public Sector: Lessons from the Challenger Tragedy. Public Administration Review, 47(3), pp. 227-238.

Rooij van, B., 2006. Regulating Land and Pollution in China: Lawmaking, Compliance and Enforcement: Theory and Cases. Amsterdam: Amsterdam University Press.

Ross, L., 2002. China from Afforestation to Poverty Alleviation and Natural Forest Management (Book Review). The China Journal, Issue 48, pp. 228-229.

Rothenstein, B., 2015. The Chinese Paradox of High Growth and Low Quality of Government: The Cadre Organization Meets Max Weber. An International Journal of Policy, Administrations, and Institutions, 28(4), pp. 533-548.

Saich, A., 1993. The Construction of the Maoist Resolution on Party History. In: C. Huang & E. Zürcher, ed. Norms and the State in China. Leiden/New York/Köln: Brill, pp. 296-336.

Schoenhals, M., 1992. Doing things with words in Chinese politics: Five studies. Berkeley: Institute. of East Asian Studies, University of California.

Schröter, E. & Röber, M., 2015. Values, Competencies, and Public Sector Training: The Value Base of Administrative Modernization. Journal of Public Affairs Education, 21(1), pp. 25-40.

Schubert, G. & Ahlers, A. L., 2012. County and Township Cadres as a Strategic Group: ‘Building a New Socialist Countryside’ in Three Provinces. The China Journal, 67(1), pp. 67-86.

Schulz, M. & Ruddat, M., 2012. "Let's talk about sex!" Über die Eignung von Telefoninterviews in der qualitativen Sozialforschung. FQS Forum Qualitative Social Research/Sozialforschung, Issue 3.

Schurmann, F., 1971 [1967]. Ideology and Organization in Communist China. Berkeley: University of California Press.

Seawright, J. & Gerring, J., 2008. Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. Political Research Quarterly, 61(2), pp. 294-308.

Shambaugh, D., 2008. Training China's Political Elite: The Party School System. The China Quarterly, 196, pp. 827-844.

Shen, F., 2002. 借鉴德国经验, 搞好我国林业培训工作— 德国林业教育培训考察报告. Journal of Beijing Academy of Forestry Management, Issue 3, pp. 3-10.

Shi, X., Hu, R. & Erika, M., 2003. 采用参与式方法研究农民关注的问题. Problems in Agricultural Economics, Issue 11, pp. 54-57.

Shih, V. 2004. Development, the Second Time Around: The Political Logic of Developing Western China. Journal of East Asian Studies, 4(3), pp. 427-451.

Shih, V., Adolph, C. & Liu, M., 2012. Getting Ahead in the Communist Party: Explaining the Advancement of Central Committee Members in China. American Political Science Review, 106(1), pp. 166-187.

Shue, V., 1988. The Reach of the State. Sketches of the Chinese Body Politic. Stanford: Stanford University Press.

Spillane, J. P., Reiser, B. J. & Reimer, T., 2002. Policy Implementation and Cognition: Reframing and Refocusing Implementation Research. Review of Educational Research, 72(3), pp. 387-431.

Stake, R. E., 1995. The art of case study research. Thousand Oaks: SAGE.

State Academy of Forestry Management, Introduction of the Academy.国家林业局管理干部学院概况. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2628/content-652180.html (22 March 2018).

State Academy of Forestry Management, Introduction of the Party School. 中国共产党国家林业局党校简介. Retrieved from http://lgy.forestry.gov.cn/portal/stafa/s/575/content-407723.html (1 July 2015).

State Academy of Forestry Management, Training Programs.培训项目. Online: http://lgy.forestry.gov.cn/SiteAction.do?dispatch=index&colid=2619&siteName=stafa (11 September 2017)

State Academy of Forestry Management, Zhang Jianlong. 张建龙国家林业局局长兼学院院长. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2629/content-827770.html (9 May 2017).

State Academy of Forestry Management, 29 May 2008. 朝鲜坡地管理与食品安全研修班在国家林业局管理干部学院开班. Online: http://www.lypx.cn/NewsInfo.aspx?NId=461 (9 February 2017).

State Academy of Forestry Management, 21 May 2009. 国家林业局青年处级干部（第十四期）任职培训班举办. Online http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-407690.html (9 July 2015).

