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A qualitative case study in the Natore district.

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Aurelia Haindorfer

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Table of content

Acknowledgements	9
Abbreviations and acronyms	11
Glossary	13
List of figures	15
List of tables	15
Introduction	17
1 Gender inequalities regarding women's living conditions, socio-spatial exclusion and mobile phone use/access in (rural) Bangladesh	19
<i>1.1 Selected statistical facts as indications of prevalent gender inequalities in Bangladesh</i>	<i>20</i>
<i>1.2 Women's livelihood in rural Bangladesh</i>	<i>23</i>
<i>1.3 Gender norms and implications for gender inequalities and socio-spatial exclusion</i>	<i>26</i>
1.3.1 The concept and practice of purdah	26
1.3.2 Gender norms and values deriving from religious and patriarchal principles	29
1.3.3 Excursus: Some examples of discriminatory systems against women: dowry, violence and <i>fatwa</i>	30
<i>1.4 Gender inequalities regarding the access to and use of mobile phones in Bangladesh</i>	<i>34</i>
1.4.1 Reasons for the prevalence of mobile phone technology in Bangladesh	34
1.4.2 Women and mobile phones in Bangladesh and the "gender digital divide"	37
2 Theoretical framing	39
<i>2.1 Space and place in the perspective of gender</i>	<i>40</i>
2.1.1 The relevance of social relations in the construction of space and place	40
2.1.2 Gender in the construction of space and place	42
2.1.3 The home place as <i>the</i> gendered space: implications for women's immobility	46
2.1.4 Women's attachment to or isolation in the home place: the relevance of mobility and social contacts for home-place attachment	48
<i>2.2 Concepts, forms and constraints of mobility</i>	<i>50</i>
2.2.1 Mobility as a functioning in the capabilities approach	50
2.2.2 Physical and virtual mobility in a globalized, technologized world	52
2.2.3 Impacts of virtual mobility on physical mobility and proximity	54

2.2.4 Constraints and freedom of mobility	55
<i>2.3 Mobile phones and impacts on mobility in the perspective of gender</i>	57
2.3.1 Gender inequalities regarding the access to mobile phones: reasons for the "gender digital divide"	57
2.3.2 Owning or sharing a mobile phone: the "shared-access"-model for higher accessibility	58
2.3.3 Gendered patterns of mobile phone use	60
2.3.4 Impacts of mobile phones on women's mobility	62
3 Methods and empirical framing	64
<i>3.1 Research concern and research questions</i>	65
<i>3.2 Methodical approach and implementation</i>	66
<i>3.3 Selection of cases and study groups</i>	69
<i>3.4 Interview guides</i>	71
<i>3.5 Structure of the interview sample</i>	73
<i>3.6 Access to the field</i>	75
<i>3.7 Limitations and external effects</i>	77
<i>3.8 Research setting: Study villages and research area</i>	78
<i>3.9 Analysis and typology process</i>	80
4 Empirical findings	81
<i>4.1 Rural women's life arrangements and living conditions</i>	82
4.1.1 Life arrangement and living conditions: education, marriage and financial dependency	82
4.1.2 Daily life arrangement: activities and responsibilities	86
4.1.3 Social ties and networks	90
<i>4.2 (Gendered) mobility and immobility</i>	92
4.2.1 Spatial extensions and mobility: small-scale and larger-scale mobility	92
4.2.2 Frequency of movements (outside the village): mobility types	94
4.2.3 Freedom and constraints of mobility	96
4.2.4 Home-place attachment and social isolation: social impacts of mobile phone communication	100
<i>4.3 Mobile phone access and use</i>	105
4.3.1 Access: ownership, shared and borrowed	106
4.3.2 Roles of access and use	106
4.3.3 Mobile phone user types	108

4.3.4 Constraints of access and use of a mobile phone	109
<i>4.4 Impacts of mobile phones on mobility</i>	<i>111</i>
4.4.1 Impacts of unrestricted access and living without the husband	111
4.4.2 Impacts of carrying a mobile phone on (unattended) mobility: personal safety and carefree travels	114
4.4.3 Impacts on translocality and virtual mobility	116
5 Conclusion	118
<i>5.1 Research questions</i>	<i>118</i>
<i>5.2 Prospects</i>	<i>124</i>
References	125
Annex	135
<i>Zusammenfassung (Abstract)</i>	<i>135</i>

Eidesstattliche Erklärung

Hiermit versichere ich,

dass ich die vorliegende Diplomarbeit selbstständig verfasst, andere als die angegebenen Quellen und Hilfsmittel nicht benutzt und mich auch sonst keiner unerlaubter Hilfe bedient habe,

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und dass diese Arbeit mit der vom Begutachter beurteilten Arbeit vollständig übereinstimmt.

Wien, am

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Abbreviations and acronyms

<i>BBS</i>	Bangladesh Bureau of Statistics
<i>BRAC</i>	Bangladesh Rural Advancement Committee
<i>BTRC</i>	Bangladesh Telecommunication Regulatory Commission
<i>ICT</i>	Information and communication technologies
<i>ITU</i>	International Telecommunication Union
<i>MFS</i>	Mobile financial services
<i>NGO</i>	Non-governmental organization
<i>UP</i>	<i>Union Parishad</i>

Glossary

Apa/Apu: The Bangla word for “(little/older) sister”, which is always said after a woman’s name, regardless if the interacting individuals are related to each other or not (if not, it is an informal cordiality to call someone “sister”); same like “bhai”/”bhaia” (or “vai/vaia”) (“little/older brother”) and “uncle”/”auntie”.

Bari: “A *bari*, one's homestead, is a compound of dwelling units much smaller than a village or neighborhood (*para*) within a village. Residents of the *bari* are usually related through blood or marriage.” (Balk 1997: 171)

Bazar: Marketplace. Not only refers to a traditional market, but also to parts of a town/village with a larger number of shops and vendors and even to shopping malls.

Burkha: Usually a multi-layered garment worn over a saree (cf. Amin 1997: 219). Often it is a black dress combined with a black head scarf. If only the eyes are visible it is called “hijab”. Women from the study sample didn’t make such distinctions, instead they only used the term “burkha” to refer to clothes worn over their saree or salwar kameez’s.

Chaddor: In the Bangladeshi context it refers to a garment for women consisting of “a long, broad shawl, which covers the head and the upper body – a more contemporary version of the *burkha*” (cf. Nazneen 1996: 44)

Easy Bike: An electric tricycle motorbike(-taxi) (cf. Alam et al. 2016: S47), which is similar to a "CNG" or "auto", and thus also often called so.

Fatwa: infrequent interpretations of Islamic law (cf. Schuler et al. 1996: 1734).

Gender: refers to the way an individual is treated by the society and people on the basis of his/her sex and gets attached to persons through stereotyped social images of women and men (cf. Deji 2011: 21)

Hijab: A burkha-style clothing for women with headscarf, which only reveals the eyes. See also *burkha*.

Madrasa/Madrasha: A school that emphasizes on Arabic medium Islam-based education and whose system is supervised by the Madrasa Board of the country (cf. BBS 2017c: 16).

Mediated communication: communication through technology (such as mobile phones)

Mullah: an Islamic local religious leader; issuer of the fatwa (cf. Rahman 2017: 4)

Patriarchy: Patriarchy is a variously understood term, as it, on the one extreme refers to a deliberate form of government, which is “established expressly to keep women dominated”; on the other, it is „a general approach to governing and guiding institutions which continues to incorporate policies oppressive to women.” (Miller 2015: 886).

Purdah: “(...), the Persian word meaning veil or curtain, is the term most commonly used for the practice of secluding women from the public eye and enforcing standards of femininity. Generally, *purdah* maintains the exclusion of women from the public male sphere of economic, social and political life. (...) in Bangladesh and other countries throughout South Asia. (...) *Purdah* has two dimensions: physical segregation and concealment of the female face and body.” (cf. Nazneen 1966: 44, 47f)

Rickshaw: In Bangladesh it refers to a bicycle-taxi, which is nowadays often supported by an electric drive.

Rural (sphere): A settlement (center) with less than 5000 inhabitants (cf. BBS 2015b: 8).

Salwar kameez: Traditional female clothing, which in Bangladeshi/Muslim context combines a long (rather loose) dress (“kameez”) with (rather) long sleeves with long loose trousers (“salwar”) and an “oolna” (or “dupatta”; shawl). It is mostly worn as a headscarf (veil) and wrapped over the shoulders and chest. Hindu women in Bangladesh do not use the oolna as headscarf and do not strictly cover all parts of their body.

Saree: Traditional South Asian clothing, which combines three elements: a long skirt, a short blouse and a long garment of varying length, which is wrapped around the skirt, blouse, sometimes the head, and over one shoulder.

Shalish: Islamic village tribunals of the fatwa system (cf. Rahman 2017: 4)

Upazila: sub-district (e.g. Singra *upazila*)

Upazila Parishad: the council of an upazila

VSAT: Very Small Aperture Terminal “(...) operating as part of a satellite network (e.g. star, mesh or point-to-point) used for the distribution and/or exchange of information between users.” (ETSI 1996: 7)

Zila: An administrative district in Bangladesh (e.g. Natore *zila*), which is smaller than the administrative unit “division” (there are eight divisions and 64 districts; BBS, District Statistics: online).

List of figures

Figure 1: ICT use in Bangladesh 2013 (BBS 2015c: 24)	36
Figure 2: ICT use in urban and rural areas 2013 (BBS 2015c: 25)	36
Figure 3: ICT use of individuals older than 15 years 2013 (BBS 2015c: 29)	38
Figure 4: Mobility as a functioning according to Sen's capability approach (Ryan et al. 2015: 107)	52

List of tables

Table 1: Labor force by age, gender and area July 2015 to June 2016 (BBS 2017a: 40)	25
Table 2: Mobile phone users by age and area (BBS 2015c: 40).....	38
Table 3: Study group "regular mobile phone users" (RMPU).....	74
Table 4: Study group "sporadic mobile phone users" (SMPU)	75
Table 5: Study group "non-mobile phone users" (NMPU).....	75

Introduction

*Fahmida: (...) When I need to talk to my father's house, I use my husband's phone. But it would be nice, if I had a mobile phone, when I am out of the house. I could talk whenever I want. I could talk with my family members.
(16 years old and mother of a 3-year old daughter; Interview Fahmida 2017: 1)*

Women in Bangladesh, especially those who live in the rural sphere, have restricted spatial mobility and more restricted access to mobile phones than men due to constraints such as the observation of gender norms (e.g. purdah) and the financial dependency on males. Fahmida, for example, has no mobile phone nor is she allowed to go alone outside the house.

Having no or unequal access to resources is an important constraint to women's participation in the decision-making process and political activity (cf. Miaji 2010: 27). Besides that, mobility (as an aspect of access) is considered to be a significant factor in the creation of profitable livelihoods (cf. Mandel 2006: 343f). ICT are linked to that in terms of enabling access to crucial information related to agriculture, business, education, health and more; the ability to maintain social relationships; the ability for increased political participation; and also better coordination and organization of the daily activities (cf. Sterly 2015: 43). Yet, ICT are unequally distributed (e.g. due to economic constraints), even though mobile phones offer higher accessibility, as they are increasingly affordable and require only basic skills (cf. Rashed and Elder 2009: 1). Still, among the people who face the most barriers to access and use of mobile phones are poor, rural women, as the combination of low socio-economic status, rural and remote area as well as gender implicate the low access to and use pattern of mobile phones (cf. Wesolowski et al. 2012: 5).

However, the access to and use of mobile phones could be especially relevant for women, whose mobility is limited, as it enables access to information and maintenance of social ties by not necessarily requiring physical mobility. On the other hand, when people carry a mobile phone while traveling, they feel more confident and carefree (cf. Line et al. 2011: 1497), which may promote physical mobility. Thus, this study intends to examine the impacts of mobile phones, such as those mentioned, on women's mobility in rural Bangladesh.

In order to explore the mobility of women in the rural sphere, this thesis will depict different conceptualizations of “spatialities” and mobilities. Thereby, gender will be embedded into the

social construction of “spaces” and “places”, which leads to a discussion regarding the home place as a particular constructed gendered space. Critical, Cultural and Feminist Geography debates on space and place will be incorporated, since scholars of these streams often refer to the social dimensions in the construction of spaces and places. For instance, Massey (cf. 1994) stresses that "Geography matters to the construction of gender" (ibid.: 2). Gendered spaces shape daily activities, and are shaped by those too, as Spain (cf. 1999: 28) claims, which is meaningful for gendered mobility as well. Thus, this study investigates the rural women's mobility patterns, which illustrate their daily life arrangements and reflect spatial gender dimensions.

Furthermore, the patterns of mobile phone use and mediated communication will be analyzed with the aim to understand how mobile phones are interrelated with socio-spatial practices in terms of mobility. In other words, this study will discuss how mobile phones come to influence space and mobility in the context of gender in rural Bangladesh. It will throw light on the question of how mobile phones can play a role in changing or shifting (gendered) mobility, and possibly enhancing or replacing physical travels. The particular opportunities of virtual mobility and virtual proximity for women with constrained mobility are also analyzed.

These ideas provide the foundation for the research aim of this diploma thesis, which is articulated through the following research questions (including two sub-questions "a" and "b"):

Which impacts does the mobile phone use of women in rural Bangladesh have on their physical and virtual mobility?

a) *What mobility patterns of women in rural Bangladesh can be identified?*

b) *Which kinds of access to mobile phones and what mobile phone use patterns of women in rural Bangladesh can be identified?*

To answer these questions comprehensively, this diploma thesis presents a qualitative approach on the basis of an explorative case study. The qualitative material, mainly consisting of problem-centered interviews, was collected in four small villages in northwestern Bangladesh, in the Natore district (Rajshahi division), during field research in spring 2017. Insights into the work of NGO-managed self-employed women (Kallyanis) will contribute seeing differences

among women living in the same contexts and requirements, but having different capabilities and mind-sets.

The first part (chapter 1) emphasizes aspects of gender inequality in rural Bangladesh, in order to understand internal (e.g. adhering to socio-cultural norms) and external (e.g. early marriage) "forces", which have an influence on women's living conditions.

The second chapter of the thesis (chapter 2) explains the theoretical framing of the study. It regards the concepts of space, gender and mobility, with special emphasis on the home place, as it is suggested that it forms the spatial center, in which the daily activities of rural women in Bangladesh take place. Furthermore, gendered patterns in the access and use of mobile phones, as well as impacts of mobile phones for women, will be depicted.

Subsequently, the theoretical and methodical approaches as well as the research design and setting will be elaborated in chapter 3.

The empirical findings will be analyzed according the research concern and research questions and organized by topics, which derive from the theoretical and contextual basis (chapter 4).

In chapter 5, the analysis will then serve to depict the results for the research questions and give possible prospects of further investigations on the topic.

1 Gender inequalities regarding women's living conditions, socio-spatial exclusion and mobile phone use/access in (rural) Bangladesh

To introduce the topic and empirical study, this chapter will outline the general situation of women in (rural) Bangladesh in order to understand structurally as well as socio-culturally derived gender inequalities. As mentioned before, this appears to be particularly evident in societies where women tend to be subordinated (e.g. in their decision-making), which results in a limited/restricted access to resources. Resources can be many things and regard different matters, but here the focus is directed on the use of mobile phones as well as on mobility. This chapter will show which constraints and restrictions women in Bangladesh experience in

general, and which circumstances and forces have impacts on their life arrangements and living conditions (e.g. purdah). This will illustrate that many women are restricted in their mobility because they are spatially centered in the home place and thereby live in seclusion, which complies with certain roles and norms for women. Simultaneously, the use of mobile phones is lower for women in comparison to men, which may indicate certain social (e.g. restricted permission) as well as structural (e.g. no independent income) circumstances. Thus, this chapter presents the use of mobile phones (and ICT) in Bangladesh and emphasizes respective gender inequalities.

The first chapter gives an overview of some demographic parameters with particular regards on gender in order to highlight structural inequalities among women in Bangladesh (with specific details for Rajshahi division¹) (chapter 1.1). In the following chapters, different patterns of women's life arrangement in Bangladesh will be emphasized, such as the socio-economic condition (chapter 1.2), but also gender norms and behavioral codes for women (e.g. purdah) (chapter 1.3). Thus, some specific forms of (systematic) gender discrimination will be illustrated as well (chapter 1.3.3). The chapter (1.4) outlines some details and developments of ICT and especially of mobile phones in Bangladesh, with special emphasis on gender inequalities.

1.1 Selected statistical facts as indications of prevalent gender inequalities in Bangladesh

Household structure and household headship

The overall mean household size in Bangladesh, including all religious groups, is 4.3, and is almost equal in the rural and the urban sphere. Taking a look at it by administrative divisions, the Rajshahi division and Khulna division have the lowest mean household size (4.0) (the highest is found in Sylhet division with 5.1) (cf. BBS 2017b: 8).

While the household size and its trends are common parameters to observe, the household headship is an important aspect, as it may reflect gender inequalities in patriarchal societies effectively, especially referring to power asymmetries and negotiation power for women. In Bangladesh most of the households have male headships (87.2%). Age seems to matter, as in

¹ The research area, the Natore district, is a sub-district of the Rajshahi division.

male-headed households young men are especially likely to take on the responsibilities of the household, while among women, household headships increase with an increasing age. The main reasons for this are widowhood and divorce. Thus, married women usually aren't responsible for any (major) decisions in the household, as only few married women represent the household headships (6.8%). Education and urban/rural-disparity have only insignificant influence on this, although, rather unexpectedly, women with a higher level of education (completion of secondary school or higher) are less likely to represent the household headships. Yet there is a small deviation among Hindus and Muslims. Muslim women represent slightly more female-headed households than Hindu women (cf. BBS 2016: 9f). Nevertheless, trends show that the proportion of female-headed household has risen from 10.3% in 2004 to 12,8% in 2016 (cf. BBS 2016: 27f).

Education

The level of education in Bangladesh shows a significant divide between the rural and the urban sphere, which is even more accentuated among males and females. While in all of Bangladesh the illiteracy rate among males is 28.6% and 32.8%, among females, it is much higher in the rural sphere, with a particularly high rate among females (37%) (males: 33%). In the urban sphere it is lower, although 28% of the females are still illiterate (males: 23,3%). The rates among males and females for completing primary school are almost balanced. Yet, males are slightly more in proportion to complete a higher level of education (secondary school or higher) (20.8% as against to 15.9% in total Bangladesh) (cf. BBS 2017b: 23-25).

In Rajshahi division, the illiteracy rate of males is 30.2% and of females 35%. Thus, it is lower than in the general rural sphere, but higher than the Bangladesh total. Higher levels of education in Rajshahi are slightly above the average for females (15.9%), but evidently higher among males (23%) (cf. ebd.). As a side note, Rajshahi has one of the largest universities in Bangladesh.

Marriage

Marriage and marital status in Bangladesh is an important factor to look at, as they have complex impacts on the lives of both men and women. For example, the Bangladesh Bureau of Statistics states, that:

"(...) It has direct and indirect impact on the other demographic and socio-economic characteristics, namely migration, headship, family formation etc. It also has impact on social and economic characteristics such as school attendance and labor force participation in the late adolescent and young adult age groups." (BBS 2017b: 20)

Bangladesh has adopted the UN definition of marriage, which is the legal union of two persons of "opposite" sex. Almost all marriages are arranged by parents or close relatives. When it comes to a marriage, the husband has to pay a "bride price" (dowry). It is calculated by the social and economic status of both the husband and the bride. Divorce is possible under certain circumstances among Muslims and Christians, but among Hindus there is little scope for this. Early (childhood) marriages have a long tradition in Bangladesh and also some polygamy is practiced (cf. BBS 2017b: 69). The impacts of the dowry practice will be explained later in chapter 1.3.3.

The median age at first marriage is among the lowest by divisions for men (24) and women (17) in Rajshahi division. The mean age at first marriage in Bangladesh as a whole is 18 for women and 25 for men. The median age at marriage of Muslim women is lower (18) than of Hindu women (20) (for men there is a similar deviation). Interestingly, the general divorce rate² (2.6) and the divorce-marriage ratio³ (0.12) are the highest in Rajshahi division among women (and men) (cf. BBS 2017b: 74, 76). Why Muslim women tend to be younger than Hindu women at the time of their marriages is not clear, but could derive possibly from Islamic beliefs, which will be explained later (chapter 1.3.1 and 1.3.2).

Internal migration

The mobility of Bangladeshi women is most noticeably marked by the occurrence of internal migration⁴ at the age of marriage, as they move into the house of their husbands and families-

² "General divorce rate (GDR) has been calculated as the relative number of divorces of age 15+ per 1000 population of the same age." (BBS 2017b: 76)

³ „(...)the number of divorces to the number of marriages in a given year (the ratio of the crude divorce rate to the crude marriage rate" (BBS 2017b: 76)

⁴ The BBS defines migration as the „(...) movement by people from one place to another with the intention of settling in new and geographically different locations." (BBS 2017b: 91).

In the specific publication about internal migration in Bangladesh (cf. BBS 2015a) the terms are better differentiated: "Migrants are defined here as people whose place of residence 5 years prior to the time of census is different from their current place of residence. Non-migrants are defined as people whose place of residence 5 years prior to the time of census is same as their current place of residence." (BBS 2015a: 6).

Internal migration is understood as "(...) a change of residence within national boundaries, such as between states, provinces, cities, or municipalities. An internal migrant is someone who moves to a different administrative territory (...) at least for the purpose to stay, so that the region of destination becomes the region of usual residence." (BBS 2015a: 7, 27).

in-law. Thus, the migration rates for women are the highest at the age of 15-24 years. In general, women have higher migration rates than men. Besides the reason to live with family members, which is the dominant migration reason for both men and women, marriage is the second most important reason for women, while it is farming for men (cf. BBS 2017: 92, 94).

Including the duration of residence when people migrate, the proportion of long-term migrants (more than 10 years) in Rajshahi division is also higher among women (56.78%) than among men (52.74%). This picture is the same for Bangladesh overall. When observing shorter term migration, the rates are higher among men than among women, especially for durations of 1-4 years (20.52% versus 17.75% among women) (cf. BBS 2015a: 39). As a result of higher migration rates, women are more mobile regarding long-term or permanent movement patterns than men. This appears to be related with the migration reasons, as men tend to have economic reasons, while women move permanently to their husband's residence.

The economic and wealth status of the migrants also seems to be interesting, as wealthier men (25.5% of the richest 20%) migrate more than the poorer ones (15.3% of the poorest 20%). In contrast, among women, the poorer (22.5% of the poorest 20%) are more likely to migrate than the wealthier (18.9% of the richest 20%) (cf. BBS 2015a: 71). Generally, and regardless of the sex in the rural sphere, the major migrant group is the poorest and illiterate group, while in the urban sphere, it is the richest and educated group.

The main reasons for migration among the poorest migrants (the poorest 20%) are natural calamities, followed by torture or desertion by the spouse and marriage. A very different pattern is shown among the wealthiest migrants, whose main reason is education, followed by employment or business and others⁵ (cf. BBS 2015a: 71). Therefore, among the poorer population the main reasons for migration are mainly existential and social ones, while among the richer population they are economic and scale-uplifting ones.

1.2 Women's livelihood in rural Bangladesh

Generally, the rural sphere in Bangladesh still is challenged with poverty, although its most extreme shapes and strokes have been overcome. Yet women are among the poorest of the rural

⁵ An unspecified category in the data, but the proportion is higher than family quarrel and torture or desertion by the spouse (cf. BBS 2015a: 71).

population, even if they are household headships, for example because of widowhood or migrated husbands. They face economic challenges, as they lack income opportunities and in some cases have inadequate nutritional intake. This generates and maintains socio-economic and political exclusion of women. Besides that, they face gender discrimination (e.g. purdah; see chapter 1.4) (cf. Ahmed 2009: 245). In contrast, women whose families are in serious straits, are not provided with protection and so they join the workforce. This may bring economic autonomy and freedom of movement, but also decreases the practice of purdah⁶ (cf. Amin 1997: 214).

Particularly in the rural sphere, poverty among women is also caused by landlessness and the persistence of social norms and regulations. Those keep them away from engaging in the economic domain. Even for women who are divorced, widowed or abandoned, it is uncommon to do so, and though there are social changes (increased mobility and migration of men, family nucleation and economic diversification in the rural sphere), the rules of seclusion for women persist. In the urban sphere, there are evident changes in women's economic activities, for example by the garment labor industry. But nevertheless, in most cases women's work, regardless of the urban or rural sphere, is domestic and undervalued by the surrounding society (cf. ebd.: 214-216).

In more detail, the labor force rate and labor force participation rate⁷ reflect gender inequalities in the economic domain and employment sector. Women, both in the rural and the urban sphere, are fairly underrepresented in the labor force, as shown in table 1:

⁶ See chapter 1.3.1 and glossary

⁷ The labour force participation rate (LFPR) is defined by the BBS as the number of persons in the labour force, given as a percentage of the working-age population, which is 15 years and above (cf. BBS 2017a: 41).

Table 5.3 Labour force aged 15 or older, by age group, sex and area									
Age group	Rural			Urban			Bangladesh		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-29	9730	4930	14660	3998	2140	6138	13728	7070	20798
30-64	19050	9026	28076	8089	2604	10693	27139	11630	38770
65+	1778	306	2084	408	58	465	2185	364	2549
Total	30558	14262	44820	12494	4802	17297	43053	19064	62117
Total 15+ population	37306	37942	75248	15287	15595	30882	52593	53537	106130
Total population	57358	56660	114018	22257	22208	44465	79615	78868	158483
% of working age population									
15-29	26.1	13.0	19.5	26.2	13.7	19.9	26.1	13.2	19.6
30-64	51.1	23.8	37.3	52.9	16.7	34.6	51.6	21.7	36.5
65+	4.8	0.8	2.8	2.7	0.4	1.5	4.2	0.7	2.4
Total	81.9	37.6	59.6	81.7	30.8	56.0	81.9	35.6	58.5
% of total population									
15-29	17.0	8.7	12.9	18.0	9.6	13.8	17.2	9.0	13.1
30-64	33.2	15.9	24.6	36.3	11.7	24.0	34.1	14.7	24.5
65+	3.1	0.5	1.8	1.8	0.3	1.0	2.7	0.5	1.6
Total	53.3	25.2	39.3	56.1	21.6	38.9	54.1	24.2	39.2

Table 1: Labor force by age, gender and area July 2015 to June 2016 (BBS 2017a: 40)

Interestingly, in the urban sphere, women's absence in the labor force is even more accentuated than in the rural sphere.