State Academy of Forestry Management, 22 May 2009. 全面加强天保基层培训努力提升工程管理水平. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-407736.html (9 July 2015).

State Academy of Forestry Management, 21 May 2010. 林业大中型企业领导人员工商管理高级培训. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2619/content-407631.html (1 March 2018).

State Academy of Forestry Management, 22 May 2010a. 全国集体林权制度改革培训班在我院举办. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-407735.html (9 July 2015).

State Academy of Forestry Management, 22 May 2010b. 第一期新疆林业干部培训班在我院开班. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-407731.html (9 July 2015).

State Academy of Forestry Management, 10 June 2010. 林业档案管理培训班在重庆举办. Retrieved online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-410481.html (9 July 2015).

State Academy of Forestry Management, 7 July 2010. 国家林业局第三十六期（沿海地区）林业建设专题研究班在浙江杭州举办. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-430424.html (9 July 2015).

State Academy of Forestry Management, 27 July 2010. 林业发展与人才培养研讨班在甘肃兰州举办. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-451986.html (2 July 2017).

State Academy of Forestry Management, 22 September 2010. 我院举办 2010 年国家林业局机关及事业单位新录用人员初任培训班. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-451993.html (9 July 2015).

State Academy of Forestry Management, 23 September 2010: 我院举办国家林业局第三十七期（三北地区）林业建设专题研究班. Online:

State Academy of Forestry Management, 20 October 2010. 第二期新疆林业干部培训班在我院举办. Retrieved online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-452000.html (9 July 2015).

State Academy of Forestry Management, 3 January 2013. 林地变更调查培训班在北京举办. Retrieved online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-651125.html (15 July 2015).

State Academy of Forestry Management, 5 May 2013. 山西省林业专业知识培训班在我院举办. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-645114.html (14 July 2015).

State Academy of Forestry Management, 28 October 2013. 2013 年发展中国家生物多样性跨国界保护研究及管理研修班在我院开班. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-642495.html (9 February 2017).

State Academy of Forestry Management, 18 November 2013. 中日技术合作中国西部地区林业人才培养项目顺利通过终期评. Online: http://www.forestry.gov.cn/stafa/581/content-641697.html (22 March 2018).

State Academy of Forestry Management, 14 July 2014. 2014 年第二期国有林场场长培训班开班. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-689135.html (15 July 2015).

State Academy of Forestry Management, 5 November 2015. 河南省林业工作站站长培训班在我院举办. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-817295.html 28 November 2015).

State Academy of Forestry Management, 1 December 2015. 全国林木种苗质检员网络培训项目. http://lgy.forestry.gov.cn/portal/stafa/s/2619/content-827443.html (11 September 2017).

State Academy of Forestry Management, 2 December 2015. 全国乡镇林业工作站在线学习培训项目. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2619/content-827450.html (16 March 2017).

State Academy of Forestry Management, 17 December 2015. 公务员岗位培训项目. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2619/content-833549.html (5 January 2017).

State Academy of Forestry Management, 2015. 全国乡镇林业工作站在线学习培训项目. Online: http://lgy.forestry.gov.cn/portal/stafa/s/2619/content-827450.html (16 March 2017).

State Academy of Forestry Management, 2016. Selection of Forestry Basic Knowledge 林业基础知识 – 精选. Beijing: China Forestry Press.

http://lgy.forestry.gov.cn/portal/stafa/s/2617/content-451998.html (last access 7 July 2015).

State Administration of Foreign Expert Affairs, 2012. 关于申报 2013 年度出国（境）培训项目计划的通知. Waizhuanfa [2012] 122 hao.

State Administration of Foreign Experts Affairs, 2002. 关于 2003 年中长期出国（境）培训项目的领导意见. Waizhuanfa [2002] 93 hao.

State Administration of Foreign Experts Affairs, Department of Overseas Training, 8 October 1999. 国家外国专家局关于加强全国出国培训准选人员外语考试 BFT工作的意见. Online: http://files.shafea.gov.cn/html/102832e3-3544-4484-b7d1-0898dedd46fd.htm (22 March 2018).

State Council, 1993. 国务院关于成立国家行政学院的通知. Guofa [1993] 73 hao.

State Council, 2000. 国务员关于实施西部大 开发若干政策措施的通知. Guofa [2000] 33 hao.