Women are expected to work at home, which follows the idea of the traditional (Muslim) family, in which women are secluded for their protection and honor. Their activities are confined to the household compounds, which, of course, limits their economic engagement outside of the home. But traditionally, men are expected to be the providers anyway. In the “contemporary” rural life, although women are financially dependent on men, men cannot always provide for them adequately because of their own economic circumstances. Yet, women lack education, independent sources of income, independent properties, marketable skills and an identity apart from within the family. Therefore, women are seen as an economic burden, which in many cases leads to early marriages (for dowry receipts), violent acts and/or other forms of discrimination, like minimal health care or insufficient/inadequate nutrition (cf. Schuler et al. 1996: 1729-1730).

To avoid the poverty trap and social exclusion, rural women are addressed by NGO programs, of which credit programs are outstanding (cf. Ahmed 2009: 247). Poorer women were suggested to participate in micro-credit programs, in which they could borrow small sums of money as members of groups (which helped them in their liability and repayment) (cf. Kabeer

2001: 63). The providers are convinced that such credit programs can help rural women regarding their empowerment (cf. Hashemi et al. 1996: 650) and can reduce violence against them (cf. Schuler et al. 1996: 1738). Women who participate in such programs may get the ability to distinguish between justice and injustice, to reason with others and to help resolve conflicts. Through their efforts the female workforce and their economic contribution has been enhanced and, similarly, their visibility in the public domain (cf. Kabeer 2011: 506, 512).

1.3 Gender norms and implications for gender inequalities and socio-spatial exclusion

As discussed before, women in Bangladesh face structural inequalities, such as in the economic domain. Having no or unequal access to resources (e.g. education and independent income) is an important constraint to their participation in the decision-making process and therefore to their political activity. But apart from the more “visible” constraints, such as a low level of education or financial dependency on others, women in Bangladesh are adhering to gender-related norms, which affect them in their daily life arrangement in a complex way. It is the combination of social norms and religious practices, which is particularly influential in the lives of rural women in Bangladesh (cf. Miaji 2010: 27, 109).

Although some describe changes in women’s behavior regarding their life arrangements (e.g. cf. Ahmed 2014: 191), the old established and traditional gender norms and values, which still exist (though they may vary and depend individually and regionally), will be emphasized here due to the limitations of this thesis. Gender-related norms in Bangladesh are mostly related to the concept of purdah, which will be elaborated in more detail due to its complex impacts for women.

1.3.1 The concept and practice of purdah

In Bangladesh gender-related norms are mostly related to purdah, which is a set of norms and regulations that promotes the seclusion of women from the public sphere (cf. Amin 1997: 219). It prescribes the standards for female behavior (cf. Rudnick 2009: 51), and is central to the subjugation of women (cf. Amin 1997: 219). Purdah restricts the dress, mobility and behavior

of women towards men (cf. Kirmani 2009: 53). Literally, purdah means veil or the process of veiling, which is often symbolized with the burkha.

Due to purdah, women are confined to their household compounds, and if they go outside, they are expected to wear the burkha (cf. Rudnick 2009: 51). This is why purdah clearly has a spatial dimension, because it controls a woman's spatial movement. It "(...) demarcates women's domestic and hidden domain or place from men's public and visible domain" (Rudnick 2009: 51). Many women do not make strict distinctions between the public and the private sphere, regarding where they should go or not go, but rather to acceptable (e.g. the neighborhood) and unacceptable places (e.g. the bazar) (cf. Kabeer 2001: 69). Purdah also refers to enforcements on values for women regarding modesty, purity, honor ("izaat") and shame ("lazza") (cf. Rozario 2002: 122), so women should not interfere with other men apart from the family and relatives (cf. Kabeer 2001: 69). Even within the *bari*⁸, women are secluded and separated from visible men (cf. Balk 1997: 153). The Bangla synonyms for the word "woman" often are related to words for the home place (cf. Nazneen 1996: 46). Additionally, purdah or the seclusion does not refer only to space but also to time, as women should not be seen outside after dark. Breaking these rules and norms would endanger their purity and honor, which then falls on their families in the same way. However, honor is principally the man's responsibility, while shame is related to women, respective to their behavior (cf. Rozario 2002: 122).

Women do not equally observe purdah, as it depends on their socio-economic status and social class (cf. Kabeer 2001: 69; cf. Amin 1997: 219). Gender norms are simultaneously expressed with class hierarchy and social status (cf. Kabeer 2001: 69). Differences are visible in the material and quality of the clothing (cf. Amin 1997: 219), but more importantly in the economic domain, as wealthier women are not forced to work outside and join the workforce (cf. Kabeer 2001: 70). They maintain their honor by adhering to purdah norms and stay in the homestead. Poorer women are either "starving at home" or choose badly paid and demeaning jobs in "invisible" work places (eg. in other's people's homes) in order to maintain their honor regarding the principles of purdah. Yet the poorest women are pushed to seek work outside of the house, like as agricultural wage laborers, small traders in the bazar or by the roadside (cf. Kabeer 2001: 70). They cannot practice purdah in the common sense by staying at home and veiling themselves when they go out, as the burkha or veil would hinder their work. Thus, as they are more visible and mobile, they compensate it; for example, by avoiding looking at anyone or through discretionary movement, which should not let them appear more mobile (cf.

⁸ see glossary

Kirmani 2009: 54f; Balk 1997: 165). For the women who cannot "afford" purdah, the only practice is in a theoretical sense, which is called "purdah of the heart" or "purdah of the eyes". These women apply purdah norms from within, meaning in a behavioral way, but they have to move around and be visible. This flexibility for interpreting purdah and thus justifying the increased visibility and mobility can be interpreted as rather positive, as it gives women more freedom (cf. Kirmani 2009: 55). Yet poorer women are not necessarily freer from the rules of purdah, because purdah is not only symbolically effective, but excludes women from large parts of economic and social life (cf. Amin 1997: 220). The age of a woman and the place where a family lives are influential factors regarding the degree to which purdah is observed as well (cf. Nazneen 1996: 48). Furthermore, women also observe purdah voluntarily to differentiate themselves from women who cannot afford purdah, and thus to signal their social status (cf. Kabeer 2001: 71).

However, some can practice purdah in the workplace, which is related to reasons of protection. In urban areas, the purdah practice is even being revived as a result of the rise of the female workforce. A decline in the wearing of the burkha had been noticed before that, but, again, in order to be accepted in the working domain (which is predominantly male), women choose to wear the burkha (or the more "modern" version of it - the chaddor). Working women in urban areas refer to garment factory workers, who strongly outnumber men in this domain. These women come from low social status groups, who usually cannot afford to observe purdah, but started to wear the chaddor. They do so for protective reasons, because they work beside men, but also to be respected in the society. It gives them protection from attacks of Islamic fundamentalists too, as the chaddor represents loyalty to Islamic ideals. Women believe that purdah decreases sexual harassment on the street or at the workplace (cf. Nazneen 1996: 44-46, 48f). Thus, purdah can promote feelings of safety, when women enter the public and/or male-dominated space.

As it was noticed, many women voluntarily observe purdah, while others cannot do so because of different reasons. However, women who veil do not always do so because of their own decision, as they are also meant to follow this practice by their family's or society's will in general (cf. Kirmani 2009: 53). This has to do with the family's consideration to be religious and respected in the community (cf. Miaji 2010: 107). For working women, purdah is not only a protective measure, but also makes it easier to get permission from their family or husbands to part from their traditional living space (cf. Nazneen 1996: 48).

1.3.2 Gender norms and values deriving from religious and patriarchal principles

Islamic values play a major role in the behavior of Muslim women too (cf. Miaji 2010: 105). Put simply, Islam reinforces and consolidates the inferior status of women (cf. Nazneen 1996: 47).

But regardless of the religion, patriarchal social values, which still appear to be predominant in Bangladesh, are mediated to girls since their childhood. These include the demarcation of inappropriate activities, such as outdoor games, walking with long steps and running. In contrast, these would be welcomed activities for boys. The social demands for women and girls regard their appearance, hairstyle, style of walking, voice and others. If they do not adhere to the affordances and values deemed appropriate, they are sanctioned, especially by their female counterparts within the family. Education is seen as spoiling a girl's character, the reason why girls are often sent to madrasas (cf. Miaji 2010: 102f). Besides covering most parts of their body, women should participate in fasting and make prayers, but also walk around tenderly and noiselessly, talk softly and be a perfect housewife. A woman should always obey her husband in order to receive the religious blessings. Hinduism has also influenced the social and cultural norms of Muslims in Bangladesh, which, although very much simplified, also refers to the subjugation of women. Moreover, as men are the ones who own land, women should be loyal to them (cf. Miaji 2010: 97, 104, 108). Only few women would defy their husbands, as it is seen unacceptable to them (cf. Balk 1997: 158). According to men, the "ideal woman" in Bangladesh is considered to be a submissive, sacrificing, faithful wife and mother. A woman in her traditional role is a woman to look for (cf. Nazneen 1996: 46).

The "shangshare shanti" (see also chapter 2.1.3) is another Islamic concept of values, which refers to the home place. Women are seen to be responsible for maintaining peace at home and thereby can be blamed if there is "shangshare oshanti" (trouble at home). The woman staying at home is part of that (cf. Ahmed 2015: 188). As mentioned earlier, there is a strong differentiation by gender concerning who is responsible for honor and shame in the family - which disadvantages women (cf. Rozario 2002: 122), and so also for peace and trouble at home.

According to the gender norms derived from the patriarchal society, women's activities (apart from the routinized activities) have to lean on the permissions of others who have authority

over them (cf. Balk 1997: 158). A woman needs a male guardian at every stage of her life – a father in her childhood, a husband when she is marriageable and a son when she is older (cf. Nazneen 1996: 46). This has impacts on women's freedom of mobility. While most women are allowed to go outside to visit their natal families, about only every second woman is allowed to go outside for contraception. Beyond that, most women are not allowed to go outside for economic activities (cf. Balk 1997: 158).

Of course, men are likewise expected to behave according to the societal and cultural norms, which is to behave “manly”. For example, a female-headed household would signify that the man is not meeting his masculine qualities, which are seen inherent in a patriarchal society (cf. Miaji 2010: 107). Young men are subordinate to social norms as well, to display sexual propriety and to marry against their own will, in order to keep up their reputation within the village. Yet as men are hierarchically placed over women, unhappy marriages often lead to violence or extra-marital relationships (cf. Rozario 2002: 122). The consideration of social norms and values therefore has very different consequences and expressions for men and women.

Nevertheless, there are some factors influencing gender-equal attitudes, such as land-owning and education. Rather surprisingly, women in land-owning families have a less gender-equal attitude than landless women. Landless women appear to feel deprived about their situation due to gender norms. Contrarily, education positively influences it (cf. Balk 1997: 158).

Still, as Nazneen (cf. 1996: 53) outlines, the life of the majority of women in Bangladesh is concordant to two basic principles of social norms, which are the segregation of sexes and the dependence of women on men.

1.3.3 Excursus: Some examples of discriminatory systems against women: dowry, violence and *fatwa*

Regarding the legal status and the rights of women in Bangladesh, most scholars and authors bring into the discussion violence against women, early (childhood) marriages, the dowry system and the informal *fatwa* system. These are forms and expressions of (systematic) gender discrimination, as they disadvantage women and can cause negative impacts on their lives.

Legally, women's equal position is expressed in the Constitution of the People's Republic of Bangladesh as follows:

"(...) 19 (2): 'The State shall adopt effective measures to remove social and economic inequality between man and man and to ensure the equitable distribution of wealth among citizens, and of opportunities in order to attain a uniform level of economic development throughout the Republic.'

19 (3): 'The State Shall endeavour to ensure equality of opportunity and participation of women in all spheres of national life.'

28 (2): 'Women shall have equal rights with men in all spheres of the State and of public life.' (...)"

(Ministry of Law Bangladesh 2010: online)

Under the law of Bangladesh, women have equal rights and opportunities. However, due to the consequences of societal and cultural practices and perceptions, women are facing gender-related repression and discrimination, such as the dowry system or violent acts. Violence against women plays an important role in maintaining the patriarchal system, and thus prevents women from taking advantage of their property inheritances, economic opportunities and, especially relevant for this study, from leaving their houses (cf. Schuler et al. 1996: 1735).

The dowry system

In Bangladesh, marriage is accompanied by the payment of dowry, nowadays regardless of religious affiliation. Dowry is originally a Hindu practice and there is no mention of it in the Koran. The only practice that comes along with a Muslim marriage is the promise of a dower ("mahr") by the husband to the bride. Dowry is not required under Muslim law, but it has become more utilized than dower nowadays in Bangladesh, and even has become sort of obligatory, particularly in the rural sphere. The requirement of promising dower is now less important, as it sticks to a promise and therefore, in most cases, is not fulfilled. It is seen as a formality. On the contrary, dowry has to be paid before or at the time of the marriage. Women lack access to legal remedies, so they do not demand the dower, even when the marriage is dissolved. Although Bangladesh has simplified the court procedures concerning marriage, custody of children and dower, they are still unapproachable for most women. The prominence of the dowry system among the Muslim community as well is caused by the positive connection with the general subordination of women in patriarchal societies. This has to do with patriarchal materialism, which establishes the superiority of men. Beyond that, this influences the preference for male children (cf. Huda 2006: 250-253).

Women in Bangladesh get married at very early ages and so most of them only reach the primary school level. Conversely, boys should not get married before they have economic prospects and guarantees, so they usually are more educated and mature. Nowadays, girls also have become economically more independent, but when it comes to marriage, traditional values still determine the standards. Also, the dowry is smaller when the marriageable girl is younger, which puts pressure on the girls' families. The legal age of marriage for girls was risen by the government to the age of 18 (and for boys to 21 years), but due to this pressure of smaller dowries, this is often disrespected. Poor families try to marry off their daughters as soon as possible (cf. Huda 2006: 254f).

The dowry affects the lives of women in various ways, for example resulting in early marriages, a high amount of school drop-outs, in mental and physical violence and even in suicide. By Muslim inheritance law, women in Bangladesh receive only half of the share of their husbands. When they get married, they even give up on their share by customary practice. If they do not, they would be ashamed and not dare to visit their parental families and natal homes anymore. Since 1980, laws have been enacted to combat the dowry system, but they lack enforcement and are criticized for not effectively protecting the women (cf. Huda 2006: 254, 260f, 264-266).

Violence against women

In most cases, violence against women involves domestic violence and acid throwing. Laws and stringent punishment measures exist, but they fail to address systematic gender-related discrimination, and thus do not prevent the victimization of women.

South Asia presents some of the highest reported levels of domestic violence (cf. Koenig et al. 2008: 270). There is evidence that this has emerged due to the patriarchal system, in which gender inequality is pronounced and most women are dependent on men. Domestic violence represents an accepted practice, which is even institutionalized in many cases. It is impeding women's economic and social development, which, as a result, hampers their capacity for self-determination (cf. Koenig et al. 2008: 269). Violence, in general, also poses serious harm to women's physical, mental, sexual and reproductive health (cf. Haque and Ahsan 2014: 216).

Acid violence is a very strong form of violence targeted towards women, which has been endemic in Bangladesh for decades. In fear of harassment and retaliation of the perpetrators, many cases are not reported. Besides, the community does not help the victim, as the perpetrators may be more socially powerful than women. Acid violence is mostly carried out

in remote areas, where it seems that violence against women is tacitly socially accepted and there is a general lack of law enforcement (cf. Haque and Ahsan 2014: 216). Most cases happen at night (cited in ebd. 2014: 2016), which could cause women to avoid going outside after dark.

There is a contradictory nature of policies in Bangladesh, especially related to women. By not intervening systematically and strategically, violence against women is accepted and thus the discriminating practices in gender roles are kept intact. There are awareness campaigns, criminal laws and anti-violence rhetoric, but on the side of the state, there is relevant misconduct in violence cases and the existing laws are ineffectively implemented (cf. Chowdhury 2007: 863f).

"These laws are thus useless, ornamental additions to the statute books. Lack of funds for collecting and preserving evidence; protecting the victims and witnesses; improper documentation of testimony; and lack of understanding and sensitivity of violence against women issues among police, judges, doctors, and social workers all contribute to lack of punishment of the perpetrators of violence against women and inadequate redress to the victims of such violence." (Chowdhury 2007: 865)

The Suppression of Violence Against Women and Children Act 2000, the Acid Crime Prevention Law 2002 and Acid Control Law 2002, for instance, would provide stringent measures against (acid) violence acts, but the perpetrators are punished by the grade of injuries of the victims, and not by attempting homicide and hate crimes. Societal structures are not included in the measures of the laws. Violence against women is not seen as a systematic gender discrimination, but as individual acts of brutality. Beyond that, the state apparatus is often the violator itself (cf. Chowdhury 2007: 866f, 872). The police and court are even the greatest source of instability and violence against women in the rural sphere (cf. Schuler et al. 1996: 1734). "Sometimes this violence is directed deliberately against women, as when police harass, beat or even rape women when they go to village homes to arrest suspects or make investigations" (ebd.).

Regarding domestic violence, there is no specific national legislation addressing it. The Prevention of Oppression Against Women and Children Act and the Dowry Prohibition Act contain implied penalties for domestic violence (cf. Schuler et al. 2008: 329f).

The *fatwa* system

Another relevant discriminatory setting to mention is the *fatwa* system, which is particularly accentuated in rural Bangladesh.

The definition of *fatwa* is not a homogenous one, but it generally refers to interpretations of the Islamic law (cf. Schuler et al. 1996: 1734). The *fatwa* rulings are issued by the village *mullahs*. Punishments based on *fatwa* are illegal in Bangladesh, but they remain practiced in the rural sphere. *Fatwa* persists because of the patriarchal society, which defines social and cultural gender roles and perceptions; thus, traditional religious beliefs are not the main or single reason for its persistence (cf. Rahman 2017: 2, 4).

The *fatwa* as well as the *shalish* are traditional institutions that are controlled by men and often used to “reaffirm patriarchal norms and enforce male authority” (Schuler et al. 1996: 1734). The male-dominated status quo continues to be maintained and social norms of the rural sphere, including those related to the position of women, are propagated by these institutions (cf. Rahman 2017: 4). Women are often referred to the *shalish* for matters related to men’s control over women. These can be minor matters, such as defying their husbands by not cooking for them, or more serious matters, like not observing *purdah* regulations (see chapter 1.4) or engaging in pre-marital or extra-marital relationships. Because of women’s increasing engagement with NGO work and work outside the home in general (which is inconsistent with *purdah*), their enhanced mobility in the public sphere, as well as their participation in credit programs, the *fatwa* and *shalish* are targeting them, as these activities challenge the patriarchal system (cf. Schuler et al. 1996: 1734).

1.4 Gender inequalities regarding the access to and use of mobile phones in Bangladesh

1.4.1 Reasons for the prevalence of mobile phone technology in Bangladesh

Information technology has been developed significantly in Bangladesh, although the status is not comparable to that of developed countries (cf. Islam and Rahman 2006: 135). The ICT Development Index (IDI)⁹ for Bangladesh was only 2.35 in 2016, which ranks it 146 out of 175 countries. The neighboring countries India (rank 138) and Myanmar/Burma (rank 140) hold

⁹ The IDI (ICT Development Index) measures 11 indicators for ICT access (e.g. percentage of households with internet access), use (e.g. active mobile-broadband subscriptions per 100 inhabitants) and skills (e.g. mean years of schooling) in developed and developing countries to make comparisons between those possible (cf. ITU 2016: 7, 9)

higher positions, whereas Pakistan has the same rank. Within the Asian region, only the war-affected Yemen (rank 155) and Afghanistan (rank 164) have lower ranks than Bangladesh (cf. ITU 2016: 12).

Why does Bangladesh's ICT sector particularly lag behind? ICT development already began in Bangladesh in 1964 with the installation of a second-generation computer (cf. Rahman et al. 2004: 614). But due to lack of awareness, people did not make use of it, and only banks and private entrepreneurs could profit from the new technology (cf. Islam and Rahman 2006: 135). Steps were taken by the government (cf. ebd.), but the demand still didn't rise very high compared to the population base. The majority of the population lived in rural areas, where the minimum telecommunication infrastructure was missing and structural socio-economic inequalities prevailed (cf. Rahman 2001: online). When cyber cafés emerged and broadband lines became cheaper, the number of users rose immensely. In 1997, there were only around 5,500 internet accounts, whereas in 2004, the number had risen to 5 million (cf. Islam and Rahman 2004: 136). Additionally, the government recognized the significance of the ICT sector as a major tool for economic development and so it installed e-governance and e-commerce as well as appropriate ICT (National ICT Policy 2002; see BTRC 2002) and telecommunication policies (National Telecommunications Policy 1998 and The Bangladesh Telecommunication Act 2001; see BTRC 1998 and 2001) to ensure availability and network covering. It also wanted to bring poor communities into the economic mainstream (cf. Islam and Rahman 2004: 141). The government declared ICT as a thrust sector and it became the fastest growing sector of the economy (cf. Rahman et al. 2004: 614). All 64 districts and about 35% *upazilas* in the country were successfully covered with internet (cf. ebd.)

On the household and individual level, a different picture is presented. The overall internet connection coverage and/or usage rate in Bangladesh in 2013 was very low, with a slightly higher percentage in urban areas as compared to rural areas (see figure 1; cf. BBS 2015c: iii).

Out of all ICT usage, the use of computers is still the lowest, while television use is highest after mobile phone use (see figure 1). This might further be a cause of Bangladesh's low IDI, as the access to and the use of computers, internet and fixed phones are very low, which are (among others) measuring indicators (cf. ITU 2016: 9).

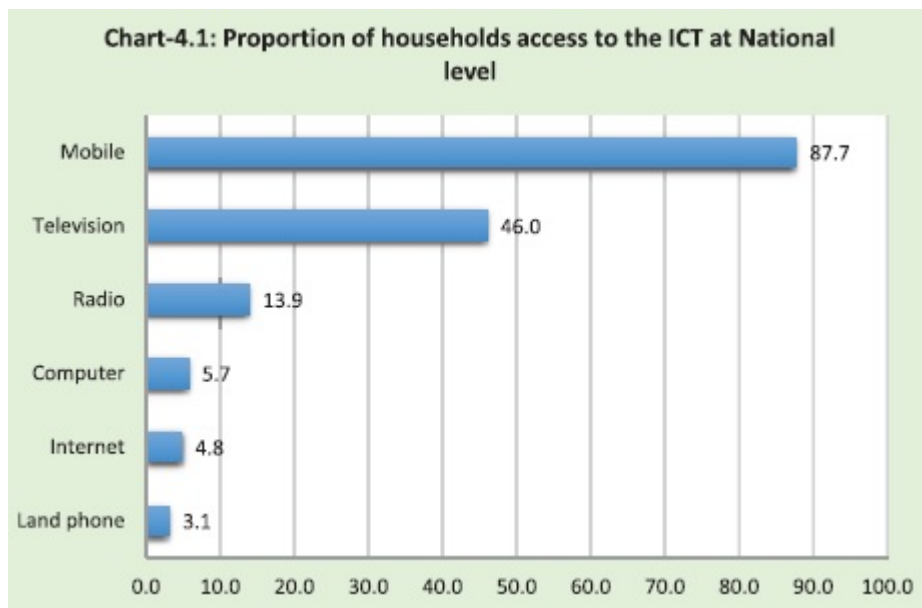


Figure 1: ICT use in Bangladesh 2013 (BBS 2015c: 24)

Especially computers, internet and television still seem to be inaccessible for rural people, as shown in figure 2.

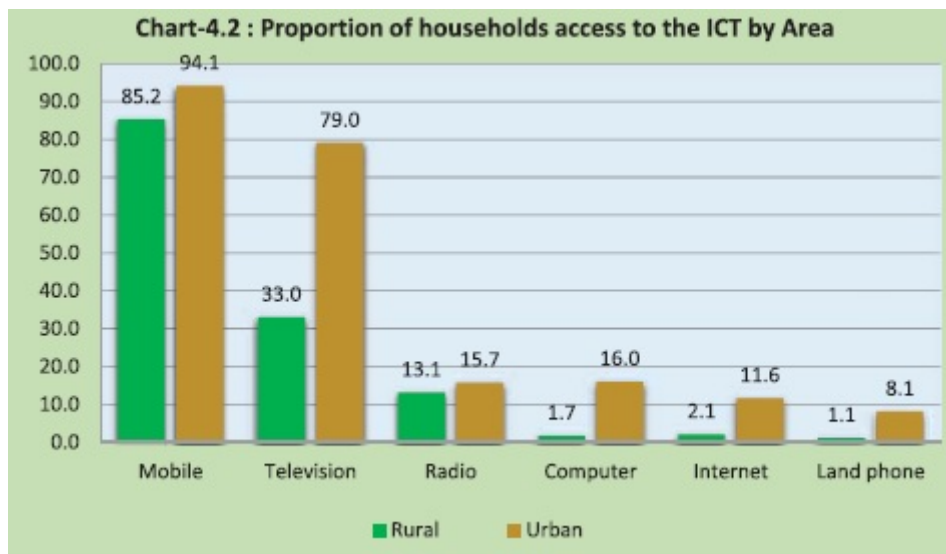


Figure 2: ICT use in urban and rural areas 2013 (BBS 2015c: 25)

The use of mobile phones is, compared to all other technologies and devices, the highest, with a percentage of 87.7% in Bangladesh as a whole. However, in urban areas it is higher than in rural areas (see figure 2; cf. BBS 2015c: 25). Moreover, the mobile phone sector has changed and developed the most. In 2005, only 11.3% of households in Bangladesh had mobile phone access, while in 2010 already 63.7% did (cited in BBS 2014: 10).

Mobile phone services only started in the 1990s, when Bangladesh opened up its telecommunication sector. Before private operators emerged, the telecommunication sector was served by the state-owned Bangladesh Telegraph and Telephone Board (BTTB). Since the introduction of the mobile phone, the sector has grown significantly (cf. Yusuf et al. 2010: 610f, 613). Mobile phones have substituted fixed phone lines, as the connection fees for the latter are higher and its infrastructure is inadequate. There are currently six private mobile phone operators in Bangladesh, of which Grameenphone (44%) presents the highest market share (cf. Hossain and Beresford 2012: 461).

The government of Bangladesh considers ICT as a key development enabler nowadays and has thus implemented “Digital Bangladesh” into the “Vision 2021”. The latter resumes the attempts to make Bangladesh a poverty-free middle-income country by the year 2021, for which ICT are key drivers. The first and most important challenge would be to provide overall connectivity at an affordable cost for all (cf. GoB 2014: 29, 38). Still, the main problem for the effective use of ICT is the supply of electricity. In rural areas most households do not have electricity (and therefore cannot run a computer), and even in urban areas electricity is limited to 8 hours per day (cf. Khan et al. 2012: 68).

1.4.2 Women and mobile phones in Bangladesh and the "gender digital divide"

Besides the general so-called “digital divide” in Bangladesh, which refers to high levels of connectivity among wealthier people with adequate infrastructure on the one hand and lower levels among the poorer with inadequate infrastructure on the other (cf. Hossain and Beresford 2012: 455), there is a remarkable "gender digital divide" of ICT users, as women present lower use rates than men (see figures 3 and 4 below).

Especially in the rural sphere, women have lower access to ICT than men, who nearly all do. In the urban sphere, the rates are generally higher for all ICT, but women still have lower access than men (see figure 4; cf. BBS 2015c: 29). Reasons for this gap are assumptive, but it could be interpreted that men are more financially independent than women, and when they enter the

work domain, they either (feel they) need a mobile phone or it is affordable to them. Women depend financially more on others than men and participate less in the job sector.

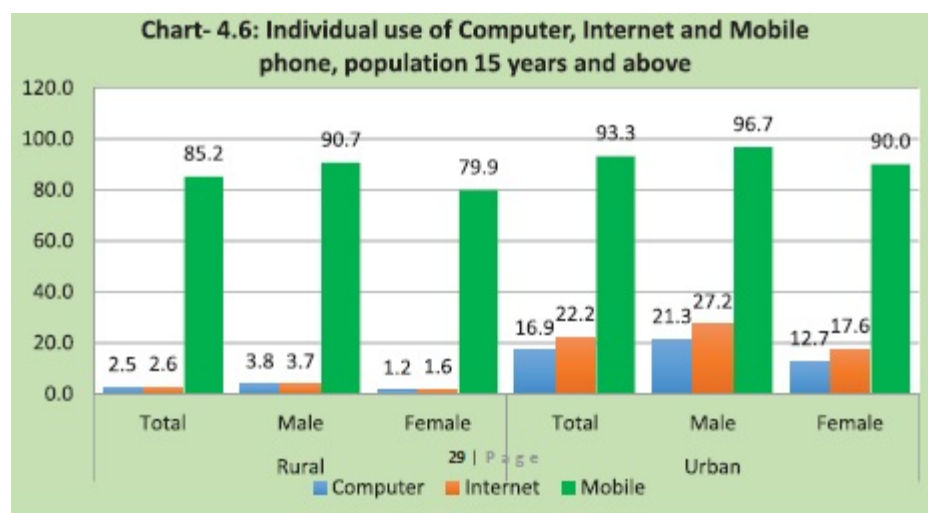


Figure 3: ICT use of individuals older than 15 years 2013 (BBS 2015c: 29)

Area	Sex	Population 5 years and above			Population 15 years and above		
		Computer	Internet	Mobile	Computer	Internet	Mobile
Total	Total	5.6	6.7	81.7	6.6	8.2	87.5
	Male	7.3	8.2	85.5	8.7	10.3	92.4
	Female	3.9	5.1	77.9	4.5	6.2	82.8
Rural	Total	2.0	2.1	79.2	2.5	2.6	85.2
	Male	3.0	2.9	83.5	3.8	3.7	90.7
	Female	1.0	1.3	74.9	1.2	1.6	79.9
Urban	Total	14.6	18.3	88.2	16.9	22.2	93.3
	Male	18.1	22.0	90.8	21.3	27.2	96.7
	Female	11.2	14.7	85.7	12.7	17.6	90.0

Table 2: Mobile phone users by age and area (BBS 2015c: 40)

Efforts have been made to combat the gender digital divide, which is why the mobile phone sector plays a major part in economic and social development programs (cf. Hossain and Beresford 2012: 461). One of the major programs addressing the mobile phone ownership is the Village Phone Programme (VPP) by Grameen Bank and Grameentelecom. It is generally aimed at empowering rural women. Yet, because a woman needs to fulfill a certain catalogue of criteria to apply to become a VPP owner, it is criticized for not reaching marginalized groups, as the criteria already include certain economic and financial conditions that prove securities. Women often do not have control over their phones either (cf. Hossain and Beresford 2012: 460-462). Besides the VPP, Grameen Bank has installed kiosks, Community Information Centers (CIC's), across rural areas, which provide ICT and ICT services (e.g. online browsing

and video telephony). The problem is that women cannot access these kiosks due to their mobility restrictions. Besides this, prospects on empowerment are obscured when women only use mobile phones to check their received remittances from family members working abroad (cf. Hossain and Beresford 2012: 462f).

Instead, the migration of the husband appears to have certain impacts on the women's access and use of mobile phones. Women whose husbands work abroad represent higher numbers of mobile phone ownership than in the general rural areas. Thus, they also likely have more control over their access to such ICT (cf. ebd.).

Women mainly use mobile phones for communication and information sharing among family members through voice calls, to receive and transfer cash, and other reasons such as health related issues; for example, in emergency medical situations or accessing health related information. They predominantly give and receive voice calls, as many lack sufficient literacy to send and read text messages (cf. Islam and Slack 2016: 78, 81).

2 Theoretical framing

As shown in the previous chapters, gender inequalities have impacts on women's living conditions in Bangladesh. Besides structural inequalities, gender-related norms and values play a vital role in the construction of their socio-spatial life arrangements, such as in their mobility. Therefore, the theoretical framing will now present a more general discussion on how gender comes to matter to the construction of space and place, as well as how mobility, immobility and place attachment is delineated and influenced by gender and gender norms. Reversely, it will discuss impacts of mobility on women. Inequalities are also reflected in their access to and use of mobile phones, which can contribute to enhancing/facilitating mobility and which is considered essential to a woman's living situation.

Women's mobility and socio-spatial life arrangements indicate strong gendered patterns. Thus, it seems important to clarify understandings of the construction of space and place to show that gender - as one aspect of social relations - has great influences on this. As notions and metaphors of space and place are not only given attention in various aspects of this diploma thesis, but are also abundantly discussed in the literature reflecting paradigmatic changes, the first part is dedicated to such conceptualizations (chapter 2.1). Having specified the construction of space

and place, the perspective of gender will be brought into the discussion. Chapter 2.1.2 will elaborate on the construction of gendered space. The home place is a particularly gendered space where power asymmetries, connotations and attachment are highly accentuated, which also defines and demarcates a woman's mobility and socio-spatial life arrangement (chapters 2.1.3 and 2.1.4). This will include the concept of place attachment.

Due to globalization processes, which come along with enhanced mobility, new forms of mobility have emerged, such as virtual mobility, which can have impacts on physical mobility and social interaction (chapter 2.2). Women's mobility often is constrained, so forms of freedom and constraints of mobility will be elaborated upon.

As observed in Bangladesh, women's access to and use of mobile phones reflect structural and socio-cultural inequalities, too. Chapter 2.3 will present a general discussion of this; it will show how mobile phones are accessed and used as well as what opportunities mobile phones provide, especially regarding women's mobility.

2.1 Space and place in the perspective of gender

2.1.1 The relevance of social relations in the construction of space and place

Space and place have undergone broad changes in their conceptualization and theorization within geographic studies and debates.

Space in its “primitive” concept was a human appropriation of the world in order to enable one’s orientation (cf. Malpas 1999: 29). Initial geographical models searched for regularities and uniqueness in regions and places. They combined the material with the symbolic and tried to create patterns produced by universalizing laws. This was the so-called ideographic geography, which attempted to link the material world with the individual people in their daily life experiences. Space, as an absolute, static, fixed and bounded block, became a “thing in itself” (cited in Raju 2011: 4) and thus a passive container for social action, events and processes (cf. Raju 2011: 3-4). In other words, this model tried to define place as specific, enclosed, endowed with a fixed identity and a property status, maybe backed with nostalgia, and, importantly, static space (cf. Massey 1994: 4).

Since the 1960s, this conceptualization has been questioned, as the understanding of it in “(...) the abstract logic of geometry cannot adequately explicate the spatial structure of social life. (...) Space is never innocent and cannot be thought as pregiven” (Raju 2011: 5). Geography was undergoing an extensive paradigmatic change, which also led to a “spatial turn”. This can be described as a rethinking of space and spatiality as equally important as time (Warf and Arias 2009: 1). Within human geography, the paradigmatic change started in the 1970s, when scholars became more aware of conceptualizations of spatialities such as space and place. A set of meanings and attachments have been ascribed to the concept of place, which combines location, locale and sense of place. While location refers to an absolute point in space with coordinates and measurable distances, locale refers to the material setting for social relations, such as buildings or parks. The sense of place refers to the perception of place in connection with its qualities and attributes, which are distinct from other places and reflect uniqueness, but also brings about feelings of attachment and belonging (cf. Foote and Azaryahu 2009: 98). The sense of place involves the feelings and emotions that a place evokes (cf. Cresswell 2009: 169). Places are practiced, as people do things in them, which is responsible for the meanings they implicate. Those practices often conform to what is seen as appropriate or not and can be limited by different affordances (cf. Cresswell 2009: 169-170). Places (within contemporary cultural geography) are understood through the meanings they have for people, which can include values, obligations, intentions, commitments and social/emotional involvements. So, when it's assumed that people define themselves through attachments to specific places, place is important to identity (cf. Foote and Azaryahu 2009: 97). Place then is not just an object or a location, but an area of space, which is delineated and bounded by human beings, as well as which attempts to somewhat affect, influence and control. Places are constructed by the people, who also change and modify them or even can create new ones. In contrast to space, which is independently existing of the human beings as a continuum of natural science space, the place is something "carved out" of it by the humans as agents in it (cf. Sack 2010: 146, 153). Thus, place represents a set of social relations which interact at a certain location, but the identity of a place is largely derived from the specificity of its interactions with an “outside” (cf. Massey 1994: 168f). Therefore, places are "open and porous" because social relations are dynamic and "stretch beyond", as Massey argues:

"The identities of place are always unfixed, contested and multiple. And the particularity of any place is, in these terms, constructed not by placing boundaries around it and defining its identity through counter-position to the other which lies beyond, but precisely (in part) through the specificity of the mix of links and interconnections to that 'beyond'. Places viewed this way are open and porous." (Massey 1994: 5).

Thus, as people practice places and the social is dynamic, they are continuously constructed (cf. Cresswell 2009: 169f). This involves experiences, which are seen as the key element of place (cf. Rakic and Chambers 2012: 1618; cf. Cresswell 2009: 170). Places are strongly connected with experiences, as they are "integral to the very structure and possibility of experience" (Malpas 1999: 31). Yet places cannot be mere social constructions, as the social does not exist prior to the place and is expressed through the place. It is the structure of a place which gives the social the possibility to arise (cf. Malpas 1999: 31f). The role of the social in the construction of space is illustrated well by the example of spatial institutions, which are created by the activities of societies in specific places. For example, a family lives in a home, while education is carried out in a school, and religion in a church. These institutions and spaces can overlap when educational and religious instruction take place at home (cf. Spain 1992: 11). This not only shows that spaces and places are defined and constructed by the practices and activities of the people, as well as by what they experience in them, but also that they change continuously. Social relations are not still - they are dynamic, and so is space (cf. Massey 1994: 3). This implies, that the existence in the lived world emerges out of a simultaneous multiplicity of spaces, "(...) because the social relations of space are experienced differently, and variously interpreted, by those holding different positions as part of it." (Massey 1994: 3). Space and spatiality are thus linked to the social and to power, as spatial organization of society emerges out of the production of the social. (cf. Massey 1994: 4).

2.1.2 Gender in the construction of space and place

In a preceding chapter, it was illustrated that the space in Bangladesh contains gendered structures that stem from a socio-cultural concept called *pardah*. This concept prescribes rules and norms for the behavior of women, which have a clear spatial dimension by differentiating between a public and a private space for women. Women are directed to the private space, which makes them "invisible". To enter the public space, they are expected to veil, which in a sense makes them "invisible" again (cf. Rudnick 2011: 88f). This reflects social relations and power asymmetries existent in space and "carves out" specific places. The socio-spatial differentiation by gender is not a phenomenon limited to Bangladesh, but also emerges in other contexts and societies, why attention is now directed to general discussions in the literature.

As it was elaborated on before, spaces and places are socially produced, which implies that social relations have a spatial form and a spatial content (cf. Massey 1994: 168). This means

that places indicate a certain set of expectations and norms of conduct, and social roles and relations, which people understand and accept, when they enter them. Thus, places come along with agreements on accepting such roles and obligations (cf. Sack 2010: 178). Because social relations are always related to power, meaning and symbolism, power asymmetries are implicated in the production of spaces and places (cf. Massey 1994: 3). Strongly expressed, when social power wants to be exercised (i.e. by forcing someone to comply with rules against his/her will), places come to matter in terms of their use (cf. Sack 2010: 179). For example, public spaces often contain a smoking area, which delineates and demarcates a place through the activity practiced in it. Without this assignment, people would smoke anywhere. Yet public places often are combined with rules, for example not being allowed to smoke except in the smoking area, which comes along with penalties if the rules are disrespected. Moreover, motility as well as physical and virtual mobility can reflect sources of status and power, as the enhancement of mobility for some people will reinforce the immobility of others (cf. Sheller and Urry 2006: 213). These power asymmetries in space can be demonstrated on women's participation in the work domain, for example. The grade of actual participation is not the issue here, but much more the social acceptance for them. Place is not only a mediator then, but provides a context in which power asymmetries (e.g. patriarchal order) can be (re)configured and (re)articulated (cf. Raju 2011: 40).

Gender and social class are important aspects of social relations, and thus strongly implicated in the construction of space and place. The tension of gender, power relations and space can be crucial to the subordination of women by either limiting their mobility or confining women to particular places and thereby limiting identity (cf. Massey 1994: 7, 179). The term gendered space was developed in the 1990s by feminist geographers (e.g. Doreen Massey, Daphne Spain and Gillian Rose) within the "new" cultural and critical geography, who have investigated the relations between space and gendered realities (cf. Ganser 2009: 66). These have impacts on access to, control over and knowledge of resources (e.g. information, education, natural resources), which become essentially powerful when gender determines the position and power in accessing and using scarce resources, such as safe water. The access to water is a gendered question in particular societies, which can be shown in the case Bangladesh (cf. Sultana 2011). Women and girls are responsible for collecting water and providing for domestic water needs, whether or not water is available nearby their houses. Both tasks as well as their mobility are matters of gender due to gender relations and norms (purdah; see chapter 1.3.1). Yet the gendered space is destabilized when they are pushed into the public space due to survival needs - to fetch water. To avoid going longer distances for water (and crossing the gendered spaces),

the mobility of the women can be curtailed to water sources nearby, such as tube wells. Besides the fact that tube wells make things easier in general, it is also convenient for observing purdah. Yet the water from tube wells may be unsafe due to arsenic poisoning, which then again threatens the practice of purdah and challenges the patriarchal structure. Safe water is actually found in marketplaces or public institutions, where only few women may go to. Reversely, men and boys are unwilling to fetch water in public spaces, as domestic tasks are connoted female (it is even rare for them to participate in domestic water management and procurement; cf. ebd.: 295, 301). Hence, unsafe water becomes a threat for gendered space and mobility.

One can thus conclude that gendered mobility and space have impacts on access to natural resources, whereas the access to safe natural resources can challenge gender and socio-cultural norms (e.g. purdah) and transform respective customs. This is why Sultana (cf. ebd.: 300) points out that those shifting realities demonstrate, that places are not only constructed by social relations, but also by the local geology and technologies used (to extract water, for example).

"People make meanings out of places and spaces through their daily struggles with water—where water is fetched from, who is doing this task, who is allowed to go where to perform the task, and what constraints are embodied in different places." (Sultana 2010: 300)

Thus, notions of femininity and masculinity are constantly contested and reproduced, and the meanings and practices of the differentiation of the public and private become increasingly disrupted (cf. Sultana 2011: 301).

To clarify the used term gender, it is defined as "(...) constructed within the social and cultural perception of the people within the society to distinguish between males' and females' roles, responsibilities, opportunities, privileges and needs" (Deji 2011: 21). It refers to the way an individual is treated by the society and people on the basis of his/her sex. Due to its socio-cultural construction, it varies between societal cultures and also by time. In comparison to sex, which refers to the biological and mostly physical differences between male and female, gender gets attached to people through stereotyped social images of women and men (cf. Deji 2011: 21). When speaking of gender, there is the general understanding of a hegemonically derived polarization of two genders. This dualism, however, does not refer to a mere distinction between an "A" and a "B", but rather between an "A" and a "not-A". In turn, this accentuation on male or not male involves a criticizing perspective, and seems to be realistic in patriarchal societies. "A" is understood positively, while "not-A" exists only in relation to "A" (cf. Massey 1994: 6,

255f). For example, in a traditional Muslim-philosophy context, the female being is believed to be made out of the bones of the male counterpart (cf. Miaji 2010: 109). Thus, keeping the problematic polarization of two genders (male/masculine and female/feminine) in mind, the socio-cultural understanding of this dualism ("A/not-A") in patriarchal societies cannot be cut out completely.

The criticism of dualisms refers to the problem of a mutual exclusivity and the consequent impoverishment of the one and the other (cf. Massey 1994: 257), which can be applied to the spatial as well:

"(...) most of the activity spaces are (...) neither simple sexually segregated geographical locations nor are they mutually exclusive-the binaries are interchangeable and in constant flux and yet, across cultures, these spaces are replete with meanings connoting a hierarchical order of power in which women get associated with inside, private, and home, for example." (Raju 2011: 1).

Thus, spaces and places are not gendered themselves, but transmit gendered messages (cf. Massey 1994: 179). The causal relationship between space and women's location is complex, but there is agreement that both the space and the social shape each other (cf. Raju 2011: 2). In terms of spatial segregation, which is "(...) one of the mechanisms by which a group with greater power can maintain its advantage over a group with less power" (Spain 1999: 15), both the powerful and the less powerful groups are engaged in the constant renegotiation and reconstruction of the spatial segregation system, if it persists over time. Men and women create such systems together, but men do so because of their own interests and women because of no perceived alternative. However, there are different forms and degrees of cooperation. Some women see legitimacy in their lower status due to strong ideological pressures and religious creeds; other women face having only few choices (e.g. due to lack of education); and some women stand up for their rights and fight the existing system. Thus, the gendered spaces shape daily activities and are shaped by those too. They seem to be immutable and have become taken for granted and have been unexamined. As implicated before, power relations have little to do with the establishment and institutionalization of spatial barriers, but they tend to maintain the prevailing advantages (cf. Spain 1999: 17f, 28).

As mentioned before, mobility - in any form - can be a source of status and power, as people have different relationships to it and experience it differently around the world. Some people are more in charge of it than others. Through a gender lens, the movement, meeting places and

connections to the "outside" of a woman can be different for a woman than for a man (cf. Massey 1994: 25f, 28).

Just as spaces and places are constructed and experienced differently across spaces, the public and the private also are, and, as a matter of course, the degree of the patriarchal constitution varies over space (cf. Raju 2011: 40). The distinction between the public and the private space derived from the middle-class in the West (cf. ebd.: 13; cf. Massey 1994: 179), which is relevant here, as women invariably were confined to the private space (cf. Raju 2011: 10). It is related with the mainstream economic discourse, which separates the household (the site of patriarchal control) and the market (the site of capital control). The market has a prioritized standing. It presents patriarchy as an abstract semi-autonomous structure, which is independent of capital. Women have been referred to the private space (household) for social reproduction and for household responsibilities, while men have thus been released to participate in the public sphere (market) (cf. Raju 2011: 10f).

However, this divide across societies around the world is not always concordant to the Western/European. For example, women in India use spaces, which are public in the morning, but semi-private in the afternoon, as they sit there and spend time doing household chores (cf. ebd.: 13f).

2.1.3 The home place as *the* gendered space: implications for women's immobility

The differentiation between the public and the private space, in its most extreme shapes, refers to the spatial confinement of women to the home place, as it is often connoted with being the woman's place (cf. Massey 1994: 180; cf. Verschaffel 2002: 288). Geographers have always dealt with defining regions, which has often led to placing boundaries around a place and differentiating between an inside and an outside or an "us" and a "them" (cf. Massey 1994: 152). Such distinctions of an "outside" and an "inside" imply power and social exclusion. This can be illustrated with the notion of the home-place. While for some people it is a positively connoted place, from a feminist perspective it can reflect patriarchal authority and negative associations like abuse, boredom or, in more general words, asymmetrical power relations (cf. Cresswell 2009: 172f).

The home place itself is a place where things belong and where they are at place. Yet, it is also a place and tool to make differences and define a hierarchical order. Domesticity implies

centrality, stability, continuity, fixity and caring for the basics, which stereotypically is related to femininity. In pre-modern societies, the home is the place for female labor, which is fundamental to making life possible, but which does not bring any other profit. Linking women with the home place can imply simplification and control of the feminine (cf. Verschaffel 2002: 287f).

The home place has always been a space of reproduction and production, nurturance, leisure, and work. Yet, women's work at home is valued and seen differently in society. Specifically, in a society dominated by market production, in which work is defined as only taking place outside of the home, women's domestic work is outside the system and socially devalued. This leads to women's experience of the home place not only as a place of work, which is influenced by the task itself, but also as a task defined within a social structural and social group context (cf. Ahrentzen 1992: 118-119). Thus, place and identity are strongly interconnected, as "(...) people use places to *communicate qualities of the self to self or other*" (Cuba and Hummon 1993: 112). Places are involved in the construction of personal and social identities, seen as physical, social and cultural environments, which influence place identity (cf. ebd.: 112-114). Hence, the home place as a place of belonging "can reinforce social relations of systematically asymmetrical power relations" (Creswell 2009: 173), and is a place where meanings and attachments are most intense (cf. ebd.).

For example, this can be conveyed by the Bangladeshi concept of values "shangshare shanti", which refers to peace at home. It is the woman who is responsible for maintaining "shangshare shanti" and thus the one to be blamed if there is "shangshare oshanti" (trouble at home). Moreover, peace at home is maintained by women staying at home (cf. Ahmed 2014: 188f).

When home becomes a site of asymmetrical power relations and women are spatially confined to it, it results in immobility. For example, in a patriarchal society, while, for a man, mobility is the precondition for occupying the public space, a woman is constructed as belonging to her home. This indicates the gendering of mobility and immobility. Moreover, if these women would break such prescribed gender norms and boundaries by becoming more mobile and visible in the public realm, they would endanger their social acceptance, chastity and moral integrity. Women often need a good reason to go outside, which often goes along with rules of unattended movement. For example, they can leave their homes in cases of urgency, but only in the company of a man (cf. Hombrecher and Gerharz 2011: 118f).

As a matter of course, the home place also refers to movements away from it, but a spatial confinement to home indicates an area of tension between movement and fixity or mobility and immobility. Generally, feeling at home does not mean being at home at all time, but leaving from this space and returning back to it (cf. Bergmann 2008: 23). The home needs to be rethought in the sense of being a domestic and private realm, because public discourses and social relations converge and shape "private" lives. Home/stasis and travel/mobility are no longer a binary, but a dynamic site of social relations (cf. Ganser 2009: 70). The home can be a fixed place (like a building), but also it can be perceived as an idea, in the sense of longing for security or a feeling of emotional attachment (cf. Findlay 2009: 116). For example, Tamil women speak about an "inside world" which consists of the spaces, where they feel a sense of belonging (their houses, families, relatives, neighbors, friends, village areas and the "community"). Within this "inside world" they can move freely, but they have to remain in it (cf. Hombrecher and Gerharz 2011: 117f).

2.1.4 Women's attachment to or isolation in the home place: the relevance of mobility and social contacts for home-place attachment

Places evoke feelings and emotions, which, termed as the sense of place, also can refer to the places themselves (cf. Cresswell 2009: 169). People perceive places in connection with their qualities and attributes. Thus, they can experience different feelings of attachment and belonging to places (cf. Foote and Azaryahu 2009: 98). As mentioned above, the home place can be a place of belonging for women, but also a site of asymmetrical power relations. Thus, it is of interest, what feelings and bonds it can involve, especially when people are confined to it.

The concept of place attachment addresses the exploration of such affective bonds between people and particular places. These bonds are the main characteristic of people's tendency to stay close to such a place (cf. Hidalgo and Hernández 2001: 274). Central to the concept of place attachment are affect, emotion and feeling, of which most analysis mainly consists. Place attachment can be examined in terms of experiences of real places, but also of symbols of places that individuals never have visited and thus only know about indirectly. The affective bonding of people and environmental settings is implicit in the term place attachment. Yet, social relations can play an equally or even more important role to attachment than the place, because

the attachment to places may involve or refer to other people (e.g. family, friends or a community) or even to a culture. Thus, place attachment is not only based on the place itself, but also on various social relationships (e.g. interpersonal, community and cultural relationships). (cf. Low and Altman 1992: 4, 6f). Place attachment can contribute to sustaining place identity and sense of place, which then positively influences the emotional well-being of people. Also, it enhances the value of a place as a social setting (cf. Ujang and Zakariya 2015: 374-375). Social attachment to places attachment to places is stronger than physical attachment, although it exists too (cf. Hidalgo and Hernández 2001: 279).

Using the example of the home place, some people perceive the refuge the home place provides as a desired quality. Some experience it adversely when they are always at home. Being at home can involve feelings of power as well as powerlessness. For example, when the home becomes an "island" of occupants isolated from the desired social contacts, then the quality of refuge of the home place represents an extreme form. Homeworking women can experience feelings of isolation, although many do not really live by themselves (because they live in a family network); however, the sense of not being able to relate to a more public and social world can create this feeling. Ways to combat the feeling or state of being isolated can involve having regular social contact either inside or outside the home or getting out of the house for a walk, meeting or similar activities. For homeworkers without work related communities, the neighborhoods may become an important aspect to establishing extra-familial communities, which then create social ties and a sense of belonging (cf. Ahrentzen 1992: 127f). Therefore, mobility and social contacts are relevant aspects regarding the attachment of a woman to the home place, although they are interrelated, as when someone leaves the house, he/she likely will get in touch with other people.

If someone cannot go out regularly or is confined to specific places, then the spatial exclusion can lead to social exclusion, when the person also lacks social contacts. For that reason it is important to take into account that spatial exclusion means exclusion from social spaces too, such as the work place or a public square. This not only limits a person's social, but also economic participation, as Nambiar (cf. 2010) claims:

"Individuals who are victims of social exclusion would be subject to institutions that limit their participation in important areas of the social domain. This would result in the loss of economic activity, a restriction in social participation, and constrains to the achievement of capabilities." (Nambiar 2010: 101)

Thus, social exclusion means to be left out of socially valuable interactions and to lack certain capabilities. This implies the deprivation of one or more “items” (e.g. education or employment) and the exclusion of certain activities (cf. Nambiar 2010: 101-103).