State Council, 2007. 国务院关于进一步促进新疆经济社会发展的若干意见. Guofa [2007] 32 hao.

State Education Commission & Ministry of Personnel, 1989. 关于开展岗位培训若干问题的意见. Jiaochengzi [1989] 13 hao.

State Education Commission, 1987. 国家教育委员会关于改革和发展成人教育的决定. Guofa [1987] 59 hao.

State Forestry Administration, National Forestry Organizations. 国家林业群战. Online: http://www.forestry.gov.cn/ (22 March 2018).

State Forestry Administration, Training bases. 培训基地. Online: http://www.lypx.cn/NewsInfo.aspx?NId=379 (22 March 2018).

State Forestry Administration, 1998. 中国林业年鉴 1997. Beijing: China Forestry Press.

State Forestry Administration, 9 December 2000. 1998 年林业大事记. Online: http://www.forestry.gov.cn/main/60/content-154.html (5 April 2017).

State Forestry Administration, 2001a. 国家林业局关于进一步加强林业教育培训工作的若干意见. Linrenfa [2001] 241 hao.

State Forestry Administration, 2001b. 全国林业行业教育培训工作“十五”规划. Linrenfa [2001] 276 hao.

State Forestry Administration, 2002. 中国林业年鉴 2001. Beijing: China Forestry Press.

State Forestry Administration, 2002. 中国林业年鉴 2001. Beijing: China Forestry Press.

State Forestry Administration, 2002. 中国林业统计年鉴 2001. Beijing: China Forestry Press.

State Forestry Administration, 2003. 中国林业年鉴 2002. Beijing: China Forestry Press.

State Forestry Administration, 2003. 中国林业统计年鉴 2002. Beijing: China Forestry Press.

State Forestry Administration, 2004. 中国林业统计年鉴 2003. Beijing : China Forestry Press.

State Forestry Administration, 2005. 中国林业统计年鉴 2004. Beijing: China Forestry Press.

State Forestry Administration, 2006. 中国林业统计年鉴 2005. Beijing: China Forestry Press.

State Forestry Administration, 2006. 全国林业教育培训工作“十一五”规划. Online: http://www.chinabaike.com/law/zy/bw/gwy/u/1375560.html (22 March 2018).

State Forestry Administration, 2007. 中国林业统计年鉴 2006. Beijing: China Forestry Press.

State Forestry Administration, 2008. 中国林业统计年鉴 2007. Beijing: China Forestry Press.

State Forestry Administration, 2008. 关于做好集体林权制度改革培训工作的意见. Linrenfa [2008] 163 hao.

State Forestry Administration, 2009. 中国林业统计年鉴 2008. Beijing: China Forestry Press.

State Forestry Administration, 12 June 2009 人才开发交流中心, Online: http://211.167.243.154:8080/main/22/content-28.html (7 March 2017).

State Forestry Administration, 2010. 中国林业统计年鉴 2009. Beijing: China Forestry Press.

State Forestry Administration, 2011. 中国林业统计年鉴 2010. Beijing: China Forestry Press.

State Forestry Administration, 2012. 中国林业统计年鉴 2011. Beijing: China Forestry Press.

State Forestry Administration, 2012. 全国林业教育培训“十二五”规划. Online: http://www.gov.cn/gzdt/2012-01/05/content_2037333.htm (22 March 2018).

State Forestry Administration, 2013. 中国林业统计年鉴 2012. Beijing: China Forestry Press

State Forestry Administration, 2014. 中国林业统计年鉴 2013. Beijing: China Forestry Press.

State Forestry Administration, 2015. 中国林业统计年鉴 2014. Beijing: China Forestry Press.

Stern, R., 2013. Environmental litigation in China: A Study in Political Ambivalence. Cambridge: Cambridge University Press.

Stimson, J. A., 2004. Tides of consent: How public opinion shapes American politics. New York: Cambridge University Press.

Strauss, J., 2009. Forestry Reform and the Transformation of State Capacity in Fine-de-Siècle China. The Journal of Asian Studies, Issue 4, pp. 1163-1188.

Sturgeon, J. C., 2007. Pathways of "Indigenous Knowledge" in Yunnan, China. Alternatives: Global, Local, Political, 32(1), pp. 129-153.

Sun, Z.H., 2005. 今年来我国的出国（境）培训及其成果. International Human Resources and Exchange, Issue 1, p. 1.