For Sen (cf. 2000: 4), an economist who focuses on poverty and deprivation, social exclusion is a direct part of capability poverty and “(...) *instrumentally a cause* of diverse capability failures” (Sen 2000: 5). Excluded individuals face a lack of commodities (cf. Nambiar 2010: 104). Being excluded can signify a deprivation in itself, as not relating to others and not participating in the community’s life may impoverish a person. So, the exclusion of social relations leads to other types of deprivation and further limits living opportunities. It can also lead to relational deprivation, which is not impoverishing in and of itself, but they could cause other types of deprivation, which are indeed impoverishing and experienced like that. For example, the exclusion from the credit market may not be a disadvantage for everyone, but it can cause other forms of deprivation, such as income poverty. Yet, if someone is not mixing with others, it may directly impoverish one’s life and similarly reduce economic opportunities that could arise from the social contact (cf. Sen 2000: 5, 13f).

2.2 Concepts, forms and constraints of mobility

2.2.1 Mobility as a functioning in the capabilities approach

The home “(...) can be both a site of shelter and oppression for women” (Ganser 2009: 70). Although the domestic realm continues to be undervalued economically and culturally in the West, mobility or immobility do not inherently empower or disadvantage women, but the freedom of choice is essential (cf. Ganser 2009: 74). Freedom of choice inherently refers to empowerment, for which three aspects are seen to be important components: resources, agency and achievements. Resources are enabling factors and thus catalysts for empowerment; agency represents the ability to make strategic choices in order to gain autonomy and to control resources and decisions, which affect important life outcomes; and achievements are the results as well-being outcomes derive from the access to resources and agency (cf. Gupta and Yesudian 2006: 366).

The capabilities approach by Amartya Sen targets the well-being of people by discussing poverty and deprivation, which can also concern gender inequalities, when one understands that freedom of mobility is an element of empowerment. According to this approach, a person's capability consists of a combination of his/her functionings. A functioning consists of the things a person does in his/her life or is in leading a life (cf. Sen 1993: 31). In the capability approach, life is understood as "(...) a combination of various 'doings and beings', with quality of life to be assessed in terms of the capability to achieve valuable functionings" (ebd.). Functionings can be very elementary, for example being nourished, and others are more complex, such as being socially integrated, while people also interpret relevance for particular functionings differently (e.g. using a particular type of washing powder more than other types). Thus, choices are made according to how relevant functionings are, and additional "achievements" are always defined and included. People need to evaluate functionings, which are related to the notion of freedom, as they form the set of capabilities that reflects a person's freedom to lead a certain life (cf. Sen 1993: 31-33).

Thus, central to Sen's theory is the freedom to achieve a valuable variety of functionings with the resources of an individual (e.g. gender, age or education) and with the spatial, social and temporal context in which he/she is situated (e.g. the range of cultural restrictions or the extent of available public transport) (cf. Nordbakke 2013: 168).

Mobility can be defined as the "(...) ability to choose where, when and which activities to take part in outside the home in everyday life" (Nordbakke 2013: 166). As the scope for action of an individual is either limited by constraints or enlarged by capacities, he/she makes the activity and mobility choices based on the range of available opportunities to her/him. Based on this, mobility can be perceived as a functioning, and accordingly, capabilities for mobility can be understood as the individual's resources, strategies and contextual conditions. These enhance the mobility options and choices of an individual (cf. ebd.: 166f, 168). The capability approach can be relevant in showing how these opportunities for mobility are not taken as fixed, but "(...) managed, shaped and directed by the individuals" (ebd: 167).

Approaches to analyzing mobility deal with the range of available opportunities of an individual, such as the places where activities take place, the use of public transport, the accompanying individuals, the people who are interacted with and the barriers and solutions for those travels (cf. ebd.: 168; cf. Ryan et al. 2015: 107).

Figure 4 illustrates that a capability consists of several functionings, which in turn are elements for an achievement (e.g. well-being or empowerment).

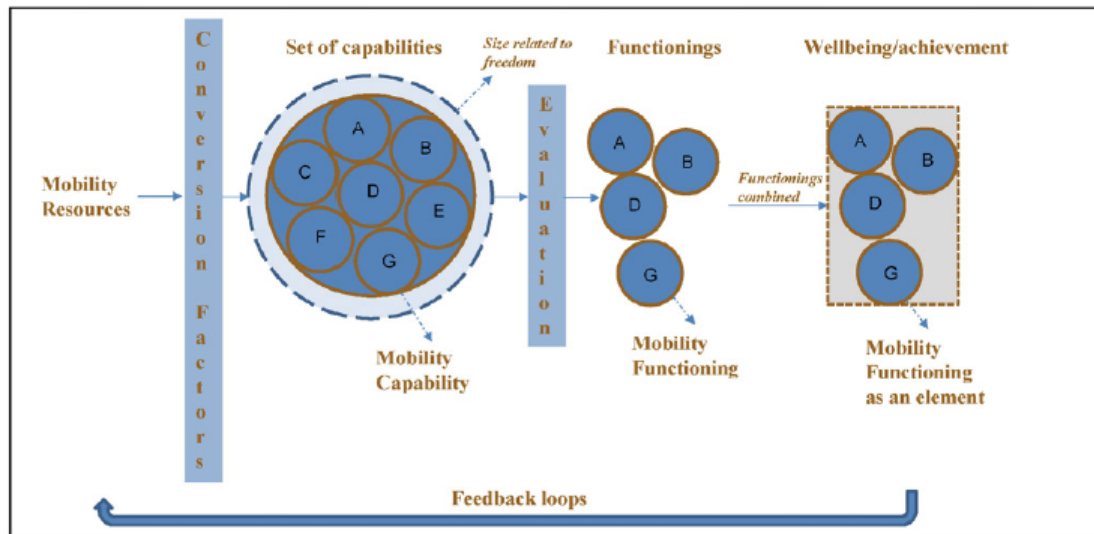


Figure 4: Mobility as a functioning according to Sen's capability approach (Ryan et al. 2015: 107)

2.2.2 Physical and virtual mobility in a globalized, technologized world

Mobility connects people across space and different places and can be defined as the "(...) *actual embodied movements and the potential to realise such movements* (...)" (Ryan et al. 2015: 106). Yet, just as places continuously undergo changes, mobility necessarily does, too, because it not only connects people, but places. Besides that, the understanding of mobility as simply an embodied movement needs to be reconsidered, as not only the notions and concepts of space have undergone a conceptual change, but mobility also reflects such a paradigmatic turn - the "mobility turn". The aforementioned awareness of understanding places as tied together into at least thin networks of connections, which also stretch beyond, is also reflected in the newer field of mobilities studies. Mobilities entail different social spaces, which create new forms of social life around spatial nodes, such as transport stations, hotels, galleries or roadside parks. As places are not static and fixed, nor are the people to be seen as separate in them. Places and movements depend on the activities practiced in them and are implicated within complex networks of human and non-human agents (e.g. buildings). Moreover, places are dynamic and travel themselves, which involves recognizing the interdependence of mobilities instead of perceiving them as separate spheres (e.g. walking, driving, flying) (cf. Sheller and Urry 2006: 209, 212-214).

Besides that, globalization processes impact the construction of space as well as the enhancement of mobility, which leads to a "time-space-compression". Some may say this causes a "shrinking" of the space (cf. Bergmann 2008: 23), the "death of the place" or the emergence of "non-places" (e.g. shopping malls, airports). The latter are characterized by constant circulation, communication and consumption as well as a lack of attachment, as they act against the (development of) social bonds of people and the bonds between people and the world (cf. Cresswell 2009: 174). Yet, mobility does not really shrink space, but it makes it wider and more complex. On the one hand, it may disembed people, but also ties people closer together and strengthens the identity of places (cf. Bergmann 2008: 23). Translocality and translocal places are further emerging phenomena within the change of place and the processes of relocation (cf. Bergmann 2008: 23). Translocal places connect different and sometimes distant "physical and social fields through interactions and flows" (Etzold 2016: 171). Although translocality is often equally understood as transnationalism (cf. Greiner and Sakdapolrak 2013: 373), the translocal places emerge instead from regular communication, the exchange of resources and the investment in local and translocal networks (cf. Etzold 2016: 171). Thus, translocality implies the "transgression" of locally bounded and fixed understandings of place (cf. Greiner and Sakdapolrak 2013: 373).

In more concrete words, mobility has different forms and occurs in and between different spaces, which also depend on the technologies used. The most natural mobility is the physical/corporeal mobility without technology (e.g. walking), but can be extended by technology (e.g. by cars or bicycles) (cf. Kellerman 2006: 1). There is an increasing convergence of physical movement and electronic communication, which generates new forms of virtual and imaginative mobilities (cf. Hannam et al. 2006: 4) - "a new pace of everyday life, and new mobilities within places" (Lemos 2008: 98). Virtual mobility is extended by fixed/mobile phones and internet (cf. Kellerman 2006: 1). These new forms of mobility refer to communication practices over distance, which put social relations into travel and connect diverse forms of transport with complex social experience patterns (cf. Sheller and Urry 2006: 208, 212). This implicates that similar to spaces and places, mobility can also reflect elements of status and power in the sense that, while for some people the mobility gets enhanced, others become more immobile at their expense (cf. Sheller and Urry 2006: 213).

2.2.3 Impacts of virtual mobility on physical mobility and proximity

One may think that virtual mobility will partly replace physical mobility, but physical "co-presence" (referring to a "face-to-face"-situation of people in a certain place; cf. Urry 2003: 259, 262) is still essential to maintaining social life. There are different forms of obligations, which require physical co-presence. These include legal, economic and family obligations (e.g. going to work, visiting public institutions like the hospital, or attending a family event), social obligations (e.g. meeting a person face-to-face and meeting his/her demands), time obligations (i.e. spending quality time with specific persons), place obligations (i.e. sensing or seeing a place directly), live obligations (i.e. experiencing a "live" and not only mediated event) and object obligations (e.g. signing a contract) (cf. Urry 2003: 259, 262f).

Although virtual mobility will not replace physical mobility, the co-presence of people may change as a result of virtual travel, as it is located within time and space. People can feel close to each other while they are physically distant, and thereby co-presence gets "mobilized". Virtual co-presence may stimulate physical co-presence, as people want to reinforce or develop trustful relationships even more due to virtual travel, which promotes increased corporeal travels. Nevertheless, virtual proximity can have effects on social obligations in terms of a reduction in the frequency of co-presence (cf. Urry 2003: 258f, 262, 266-269). Thus, ICT lessens the need to travel for being physically present in certain places, as the presence can be felt virtually (cf. Line et al. 2009: 1495). Besides that, it can make mobility more efficient and sophisticated, as trips can be prepared, routed or re-scheduled (when travel problems such as traffic jams emerge) through such technologies (cf. Kellerman 2009: 57). In this sense, ICT leads to a blurring of space boundaries, as people connect places such as the home and the workplace, and as a consequence, the home life is combined with the work life through the use of a mobile phone (cf. Line et al. 2011: 1495). This creates hybrid spaces, such as the mobile space, by the constant movements of the users and the constant connectivity with other users and/or the internet. They can create new social spaces by reconfiguring new communities in the physical space through connecting virtually in real time with others (cf. De Souza e Silva 2006: 262, 270).

As mentioned before, the experiences of mobility and the informational flow can contribute to social bonds and act complementary to physical contacts, which reinforce social relationships and feelings of community belonging. Especially young people mix their community bonding with the exchange of mobile digital information, through ways such as SMS, blogs or videos.

Online relations strengthen face-to-face relations and thus give new meanings and temporalities to place and communities (cf. Lemos 2008: 96-98, 101-102).

2.2.4 Constraints and freedom of mobility

But why do people move and what enables and constrains movement? There are various reasons for travel or mobility. The physical proximity to particular people, places or events, a result of corporeal (embodied) travel, can be obligatory, appropriate or desirable. To be a full, active and engaged member of a society requires socio-spatial access to participation within its main societal practices. This requires transport and mobility to make the access possible and open to all, regardless of class, gender or ethnicity. Otherwise, it could result in socio-spatial exclusion or mobility exclusion (cf. Urry 2003: 258, 265).

Public space is central to the question of which kinds of spaces enable and/or encourage mobility. Public space is accessible and open to various people, allows unhindered and free access to it, and connects various private spaces. It has no individual claim, but everyone can occupy it temporarily. Thus, it also encourages freedom of mobility, which is inherent in public space, as mobility is a crucial element of how public space is formed. The function of public space is to create a meeting point where public life, multiple perspectives and the physical shape of a community are visible (cf. Sheller 2008: 32).

Yet, the access to places can be hampered for various reasons, and so mobility too. Mobility constraints can be differentiated in four types: personal physical constraints (e.g. due to physical abilities and disabilities), spatial and temporal constraints (e.g. walls, locks or fear of darkness), social obligations (e.g. social ties or ascribed positions related to gender) and mental and attitudinal constraints (e.g. skills or cultural outlooks) (cf. Sheller 2008: 27).

Constraints of mobility certainly are related to freedom of mobility. Yet, often it is assumed, that mobility equals freedom and, concordantly, freedom requires mobility. This refers to spatial affordances, which are evident for motility, as the potential for mobility, as well as for the freedom of mobility. There are different forms of freedom that can be applied to freedom of mobility. In the context of personal freedom, which refers to the absence of constraints, people are able to move and go wherever and whenever they want to. They are able to exercise mobility. Regarding larger movement scales, personal freedom of mobility would concern the crossing of national borders, for example. Freedom of mobility is related to power as well,

which refers to sovereign freedom. In this sense, people have the power to exercise mobility; they are not being stopped by others, but it also often implicates the denial of others' mobility, when people are favored in their mobility at the expense of others (cf. Sheller 2008: 28-29). The third understanding of freedom is civic freedom, which deals with participation in the community's life and its governance. This demands the public space be claimed as a gathering space and for information flow. Digital communication and virtual mobility are crucial here, as they enable civic freedom, while limitations of mobility (e.g. curtailment of public assembly) are the key weapons against civic freedom (cf. Sheller 2008: 25, 28-32).

To sum up, the personal freedom of mobility is related to the scale of the body (i.e. how, where and when someone can move), the sovereign freedom extends the individual body and refers to issues of governance, legitimacy and the exercise of power, while the civic freedom of mobility reaches collective mobilities of communities, citizens, social movements and communication networks. However, these types are interrelated (cf. Sheller 2008: 30f).

ICT and virtual mobility can be effectively deployed to overcome mobility constraints, especially in the rural sphere. In the context of virtual neighborhoods, ICT such as the internet or mobile phones create virtual spaces, in which past physical neighborhoods and neighborhood members can interact. They thereby enable the maintenance of social contact and virtual travel between people who are located distantly. Virtual mobility can be an important element to combat physical social exclusion (cf. Grieco and Hine 2008: 69f). Yet, rural areas often have difficulties accessing such technologies (cf. Milbourne and Kitchen 2014: 328), which is why mobile phone communication is especially relevant. It is the most ubiquitous personal mobility medium in its penetration, as it is also the most available one and can be carried constantly (cf. Kellerman 2011: 736). Its socialization opportunities are the major drivers for its wide adoption (cf. ebd.).

Virtual mobility can contribute to addressing rural problems, as people in remote areas can connect with the new global networks created through digital technologies (cf. Milbourne and Kitchen 2014: 328). For example, in a crisis situation, when people get displaced or isolated due to natural disasters, technology can be a tool to organize and allocate aid (cf. Grieco and Hine 2008: 69f).

2.3 Mobile phones and impacts on mobility in the perspective of gender

2.3.1 Gender inequalities regarding the access to mobile phones: reasons for the "gender digital divide"

Although newer ICT such as internet and mobile phones are widely used and distributed, access to ICT is still not granted commonly and equally. The term "digital divide" refers to a gap between people who have access to ICT and people who do not (cf. Islam und Tsuji 2011: 508). In other words, it means having high levels of connectivity among wealthier people with adequate infrastructure on the one hand, and lower levels among the poorer with inadequate infrastructure on the other (cf. Hossain and Beresford 2012: 455). This can be a result of slow and hampered ICT-development in a nation, like in Bangladesh (cf. Islam und Tsuji 2011: 508; see chapter 1.4.1).

In general, the mobile phone telephony is the predominant communication mode in developing countries. This, among other things, is because of the good accessibility for all people, as only basic literacy is required and mobile phones are increasingly affordable to all population strata, especially through pre-paid technology. Mobile phones also enable data flow, such as for health or governance purposes. For poor communities, mobile phones represent the only communication option available, as they lack access to other ICT and modes of communication. By using mobile phones, they predominantly profit from improved communication with family and friends (cf. Rashid and Elder 2009: 1f). Mobile phones are imposing in developing countries against computers and internet, as they are affordable and the infrastructure and network for other technologies were in a historically poor state (cf. Chaudhuri 2012: 326, 332).

Thus, general access to ICT is not only constrained for individuals, but also for entire groups, such as the poor population stratum as well as women. The term "gender digital divide" refers to the attribute of gender in combination with ICT (cf. Hilbert 2011: 480). The diffusion of mobile phones can apparently contribute to reducing this gap. In countries where the teledensity (i.e. diffusion of mobile phone communication technology) is high, the gender digital divide is generally smaller. Thus, in countries with a high "teledensity", male and female users are almost balanced. Male subscribers tend to predominate in countries with a low teledensity. In

comparison to Europe and America, the Asian Pacific regions represent a more gendered pattern of diffusion, which may reflect traditional patriarchal systems (cf. Castells et al. 2007: 41f).

The gendered pattern of access to mobile phones may be a result of socio-cultural (e.g. working women are expected to fully pursue their domestic responsibilities without much support from others, like the in-law family) and economic inequalities (e.g. women are less paid than men in the same jobs), which create barriers for women (cf. Potnis 2016: 1333, 1341). Besides that, there are technical barriers to mobile phone access (e.g. due to electricity failures, lack of electricity supply, poor infrastructure set-ups by service providers and inconvenient mobile phone devices), but also human barriers, which generally are family members, the society as well as telemarketers (see chapter 2.3.3) (cf. Potnis 2015: 89; cf. Potnis 2011: 43). Yet, human barriers may be especially relevant in societies in which women's decision making is limited. Thus, it can be assumed, that women, rather than men, may face human barriers. Beyond that, among the people who face the most barriers are poor, rural women, due to the combination of low socio-economic status, the rural and remote area as well as their gender, which implicate a low access and use pattern of mobile phones (cf. Wesolowski et al. 2012: 5).

2.3.2 Owning or sharing a mobile phone: the "shared-access"-model for higher accessibility

Initially, all wireless communication technologies were marketed towards adult users of the business community. Yet, young people are very active users, especially in countries where they enjoy more free time, do not face economic constraints and do not own a fixed-line telephone. The increasing importance of mobile phones for the younger generation has to do with the general lowering of prices for mobile phone services, but this attracts all age groups (cf. Castells et al. 2007: 41).

Gender may also play a role in reasons why people acquire mobile phones. For women, a mobile phone can provide a sense of security, which is not necessary for men. Men see themselves as protectors and fulfill their gender role by providing women with a mobile phone, for example (cf. Castells 2007: 45). Although this statement may be outdated for at least some societies, underprivileged rural Indian women effectively are supported in their access and use of mobile phones by their husbands (cf. Potnis 2015: 86). As mentioned before, economic-related reasons

are seen to be the major constraints for people when it comes to owning a mobile phone (cf. ebd. 2016: 1333; cf. Burrell 2010: 231). Women with mobility constraints further lack access to formal financial institutions, which creates even more economic inequality and, concordantly, barriers to ownership (cf. Potnis 2016: 1333).

Thus, so-called "sharing access" should make access and service affordability possible for poorer people, who cannot afford to own ICT such as a mobile phone. The sharing model involves an intermediate device provider, which in the case of mobile phones means that a group of people shares a device, uses it and pays only for the service and a small fee for the device provision. The provision is organized through telecenters, phone shops, kiosks or multiple community centers, as mentioned before (see chapter 1.4.2; cf. Dang et al. 2008: 7f). The shared access model emerged out of the International Telecommunications Union's (ITU) telecenter model from the early 1980s, which provided ICT services (originally telephone service) in rural areas in developing countries in kiosks (cited in ebd.). The newer model is based on providing facilities and devices in kiosks, telecenters, multiple community centers and through mobile operators (cf. ebd.).

Shared access targets multiple users through arrangements, typically in the public space, where technological devices are made available. It can be either free or for an affordable price, in order to reach the majority of the population. The equipment and handsets are provided by either a private business, the government or an aid organization. Such shared devices include radios, televisions, mobile phones and bicycles (cf. Burrell 2010: 230f).

Shared access also involves sharing or borrowing from other people, which implies that social relationships serve as capital for obtaining access (cf. Soriano and Cao 2017: 84f).

Generally, shared access makes ICT services affordable to the poorer population stratum, much of which lives in rural and remote areas in developing countries (cf. Dang et al. 2008: 8). Especially in rural areas, where people cope with scarcity conditions, shared access is relevant (cf. Burrell 2010: 231).

Interestingly, in Bangladesh it has been observed that women, whose husbands are migrant workers, represent higher numbers of mobile phone ownership than in the general rural areas (cf. Hossain and Beresford 2012: 463f). Men might be persuaded to give women a mobile phone

for receiving remittances (cited in ebd.: 463). Thus, women who do not live with a male partner potentially have more control over their access to such ICT (cf. ebd.: 463f).

2.3.3 Gendered patterns of mobile phone use

Apart from access to mobile phones, the degree of use also depends on certain aspects, for example on the acquired skills (e.g. digital literacy; cf. Lee and Kim 2014: 920) and the affordability of the expenses. The utility services of mobile phones can be voice calls or SMS, but they require different skills and costs. Making a voice call does not require any specific skills, but text messaging, which requires at least literacy and some physical skills, is cheaper. This is why user groups may deviate from each other. Young people who need to cover the costs themselves will rely on SMS, while working young people who are provided with devices and have the costs covered by their employers, rely on voice calls. So, young people who do not work are more likely to save money, while working young people tend to save time. This is an example of social differentiated patterns of the use of mobile phones (and wireless communication technology), which depend on age, gender, ethnicity and socio-economic status. Regarding age, mobile phones appear to be used differently. Adult users are the most frequent users of voice communication, while younger users use SMS and additional features and services, according to the limits of their budgets. The older age group is less involved in using mobile communication, although the situation is changing due to the adaption of devices and services to their needs (cf. Castells et al. 2007: 39, 41).

Gender ascriptions to the use of communication technology can be observed early in its history. With the introduction and diffusion of the fixed-line telephone in the late 19th and early 20th centuries, the use of it already implicated gender stereotypes for some people, who derogatorily denoted it as form of "female foolishness" for chatting. The early marketing of telephones targeted women, advertising support for the management of the household. So women, not men, represented the major consumer group than men. Yet, women also used the telephone for social purposes. They conversed with family and friends. A larger proportion of calls were related to social matters. Hence, the telephone era reflects a gendered use differentiation, which may be a result of the fact that women (especially housewives) were socially more isolated than men,

and so they could maintain social contacts and interactions apart from children (cf. Fischer 1988: 212f, 218f, 225).

This, however, has changed with mobile phone technology, as men are apparently more frequent users than women. This is evident in the United States (cf. Castells et al. 2007: 49), but also in Israel (cf. Lemish and Cohen 2005: 515), for example. This is linked to a larger proportion of business related calls made by men (cf. Castells et al. 2007: 49). For women in the Asian-Pacific region, mobile phones are used as a key channel for maintaining intimate personal relationships (such as communicating with close friends and family members), while men use it for instrumental purposes (cf. Castells et al. 2007: 52). Women are more likely to use mobile phones to socially interact in comparison to men (cf. Baron and Campbell 2012: 24). In the context of rural women with less privileged yet a small-scale working backgrounds, major use patterns depict employment, emergency and safety/security, and communication with family (cf. Potnis 2015: 90). Personal safety is one of the most important use patterns in general (cf. Rice and Katz 2003: 603).

Beyond access to and use of mobile phones, Burrell (cf. 2010: 235f) makes an interesting distinction between five roles in relation to mobile phones that generate the particular benefits. These are the purchaser, owner, possessor, operator and user. An individual may take on more than one role at the same time. The purchaser is someone who financially purchased a mobile phone. The owner has the authority to decide who is permitted to use it, as well as where and how it is to be used. The possessor does not decide who can use it, but is responsible for carrying or keeping it, or handing it over to the owner or others. The operator is the one who physically manipulates the mobile phone. The user may seem identical to the operator, but there are cases in which people are handed mobile phones to use without manipulating it physically. For example, in the case of an incoming call, when someone pushes the button to receive it (operator), but then hands it over to another person (user).

These roles may be applied to further differentiate access and use patterns, because, as the roles imply, constraints and choices/abilities also depend on such.

2.3.4 Impacts of mobile phones on women's mobility

Mobile phones can have several impacts on women's life arrangements and living conditions, which are directly or indirectly related to mobility. Some aspects may enhance mobility, while others promote immobility. Yet, it has impacts on other crucial features too, which may be interrelated with mobility and immobility as well as with feelings of social proximity and distance.

Mobile phones can contribute to making women more independent in accessing information, communicating with others and increasing their decision-making status in the family and in the society. Yet, this seemingly depends on owning or not owning a mobile phone. For non-owners, dependency even increases, as they rely on the men having a device (cf. Islam and Slack 2016: 81).

Owning a mobile phone clearly can influence mobility, as people can use their phone from any location. They do not need to go (anymore) to places that provide such facilities (e.g. telecenters) or ask for someone else's device, and can thus substitute the physical visit. Moreover, carrying a mobile phone can raise women's awareness about the benefits of mobility and give them a feeling of personal safety when they leave their homes (cf. Sterly 2015: 41f). Without a mobile phone, people have to send other individuals to inform others in emergency situations. This requires costs for transportation and also time (e.g. people have to stop their work/study or simply have to afford time) (cf. Yunus and Jolis 2007: 227f). In that sense, mobile phones facilitate the communication over distances and people save time and costs.

ICT can help women to gain employment, obtain health services and education (e.g. through online courses) and increase income (e.g. through e-business channels). Thus, ICT can be a tool to empower women and to fight existing gender inequalities (cf. Hilbert 2011: 479-481, 487).

Mobile phones have various economic advantages for people who seek employment. They can be useful in finding a job and/or in getting to know a new work space area through its communication functioning by contacting social contacts. A mobile phone also can be a pre-requisite for obtaining certain jobs (cf. Rashid 2011: 402f), and can further enhance human capital by increasing the access to education and training (cf. Rice and Katz 2003: 598). Besides that, there is the ability to communicate from any location, provided there is technological coverage. Thus, mobile phones support translocality regarding employment matters, as they

enable communication among co-workers as well as between workers and their headquarters regardless of location and distances (cf. Castells et al. 2007: 78). Hence, mobile phones in particular could be a tool for transforming the socio-economic status of women who are not employed, but would like to be. In order to address that, the mobile phone sector plays a major part in economic and social development programs (cf. Hossain and Beresford 2012: 459f).