Tanner, M.S., 2004. China rethinks unrest. The Washington Quarterly, 27(3), pp. 137-166.

TEN Center Venice International University, 2013. Sustainable Development and Environmental Management Advanced Training Program Activities Report 2003-2014. Online: http://www.univiu.org/research-training/research-ten/ten-publications/report-of-activities (22 March 2018).

The Diplomat, 9 September 2013. China's "Mass Line" Campaign. China's leadership is trying to bring the Party closer to the people. The campaign also has other implications. Online: https://thediplomat.com/2013/09/chinas-mass-line-campaign-2/ (2 February 2018)

Theory, 8 January 2018. 绝不照搬西方政治制度模式的三重意蕴. Online: http://theory.people.com.cn/n1/2018/0108/c40531-29750705.html (22 March 2018).

Thørgersen, S., 2006. Beyond Official Chinese: Language Codes and Strategies. In: M. Heimer & S. Thørgersen, ed. Doing Fieldwork in China. Honolulu: University of Hawai'i Press, pp. 110-128.

Thørgersen, S., 2012. Organizing Rural China: Political and Academic Discourses. In: A. Bislev & S. Thørgersen Organizing Rural China, Rural China Organizing. Laham, et al.: Lexington Books, pp. 35-50.

Tilt, B., 2009. The Struggle for Sustainability in Rural China. Environmental Values and Civil Society. New York: Columbia University Press.

Tong, C. H., Straussman, J. D. & Broadnax, W. D., 1999. Civil service reform in the People's Republic of China: case studies of early implementation. Public Administration and Development, Issue 19, pp. 193-206.

Tõnnisson, K. & Kaido, P., 2004. Securing Common Knowledge and Values in Decentralized Public Training System. The Case of Estonia. Online: http://unpan1.un.org/intradoc/groups/public/documents/NISPAcee/UNPAN018458.pdf (22 March 2018).

Tran, É., 2003. From Senior Official to Top Civil Servant: An Enquiry into the Shanghai Party School. China Perspectives, Issue 46, pp. 1-21.

Tsai, L. L., 2007. Accountability Without Democracy: Solidary Groups and Public Goods Provision in Rural China. Cambridge: Cambridge University Press.

Tsai, W.-H. & Dean, N., 2013. The CCP's Learning System: Thought Unification and Regime Adaptation. The China Journal, Issue 69, pp. 87-107.

Tsai, W.H. & Kou, C.W., 2015. The Party's Disciples: CCP Reserve Cadres and the Perpetuation of a Resilient Authoritarian Regime. The China Quarterly, Issue, 221, pp. 1-20-

Tsao, K. K. & Worthley, J. A., 1995. Chinese public administration: Change with continuity during. Public Administration Review, 55(2), pp. 169-174.

Tsao, K. K. & Worthley, J. A., 2009. Civil Service Development in China and America: A Comparative Perspective. Public Administration Review, pp. 88-94.

UNESA, 2014. China's Report on the Implementation of the Forest Instrument. Online: http://www.un.org/esa/forests/wp-content/uploads/bsk-pdf-manager/157_CHINA.PDF (31 August 2017).

UNESCO, website. Education for Sustainable Development. Online: https://en.unesco.org/themes/education-sustainable-development (22 March 2018).

United Nations, 1987. Report of the World Commission on Environment and Development: Our Common Future, Brundtland. Online: http://www.exteriores.gob.es/Portal/es/PoliticaExteriorCooperacion/Desarrollosostenible/Documents/Informe%20Brundtland%20(En%20ingl%C3%A9s).pdf (22 March 2018).

Vogel, E. F., 1967. From Revolutionary to Semi-Bureaucrat: The "Regularisation" of Cadres. The China Quarterly, Issue 29, pp. 36-60.

Wang, J., 195. The May Seventh Cadre School for Eastern Peking. The China Quarterly, Issue 63, pp. 522-527.

Wang, J., 2010. 新中国开国部长—梁希. Scholarly Association, 62(2), p. 64.

Wang, K. W., 1998. Modern China: An Encyclopedia of History, Culture, and Nationalism. New York/London: Gerland Publishing.

Wang, S., Kooten van, C. G. & Willson, B., 2004. Mosaic of reform: forest policy in post-1978 China. Forest Policy and Economics, Issue 6, pp. 71-83.