As mentioned before, mobile phones can be beneficial for business activities, too. With the use of mobile phones, individuals who want to buy and resell their products (such as raw materials) do not need to send other people to ask about prices and delivery dates anymore. Instead, they can make calls and compare prices faster and more easily, which is profitable for their business without being mobile (cf. Yunus and Jolis 2007: 228). This is especially important for women whose mobility is limited or restricted.

Mobile phones are also used for making immediate and secure financial transactions through mobile financial services (MFS), which are common in Bangladesh. MFS offer women an important option of receiving remittances from their husbands and family members, especially from those living distantly or who are migrant workers. Besides that, people can communicate their financial needs and monitor the transaction process more easily, as before people had to send others to transfer cash or send an official courier. Now the transactions through MFS can be issued through handling agents in diverse locations, for example in mobile phone shops, MFS-kiosks on the street, and in grocery shops. This saves time, cost and effort, but also has certain impacts on mobility. People who did not move between places earlier (as they would have sent others to receive or bring cash) may rather move now, as the distances to the agents are doable. For those who would have needed to go long distances to deliver or receive money, the MFS replace such long-distance travels and thus decrease mobility (cf. Sterly 2015: 37f, 40). This could have similar effects for women in Bangladesh too, even though their mobility is restricted due to purdah. If they want to fetch money from their absent husbands or family members, the short distances to the MFS agents could promote travel. Before the introduction of such services, women probably stayed at home and relied on other people to hand over the money.

Furthermore, mobile phones can contribute the accessibility of health-related information. For example, by providing health line services, NGOs can communicate with rural women from a distance. This is not only convenient for women, but also confidential (which is an issue in a patriarchal organized society) (cf. Hossain and Beresford 2012: 465).

Beyond that, communication facilitation seems to be the major advantage of mobile phones regarding access to information (e.g. for employment or health), but also in creating and maintaining social networks, even over distances. Mediated communication enables the distribution of social networks, the maintaining of social ties and the building of social capital across larger spatial distances. Social ties and networks enable and enhance personal mobility (cf. Sheller 2008: 30), but women, whose mobility is limited/restricted, as in Bangladesh, can use mobile phones to connect with the “outside world” (outside of their *bari*) without depending on a male relationship. Barriers of distance can be removed (cf. Hossain and Beresford 2012: 465). In general, this can contribute to the psychological well-being for both migrants and non-migrants. Nevertheless, communication with distant family members may increase the longing for physical proximity for some people, while for others it replaces physical visits (cf. Sterly 2015: 38f, 41). Besides that, in rural India it was observed that mobile phones can have the unintended effect of diversification on relationships, as men in particular can maintain relationships with friends outside their village. Women also communicate with friends, but less than men, and thus they mainly connect with family members and relatives (cf. Tenhunen 2011: 412).

3 Methods and empirical framing

In the following chapters, the methodical approach and research design and setting will be elaborated in detail.

In the first step, the research concern and research questions, which were already mentioned in the introduction, will be given with more details (chapter 3.1).

The applied methods and their implementation will be described in chapter 3.2.

Chapter 3.3 explains the selection of the sample, which was carried out on the basis of study groups. The subsequent chapters depict the interview guides (chapter 3.4) as well as the structure of the interview sample (chapter 3.5).

Also, the access to the field with the support of gatekeepers (chapter 3.6), limitations and external effects (chapter 3.7) and the research setting and area (chapter 3.8) and area will be described.

As for the analysis, the qualitative material was examined on the basis of a coding and typology process (chapter 3.9).

3.1 Research concern and research questions

Based on the theoretical and conceptual grounds as well as on contextual case depictions for rural Bangladesh, the research concern of this study is articulated in the following research question:

Which impacts does the mobile phone use of women in rural Bangladesh have on their physical and virtual mobility?

The research question addresses the analysis of the relation and interferences of two elements, mobile phone use and mobility. From the literature it has already been noted that mobile phones can have several impacts on the lives of women, of which mobility is one aspect. By means of this question, this study wants to focus particularly on the impact on mobility, which is primarily understood as personal physical movement, though it is acknowledged, that mobile phone communication can enable virtual travel. This can have further impacts on physical mobility. Thus, any forms of mobility are included into the analysis.

Two sub-questions ("a" and "b") should contribute to answering the main research question comprehensively, and are as follows:

a) *What mobility patterns of women in rural Bangladesh can be identified?*

b) *Which kinds of access to mobile phones and what mobile phone use patterns of women in rural Bangladesh can be identified?*

Mobility is understood as movement between places, which is why question "b" analyzes women's places; how they are perceived, taken advantage of and needed for their personal (daily) life arrangements. This implies that the mobility patterns include coping with smaller as well as larger distances. The literature already indicates, however, that women in rural Bangladesh are spatially confined to the home place, which is why it is assumed, that mobility needs to be comprehended mostly on a small scale and as irregular/infrequent. Yet, the theoretical approach is qualitative and explorative, which explains why different or deviating patterns may be found.

Question "b" identifies the mobile phone use patterns, which include aspects such as the frequency and intention of use, but also discusses the kinds of access to mobile phones.

3.2 Methodical approach and implementation

The empirical work of this study is based on qualitative methods of empirical social research.

The main methodical application are qualitative problem-centered interviews, which were conducted following an interview guide for each of the study groups (see chapter 3.3). In order to obtain information on a specific topic (e.g. mobile phone use patterns), the problem-centered interview, which focuses on a specific problem and aspects of it, was applied. A "problem" is not connoted negatively, but rather subject-centered. In a narrative interview, which grasps the whole telling of a story, the interview partner may give information on further topics which are not particularly relevant for the research concern. Thus, interview guides, which contain key words for the aspects of a problem/topic, were deployed. They serve to direct the interview and present a "checklist" for the necessary questions and answers regarding the topic (cf. Kruker and Rauh 2005: 65, 67, 71).

The interviews were collected during field research between February and March 2017 in the rural area of the Natore district (one of the sub-districts of Rajshahi division) in Bangladesh. The interview partners were identified during this field stay on-site.

The duration of each interview varied between 15 minutes and three hours, depending on the number of participants¹⁰, the answering behavior of the interview partners, their schedules as well as some external effects (see chapter 3.7).

In total 17 interviews were collected in four villages in the research area (Natore district). Due to the very small size and population of these, the names of the villages were excluded to provide anonymity on behalf of the interview partners. For the same reason, all of the names of the women in the study were substituted with fictitious names.

Two methods of the PRA (Participatory Rural Appraisal) according to Kumar (cf. 2002) and Narayanasamy (cf. 2009) were applied to deepen the interview outcomes: the mobility map and impact diagram. As a result of the intense time requirements for these methods (in addition to the main interview), they were implemented only in two cases.

The mobility map¹¹ is used for the exploration of mobility behavior and patterns of individuals or groups (cf. Kumar 2002: 87). The central question is where a person or group is going and for what reasons. Details like the frequency of the visit, the distance, the preferences for places, the mode of transport and the importance and status ascribed to the listed places can be included. The mobility map should reflect and present the personal perception of and the reasons for the mobility behavior of the investigated persons. Mobility maps can be applied for different purposes, such as to put light on differences between the mobility of men and women. Above all, this method is particularly useful to explore the influences of certain interactions on the mobility of individuals (cf. ebd.). The participants draw a map with the places regarding on the surveyed topic. The time required varies between one and two hours (cf. ebd.: 90).

In general, the impact diagram¹² is a method to identify and depict the direct/indirect, intended/unintended, planned/unplanned and positive/negative impacts of an activity, intervention or event. It can reflect all kinds of effects, that the outsiders could not even think of, as Kumar describes. Furthermore, the impact diagram is an evaluation tool, as the perceived impacts of an intervention by the people can be captured in the diagram. Then it enables more targeted interventions and helps find solutions to keep the negative effects under control.

¹⁰ Two interview sessions were set in small groups (see next page)

¹¹ The mobility map is a "space-related method". These are used to focus on how people perceive and relate to space by dealing with mapping (cf. Kumar 2002: 40).

¹² The impact diagram is one of the "relation methods", which are used to study the relationships between various items/aspects of the same item (cf. Kumar 2002: 40).

According to his proposals, the time required varies between one and two hours (cf. Kumar 2002: 201, 204).

Two interview sessions were conducted in small groups (one of two persons and one of three persons), because of the participant's time pressure. The rest of the interviews were conducted individually. Two of the interviews (Naeema and Jesmin; see chapter 3.2) involved specific "expert" questions, as it was assumed that these women could have a deviant life arrangement and mind-set from the rest of the sample.

For further data collection and getting new and/or different perspectives on the topic, three expert interviews were added. The questions and discussion were coordinated with a specific interview guide for each session. Due to less relevance for the analysis and discussion of the material, the interviews are not included in this thesis.

Two female native-speakers of Bangla were engaged as research assistants, who supported the field research by conducting the interviews in order to eliminate the language barriers between the interview partners and the researcher. They were instructed and supervised by the researcher. The interviews were recorded and transcribed mostly verbatim. In total, three assistants were deployed in the selection, collection and transcription of the interviews, during and after the field research.

For the selection of cases, three groups were defined according to specific attributes. The interview partners were identified through theoretical sampling, snowball sampling (see chapter 3.3) and through the support of gatekeepers (see chapter 3.6). Three of them were working as Kallyanis (see chapter 3.6), who are managed by D.Net. All participants live in the research area Natore district in four different villages. The research area was chosen according to the work area of D.Net, which was relevant to accessing the field (see chapter 3.6). The other interview partners, who are not connected with D.Net and the Kallyani model, live in close or neighboring villages, and were selected through the above mentioned methods (see chapter 3.3).

3.3 Selection of cases and study groups

The interview partners (cases) were selected exclusively during the field research. The procedure was structured (i.e. corresponding to specific criteria) and gradual (i.e. the cases were selected through the study sample as well as through snowball sampling), as the subjects were not known before going into the field and needed to correspond to certain criteria, which are mentioned below. Two of the cases (Kallyanis) were selected by D.Net/iSocial at the time the field research was organized, and another case (Kallyani) during the field research. The rest of the cases were identified by the research team. Women who work as Kallyani were included in the selection, as it was assumed that they could promise deeper insights in the life of rural Bangladeshi women (considering though, that regional differences and variations across the country might exist). Yet, it is considered, that they may have strongly deviating mind-sets (e.g. more autonomy in the decision-making) due to their work, in which, to a certain degree, they address gender inequalities.

The selection of the cases followed theoretical sampling, which granted the most possibilities for this study. Further, snowball sampling was applied.

Theoretical sampling requires the development of a theory, which builds the starting point for choosing the research participants. They need to have information related to the research concerns. In contrast to random sampling, in which the participants are chosen from a sample derived from a randomization device, the theory determines the selection. Snowball sampling is applied when the sampling has already started. The selected participants are asked to suggest more participants and thus the sample grows (cf. Auerbach and Silverstein 2003: 18).

With reference to the research aim, only women living in rural Bangladesh (specifically in the research area) were selected. As the study examines the mobile phone use patterns of rural women, the sampling process was primarily based on frequency of use due to a promising comparability in the first step of the analysis. Three types of frequencies were determined:

- Regular use: use of a mobile phone on a daily basis
- Sporadic use: use of a mobile phone not every day, but at least once a week
- No use: usually no use of a mobile phone; occasionally may use one if needed, but less than once a week

From these measurements, three study groups were set up to identify this first-step differentiating criterion among the sample:

- Regular mobile phone users
- Sporadic mobile phone users
- Non-mobile phone users

This categorization is considered one of several possibilities. Another categorization/typology was made during the analysis (see chapter 4.2.2).

Whether the users owned, shared or only borrowed a mobile phone for their use (see chapter 4.3.1) was not a selection criterion, but it was included in the interview questions. The interview partners are described in more detail in the following chapter. The size of the study groups varies between four to eight persons (see chapter 3.5).

During the field research and the selection process, more criteria for the comparison were added. The selected cases should represent younger and mature adult women in all study groups, and is why the age was included into the criteria. The age could range from the youngest age of marriage to around 40. The actual age spectrum was 14 to 40/45¹³ then. Besides that, all the participants lived in villages within the Natore district, were married, Muslim and wore the veil or burkha when they moved outside their *bari*. None of these criteria were determined before the interview. Whether she was married or not was immediately noticeable to the research assistants. When approaching a possible case, the frequency of mobile phone use and the (approximate) age were asked.

In summary, the characteristics of the participant selection, some of which later serve as categories for the comparison, are the following:

- Woman living in a rural village in the Natore district
- Frequency of mobile phone use (regular, sporadic or no use)
- Age (between age of marriage and 40/45)

¹³ Some of the interview partners didn't know their exact age, so it was estimated either with their schooling years, marriage date and years or their birth certificate. One interview partner intentionally gave a higher age, as she was married, but it was estimated, that she was younger (on the basis of other information).

- Type of access (ownership, shared or borrowed)
- Family status (married)
- Religion (Muslim)
- Practice of veiling (e.g. veil or burkha)

3.4 Interview guides

Based on the measure of frequency of mobile phone use, the interview guides were created accordingly for regular, sporadic and non-mobile phone users.

At the beginning of the interview, after the introduction and settling the interview process, basic information (e.g. age, occupation) was asked. The first part of the interview concerned the daily life arrangement of the women, which required them to give information about their daily activities, places of visit and social interaction. The next question block addressed the mobile phone use patterns. They were asked what kind of access they have, how often they use a mobile phone, for what reasons and intentions, and other aspects (see below). Information concerning mobility, for example, how often and why they leave their village, was collected in the subsequent question block, which was then combined with the information about their mobile phone use (e.g. carrying the mobile phone while visiting other places outside home). In the last question block, the women were asked about the values they ascribed to mobile phones, social impacts (e.g. social control through mobile phones) as well as about constraints/restrictions of mobility and mobile phone use (including purdah).

The actual interview questions were based on the interview guides and directed according to its orders.

The interview guides were comprised of the following aspects for all of the study cases, although the points in italics were specifically asked of "sporadic users" and "non-users":

Basic information:

- Age
- Marital status (if possible, information about relationship with husband)
- Place of origin (internal migration)
- Education
- Occupation
- Religion

Daily life arrangement:

- Start/end of a regular day
- Activities on a regular day
- Individuals interacted with on a regular day
- Places visited on a regular day

Mobile phone use:

- Access (pre-paid/contract, ownership/sharing/borrowing, ...)
- Frequency of use
- Intentions of use
- Applications used (camera, internet, music, ...)
- Contact list (extra familial contacts?)
- Responsibility for expenses (i.e. who charges the credit balance?) and location for charging credit balance
- *Reasons for not owning a mobile phone*

Mobility:

- Places having visited outside of home place
- Places visited alone
- Places only visited with others (with whom?)
- Purdah (veiling) while visiting other places (i.e. where is it appropriate/necessary to veil and not to veil?)
- Importance/Necessity of mobile phone for visiting other places outside home
- Frequency of leaving the village and duration of stay
- Reasons for leaving the village
- Possible and impossible destinations for unattended travel

- Purdah-conform and purdah-non-conform places/spaces/localities (incl. definition of purdah)
- Freedom of mobility (e.g. prohibitions, rules, ...)

Mobility and mobile phone use:

- Mobile phone use for visiting other places/travelling
- Carrying of the mobile phone while visiting other places outside home
- Purchasing/Receiving information via mobile phone for travels and transportation
- Contact with persons/institutions apart from family
- Awareness of benefits of a mobile phone for mobility (e.g. to be able to be reached)
- *Visiting a telecenter*

Given value and changes due to mobile phone use:

- Personal opinion about mobile phones (value and importance given)
- *Knowledge/Skills for using a mobile phone*
- *Desire for owning a mobile phone*
- *Reasons for not owning a mobile phone (incl. restrictions/prohibitions)*
- Social changes/impacts (e.g. enhanced social control of family members, being able to be reached everywhere)
- Control and being controlled (e.g. when carrying the mobile phone when outside, then parents/male guardians/husband can observe doings and beings better and maybe control better)
- Freedom of mobile phone use (e.g. restrictions, permissions)
- Financial matters related with mobile phones (e.g. problems related with ownership or the charging of credit balance)
- Changes of mobility and impact on mobility due to mobile phone use
- Purdah (veiling and restrictions of mobility)

3.5 Structure of the interview sample

The conducted interviews correspond to the following study groups (see tables below).

To guarantee anonymity, the names of the interview partners have been substituted for fictitious names. Certain external effects could have had influences on their liberal expression and articulation, which are described later.

The women marked with "*" are the Kallyanis. Naeema (marked with "°") is a *Union Parishad* member. While the Kallyanis are the only regular working women among the interview partners, Naeema has a political function and is a well-respected person, which illustrates why they represent an exception. Therefore, specific questions/topics were added to or substituted in the interview guides.

The interview setting was either in the interview partner's house or the garden/courtyard of the house. No men (except in some cases young boys) were present during the interviews to avoid/reduce external effects on the collected information. Some female family members, relatives, friends and neighbors were present in most interview sessions.

Regular mobile phone users (abbreviated with "RMPU"):

Name	Age	Type of access¹⁴	Extra info	Location
Reshmi*	28	Owner	Kallyani	A
Salma*	26	Owner	Kallyani	A
Jesmin*	25	Owner	Kallyani	B
Naeema°	32	Owner	UP member	B
Khadiza	40	Owner	absent husband	C
Aatifa	14 (16)	Shared	-	C
Sabiha	25	Owner	absent husband	C
Layla	25	Owner	-	D

Table 3: Study group "regular mobile phone users" (RMPU)

¹⁴ The type of access is distinguished between "owner", "shared" and "borrowed". Shared and borrowed access is defined here as having to ask for someone else's mobile phone to use it for their own purposes, although shared access promises a more regular and free access. None of the interview partners were accessing mobile phones in institutions, kiosks, centers or the like.

Sporadic mobile phone users (abbreviated with "SMPU"):

Name	Age	Type of access	Extra info	Location
Fatema	35-40 (44-45) ¹⁵	Owner	-	C
Arifa	27	Owner	absent husband	C
Lutfana	23-24	Owner	absent husband, tailoring	C
Saleha	17	Borrowed	-	D
Rashida	25	Borrowed	-	D

Table 4: Study group "sporadic mobile phone users" (SMPU)

Non-mobile phone users (abbreviated with "NMPU"):

Name	Age	Type of access¹⁶	Extra info	Location
Nailah	40	None	-	B
Sonia	20	Borrowed	-	C
Busra	15	Borrowed	-	D
Fahmida	16	Borrowed	-	D

Table 5: Study group "non-mobile phone users" (NMPU)

3.6 Access to the field

The access to the field in terms of accessing the research area for selecting research participants was supported by gatekeepers.

Before starting the field research, the NGO D.Net (see below) organized a visit for the research team to two Kallyanis (Reshmi and Salma) (see below) in one of the four villages. The visit included an interview and an insight of their work by accompanying them on their business routes. It was assumed that the Kallyanis could serve as gatekeepers to access other village women. D.Net did not give recommendations or suggestions about the selection of the research participants, as it was only involved in the organization of accessing the research area. The Kallyanis didn't select any participants either. During the field stay, D.Net was contacted again to organize another visit of a different Kallyani (Jesmin) in village "B". Jesmin was serving as

¹⁵ Fatema's age was estimated, as she didn't know her exact age. Yet, as her eldest child is nearly 19 years old, she probably is only 35-40 years old. Thus, in the analysis and discussion, the age is declared as 35-40 years.

¹⁶ The women of the non-user group do not have regular access to mobile phones, but if they need one, they borrow one from someone else.

a gatekeeper, as interviews could be collected with her support. Yet, she was not involved in the selection itself.

After the visit and interviews with the Kallyanis, the rest of the interviews were collected in different villages. Some participants were accessed through a straightforward visit of a neighboring village (village "C") by another gatekeeper (Khadiza). She was met in Natore when she was sharing a CNG on her way back home. As she agreed to participate in the research, her village was accessed several times to collect further participants.

With the help of a contact person and officer of Natore district, another gatekeeper was acquainted with, who was a well-respected person in the region due to his engagement with business cooperatives. Thus the village "D" could be accessed. In the village, a young woman was supporting by introducing the research team to other village women. None of the mentioned persons, except the research team, was involved in the sampling process.

The main gatekeepers for accessing the field were associated with D.Net, a Dhaka-based NGO with several social and business programs across Bangladesh. The Kallyanis (see below) were seen as helpful in accessing rural women on site, as it was assumed that they know the research area as well as rural female communities. Moreover, besides being relevant and exceptional interview partners due to their particular activities, they could introduce the research team to the circumstances and behavioral codes of rural women, which would be helpful in getting in touch with other communities independently from them.

Since its interception in 2001, D.Net targets women, children and young people in both urban and rural areas with the aim of creating social impacts and supporting the empowerment of marginalized and deprived people by dealing with social service and well-being. A specific domain of D.Net is the enhancement of ICT, for which it has designed specific models, such as the Kallyani model. The social enterprise iSocial was set up by D.Net to properly manage the Kallyani model and program (cf. D.Net: online). With this turn, the model was named "Kallyani". Before it was known as the "Mobile Lady" and "Infolady" model (cf. D.Net: online; cf. D.Net Infolady: online).

The Kallyani model aims to empower communities through the entrepreneurship of women. It was developed by D.Net in 2004 as a "'women-for-women' family based Info-preneurship model", in which young women get equipped with modern ICT (such as a smartphone and a tablet) and move between villages on bicycles. On a doorstep basis they provide people (especially women) with information, services and products, which are (among others) related

to family planning, pregnancy health care, personal health care, agriculture and women's agency. A Kallyani's salary depends on her skills and her daily allotment, but can range from 60-250 US-Dollars per month. A regional hub management supports her by mentoring and getting supply chain support services to enhance her business. Currently there are more than 100 Kallyanis across Bangladesh (cf. D.Net: online).

3.7 Limitations and external effects

Regarding the collection of the material, it must be admitted, that external effects may have had influences on the information reported by the research participants. In some cases, intentional manipulation and/or the withholding of information could have affected the material.

The possibility of external effects was observed during the establishment of the interview settings. All of the study women lived together with their families-in-law (at least in the same *bari*) and it was observed that, because of this, they were strongly connected to them. While the participants agreed to keeping privacy during the interview, many family members (especially the mothers-in-law) didn't respect the set-up and (temporarily or even permanently) joined the session. When it was noticed that "external persons" (particularly the ones, who were older than the study woman) joined the session in terms of giving answers on behalf of the study women, they were reminded of the setting requirements or, if needed, they were asked to leave the setting. The mother-in-law was interpreted as a potentially strong manipulative person during the interview, even when she didn't say anything. Thus, in some cases, the situation and body language of the study woman were described in the postscripts.

Another important limitation of this study is the language barrier between the researcher and the participants. Due to lack of conversing skills in Bangla, the interviews were conducted by two research assistants under supervision. Yet, as the transcripts were made after having completed the field research, missing information was revealed concerning the interview guide outlooks. Therefore, in a few cases some information about specific topics is incomplete or missing completely in comparison to the others. As a result of the researcher's inability to interfere during the interviews (due to the language barriers), some questions were unfortunately articulated in such a way that caused responses that came out too short (e.g. closed questions).

Besides that, in two cases, more general information about the research topics was spontaneously asked instead of relying on the specific questions in the interview guides. Thus, these cases yielded much additional information, yet less information about the subjects themselves, which was later identified as missing knowledge.

3.8 Research setting: Study villages and research area

The interviews were collected in four villages in the Natore district, which are coded A, B, C and D. The villages per se are not relevant for the analysis, as they have many similarities, which now will be described. Some general and demographic facts about the research area will be depicted too.

Study villages

All of these villages are very small and provided with only few facilities (e.g. one small mixed-products shop comprising groceries, pharmacy and tea stall). The roads are unpaved and partly in bad condition (especially in the rainy season), which causes extra time to reach the villages. The majority of the houses are made either of bricks or mud, have either tin or solid roofs and are placed between palm trees, paddy fields and banana plantations. Some villages have a closely located brick factory, which offers jobs for both men and women. Natore and Singra are larger towns, which provide the most important public institutions and facilities (e.g. hospital, college, court, bus station for Dhaka and a wide range of shops and services). The villages are approximately between 5-10 kilometers away from either Natore or Singra and can be reached by motorized vehicles on the main road. Besides that, village "A" is close to village "E", which is also provided with a bazar, shops and a *Union Parishad*. Still, to reach it, people rely on motorized vehicles, which are rather frequently accessible.

Research area: Natore district (*zila*)

The Natore district is geographically located in northwest Bangladesh and is part of the Rajshahi division. The Rajshahi division is one of the eight divisions in Bangladesh and consists of eight districts. It borders the Dhaka division, Mymensingh division, Rangpur division and Khulna division, as well as on West Bengal in India. The area of Natore *zila* is approximately

1,900 km² and is inhabited by 1.7 million people in total. Of these, 1.5 million inhabitants live in the rural sphere¹⁷. This reveals an overall population density of 890 inhabitants per km². Natore *zila* has 6 *upazilas*, 52 unions and 2668 smaller administrative units, such as mauzas, villages and *wards*¹⁸. The *upazilas* are Bagatipara, Baraigram, Gurudaspur, Lalpur, Natore Sadar and Singra (cf. BBS 2015b: xix).

According to the Bangladesh Bureau of Statistics (cf. BBS 2015b: 8), the urban and rural areas are distinguished by settlements crossing the population number of 5000. A settlement (center) has a population of over 5000 people, as well as having amenities like water, electricity and gas supply, metaled roads and “improved communication”. Cities, towns, paurasahvas and cantonments are examples of urban areas.

The data from the 2011 census (cf. BBS 2015b) shows that the annual growth rate of the Natore *zila*’s population is slightly positive with 1.14%. The sex ratio (males per 100 females; cf. BBS 2015b: 7) is 100, although in the census of 2001 it was 106. The overall literacy ratio is nearly 50%, yet there is a divide between the urban and rural spheres, with a higher literacy rate in the urban sphere (64%). The female literacy rate is around 47% as against the 52% among the male population (cf. BBS 2015b: xvi-xviii).

Of about 423,000 houses counted in the Natore *zila*, the majority (approx. 273,000) are *kutchas*, which are known as temporary houses made of mud bricks, bamboo, wood and other materials. Around 116,000 houses are *semi-pucca*, which are semi-permanent houses made partially of bricks and which have cemented floors and roofs of corrugated iron sheets (cf. Banglapedia: Housing, online). Most of the houses (more than 396,000) are owned. Slightly more than 50% of the houses do not have electricity.

¹⁷ According to the Bangladesh Bureau of Statistics (cf. BBS 2015b), the urban and rural area are distinguished by settlements crossing the population number of 5000. A settlement (center) with a population over 5000 people, as well as having amenities like water, electricity and gas supply, metaled roads and “improved communication”. Cities, towns, *paurasahvas* and cantonments are examples of urban area (cf. ebd.: 8).

¹⁸ According to the Bangladesh Bureau of Statistics, the administrative units in Bangladesh consist of divisions, which are divided into smaller districts (*zilas*), and further into even smaller *upazilas* (sub-districts). A division is named after a larger city, which is also the administrative headquarter of it. A *zila* has a *Zila Parishad* institution, an *upazila* an *Upazila Parishad* institution, and a *union*, which is the smallest rural administrative unit and comprises villages and *mauzas*, has a *Union Parishad* institution. The *mauza* is the lowest administrative unit, consisting of one or more villages, and has a demarcated cadastral map. A village (the lowest rural administrative unit) can be equal to a *mauza* or be part of a *mauza*. *Wards* are the smallest urban administrative units, have a *Ward Council* institution and comprise *mahallas*, which are the lowest urban administrative units (cf. BBS 2015b: 8).

Male headed households in the Natore *zila* represent 89%. Around 68% of the people in the Natore *zila* are married and only 0.7% are divorced or separated. The main religious group is Muslim with 93%. Hindus represent 6%, whereas there are only 0.5% Christians, some 0.2% representing other religions and no Buddhists. The educational level in the Natore *zila* is quite low, as the majority has only passed class 1-4 with 17%, and nearly 38% haven't passed a single class in school. The employment statistics show that around 37% of the people do household work and of the employed, more than 70% are working in the agricultural sector (cf. BBS 2015b: xviif, 13).

To summarize the demographic and administrative facts mentioned above, the Natore *zila* is a highly and densely populated area, though mainly rural (most of the administrative units are rural units; note: under 5000 inhabitants). The vast majority of the people are Muslim. The literacy rate and the educational level are quite low and even lower among the rural and among the female population. Most of the nearly 40% employed people work in the agricultural sector. Regarding the housing standards in the Natore *zila*, only half of the houses have electricity and most people live in houses that are not solidly and permanently built. Household heads are mainly male (cf. BBS 2015b: xvi-xviii, 7, 13; cf. Banglapedia: Housing, online).

3.9 Analysis and typology process

The interviews were transcribed, which formed the base for the analysis of the research concern. Each interview is backed with a postscript, in which the interview setting, body language and further information about the interview partner is included. The "interviews" during the creation of the mobility map and impact diagram (they were combined due to time limits) were transcribed as well and thus analyzed equally.

The coding and analysis of the material was conducted principally simultaneously. In contrast to a simultaneous analysis, which arrives at the findings by analyzing the interviews simultaneously, a sequential analysis results from one or more interviews which are selected to form the base for the analysis of the other interviews. Yet, the qualitative approach of every analysis is partly sequential too, as the researcher includes the experiences and obtained information for the subsequent interpretations even without a systematic analysis (cf. Kruker

and Rauh 2005: 75). No specific software was utilized for this, as the intention was to maintain the complex context of each case (which in qualitative studies is considered important for the interpretation). A software may not fully meet these requirements (cf. ebd.: 76). Thus, the collected qualitative material was analyzed in several steps, mostly simultaneously due to its complexity. In order to filter relevant information from the interview transcripts, the analysis proceeded on the basis of selected topics. These topics put emphasis on the information relevant to the research aims and questions. The respective information (i.e. important statements and "key sentences"; cf. Kruker and Rauh 2005: 75) for each topic was highlighted and filtered in the transcripts, depicted in a compilation, compared among the sample, and related with theoretical findings (cf. ebd.). To depict the findings, some of the important statements and other quotes will be given.

Typologies involved the categorization of the frequency of mobile phone use (according to the study group basis; RMPU, SMPU and NMPU) to facilitate the subsequent analysis. This typology was already made before the collection of the interviews, as it supported the selection process. In the analysis, the typology should serve as a basic categorization for the cases and also serves to respond the research question "b". During the course of the analysis, a further typology was made according to the measure of the frequency of movements out of the village, which should support to answer the research question "a".

4 Empirical findings

In this section, several topics will be approached by analyzing the qualitative material (transcripts of the interviews) of the study cases, while making links to the theoretical and contextualizing basis.

The first chapter (4.1) regards the (daily) life arrangement of women in rural villages. It will discuss their social integrity, education, financial situation and their daily life arrangement (e.g. daily activities). The next chapter (4.2) examines the mobility patterns within and outside their *bari*/village. It will illustrate the study women's spatial dimension and their attachment to the home place. Differences in the access and use of mobile phones will be depicted in chapter 4.3. In the fourth chapter (4.4), impacts of mobile phones on mobility will be discussed.

In the quotations of the transcripts, the interviewers are abbreviated with "Q" (for "question"). In some cases, there are explanations for specific information/statements or words used by the respondents, which are made either by the research assistants (abbreviated with "RA") or by the author (abbreviated with "AH").

4.1 Rural women's life arrangements and living conditions

Among the study cases, the lives of the rural women had developed similarly until they got married. This chapter should give an introductory picture of the women's social networks, living conditions and (daily) life arrangements. It will describe their places of origins, levels of education, marriage constellations and bonds, as well as their financial statuses.

4.1.1 Life arrangement and living conditions: education, marriage and financial dependency

Level of education

The level of educational of the women presents a more heterogeneous picture. Most of the women have attained at least a primary school education, although there are some who haven't.

The younger women, like Aatifa, Layla, Saleha, Rashida and Busra, have completed at least the 8th grade, some even the 9th or the 10th grade. Although it is not known from the interview, Sonia most probably has completed the same level of educational, as she got married when she was 17 years old.

The intermediate aged women Arifa, Sabiha and Lutfana reported that they are not literate enough to fully use the functions of a mobile phone (e.g. to get information via service lines), for example.

The older women, Fatema and Nailah are illiterate and never went to school. Khadiza at least knows how to write a letter. Naeema (age 32) is between the younger and the older women in the study sample, but she finished school and has a political function. Yet, it is not known which grade she completed in school.

All of the Kallyanis (Reshmi, Salma, and Jesmin) have completed a higher grade in school (10th grade) and currently attend or already have completed additional educational training (e.g. blood grouping and blood pressure testing). Salma is attending an ICT (computer) diploma program and learns to sew, while Jesmin has done medical training. Reshmi has taught other women to tailor clothes (some of the study women also tailor/sew, but do not teach others).

All the women who attained school in their childhood and/or adolescence said that they left it due to their marriage. Saleha added that she wanted to keep on studying, but she had to give it up for getting married.

Marriage-related migration

Most of the women were born in the Natore district, but they come from different villages. All the women settled down in their parents-in-law's house after their marriage. Their place of origin may have impacts on their mobility, such as the use of transportation and the frequency of visits to the parental home. For example, Lutfana comes from another district in the Rajshahi division and only visits her parents once a year. Khadiza's parental village is not far away from her village, which may be the reason why she has never ridden a bus or a train yet.

Age at first marriage

Except one or two women (depends on their actual age, which could not be given exactly in some cases), all of the study women were married before the legal age of 18 years. Fatema's exact age is not known, but was estimated to be 44-45 years. As she has a nearly 19-year-old son, her age could have been inaccurately estimated; it probably is 35-40, since then her marriage could have happened between the ages of 15-20 years. Fahmida was married when she was around 12-13 years old, as she has a 3-year-old daughter. Rashida was around 13 years old and Khadiza around 13-14 years old. The other women got married when they were between 15-17 years old. Only the Kallyani Reshmi was already 20 years old. Her marriage was a love marriage. Salma also had a love marriage, but at that time she was only 15 years old. The marriage age of Jesmin and Naeema is not known, but Jesmin had a love marriage too.

The legal marriage age of women is often disrespected due to the pressure of dowry (cf. Huda 2006: 255). Whether dowry was the reason for the early marriages of the study women was not asked in the interview, but clearly the legal age was disrespected in almost all cases.

Economic engagement and financial dependency on husband

The husbands of the study women are (self-employed) workers and farmers, and not employees (except Salma's husband). Only a few have higher job positions. Some of the husbands do not live with their family, as they either work abroad, in the capital or come back home only in certain intervals. All the women depend financially on their husbands, although some of the women do more than the others. Women who have side jobs, like tailoring or working as Kallyani, obviously have some extra money, but they earn not enough to be financially autonomous. A Kallyani is self-employed, so she has no regular income, as Reshmi explains:

Reshmi: (...) We get 450 tk per month, if we collect 30 people's information. We work very hard. Already our name has been spread, that we are Kallyani. But we have no income.

(Interview Reshmi and Salma 2017: 7)

However, they can make financial decisions, such as making financial transactions, as Salma describes:

Salma: (...) I send money to my brother through bKash.

(Interview Reshmi and Salma 2017: 8)

She adds that as they are self-employed and do not get a regular salary, they still are financially dependent on their husband:

Salma: (...) But they don't give us money. We could have bought our necessary things with this money. Our income, which we get by selling products, is very low. So, we are dependent on our husbands.

(Interview Reshmi and Salma 2017: 9)

Even some women, who do not work outside besides their domestic work, can afford paying their mobile phone expenses. They may have the possibility to handle some money of their husbands, then. Whether they can use this money for their own purposes (a mobile phone which is not their property, won't count as their own purpose) is not clear. However, they do not seem to be totally controlled and/or limited in the dealing with money. For example, Aatifa has some money, which she (partly) spends on her mother-in-law's mobile phone (which they share):

Q: Who pays for the mobile phone recharge bill? It is your mother in-law's phone you said.

Aatifa: Well, sometimes my mother in-law, me or my husband.

(Interview Aatifa 2017: 4)

Although the mobile phone is not hers and she has no job, she can pay the expenses, if it's necessary.

Khadiza's husband works abroad. How often he comes home and his exact profession is not known, but they communicate with each other on a daily basis. It seems that he gets few opportunities to visit his home. When Khadiza was selected for the interview, she was just fetching money from the bank in Natore town. Her husband sends her money every now and then. Besides, her house was solidly built. The research team's impression was that, although Khadiza is financially dependent on her husband (as she receives remittances), she seems to have a reasonable living. Sabiha's husband also works abroad. He lives in Qatar. Her socio-economic status seemed to be equal to the other interviewed women in her village (except Khadiza), as neither the house (equipment) nor her information (see in the following chapters) stands out in comparison to the others. For example, Layla has a smartphone, although her husband works "only" in a fruit shop in the night/morning. Layla is financially dependent on him, so he does the shopping and pays her mobile phone bills. Sabiha receives money from her husband and pays the bills with this money. Sonia's husband lives in Dhaka and comes home only once a year. She receives money through other people visiting her village from Dhaka. She is fully financially dependent on him, as she cannot afford a mobile phone herself. Arifa's husband is a house guard and only comes home every 10-15 days. Lutfana's husband also comes home in this interval, as he is a truck driver. Lutfana is not exclusively financially dependent on him, as she tailors clothes for others.

The husbands of the other women are farmers, carpenters, shop owners and drivers. These women are financially dependent on them. Women who do not own a mobile phone may indicate that they do not make financial decisions and depend on their husbands. Fahmida's husband, for example, would not allow her to have one, although she never asked him, which indicates that she cannot afford it herself.

Saleha is financially dependent on her husband, as he gives her money; thus, she cannot make financial decisions like deciding to buy a mobile phone. Earlier she wanted to have one, but her husband denied her one. She describes this situation as follows:

Saleha: I have a desire for a mobile phone. But he doesn't want to buy it for me. (...)

Q: Assuming, you would have a phone. Who would pay for it?

Saleha: As my husband gives me money, he would pay for it.

(Interview Saleha 2017: 2)

Only the husbands of Reshmi, Salma and Jesmin are exceptional here. Reshmi's husband has the function of being the "village doctor", as he has a little pharmacy and a grocery shop. She does not completely depend on him financially, but her earnings are too low to make her autonomous. The same situation affects Salma. Her husband is a local hub manager of D.Net. Jesmin's husband is a medical representative. How much Jesmin depends on her husband regarding finances is not clear. However, the husbands of the exceptionally regular mobile phone users (except of Naeema, as it is not known) have higher job positions than the ones among the other study groups and cases. Although a "village doctor" is not a high position, as he neither is a doctor nor a pharmacist, he is considered alike by the villagers and it can be equally counted.

4.1.2 Daily life arrangement: activities and responsibilities

The daily life arrangement regards the activities and responsibilities of the rural women. What do these women do every day from morning to evening?

Most of the women, as seen in their descriptions below, start their day early in the morning with the first prayer. In the rural area in the Natore district, the life is characterized by agricultural work, as more than 70% of the working people are in the agricultural sector (cf. BBS 2015b: xviii). Besides being Muslim and starting the day with the morning prayer, which is at sunrise (between 5-5:30 a.m.), people may start and end their day early because of the agricultural work.

Their day is filled with the preparation of food, cleaning the house and the utensils for cooking, feeding the cattle (if they have some), making their children and husbands prepared for the day and some of them pursue extra work (e.g. go on the field, prepare molasses or do some sewing/tailoring). If they have free time in the afternoon, some of the women chat with their family members and/or neighbors, and in the evening, many watch television. By and large, most of the women have a high workload.

Some study women actually emphasized having a lot of tasks to fulfill every day. For example, Khadiza describes her day, which is similar to the one of many other study women:

Khadiza: Well, I have too many tasks to do every day. After getting up from bed I say my prayers, cook food, feed the cattle, clean my house, roam around and many more. Then I clean my utensils again, to be prepared for the lunch. Then dinner, and so on. (...) Well, I watch TV, then I go to sleep at 10:00 pm.
(Interview Khadiza 2017: 1)

Fatema also mentions having a high workload, which is not "an easy business". Her husband takes care of all the "outside business", as she explains:

Fatema: Well, there are plenty of responsibilities for me. Every dawn I have to get up from bed at 5 a.m. Then I say my fajar namaz (morning prayer of Muslims; RA). Then I start the housekeeping, cooking and cleaning the utensils. (...) I basically manage the household chores all day long. Managing a house and cooking for the family members is not an easy business. The outside business is taken care by my husband.
Q: When do you go to sleep?
Fatema: At almost 10 p.m. My daughter studies after evening, and after doing my other chores, I go to sleep.
(Interview Fatema 2017: 1-2)

The distinction between "inside" and "outside" was already explained in the literature. This indicates her perception of gendered space (i.e. the home place as the "inside" place and the "outside" as the public space) and the concordance to gender roles.

As one of the older women in the sample, Fatema's age does not reveal any evident reasons for her workload in this case. The younger women, such as Busra, have a high workload too. She has to help her mother-in-law with the household work, as they share the dwelling compound. Only in the evening does she have some free time, although she goes to bed early, as she describes:

Busra: I get up from bed at 6.30 a.m. Then I go to my mother-in-law to help her with the household work. I feed the cattle, which is owned by my in-laws. I take breakfast in the meantime and do my other works like making food for lunch around 12 p.m. Having had lunch, after 2.00 p.m., I again have to feed the cattle. Then again preparations for the dinner. (...) Generally after the evening I watch TV and go to sleep at 8.30 p.m.
(Interview Busra 2017: 1)

Lutfana has a minor side job, so she spends the day with additional tasks, which can cause her to get to bed late:

Lutfana: I get up from bed at 6:00 a.m. and say my prayer. I sweep the house, start to cook, take care of my child, take my food, and clean the utensils. Then I cook again for lunch. Also I am a tailor. I sew clothes. I take orders from other village women. In

the afternoon I gossip with others. Around 10:30 p.m. I go to sleep. If I have too many tasks in my hand, then I go to bed later.
(Interview Sabiha, Arifa and Lutfana 2017: 3)

Some of the women's day is determined by their children, too. For example, Layla has to take care of her child and additionally helps her husband to be prepared for his work, which intensifies her workload, as it can be noticed in her daily activities:

Layla: I wake up at 7 a.m. If my child is still asleep, I start to work. I sweep the house, then I cook. Later we take breakfast. I am to take my daughter to her school and also to fetch her from the school. It's not safe to leave my daughter, because the school is on the other side of the road, and she is too young to cross the road on her own. Then I cook again. I cook three times: breakfast, lunch, dinner. My husband goes out for his work at night. So I help him to be prepared and pack his food. Then I sit with my daughter and instruct her. After finishing it, we watch television and go to sleep at 9 p.m.
(Interview Layla 2017: 1)

While younger women, like Busra, have a high workload, Nailah, who is one of the older study women, has a reduced workload due to the support of her family members, as she describes:

Nailah: I wake up at 5 or 5:30 a.m. After that, I say my prayer and start to work. Then I feed the cattle, sweep the house and go to prepare molasses till 1 p.m. My daughter-in-law manages to cook. I take a bath, have lunch and do some other work. I go to bed at 8 p.m.
(Interview Nailah 2017: 1)

Before it was mentioned that the age does not influence the workload, generally, but for some women it may. It appears that younger and intermediate aged women have a lot of domestic tasks, as they have to support their families-in-law with the household chores as well. The older women may be reduced in their workload due to this support.

For Reshmi and Salma, their day deviates from others' due to their work as Kallyani. Besides doing the household chores, taking care of their children and helping their husbands with work, they go out and do their own work, too, and even have additional activities, such as tailoring. Thus, it appears, that the Kallyanis may have the highest workload among the sample. Reshmi describes her day in the following:

Reshmi: After getting up from the bed, at 5.30 a.m., I need to tackle my children, prepare hot water for the tea in our shop. Also I wash the betel leafs for our shop. Even when my husband goes to the market, usually I tackle the shop, because my

father-in-law is illiterate. Then I cook and feed my family, send my child to his school. Having finished all these tasks within 8:30 or 9.00 a.m., I go out riding my bicycle for doing the D.Net work. When I hear azaan at mid-day (1 pm), wherever I am, immediately I run to my house for my children. It's my daily routine. (...) We go from house to house to collect them. (...) After coming back from the D.Net work, I work for my family. I cook the lunch and feed my family members. Around my house, some women ask me for sanitary napkins. I provide them with those after finishing my household works. Another woman in my village asks me for something, and I go there by bicycle to provide her with that.

(...)

Q: What do you do afterwards?

Reshmi: I give my time to my children. Oh, another thing, I am a small tailor. I have a sewing machine. I take orders from women. A few minutes ago, a woman came to take her blouse. (...) I go out for work every day. (...) We do not get enough time to do other works, after finishing the D.Net and household works. What we do apart from this, depends on our necessities.

(Interview Reshmi and Salma 2017: 2-5)

Salma's day is similar, except that she studies every day, as she depicts:

Salma: I wake up at 5.00 a.m. in the morning. Then I sit to study. Afterwards, I cook for my family, feed my child, make my husband and my child ready. My husband goes out for work and brings my child to my mother for looking after it. Then I take my food, clean utensils and leave my home for D.Net work at 9.00 or 9:30 a.m. My husband also works for D.Net. He is a hub-manager. I come back from D.Net at 1 p.m. I take a shower, have lunch, finish other household works, and in the afternoon on my bicycle I go around in my own village to deliver some products or to collect money which people owe me.

(Interview Reshmi and Salma 2017: 4)

Apart from their work as Kallyani, they both have extra activities. Reshmi tailors when she gets orders from other women, and Salma studies for her computer diploma and sewing training in Singra and in village "E". The rest of their day is arranged and organized similarly to the other study women's days.

As seen above, the women's lives and work are mainly centered around the house, which matches with the literature (cf. Schuler's et al. 1996: 1729). Most of the women are confined to their household compounds, as they are responsible for the household chores. The only exceptions are Reshmi, Salma and Jesmin, who work outside their houses and pursue extra activities. Naeema, although it was not asked in the interview, certainly spends her day outside the house too, as she has a political function.

The daily life arrangement of the women is mostly similar. Yet, the Kallyanis have the highest workload. There may be a difference in the workload between younger and older women, as younger women additionally have to help their families-in-law with their domestic tasks. If the women have free time, most of them spend it chatting with family members and neighbors or watching television in the evening.

4.1.3 Social ties and networks

The social ties between the study women, their husbands, and their parental family present some differences regarding guardianship. Some husbands appear to be very protective and/or repressive, while others are not even present. The Kallyanis may have the closest relationship with their husbands, as they had a love marriage.

All the other women had an arranged marriage. Nevertheless, even the Kallyanis (Reshmi and Salma) speak emotionally about their husbands concerning financial matters. As they do not get a regular salary, their work is not fully respected by their husbands. This indicates that their husbands are the main decision-makers, although they act against their authority, as Reshmi describes:

Reshmi: My husband is getting angry because D.Net doesn't give us any salary. Why should we work so hard, if there is no output? We are doing this work against our husband's will.

(Interview Reshmi and Salma 2017: 9)

After the interview, they expressed that they would even dare to leave their husbands if they were not allowed to work as Kallyanis anymore.

The women (Khadiza, Sabiha, Sonia, Arifa and Lutfana) whose husbands do not stay with them regularly, as they work abroad, in the capital or have mobile jobs (e.g. as a truck driver), do not see their husbands very often. Yet, they live in the houses of their families-in-law, receive the money from their husbands and take on the domestic tasks of both their families-in-law and their own family. That reveals that even though the husbands have no regular physical presence, the women's social network is determined by their husbands, as they live in their in-law's houses and have no economic activity outside the house.

The women who stay with their husbands have similarly determined social networks. They all live in the houses of their families-in-law, are financially dependent on their husbands, and some face restrictions in their financial decisions (e.g. to buy a mobile phone), purdah behavior and/or mobility (see chapter 4.2.3).

The interview setting, in most cases, involved the temporary presence of the mother-in-law or of other family-in-law members. Although they were asked to respect the privacy of the interview sessions, they hardly wanted to leave. This possibly reveals that the study women are watched and in some way controlled by them. It further can be interpreted that because a married woman moves to the house of her husband, she accepts and takes on the rules of her family-in-law. That gives reason to assume that the social networks of these women are determined by their husbands.

Salma and Reshmi represent exceptions, as they do not live in the same house as their family-in-law (although they live next to each other), which could indicate more autonomy. Their marriage was not arranged, their husbands both have higher or reputable job positions, both of the women have a higher level of education (and have attained additional training), and they are pursuing different jobs. These aspects could influence their enhanced autonomy in comparison to the rest of the sample (except Jesmin, who matches with most of these aspects too). Yet, both reported, that they communicate mainly with their family members, also members of their family-in-law. They do not live with them and, consequently, may face less restrictions due to rules and set norms, but they take on responsibilities for each other and thus still are determined in their social networks. Besides that, the Kallyanis and Naeema have extra-familial contacts due to their work.

Apart from the connections with their husbands and their parents-in-law, most of the study women maintain social interaction predominantly with their family members as well as with their neighbors. Some lack such social contacts though, as they remain at home and are dependent on visits of others to communicate with them, such as with Busra and Saleha:

Q: With whom are you speaking or gossiping with, except the family members?

Busra: Usually we don't gossip with no one, except family members.

(Interview Busra 2017: 1f)

Q: How often do you go to your neighbors' house?

Saleha: I don't go anywhere. I always remain in this house.

Q: Do you feel good staying in your house always?

Saleha: I have to remain in my house always in spite of feeling bad.
(Interview Saleha 2017: 1)

The social integrity and possible contributions of extra-familial contacts are elaborated upon in chapter 4.2.4.

4.2 (Gendered) mobility and immobility

4.2.1 Spatial extensions and mobility: small-scale and larger-scale mobility

As all of the study women are spatially centered in their houses and *baris*, their spatial arrangement is limited to the domestic space. Thus, the spatial arrangement is linked with the frequency of movements outside of the domestic space.

Still, some movements take place within the village as well as outside the village. Therefore, comparisons are made between small-scale mobility and larger-scale mobility¹⁹, which are defined here in a very simplified way. Small-scale mobility is defined here as coping with only short distances within the village. Larger-scale mobility is defined as going outside the village and coping with any distance to reach the destination.

Small-scale mobility:

The study women mentioned the following places, which are reached by covering short distances, as they are within the village: the neighbors' houses, the houses of family members, shops, the bazar, the pond, the cattle's place and the molasses place. The children's school, except in Layla's case, is not in the village, but close to it (reachable by rickshaw).

Regarding visits to the neighbors' houses, only a few women in the sample reported doing so (Khadiza, Layla, Fatema and Rashida), as some only have visits from them or do not communicate with them at all. Layla said that she would visit her relatives' house(s) too.

¹⁹ Here it is named "larger-scale-mobility", as assumingly the movements are not literally "large" in terms of "large" distances.

Assumingly, only in a few women's cases do some of the relatives live in the same village, as most of them visit them only sporadically.

Sabiha and Fatema are the only ones who go to the shops in the village. In the others' cases, the male family members do the shopping (in the bazar). Only Salma and Aatifa go to the bazar sometimes, which is not in the village, but close to it (in village "E"; reachable by rickshaw). Reshmi goes to the bazar regularly, as she crosses it on her business route and has customers there. In general (for the rest of the study women), the male family members do the shopping and go to the bazar. Sonia and Sabiha are provided for by vendors who come to their houses.

Layla goes to her child's school every day. Arifa only goes there if she needs to. The school of Arifa's child is not in the village, but close to it (in village "E"). Reshmi and Salma sometimes work as teachers in a school that in the village.

Salma is the only one, who mentioned going to the pond sometimes. She also needs to take care of the cattle (in the mango garden). Nailah also goes to the cattle's place (unspecified place), as well as to the palm tree garden for the molasses preparation.

The Kallyanis (Reshmi, Salma and Jesmin) work in three different *wards*, so they leave their village almost every day. Their movements range between what would be considered small-scale and large-scale mobility, because they have to cover short and larger distances, which is why they ride a bicycle.

Larger-scale mobility:

In regard to coping with larger distances, which implies leaving the village, most of the travel is dedicated to visiting parents' and family members' houses. In some cases, these include visits to friends' houses, as they are located in the same area (Aatifa and Fahmida).

Yet, most of the women go out to visit their parents, but the frequency of travel varies highly. A few women visit them almost every week (Aatifa, Arifa and Rashida), although most of them only every couple of months. A few women visit them only once or twice a year (Lutfana and Fahmida). Only in Salma's case do the parents live in the same village, which suggests regular contact.

For many women, the intent of traveling is to visit family members. The frequency of this travel is similar to the visits of the parents' houses (i.e. from almost every week to only 1-2 times a year).