Weigelin-Schwiedrzik, S., 1984. Parteigeschichtsschreibung in der VR China: Typen, Methoden, Themen und Funktionen. Wiesbaden: Harrassowitz.

Weigelin-Schwiedrzik, S., 2004. Zentrum und Peripherie in China und Ostasien. In: S. Linhardt & S. Weigelin-Schwiedrzik, ed. Ostasien 1600-1900. Wien: Promedia, p. 81.98.

Weigelin-Schwiedrzik, S., 2008. The distance between state and rural society in the PRC. Reading Document No 1 (February 2004). Journal of Environmental Management, Issue 87, pp. 216-225.

Weigelin-Schwiedrzik, S., 2017. Interpretationsseminar (Summer Term). Vienna: Department of East Asian Studies, University of Vienna.

Weyerhaeuser, H., Wiles, A. & Kahrl, F., 2005. Local impacts and responses to regional forest conservation and rehabilitation programs in China's northwest Yunnan province. Agricultural Systems, 85(3), pp. 234-253.

Whiting, S., 2004. The Cadre Evaluation System at the Grass Roots: The Paradox of Party Rule. In: B. J. Naughton, ed. Holding China Together: Diversity and National Integration in the Post-Deng-Era, pp. 101-119.

Wigboldus, S. et al., 2016. Scaling green rubber cultivation in Southwest China—An integrative analysis of stakeholder perspectives. Science of the Total Environment, Issue 580, pp. 1475-1482.

Witesman, E. M. & Wise, C. R., 2009. The Centralization/Decentralization Paradox in Civil Service Reform: How Government Structure Affects Democratic Training of Civil Servants. Public Administration Review, 69(1), pp. 116-127.

Witesman, E. M. & Wise, C. R., 2012. The Reformer's Spirit: How Public Administrators Fuel Training in the Skills of Good Governance. Public Administration Review, 72(5), pp. 710-720.

Witzel, A., 2000. Das problemzentrierte Interview. FQS Forum: Qualitative Social Research/Sozialforschung, 1(1). Online publication: http://www.qualitative-research.net/index.php/fqs/article/view/1132/2519 (22 March 2018).

Greentimes, 24 September 2001. 57 个单位被认定为了林业行业关键岗位培训单位., p. 3.

Wu, J., Deng, Y., Jun, H., Morch, R., Yeung, B., 2013. Incentives and Outcomes: China's Environmental Policy. ECGI - Finance Working Paper No. 368. Online: http://dx.doi.org/10.2139/ssrn.2206043 (22 March 2018).

Wu, Y., 2010. 积极推进林业干部教育培训规范化信息化组织化. Journal of State Academy of Forestry Administration, Issue 3, pp. 23-26.

Xiao, K. & Womack, B., 2014. Distortion and Credibility within China's Internal Information System. Journal of Contemporary China, 23(88), pp. 680-697.

Xie, L., Berck, P. & Xu, J., 2016. The effect on forestation of the collective forest tenure reform in China. China Economics Review, Issue 38, pp. 116-129.

Xinhua, 10 July 2014. 授权发布：中国的对外援助. Online: http://www.xinhuanet.com/world/2014-07/10/c_1111546676_2.htm (22 March 2018).

Xinhua, 11 January 2011. "十五" 期间我国出国培训人数达 25.7 万人次. Online: http://www.anhuinews.com/zhuyeguanli/system/2011/01/11/003656717.shtml (23 November 2014).

Xu, J., Ma, E. T., Tashi, D., Fu, Y., Lu, Z. & Melick, D., 2006. Ecology and Society. Integrating Sacred Knowledge for Conservation: Cultures and Landscapes in Southwest China, 10(2). Online publication: http://faculty.washington.edu/stevehar/chinenv-xujc.pdf (22 March 2018).

Xu, J., Yin, R., Li, Z. & Liu, C., 2006. China's ecological rehabilitation: Unprecedented efforts, dramatic impacts, and requisite policies. Ecological Economics, Issue 57, pp. 595-607.

Yang, D., 2008. The China Environment Yearbook, Volume 2: Changes and Struggles. Leiden: Brill.

Yang, B. et al., 2015. China's Collective Forest Tenure Reform and the Future of the Giant Panda. Conservation Letters, 8(4), pp. 251-261.