Only few women leave the village to go to a public institution. Khadiza is the only woman who regularly goes to the hospital. Arifa and Rashida reported that they would go there if it's necessary. Reshmi sometimes brings her mother to the Rajshahi Medical College, which is even farther away (a 2-3-hour bus ride). This appears to be remarkable among the study women, as only few go to a hospital in general. Moreover, large distances may involve mobility constraints, such as using public transportation. For example, Khadiza has never has ridden a bus or a train yet. The constraints can involve fear as well, as Nailah mentions:

Q: Assuming that you are going to Dhaka and you have to call your family, then what will you do?

Nailah: I won't go to Dhaka.

Nailah: Because I am afraid of going far away from home.

(Interview Nailah 2017: 2)

Other public institutions are only visited by a few of the study women. The bank is only visited by Khadiza (every 2-3 months). Reshmi and Salma go to the *Union Parishad* once a month. Naeema goes there regularly, as she is a UP member. For educational training purposes, Salma goes to a training center three times a month.

4.2.2 Frequency of movements (outside the village): mobility types

In the previous chapter, the mobility of the study women was analyzed in terms of the distances, destinations and purposes. In order to analyze how often the study women travel outside their village, the factor "frequency of leaving the village" was compared among the women, which led to a typology of four mobility types.

The following types are only a hypothetical depiction on the basis of this qualitative material, for which they are not representative nor clearly distinct from each other. Some study cases may be mistakenly labeled due to missing information from the interviews/transcripts. Therefore, the categorization only allows a comparison of the aforementioned measurement among the sample. A "highly mobile" type is an indicator for being more mobile, but cannot be literally interpreted, as a highly mobile study woman still mainly stays at home.

The four types on the basis of the frequency of leaving the village are:

- **Highly mobile:** leaves the village several times per week; at least in emergencies able to go outside unattended
- **Rather mobile:** leaves the village at least once a month
- **Rather immobile:** leaves the village every 1-3 months
- **Highly immobile:** leaves the village 1-3 times per year

In the following section, the four types will be characterized.

Highly mobile

The Kallyanis (Reshmi, Salma and Jesmin) move in and outside their *bari* several times per week. Additionally, Salma goes to Natore for her computer diploma. Naeema also moves around within her *bari* and outside the village (e.g. to the *Union Parishad*) frequently, as she is a *Union Parishad* member.

Rather mobile

The "rather mobile" type is defined by the frequency of moving outside of the rural village at least once a month. Khadiza goes out of the village once a week (to the hospital; every 2-3 months she goes to the bank in Natore). Aatifa visits her parents' and relatives' house almost every week. Then she can also see her friends in their houses. Arifa leaves the village every 5-10 days (to visit her parents' house). Rashida visits her parents' house at least once a month (sometimes even once a week). Sonia goes out of the village once a month (to visit her parents' house). Mobility out of the village varies more for Sabiha. She leaves the village between once a week (to visit other relatives) and every 2-3 months (to visit her parents' house). Therefore, on average, she moves out at least once a month.

Rather immobile

The frequency of leaving the village for the "rather immobile" is every 1-3 months. Fatema goes outside of the village every two months (to visit her parents' and her daughter's house). In emergencies, she may even leave it once a month. Within her village, if necessary, she goes to the shops near to her house. Busra visits her parents' house every 1-2 months.

Highly immobile

The "highly immobile" type is demarcated from the others in that individuals leave the village 1-3 times a year and possibly have mobility restrictions imposed by others. Lutfana moves out of her village 1-3 times a year (one a year to her parents' house and 1-2 times a year to other relatives' houses). Saleha visits her parents' house 2-3 times a year. Fahmida goes to her parents' house twice a year (every half year). Nailah leaves the village (to visit her daughters' and son's homes) 1-2 times a year.

4.2.3 Freedom and constraints of mobility

As mentioned elsewhere (chapter 2.3.4), mobility is often constrained by several aspects. Sheller (cf. 2008) depicted four kinds of mobility constraints: personal physical constraints, spatial and temporal constraints, social obligations and mental and attitudinal constraints. Women's mobility can be restricted in particular ways, too, which reach from a restrictive style of clothing (e.g. practice of veiling) to confinement to the domestic space and to rules for unattended movement. Spatial affordances require motility as well as freedom of mobility. Regarding the latter, Sheller mentions three types: personal freedom, sovereign freedom and civic freedom (see chapter 2.3.4) (cf. Sheller 2008: 25-30).

In the following paragraphs, each of these aspects will be compared and discussed in relation to the study women.

Regarding the four kinds of mobility constraints, the social obligations and mental and attitudinal constraints were mentioned by the study women. None of them had personal physical constraints in terms of disabilities or restrictions. Spatial constraints, such as physical/architectural barriers (e.g. walls, stairs, locks) do not restrict them in their mobility.

Yet, constraints of a temporal nature (e.g. schedules, closing times) may implicitly exist, as it is generally uncommon for women to move outside the house during the night time. As mentioned with respect to gendered space (chapter 2.1.1), women should not be seen outside after getting dark (cf. Rosario 2002: 122), which is related to the observation of gender and socio-cultural norms (purdah). This is a restriction of the personal freedom of mobility. Yet,

Salma mentioned that she can move freely, even at midnight, depending on the area, where she is respected due to her husband's respect among others:

Salma: (...) Another thing, there are some people who do not like my husband. If I go there, it can be harmful for me. I should not go there. There are some places where we can go at midnight without any fear, because they know I'm Sayeed's wife. They respect me for my husband. (...)
(Interview Reshmi and Salma 2017: 9)

None of the others mentioned anything similar. Besides generally not moving much around and outside of the house, many of them spend their evenings at home watching television.

The social obligations (e.g. work-related obligations or ascribed positions related to gender; cf. Sheller 2008: 27) play a role in their mobility behavior. For example, Reshmi explained that because of the enhanced mobility due to their job, they are not allowed to go out anytime they want:

Reshmi: I go out once and try to cover all the work at that time. We are not allowed by our family to go out again and again.
(Interview Reshmi and Salma 2017: 9)

As mentioned before, Nailah is afraid of going far away from home, which is a mental and attitudinal mobility constraint. Yet, beyond that, she is not used to leaving the house, which reflects socio-spatial norms and the gendering of space and mobility.

Socio-cultural and gender ascribed outlooks are the most mentioned mobility constraints, although only few face such in terms of direct prohibition or the need to rely on permission regarding their mobility. This refers to restrictions of their sovereign freedom of mobility.

Busra and Fahmida face direct restrictions to their mobility, as their husbands (and other family members) do not allow them to move outside the house (except for visits to the paternal house). Withal, regarding the mobility typology, Busra is rather immobile and Fahmida even highly immobile. Although Busra visits her parents almost every month, she does not make any small-scale movements. So both mainly remain in their houses/*baris*.

Layla faces indirect mobility restrictions too, but restrictions that refer to unattended movement:

Q: Is there any place where you want to go, but your husband doesn't permit you?

Layla: Yes, I want to go to some relatives' house. He will not forbid me directly, but say, that it's away from our house. It's not safe to go alone there.

(Interview Layla 2017: 5)

Unattended movement is a restriction of the personal freedom of mobility. By and large, none of the study women usually move around unattended, but some of them can do so in emergency situations or if it is necessary. For Nailah, unattended movement is not necessary and does not seem to be a desired quality. Besides that, she is highly immobile, which could indicate that she is not used to moving around a lot and even less alone. Yet, in emergencies, she would go out alone, as she mentions:

Q: Do you visit these places alone?

Nailah: Why should I go alone? I have my husband. I go with him. But I go to some places alone in emergency. If someone is sick, I go to his/her place.

(Interview Nailah 2017: 2)

Only Khadiza mentioned that it would not matter to her if she moves around alone or with someone else. Her movement does not depend on others, as she does not have restrictions:

Q: Do you go alone when you go out?

Khadiza: Yes, sometimes I go alone. Sometimes I go with someone else, it doesn't matter much to me. I don't have restrictions.

(Interview Khadiza 2017: 2)

Some of the study women are not allowed to move about unattended; this especially regards the youngest women. Thus, guardianship for younger women appears to be stronger than for older women. In emergencies, Layla would move unattended despite of her husband. It appears that he does not impose strong restrictions on her mobility, but prevents her mobility by always accompanying her, even if there is an emergency.

Reshmi and Salma are highly mobile due to their work and additional training. Nevertheless, as they are afraid of facing any kind of harassment when meeting unknown people, they have sought protection from the authorities:

Salma: (...) When we go by riding the bicycle, people can irritate us. We could face eve-teasing. But we haven't faced this kind of situation because of my husband. We went to the chairman and there we met with teachers. We went there to be familiar as a Kallyani. We will go from village to village. They should help us in this regard. We

are protected by the chairman. The chairman said: "They are Kallyani. If anyone tries to harm them, I will not tolerate it".
(Interview Reshmi and Salma 2017: 9)

As mentioned above, both of their (Reshmi and Salma) movements depend on the respect or resentment towards their husbands, which can facilitate it or even exacerbate uncomfortable situations.

The reasons for being afraid of facing (sexual) harassment as well as for depending on the husband's respect or resentment among the society, concerns constraints of personal freedom of mobility.

Another kind of constraint that has been mentioned is the restrictive style of clothing. Some of the study women expressed that the practice of veiling is not a mobility constraint for them. On the contrary, it enables their personal freedom of mobility, as without the veil or burkha, they would not be able to go outside their houses/*baris* and/or villages:

Q: Do you think purdah is limiting your mobility? Or it is good for a woman and woman's mobility?

Busra: No, I think it is making women's mobility easier, as I think purdah is giving me some safety at least.

(Interview Busra 2017: 4)

Also Layla's opinion is similar:

Q: Do you think it restricts your mobility? Assuming you are in a hurry, but you have to use burkha. Is it comfortable for you?

Layla: No, it doesn't restrict our life.

(Interview Layla 2017: 5)

Veiling or wearing the burkha is also done for personal safety reasons, as Reshmi explains:

Reshmi: If you do purdah, the surroundings will not disturb you. You are safe.

(Interview Reshmi and Salma 2017: 10)

Despite of that, all of the study women wear the veil or burkha. They choose their style of clothing according to the destination of their movements, which indicates that they make decisions about the degree of restrictiveness of the clothing. Khadiza, Fatema and Lutfana, for example, wear the burkha when they leave the village, but only the veil of the saree when they stay within the village. Some women always wear the burkha, except at home and in familiar

places (e.g. in the houses of their family members, neighbors and friends; Aatifa, Layla and Reshmi). The majority of the women always wear the burkha (but usually not at home). Rashida and Nailah are the only ones who said that they only wear the veil, regardless of whether they stay within their village or not.

Saleha had no burkha at the time of the interview. She got nervous when she was asked about the practice of veiling and explained that she will get one soon. It was assumed that her burkha was worn-out and that there were financial constraints restricting her ability to buy a new one. Usually she wears it, but at that time she only wore the veil.

4.2.4 Home-place attachment and social isolation: social impacts of mobile phone communication

Women's experience (as homeworkers) of the home place is not only a reflection of it as a place of work, which is influenced by the task itself, but also of the task defined within a social structural and social group context (cf. Ahrentzen 1992: 118). In the Bangladesh context, the work of women is "invisible" and undervalued in their surrounding society (cf. Amin 1997: 215). Furthermore, working exclusively at home can create feelings of social isolation, as there is a lack of social interaction apart from with family. Important social contacts may this be located in the neighborhood (cf. Ahrentzen 1992: 118). The concept of place attachment involves the affective bonds to a place. It generally involves patterns of attachment (affect, cognition and practice), places that vary in scale, specificity and tangibility, different actors (individuals, groups and cultures), different social relationships (individuals, groups and cultures) and temporal aspects (linear or cyclical) (cf. Low and Altman 1992: 8).

This chapter takes on the idea of place attachment and analyzes the study women's experiences, attitudes and bonds towards the home place, which is the central place in their everyday lives. It will not analyze, what the home place means to them, but rather how they feel about being at home. Thus, a distinction between positive/neutral and negative place attachment was made. Some may be content with their situation being and working at home, but some may feel socially isolated and seek contacts with the "outside" world or with distant living social communities (e.g. family members). Thus, the awareness of (virtual) mobility and social contacts are central to such feelings. As elaborated upon earlier, the practice of veiling does not

appear to constrain the women's mobility, rather the contrary seems to be true. Yet, unattended movement is seemingly unusual for most of them and they have different attitudes towards it.

Positive and neutral home-place attachment

Many women didn't make statements about their attachment and bonds to the home place. Still, it is assumed, that women who do not have mobility restrictions imposed on them by others, but mainly stay at home and only leave it when necessary, signifies a positive bond/attachment to the home place. For example, Khadiza has no direct mobility restrictions, but she only makes small-scale movements (as she has never ridden a bus or a train yet and reported: "I don't have to go that far"; Khadiza 2017: 3) and always tries to come back home as soon as possible when she goes outside. Fatema also stated that she never goes too far away from home. Nailah, the third study woman in this age group (around 40 years), also expressed that she would be afraid of going anywhere far away from home:

Q: Assuming that you are going to Dhaka and you have to call your family, then what will you do?

Nailah: I won't go to Dhaka.

Q: Why won't you go?

Nailah: Because I am afraid of going far away from home.

(Interview Nailah 2017: 2)

Not only the mature adults are content with their situation. Sonia also has no mobility restrictions, but prefers to stay at home, as she mentioned implicitly:

Q: Is there any place you want to go to, but you can't go due to the restriction from your husband?

Sonia: No, there is not that kind of place. I don't want to go anywhere and I don't have that kind of restrictions.

(Interview Sonia 2017: 3)

A rather neutral attachment to the home and attitude towards the confinement to it is also transmitted by some study women. For example, Lutfana²⁰ mentions, that she does not need to go to any place alone:

Q: Is there any place, where the three of you think, that you should not go there alone? That it would not be safe for you?

²⁰ Sabiha and Arifa are depicted in the quote, but it refers to Lutfana only, as the other women move around alone sometimes too and show deviant mobility patterns.

*Sabiha + Arifa + Lutfana: No, there is no such place. We don't go to these kinds of places. Actually, we don't need to go there.
(Interview Sabiha, Arifa and Lutfana 2017: 7)*

Negative home-place attachment

Some of the women expressed that they are not permitted to go anywhere alone, although they would like to do so. They mentioned that they would like to visit various relatives, as Layla describes for example:

*Q: Is there any place where you want to go, but your husband doesn't permit you?
Layla: Yes, I want to go to some relatives' house. He will not forbid me directly, but say, that it's away from our house. It's not safe to go alone there.
(Interview Layla 2017: 5)*

From Layla's statement, it appears that her husband indirectly restricts her to the home place. Her movements should not regularly exceed smaller distances.

As mentioned before, Reshmi also explained that Salma and her cannot leave the house anytime they want due to restrictions established by their families. However, as they are Kallyanis, they have the highest workload among the sample anyway. It seems that they are content with being outside of the house.

Sharply expressed, linking women and the home place could imply a simplification and control of the feminine (cf. Verschaffel 2002: 288). Yet, this is more complex, as leaving the house in the context of a society in which gender roles and socio-cultural norms (e.g. the practice of veiling) are prevalent could also engage the breaking of "rules". If women break with gender norms and boundaries by becoming more mobile and visible in public, they can endanger their social acceptance, chastity and moral integrity (cf. Hombrecher and Gerharz 2011: 118). Thus, the women's guardians (e.g. husbands and/or families), who do not want or even forbid their wives or female members to leave the house regularly or frequently, also act in the context and setting of their society. They even may want to protect them from not losing the social respect and moral integrity by imposing domesticity.

Returning to some women's desire and longing to be able to visit their families and relatives more frequently, it is assumed that they are not content with their situation at home, as they lack social contacts, and moreover, even familial contacts.

Saleha, for example, shows a clear negative feeling towards her confinement to the home place:

Q: How often do you go to your neighbors' house?

Saleha: I don't go anywhere. I always remain in this house.

Q: Do you feel good staying in your house always?

Saleha: I have to remain in my house always in spite of feeling bad.

(Interview Saleha 2017: 1)

She is highly immobile, and despite that, her husband does not give her her own a mobile phone. He argues that she could use his mobile phone, but she really only does this 1-2 times a week or less. Saleha would like to have her own mobile phone in order to be able to communicate with her parents more frequently.

Fahmida's situation is similar, as she would like to go outside more often and visit her family and relatives:

Q: Do you visit other places except your father's house? Don't you feel that you want to go somewhere and visit some other places?

Fahmida: Yes, I feel that, I want to. But I have little opportunities.

(...)

Q: Do you have the permission to go alone outside, except to your father's house?

Fahmida: I don't have that permission. My husband doesn't allow it.

Q: Where would you go, if you have that permission?

Fahmida: Well, to many places. For example, I would visit my khala's (maternal aunt; RA) house, my grandmother's house and many other relatives. But I don't get any permission to go.

(Interview Fahmida 2017: 1f)

Hence, she wants to strengthen her social ties and/or enhance social interactions. As seen in Saleha's quote, a mobile phone would contribute to that. Fahmida also mentioned, that she would use a mobile phone to maintain her social relationships:

Q: You don't have a mobile phone now. Don't you think it would be good to have a mobile phone?

Fahmida: Yes, definitely. But a mobile phone is not that urgent for me. When I need to talk to my father's house, I use my husband's phone. But it would be nice, if I had a mobile phone when I am out of the house. I could talk whenever I want. I could talk with my family members.

(Interview Fahmida 2017: 1)

So, Fahmida apparently desires to have her own mobile phone in order to have the ability to communicate with her family and relatives whenever she wants to. Busra would like to have a

mobile phone for making contacts, too. Besides that, she would like to go outside and see other places - even Dhaka for example.

Accordingly, one can conclude that mobile phones and mediated communication may contribute in establishing more social interactions with and bonds between the family and relatives. Through mobile phone communication, the spatial distance can be felt differently, as people update with news from both sides. This can contribute to the psychological well-being both for migrants and non-migrants (cf. Sterly 2015: 38, 43). Yet, most of the study women are rather content with their situation, at least according to what they mentioned in their interviews. The neighbors (often defined as "the people living around us") are, for most of them, considered part of the regular social community. Sonia, for example, has no mobility restrictions, but she does not want to go anywhere. She talks with her neighbors regularly, which represents an extra-familial social interaction.

Having regular social contact inside or outside the home, or getting out of the house, are ways to combat social isolation. People working at home do not have work related communities, which is why the neighborhoods may be important to establish extra-familial communities and thus to strengthen social ties and the sense of belonging (cf. Ahrentzen 1992: 127). This is seen among these study women, too. For example, Layla describes the importance of a social network as a general necessity for an individual and a community:

Q: To which places do you go and with whom do you communicate with on a regular basis?

Layla: We cannot live alone. So we have to live or communicate with other people. I go to my neighbors' house and relatives' house to talk with them.

(Interview Layla 2017: 2)

Yet, she has some mobility restrictions (see above), which do not allow her to maintain all of her social relationships. She would like to make visits to some of her relatives, but they are too far away and so her husband does not want her to go there (alone).

Busra, Fahmida and Saleha have direct restrictions on their mobility as well as on their mobile phone access and use (although Saleha's situation is more complicated; see above). Saleha always stays at home and so she relies on the visits of other people to see someone (e.g. her neighbors). Thus, they do not have such neighborhood bonds as suggested in the literature (cf.

Ahrentzen 1992: 127) to combat social isolation. All of them want to strengthen their social ties (especially with their family members), as Busra depicts:

Q: With whom are you speaking or gossiping with, except the family members?
Busra: Usually we don't gossip with no one, except family members.
(Interview Busra 2017: 1f)

In the context of the capabilities approach (see chapter 2.2.1), mobility can be seen as a functioning (cf. Nordbakke 2013: 168). A capability, based on the resources, strategies and contextual conditions of an individual, can be applied to mobile phones too. The mobile phone as a functioning enhances the choices and options of an individual to communicate whenever, wherever, and for whatever reason/intention he/she desires to (cf. ebd.). Saleha, Busra and Fahmida (again considered, that Saleha is a sporadic mobile phone user, but she neither has a regular access to it, nor uses it frequently) lack both the functioning of mobility as well as of frequent/regular mobile phone access and use. The more functionings a person has at his/her disposal, the more opportunities he/she has too, which relates to the freedom to exercise them according to the limits of his/her capabilities, functionings and values. Lacking certain capabilities can lead to social exclusion (cf. Nambiar 2010: 18f, 101), as interpreted before. To conclude, those who are spatially immobile, cannot make use of regular/frequent mobile phone communication and, besides that, have no social community integrity in the neighborhood; they are not only spatially excluded, but also somewhat socially excluded and isolated. This is explained by their expressed desire to have more freedom/choices of mobility and to own a mobile phone for their communication purposes. Saleha, Busra and Fahmida correspond to these characteristics. Besides that, they are all younger women in the regular presence of their husbands, which indicates stronger guardianship. Thus, the younger study women, who live in a very protected and repressive (due to restrictions and prohibitions imposed by others) setting, lack capabilities for social interaction, such as (physical and virtual) mobility and mobile phone use/communication.

4.3 Mobile phone access and use

In the previous chapters, some aspects and patterns of the study women's mobile phone access and use were elaborated. However, it is not yet known what kind of access they have (e.g. who

owns a mobile phone or with whom they share a mobile phone), if they have constraints in the access or use, and what for which intentions they use it. It will also be discussed if ownership, as compared to shared access, makes a difference in the mobile phone use patterns.

4.3.1 Access: ownership, shared and borrowed

Among the 17 research participants, 10 have their own mobile phone and 6 women borrow the mobile phone from someone if they need it. One of them (Aatifa) shares it with another person, and only one (Nailah) does not use a mobile phone at all (see also interview table in chapter 3.5).

The distinction between shared and borrowed access was derived from the collected information. Usually, shared access involves an intermediate device provider through which a group of people can share such a device, for example in a telecenter or phone shop (cf. Dang et al. 2008: 8). Although shared access makes the access to and use of ICT affordable to the poor population (cf. Asad 2011: online), this cannot be affirmed for the rural village women in this study sample. None of them have ever visited a telecenter and most of them do not even know, where to find one. People also share and borrow mobile phones, which shows the relevance of social capital to obtaining access (cf. Soriano and Cao 2017: 84f).

So, the study women either share a mobile phone with someone or borrow it. Those who do not own a mobile phone either rely on their husbands, their family/relatives or neighbors. Sharing is understood here as not having full authority over the access to and use of the mobile phone. Yet, for example, Arifa can carry it when she leaves the house and does not have any use restrictions and even sometimes bears the expenses. Borrowing a mobile phone implies the lack of any authority over it and the necessity to ask for the permission to use it. Thus, the women who borrow a mobile phone also do not carry it when they leave the house and they use it less frequently than those who own or share one.

4.3.2 Roles of access and use

As mentioned in chapter 2.3.2, there is a distinction between five possible roles in accessing and using a mobile phone: purchaser (financially involved), owner (authority), possessor

(holding the device), operator (physically manipulates it) and user (uses it without physical manipulation) (cf. Burrell 2010: 235f).

Except for Nailah, all of the study women know how to use a mobile phone in its most basic functions, which is picking up and ending a call.

Most of the women use the mobile phone to speak with their husbands. The frequent users, which are the regular mobile phone user group, use it even on a daily basis. Interestingly, they usually do not make the calls themselves, but instead they await the calls of their husbands. Sabiha's husband works abroad and calls her 2-3 times a day. Thus, she always carries the mobile phone, as he could call her anytime. Layla uses it even 3-4 times a day, but to talk with her parents as well.

Aatifa, the youngest of the sample, shares a mobile phone with her mother-in-law. She uses it 3-4 times a day to make and receive voice calls. Besides that, she also listens to music on it. Sabiha and Arifa use other functions as well (camera and music player). The Kallyanis (Reshmi, Salma and Jesmin) have smartphones and internet access. Thus, they use a broader range of functions, which includes accessing information through the internet (e.g. to buy a transportation ticket or to check exam results). Besides that, they use MFS, the camera and music player. Jesmin has a Facebook account, too. Due to their work, these women, as well as Naeema, use their mobile phones very frequently per day. Jesmin reported that she uses it even 20 times a day.

According to the five roles of access and use of mobile phones, it was observed that only the Kallyanis and Naeema assume the role of the purchaser. None of the other women were financially involved in obtaining the device. In most of the cases, the husbands take care of the expenses of the mobile phones. Yet, some of the women mentioned that they also sometimes would contribute, although it was not clear if the used money was their own or their husband's. However, the Kallyanis, Naeema and Sabiha are the only ones who pay the expenses themselves.

So, all of the women are operators, but not all of them are possessors and owners. The Kallyanis and Naeema are the only possessors among the sample. Nailah does not take on any of the roles, as she does not use a mobile phone at all.

4.3.3 Mobile phone user types

Derived from the frequency of use, the categorization of regular, sporadic and non-mobile phone users has been made (see also interview table, chapter 3.3). Now, how often the women use a mobile phone, for what reasons, and the benefits they offer will be discussed.

Regular mobile phone users

The regular mobile phone users use it on a daily basis. They mainly use it to speak with their husbands. Some of them use it to communicate with their parents and/or other relatives too. They talk with their husbands several times per day and some of them only await the calls. Therefore, they often carry it with them when they move around. Only the working women (Reshmi, Salma, Jesmin and Naeema) use it for reasons other than for communicating with their husbands, as they use it for their jobs too. Salma is the only one who mentioned calling friends and teachers. The other study women, at best, contact their parents and other relatives.

For most of them, mobile phones bring advantages in the form of information exchange, including updates about themselves and other people, and easier communication. Aatifa stated that mobile phones lessen time consumption. She shares the opinion with Layla, that mobile phones can be used in cases of personal emergencies, to seek help and inform others. For Khadiza, a mobile phone hasn't brought relevant change to her life, as she could live without it as well. Everyone else mentioned that a mobile phone is necessary for or important to them; personally, if they face problems or emergencies, and generally to communicate with their husbands.

Sporadic mobile phone users

The sporadic users usually do not use their mobile phone every day. Only Lutfana may use it a few times per day, depending on her incoming calls. Arifa and Lutfana only use it to talk with their husbands (although Arifa uses the music player too), but they never call them, so they are awaiting his calls. Thus, they always carry their mobile phone. Saleha uses it to talk with her parents, but she only uses it 1-2 times a week or even less often. Her husband does not allow her to have her own mobile phone, although it would be necessary for her in order to talk more

frequently with her parents. Rashida and Fatema use the mobile phone to talk with their parents and/or other relatives.

All of the sporadic users think that mobile phones are necessary for them, but the reasons are different. While Arifa and Lutfana mentioned that they mainly need it for communication with their husbands, Saleha would strengthen her social ties or social life (as she is highly immobile and her social life is poor, as described earlier in chapter 4.2.4). For Fatema, mobile phones have become necessary in life, but she didn't elaborate on why.