Yang, D., 2009. The China Environment Yearbook, Volume 3: Crises and Opportunities. Leiden: Brill.

Yang, D., 2010. The China Environment Yearbook, Volume 4: Tragedy and Hope - From the Sichuan Earthquake to the Olympics. Leiden: Brill.

Yang, D., 2011. The China Environment Yearbook, Volume 5: State of Change: Environmental Governance and Citizens' Rights. Leiden: Brill.

Yang, G., 2005. Environmental NGOs and Institutional Dynamics in China. The China Quarterly, Issue 181, pp. 46-66.

Yang, J., 1984. A Cadre School Life: Six Chapters. Hong Kong: Joint Publishing.

Yang, K., Wu, F., Xu, X. & Chen, T., 2012. The Challenge of Civil Servant Training in China: A Case Study on Nanning City. Review of Public Personnel Administration, 32(2), pp. 169-191.

Yang, V. C., 2002. Judicial and Legal Training in China: Current Status of Professional Development and Topics of Human Rights. Paper presented at China-OHCHR National Workshop for Judges and Lawyers (Beijing, 19-20 August). Online: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.122.7560&rep=rep1&type=pdf (22 March 2018).

Yeh, E. T., 2000. Forest Claims, Conflicts and Commodification: The Political Ecology of Tibetan Mushroom-Harvesting Villages in Yunnan Province, China. The China Quarterly, Issue 161, pp. 264-278.

Yeh, E. T., 2009. Greening western China: A critical view. Geoforum, Issue 40, pp. 884-894.

Yeh, E. T., 2013. The politics of conservation in contemporary rural China. Journal of Peasant Studies, 40(6), pp. 1165-1188.

Yeh, E. T., 2014. Mapping Shangrila: Contested landscapes in the Sino-Tibetan borderlands. Washington: University of Washington Press.

Yi, Y., Köhlin, G. & Xu, J., 2013. Property rights, tenure security and forest investment incentives: evidence from China's Collective Forest Tenure Reform. Environment and Development Economics, Issue 19, pp. 48-73.

Yin, R., Yao, S. & Huo, X., 2013. China's forest tenure reform and institutional change in the new century: What has been implemented and what remains to be pursued?. Land Use Policy, Issue 30, pp. 825-833.

Yu, H. H., 2014. Community-Based Water Governance under Integrated Water Resources Management Reform in Contemporary Rural China. Environmental Management and Sustainable Development, 3(2). Online: http://www.macrothink.org/journal/index.php/emsd/article/view/5656/4725 (22 March 2018).

Yu, N., Zhang, J. & Wang, S., 2008. 做好县级领导干部培训的几点体会. Journal of State Academy of Forestry Management, Issue 2, pp. 3-5.

Yun, S., 2016. Political party training: China's ideological push in Africa?. Online: https://www.brookings.edu/blog/africa-in-focus/2016/07/05/political-party-training-chinas-ideological-push-in-africa/ (22 March 2018).

Zhan , X. & Tang, S., 2013. Political opportunities, resource constraints and policy advocacy of environmental NGOs in China. Public Administration, 91(2), pp. 381-399.

Zhan, J. V. & Ming, Z., 2017. Resource Conflict Resolution in China. The China Quarterly, Issue 230, pp. 489-511.

Zhang, G., 2011. 学校校史----第三章校的复办稳步发展时期. Online: http://blog.sina.com.cn/s/blog_70c0ebfd0100q83p.html (2 February 2017).

Zhang, K. & Wen, Z., 2008. Review and challenges of policies of environmental protection and sustainable development in China. Journal of Environmental Management, Issue 88, pp. 1249-1261.

Zhang, L. 2008. Reform of the forest sector in China. In: P. Durst, C. Brown, J. Broadhead, R. Suzuki, R. Leslie & A. Inoguchi, ed. Re-inventing forestry agencies: Experiences of institutional restructuring in Asia and the Pacific. RAP Publication 2008/05 Bangkok: FAO.

Zhang, L., Luo, F., Liu, C. & Rozelle, S., 2004. Investing in rural China: Tracking China's commitment to. In: V. Shue & C. Wong, ed., Paying for Progress in China: Public finance, Human Welfare and Changing Patterns of Inequality. London/New York: Routledge, pp. 117-144.

Zhang, P. et al., 2000. China's Forest Policy for the 21st Century. Science, 288(5474), pp. 2135-2136.

Zhang, S. & Jin, H., 2005. 澳大利亚林业教育考察报告：中国林业教育学会卦澳大利亚、新西兰林业教育考察团. China Forestry Education, Issue 4, pp. 69-72.

Zhang, X. & Peng, Y., 2002. 加强培训能力建设创建一流行业培训基地. Beijing Academy of Forestry Management, Issue 1, pp. 4-7.

Zhang, Y., 1997. 林业管理干部继续教育剖析. Continuing Education, Issue 5, pp. 24-25.

Zhao, J., 2011a. 宁夏、甘肃两省（区）林业教育培训调研报告:《全国林业教育培训“十二五”及中长期规划》宁夏回族自治区、甘肃省调研组. Journal of State Academy of Forestry Management, Issue 1, pp. 27-36.

Zhao, J., 2011b. 山东省林业教育培训调研报告. Journal of State Academy of Forestry Management, Issue 2, pp. 16-20.

Zhao, J., 2016. 湖南、广东、福建三省林业人才和教育培训调研报告: 全国林业人才和教育培训“ 十三五” 规划编制第三调研组. Journal of State Academy of Forestry Management, Issue 1, pp. 29-39.

Zhao, Y., 2013. China's disappearing countryside: towards sustainable land governance for the poor. Burlington: Ashgate.

Zheng, X. & Lu, Y., 2015. China: Pollution hotspots tracked in real time. Nature, 523(7560), p. 290.

Zheng, Y. & Chen, G., 2015. The Chinese Communist Party: An Institutional Perspective. In: D. S. Goodman, ed. Handbook of the Politics of China. Cheltenham, Northhampton: Edward Elgar Publishing Inc., pp. 57-75.

Zheng, Y. & Tok, S. K., 2007. ‘Harmonious Society” and “Harmonious World”: China’s Policy Discourse under Hu Jintao. Briefing Series, Issue 26, University of Nottingham, China Policy Institute.

Zhou, J., 2003. Remaking China's Public Philosophy for the Twenty-first Century. Westport et al.: Praeger/Greenwood Publishing Group.

Zhou, Z. & Huang, J., 2008. 核桃栽培技术图解. Kunming: Yunnan Nationality Press.

Zhou, Z. & Unna, C., 2006. Success and sustainability: Lessons from Guangdong Province. In: C. Unna, Z., Zhou, C., Wang & T., Takeshi, ed. Learning lessons from China’s forest rehabilitation efforts. National level review and special focus on Guangdong Province, pp. 69-134. Online: http://www.cifor.org/publications/pdf_files/Books/Bchokkalingam0603.pdf (22 March 2018).

List of Interviews[72]

Pitterle, A. Austria, 27 March 2014

Forestry Expert J., China 8 May 2014

Forestry Expert Y., China, 8 May 2014

Teacher C., China, 9 May 2014

Technical Extension Offices Y., China, 14 May 2014

Mrs. L., China, 21 May 2014 (second interview on 8 December 2015)

Director W., China, 22 May 2014

Activist C. China, 21 May 2014

Hartmann, K. Austria, 9 September 2014

Activist C. Taiwan, 11 December 2014

Mannino, I., Italy, 15 April 2015

Saich, A., Skype, 4 May 2015

Zöscher, J., Austria, 13 May 2015

Cadres from Federation of Forestry Industry, China, 8 October 2015

Inspector Q., China, 2 November 2015

Director L., China, 3 November 2015

Professor H., China, 4 November 2015

Director. W., China, 5 November 2015

Mrs. L. and Mrs. L., China, 6 November 2015

Cadres from local forestry cadre school, China, 25 November 2015

Mr. T., China, 30 November 2015

Mrs. S., China, 1 December 2015

Mrs. F., China, 14 December 2015

[72] Names of interviewees were changes, and place in China ommitted.

Professor X., China, 18 December 2015

Division-head. X., China, 19 December 2015

Foglar-Deinhardstein, Austria, 22 March 2016

Mayer, Austria, 7 April 2016

Mr. B., China, 7 July 2016

Professor Y., China, 8 July 2016

Professor D., China, 11 July 2016

Appendix

Table 11: List of cadre training facilities in 1986 (according to province and type)

	College (higher level academy)		Vocational School	
Province/Institutions	**Cadre academies of management**	**Special Cadre Training Course**	**Forestry Cadre School**	**Cadre Training Class**
Anhui			Anhui Province Forestry Cadre School (Hefei City)	
Beijing	Beijing Cadre Academy of Forestry Management (Daxing county, Huang Village)	Beijing Forestry University (Haidian District)	Beijing Forestry Cadre School (Shunyi County)	
Fujian		Fujian Forestry Academy (Nanping City)	Fujian Province Forestry Cadre School (Fuzhou City)	
Gansu		Gansu Agricultural University Department of Forestry (Wuwei Prefecture, Huangyang Township)	Bailongjiang Cadre School for Forestry Management (Wen County)	
Guangxi		Guangxi Agricultural Academy Branch of Forestry Academy (Nanning City)		Guangxi Zhuang Autonomous District Department of Forestry (Nanning City)
Guangdong			Guangdong Province Shaoguan City Forestry Cadre School (Shaoguan City)	Guangzhou Forestry School (Guangzhou City, Longyandong)

Guizhou			Guizhou Province Forestry Cadre School (Xiuwen County)	
Hebei				Hebei Province Department of Forestry (Shijiazhuang City)
Heilongjiang	Heilongjiang Provincial Cadre Academy of Forest Industry Management Heilongjiang Provincial Cadre Academy of Forestry Management	Northeast Forestry University (Ha'erbin)	Daxing Anling Forestry Cadre Vocational School (Jiagedaqi), Yichun Cadre School for Forestry Management (Yichun City), Songhuajiang Cadre School for Forestry Management (Ha'erbin), Mudanjiang Cadre School for Forestry Management (Mudanjiang), Hejiang Cadre School for Forestry Management (Tangyuan county), Jixi City Forestry Cadre School (Jixi City), Suihua Regional Forestry Cadre School (Suihua City), Heihe Regional Forestry Cadre School (Heihe City), Jiamusi City Forestry Cadre School (Jiamusi City, Yonghong District), Songhuajiang District Forestry Cadre School (A'cheng county), Qiqiha'er Forestry Cadre School (Fuyu County)	
Henan				Luoyang School of Forestry, Henan Province Xiyang School of Forestry, Henan Province Runanyuan School of Forestry
Hubei				Hubei Province Wuchang County Zhifangzhen Hubei Provincial Forestry School
Hunan		Central South Forestry Academy (Zhuzhou)		
Inner Mongolia		Inner Mongolia Forestry Academy (Huhhot City)	Yakeshi Cadre School for Forestry Management (Yakeshi City)	
Jiangsu		Nanjing Forestry University (Shaoshan Street)	Nanjing Forestry Cadre School (Yingtuo Village)	Provincial Forestry Science Institute (Nanjing)
Jiangxi				Provincial Forest Industry Technology School (Nanchang City)
Jilin		Jilin Forestry Academy (Jilin)	Jilin City Forestry Cadre School (Jilin City)	

Liaoning				Liaoning Province School of Forestry (Chenyang City Sujiatun District), Liaoning Province Department of Forestry (Chenyang), Chaoyang City Bureau of Forestry
Ningxia		Ningxia Agricultural Academy, Department of Forestry (Yongning County)		
Shaanxi		Northwest Forestry Academy (Ganyang)	Shaanxi Province Ankang Cadre School for Forestry Technology (Ankang County)	
Shandong		Shandong Provincial Cadre Academy of Agricultural Management (Jihe County)		Shandong Province School of Forestry (Tai'an City)
Shanxi		Shanxi Agricultural Academy, Department of Forestry (Taigu county)	Shanxi Province Forestry Cadre School (Taiyuan City)	
Sichuan			Sichuan Province Forestry Cadre School (Chengdu, Xiashahe)	
Xinjiang			Xinjiang Forestry Cadre School (Urumqi, Heishantou)	
Yunnan		Southwestern Forestry Academy (Kunming, Wenquan)	Yunnan Province Forestry Cadre School (Kunming City, Jingu)	
Zhejiang		Zhejiang Forestry Academy (Lin'an County)	Zhejiang Province Forestry Cadre School (Lin'an County)	

Source: Ministry of Forestry (1987, pp. 278-281)