Non-mobile phone users

Sonia, Busra and Fahmida reported that they would like to have a mobile phone, but that their husbands do not allow them to have one. The imposed restriction to access by their husbands partly has to do with financial constraints (see chapter 4.3.1). Busra and Fahmida said that they would like to communicate with others whenever they want to. For Busra, it would be useful in cases of personal emergencies too. All of them, except Nailah, borrow a mobile phone from someone else, but they always have to ask for it. Nailah does not know how to use it, which is why she does not see a necessity for having or using one. Yet, even she thinks that it is beneficial for communication purposes.

4.3.4 Constraints of access and use of a mobile phone

Some of the women face restrictions in their access to and use of mobile phones, which refers to women who only borrow the mobile phone from someone else. These women mentioned that their limited access is dependent on their husbands. Either they do not allow them to have or use a mobile phone, or these women never have even asked them, although they would like to have one. One of the reasons for access constraints are financial problems, as Sonia mentions:

Q: Does your husband allow you to use a mobile phone?

Sonia: No, he doesn't like that. My financial problems also don't allow it.

(Interview Sonia 2017: 3)

Financial reasons could influence the husband's decisions, as they would have to pay the expenses of their wives' mobile phones. Saleha, for example, describes that her husband may

think that one mobile phone is enough for them (although she cannot make use of it anytime she wants, as she uses it less frequently than she would like to):

Q: Why don't you have a mobile phone? Don't you have any desire for having a mobile phone?

Saleha: I have a desire for a mobile phone, but he (husband; AH) doesn't want to buy it for me. Maybe he thinks, he has a mobile phone, one is enough for both of us. I had a desire for it, but now, I don't feel much of that for a mobile phone anymore.

(Interview Saleha 2017: 2)

Fahmida and Busra didn't elaborate on why their husbands refuse to give them a mobile phone. While Busra had one earlier and thus asked for it again several times, Fahmida never dared to ask her husband, as she suspects a prohibition imposed by her husband.

Q: Do you have a mobile phone? Don't you think mobile phones could be a great help for communication when you are out?

Busra: I did have a phone, but I gave it to my husband. When I wanted it back, he refused to give it to me. Yes, I think that a mobile phone is a very important and useful thing.

Q: Did your husband wanted it back from you?

Busra: No, he didn't. Actually my phone had a problem. I gave it to him to take it to the mechanic. After fixing it, he brought it back, but he didn't return it to me, although I asked for it several times.

(Interview Busra 2017: 2)

Q: Don't you want one (mobile phone; AH) for your own?

Fahmida: (Laughs)... Yes, I want one, but my husband may not permit this. I didn't demand one neither.

(Interview Fahmida 2017: 2f)

Rashida's situation is more complicated, as she seems to have a contradictory opinion about having a mobile phone. Basically, she would like to have one, but as she can use her husband's and family members' phones, she didn't ask for one for herself. She thinks it is not necessary for "now", only if her husband would move away. It appears that she reflects the opinion of others, when she denies the necessity of having a mobile phone, as at first she said that it would be better for her.

Q: That means, you know how to use it. Do you think, if you had a mobile phone, it would be better?

Rashida: Yes, I know how to operate it. It would be better, if I had a mobile phone.

(...)

Q: Did you tell your husband to buy a mobile phone for you? Or do you think one is enough for you?

Rashida: No, I didn't ask him for a mobile phone. I think one is enough for now. My father-in-law and brother-in-law have mobile phones. When I need to call my husband, I use their mobile. But if my husband will go far away from home (permanently; AH), I will take a phone as mandatory.

(...)

Q: When you go somewhere, don't you feel the necessity of having a mobile phone?

Rashida: Actually, my parents have their mobile phones. I use their phone. That's why I do not feel the necessity of it.

(Interview Rashida 2017: 2f)

In comparing the mobile phone use patterns of all study groups, it was found that, regarding direct communication restrictions, there is no respective case among the regular mobile phone users, only one case (Saleha) among the sporadic mobile phone users, and three cases (Sonia, Busra and Fahmida) among the non-mobile phone users. Rashida likely has indirect restrictions, because although she can use the mobile phones of others, she would like to have one for herself; however, she has never asked her husband.

4.4 Impacts of mobile phones on mobility

4.4.1 Impacts of unrestricted access and living without the husband

It was mentioned elsewhere that mobile phones can make women more independent in their access to information, communication with others and enhance their decision-making status in the family and in the society (cf. Islam and Slack 2016: 81). When women do not own a mobile phone, it has contrary effects, as they get more dependent on others, especially on male family members (cf. ebd.).

Some of these impacts were observed among the study women too. Decisions about where, when, and how (unattended or accompanied) the travels of the women are arranged seem to be more independent among the owners and sharers (Aatifa) in comparison to the borrowers of mobile phones. For example, all of the study women could make unattended movements, except Lutfana. The borrowers are not allowed to do so. This does not seem to be dependent on the age of the women, as among the mature adults, only Nailah never goes anywhere alone. She

does not see a reason to do so either, as already described before. Furthermore, her mobility relies on permission from her husband.

It seems that owners and sharers are more independent regarding destinations of travels, too, as Aatifa, for example, sometimes goes to the bazar as well. According to purdah principles, the bazar is a place which is considered as an "unacceptable" place for women (cf. Kabeer 2001: 69). Going to the bazar is rather exceptional for the study women, as the majority of the women reported that they would not go there. Only their husbands or male family members go there regularly, like Layla, Khadiza and Nailah briefly mention:

Q: Who does the bazar usually? Do you?

Layla: No, my husband does it.

(Interview Layla 2017: 2)

Q: Do you have to go to the market?

Khadiza: No, I don't have to go to market. My brother-in-law does that for me.

(Interview Khadiza 2017: 2)

Q: (...) Who does bazar?

Nailah: My husband and my son.

(Interview Nailah 2017: 1)

It is considered that a woman in Bangladesh needs a male guardian at every stage of her life, whether it's a father in the childhood, a husband when she is married, or a son when she is older (cf. Nazneen 1996: 46). In the three quotes above, this is visible. Layla (age 25) relies on her husband, Khadiza (age 40) on her brother-in-law (as her father has passed away and her husband and son live distant from her), and Nailah (age 40) on her husband and son.

Yet, some of the study women's husbands are working abroad or distantly. The husbands of Khadiza and Sabiha work abroad, while Sonia's husband works in Dhaka. They come back home once a year. Arifa's and Lutfana's husbands work distantly and come back home every 10-15 days. Except Lutfana, all of them are considered as rather mobile types. Khadiza and Sabiha even manage their own bank accounts, as they receive remittances from their husbands. This enables them to pay their mobile phone expenses, for example. Sonia receives her husband's money from other people, who return from Dhaka to her village. While Khadiza and

Sabiha can withdraw money whenever they need to, Sonia needs to rely on people returning home from Dhaka.

Women with absent partners are "(...) able to communicate their financial needs and to influence the remittance frequency and amount" (Sterly 2015: 40). This has a certain impact on their negotiation power over resources (cf. ebd.). Beyond that, it influences their mobility, as Khadiza and Sabiha need to go to the bank, which increases their mobility. Sonia can stay at home to receive her husband's money. Regarding their general mobility behavior, Khadiza is the most independent, as she can move alone or with someone else, but it would not matter to her:

Q: Do you go alone when you go out?

Khadiza: Yes, sometimes I go alone. Sometimes I go with someone else, it doesn't matter much to me. I don't have restrictions.

(Interview Khadiza 2017: 2)

Sabiha and Arifa usually do not move unattended, but if they need to, they do. Only Lutfana never would go alone outside. Yet, she sews clothes and takes orders from other village women, which is exceptional among the sample, as only Reshmi sews clothes for others too. It seems, therefore, that Lutfana has no enhanced financial opportunities (e.g. a bank account) nor enhanced mobility capabilities (e.g. through the possibility/opportunity of unattended movement), but her additional economic activity, although it only may be a minor income, in a certain way reflects enhanced independent decision-making power.

Women whose husbands do not live with them likely have more control over their access to ICT. Yet, the purposes for their use may not go beyond family-related or "traditional" female occupations (cf. Hossain and Beresford 2012: 464). This can be affirmed for those women in the study who live without their husbands.

In contrast, it appears that personal economic activity is important for the aforementioned impacts (cf. Islam and Slack 2016; see above). The Kallyanis and Naaema are very independent in their access to information, as well as in the use of ICT. Beyond that, their usage is also related to their jobs, educational training, extra-familial contacts (including via social media), financial matters (e.g. MFS) and mobility (e.g. buying a transportation ticket). This also enhances their decision-making status, although, basically, they still rely on their husbands. For example, the style of Jesmin's clothing depends on her husband:

Jesmin: I never ride the bicycle wearing burkha, because I think it's necessary to maintain the respect of burkha. But when I go outside with my husband and children, I wear burkha. Sometimes my husband says: "We are going to a program, you don't need to wear a burkha. You better wear a saree". Then I wear saree.
(Interview Jesmin 2017: 2)

Although in the depicted situation Jesmin's husband wants her to dress less restrictively, which one may judge positively, she would not decide to do so on her own. In some way, her husband needs to permit her to leave the house wearing only the saree.

4.4.2 Impacts of carrying a mobile phone on (unattended) mobility: personal safety and carefree travels

Many of the study women reported that mobile phones are useful when they leave their houses in cases of unforeseen events, such as emergencies. Thus, carrying a mobile phone would contribute to their feelings of personal safety.

Carrying a mobile phone while traveling away from home can suggest people travel in a more confidently or carefree (cf. Line et al. 2011: 1497) state. This can raise women's awareness about the benefits of mobility (cf. Sterly 2015: 42). Furthermore, people can save time and effort by using mobile phones; in emergency situations, they would have to send someone to inform others, which involves costs for transportation and stopping work or study (cf. Yunus and Jolis 2007: 227f). This lessens mobility as well (cf. ebd).

This is expressed similarly by Aatifa:

Aatifa: If you have a mobile phone you can contact your parents and friends and relatives. When you are in danger, you can call someone and seek for help. Mobile phones lessen the time consumption.
(Interview Aatifa 2017: 3)

For most of them, leaving the house with the mobile phone is necessary, as Layla depicts:

Q: Do you think a mobile phone is necessary when you go out of your home?
Layla: I think yes. It's necessary to take the phone with me. If something unpleasant happens to me, then whom will I ask for a mobile? As I have a mobile phone, I can contact my parents and my husband. It's good to have a mobile phone.
(Interview Layla 2017: 3)

Even the women who do not have a mobile phone are aware of the contributions to personal safety when they leave the house, as Fahmida describes:

Fahmida: When I am outside, a mobile phone can be a great help for the family members, to report "I am well, you don't need to worry about me". (...)
(Interview Fahmida 2017: 2)

Only Sonia didn't mention something like this. She admitted that a mobile phone would be very useful for her, but she didn't elaborate on the reasons. Rashida didn't mention any personal safety related concerns either, but it is considered that she never leaves the house alone and she has a rather unlimited access to mobile phones as well.

To conclude, besides the main benefits of mobile phones in the facilitation of communication, the possibility to transfer news and updates, and the strengthening of social networks, personal safety shows important relevance too.

Even Reshmi, who is highly mobile and appears to be more independent than the other study women (except the other Kallyanis and Naeema), mentioned that the mobile phone enables her to travel alone farther distances with her mother. Her husband only allows her to go that far because she has a mobile phone:

Reshmi: (...) I will go to Rajshahi Medical College (RMC) for my mother. She is so sick. She needs to be checked up. I am going there alone. My husband is leaving me alone there only because of the mobile phone. Otherwise, it would not be possible for me to go there alone.
(Interview Reshmi and Salma 2017: 8)

Salma also describes that mobile phones help them to ensure their safety during their job activity:

Salma: (...) When we leave for work, if we face any problem on the way, we can inform someone through the phone.
(Interview Reshmi and Salma 2017: 7)

Traveling without a male companion or even unattended movement can be enhanced by carrying a mobile phone. This appears to be dependent on the ownership of a mobile phone. All of the study women who own a mobile phone would leave the house alone if necessary. Except for Khadiza, who regularly moves around alone, they all refer to the ability to call someone if there is some sort of urgency or if they face an emergency. Nevertheless, as

mentioned above, most of the sharers and borrowers also are aware of that, but as they cannot carry a mobile phone, they do not go anywhere without companion.

4.4.3 Impacts on translocality and virtual mobility

As elaborated upon before, many study women described that mobile phones facilitate communication among family members. Additionally, it has a spatial dimension and an advantage for some as well. Layla expressed that information can be accessed or spread through mobile phones while being at home. Therefore, people do not necessarily need to leave their houses anymore for such purposes.

Layla explains that through mobile phones, people can get and spread updates, while "sitting in the house":

Layla: When I need to call my husband for bringing necessary things, I call him. If my children get sick, then I call my husband: "Come home, we need to take them to the doctor". Also I use my phone to call my parents. My parents also call me to talk.

(...)

Layla: (...) Earlier we didn't have a mobile phone. There were lots of problems. But nowadays we can get information so easily sitting in the house, through internet. For example, if we want to know the result of the board exam, we don't need to go to the school or college. We can get it through the mobile phone.

(Interview Layla 2017: 2f)

Salma also describes the benefits regarding the reduction of time consumption and efforts:

Salma: (...) Earlier if someone had died, it was too tough to inform relatives, but now a single call is enough. (...)

(Interview Reshmi and Salma 2017: 8)

Saleha, who does not have and infrequently uses a mobile phone, reported that mobile phones facilitate information transfer regarding the business and job sector too:

Q: What kind of changes it brings to the society?

Saleha: Lots of changes it brings. It helps a lot in the job sector and also in the business sector. You can communicate with others sitting in your own house. My husband gets offers through the mobile. Someone calls him and says: "Come to my house. I need you to make some furniture".

(Interview Saleha 2017: 4)

Indeed, mobile phones can contribute to women's access to information concerning job and business opportunities. Yet, this may depend on owning a mobile phone device, as non-owners rely on the ones of their male counterparts (cf. Islam and Slack 2016: 80f).

Only few women mentioned that the mobile phone use has direct influence on mobility. Rashida and Reshmi, for example, explain why:

Q: Do you think mobility of women has increased? If yes, why?

Rashida: Yes, mobility has increased. It happens because of transport and communication facilities.

(Interview Rashida 2017: 4)

Reshmi: (...) We can do anything so easily through the mobile phone, which we could not do earlier. We don't need to go anywhere - we just make a call. It saves time and money also.

(Interview Reshmi and Salma 2017: 11)

As mentioned earlier, none of the women, except the Kallyanis (Reshmi, Salma and Jesmin) and Naeema, said that they would use MFS. Salma elaborated that earlier they had to rely on others to send and receive money. Now they can do it themselves via the mobile phones:

Salma: (...) In the past, someone had needed money. His/her family had to give him/her the money through someone else or they had to go there to hand over the money. But now, anyone can send or receive money through mobile banking (bKash or Rocket). I send money to my brother through bKash.

(Interview Reshmi and Salma 2017: 8)

Fahmida also sees an advantage in the MFS, although she cannot use it:

Fahmida: Many things can be done through mobile phones nowadays. Using a mobile phone, people can send money. A mobile phone is very essential.

(Interview Fahmida 2017: 2)

As in Reshmi's and Salma's cases, the MFS agent is Reshmi's husband; the enhancement of small-scale mobility (travel to MFS agents) through such services is not given.

Certainly, these statements implicate, that through the information facility of mobile phones, the necessity to move outside of their houses/villages is lessened. Thus, their mobility decreases

in that sense. If someone in their family faces a severe problem, they can inform others or get informed quickly. Similarly, this increases their claim of the home place.

When people use their mobile phones at home, this has effects in terms of substituting physical visits of places. Thus, these places become places of "mediated, translocal interactions" (Sterly 2015: 41). Mobile phones can change the setting of communication, because people use it from any location (cf. ebd.). The home place, as central to the rural women's spatial dimension, transforms into such a place of translocal interaction when they make calls to distant living family members, friends and also co-workers and other job-related persons. Communication technologies do not simply substitute physical travel, but they can reinforce them and thereby virtual mobilities, too (cf. Urry 2003: 266; cf. Lemos 2008: 98; cf. Line et al. 2011: 1492). Yet, ICT can lessen the need to travel to be physically present in certain places, as the presence can be felt virtually (cf. Urry 2003: 267; cf. Line et al. 2009: 1495).

Regarding maintaining and strengthening the social network, the study women didn't mention that they would like to substitute physical visits with making calls. It is rather the case, that many of the women lack the opportunity to make frequent visits in person, and is why the mobile phone can reduce their longing and feelings of missing people close to them, such as their parents. In contrast to other studies, none of the study women mentioned that mobile phone communication increases their longing to physical proximity (cf. Sterly 2015: 41).

5 Conclusion

5.1 Research questions

The research aim of this diploma thesis was articulated in one research question with two sub-questions ("a" and "b") (see chapter 3.1). The main concern of the study was to examine the impacts of access to and use of mobile phones on the mobility of women living in the rural sphere in Bangladesh. Thus, of particular interest was the identification of both the mobility and the mobile phone use patterns of rural Bangladeshi women. It was assumed that women's mobility in the public sphere is infrequent and reflects a gendered pattern. In order to that, the study intended to depict the awareness of and attitudes towards mobility and the domestic space, as well as to identify influencing "forces" (such as constraints) which have effects on both

mobility and mobile phone use patterns. All of these aspects should contribute to obtaining a deeper understanding of how mobile phones can have effects on rural women's mobility in Bangladesh.

Thus, in the following, the findings of the discussion serve to answer the research questions and furthermore, to approach the research aim. As the main research question is supported by two sub-questions, which provide necessary information for integral comprehension, the answers to the sub-questions will be given first.

Sub-question "a": *What mobility patterns of women in rural Bangladesh can be identified?*

The home place, defined as the house as well as the dwelling compound (*bari*), is apparently the central spatial dimension of rural women and thus a highly gendered/feminized space. Most of the physical, spatial movements occur within the *bari* and the village. As they are in charge of the household chores, they mainly stay at home. Besides their domestic work, only few women have additional tasks and activities, of which livestock breeding and minor tailor works were mentioned.

It appears that the most active and mobile women in the rural villages are the women working as Kallyanis, as well as those who have a political position (e.g. elected *Union Parishad* member). The activities of the women who work as Kallyanis, besides their job-related activities, are comprised of household chores, livestock breeding, tailoring, teaching and attending trainings. The Kallyani-work increases the mobility of the rural women significantly, as each Kallyani is responsible for customers across three different *wards*, which neighbor their home *ward*. They use a bicycle to cover the distances. Besides that, they have a meeting with the chair of the *Union Parishad* once a month.

Women who do not do any economic activity outside the house tend to stay at home. Their mobility mainly is characterized by visits to their parents and family members in other villages in the same district. After marriage, the rural women moved into the house or *bari* of their husbands. Thus, the women live in a dwelling compound together with their families-in-law. For most of the women, the largest movements from their homes represent travels to the parental family members', other relatives' and friends' houses. The most frequent larger-scale movement is the visit to the parental house. Other places with larger distances from the home place consist of the hospital, school, bank and the bazar. These destinations are reachable by

any rickshaw and by bus, as they are located in the neighboring town or village (within the same sub-district; *upazila*) or at least in the same district (*zila*). Crossing the district border is rare among rural women. Even within the district, only very few women go to public places regularly, of which the women working outside the home are the most frequent visitors. Public places include the school of the children, the hospital and the bank. Only the women who work outside the house go to a wider range of places in the public sphere, such as to the bazar, *Union Parishad* or to training centers.

Regarding small-scale movements, most of the women's mobility is limited to within the village area, usually with the intent to make visits to the neighbors. Only few women go to the shops in the village, as some are either provided for by vendors at the doorstep or by their husbands and male family members, who go to the bazar. Going to the bazar appears to be very unusual for women, as only the most mobile women, especially the women who work outside the home, go there. This indicates, that the bazar is a male-dominated space and thus a gendered space.

The frequency of leaving the village varies strongly among the women. The Kallyanis are the most mobile women, and it is assumed that this is also applicable to women with political positions. The Kallyanis leave their village almost every day due to their work. Most of the other women usually stay at home. It is rare among other women to move out of the village on a daily basis too, for which it has been noticed that bringing the children to the school (in the neighboring village) is the only reason. Only few women show rather regular movements out of the village, which consist of traveling to the hospital and to the bank, but not more often than once a week.

Women who leave the village several times per week do so because of their job activity, trainings and visits to their family members and friends.

Most of the women who leave the village at least once per month have absent husbands. The mobility is slightly increased for those who have a bank account for the remittances from their husbands. Besides that, a few women have to bring their children to the hospital and to school.

The mobility of the women who leave the village every couple of months is assumingly characterized only by visits to family members. Within the village, only very few women go to other places than to their neighbors, such as to the village shops.

Women who only leave the village very rarely (i.e. a few times or even only once a year) do not go to other places within and outside of the village, apart from their family members' houses.

It appears that absent husbands as well as a professional/job activity increase the mobility of the rural women. Women who have absent husbands move outside of their villages at least once per month.

Travelling without a (male) companion is assumed to be an uncommon practice for the rural women. Only very few women can move around alone without asking for permission, but some of them can do so in emergency situations or if it is necessary.

The practice of purdah in terms of veiling is seen as necessary when leaving the house and/or the village. Most of the rural women wear the burkha outside of their house or village. The burkha does not appear to be a constraint for mobility, as it rather enables them to move around. If women would not wear a veil or burkha, they would not be able to leave the house at all. This is because, in their perception, there is no place that can be visited appropriately without it. Yet, whether these women wear a veil or a burkha sometimes depends on the distance of their movements. Some women always wear the burkha, regardless of the place/destination and distance, but others wear only the veil if they are in places, where they are accepted/known and they are familiar with the surrounding people (e.g. in the neighborhood or in the village). This indicates that any place that is not female-dominated or familiar to the women, requires the practice of purdah.

Regarding gendered space, it appears that many women avoid visiting public places in and outside of the village, such as the bazar, the village shops or the school. The practice of purdah makes gendered spaces visible as well, as the women make decisions on when and where they are using purdah, and what kind of purdah is appropriate then.

Sub-question "b": *Which kinds of access to mobile phones and what mobile phone use patterns of women in rural Bangladesh can be identified?*

It was noticed that rural women are generally able to access a mobile phone, as they either have one, share one with someone, or can borrow one from another person if they need it. However, many women have their own mobile phone. In other cases, women rather borrow one than share one with someone else. It is assumed, that women, who borrow mobile phones, have access

constraints, which either are related to their husband's decisions and/or to the lack of financial opportunities to obtain one (which are also related to the women's financial dependency on their husbands). It is suggested that younger women tend to be more constrained in their access to mobile phones because of restrictions imposed by their husbands. Women who have absent husbands have noticeably more access to and control over mobile phones. However, the women who work outside the house have freer access to ICT and thereby use it very frequently for personal and job-related purposes. Furthermore, they also regularly bear the mobile phone expenses themselves. Only a few of the exclusively homeworking women do so too sometimes, as they are financially dependent on their husbands. Yet, women with absent husbands possibly have more control over financial resources; however, this was insufficiently examined.

Mobile phones are predominantly used to communicate with the husbands and family members. Some women always carry their mobile phone because they await the calls from their husbands.

The frequency of the use of mobile phones varies among the rural women. Some use it everyday and even several times per day, especially to talk with their husband. Others use it only a few times per week. The women who borrow a mobile phone are apparently the least frequent users. They use it only occasionally to maintain contact with their parents and family members. The most frequent users are obviously the women who work outside the house, as they also give and receive job-related calls.

Main research question: *Which impacts does the mobile phone use of women in rural Bangladesh have on their physical and virtual mobility?*

Generally, mobile phones are perceived to be an important item in terms of maintaining social contacts and transferring news/updates about the family and other relatives. Some of the women find it particularly beneficial because it enables communication while staying at home. This, however, does not support the assumption that mobile phone communication replaces physical visits and thus decreases the mobility. It is assumed, rather, that for women who lack the opportunity to make more frequent physical visits to people close to them, such as their parents, the mobile phone can reduce their longing and feelings of missing them. Those women who are not constrained in their mobility nor lack social contacts, did not express the desire to be more mobile or to have a mobile phone.

It can be suspected that younger women tend to be more restricted in (unattended) mobility, which would indicate that they are expected to stay at home and live in a protected and repressive environment. This can result in social isolation if they also lack contact with their neighbors. Withal, they tend to be restricted in their access to and use of mobile phones, which would enhance their social interaction. Thus, it appears that the women who are strongly restricted in their mobility and social interaction are discontent with their situation. They would like to visit and communicate with their parents and family members more frequently.

It was also noticed that women without mobility restrictions likely have a neutral or even positive home-place attachment. They are more socially integrated, as they can visit their neighbors and make use of mobile phone communication more frequently.

Access to mobile phones is assumed to have impacts on unattended mobility as well, as those who only borrow a mobile phone cannot carry it, when they leave the village. Carrying a mobile phone was seen as contributing to the feeling of personal safety during their travels, as they could call someone in the occurrence of unforeseen events (e.g. emergencies). Owning and sharing mobile phones was interpreted as beneficial to make slightly more independent decisions regarding to which destinations, when and how (unattended or accompanied) movements are issued. Women who borrow mobile phones cannot regularly access and use mobile phones and thereby cannot profit from its impacts on (unattended) physical mobility.

By and large, it can be suggested that the main impacts of mobile phones on women's mobility regard the enhanced feeling of personal safety while traveling outside of the village, as well as the compensation for the lack of social interactions and maintaining the contact with family members (especially the parents).

Carrying a mobile phone can contribute to enhancing mobility; for example, as it was noticed that husbands may be convinced to allow their wives to cover larger distances without a male guardian. This is related to personal safety, too, as women could call their husbands in emergencies.

Socio-spatial isolation/exclusion may be compensated through mobile phone communication, which would not necessarily decrease physical mobility, but rather reduce social isolation. Thus, it can be suggested that virtual co-presence and virtual mobility can serve as a tool to compensate mobility constraints in the physical space.

In contrast to borrowing a mobile phone, owning and sharing appear to be more influential on both the physical as well as virtual mobility due to enhanced feelings of personal safety (which besides can moreover convince male guardians to allow their women to travel without a male companion and/or larger distances).

5.2 Prospects

As mentioned above, the results indicate that mobile phones have certain impacts on the spatial mobility of rural women in Bangladesh.

To obtain representative results, the collection of quantitative data is suggested. In a more extensive study, different domains of employment or economic activities, the absence of the husband and the particular impacts of ownership of and shared/borrowed access to mobile phones could be analyzed more comprehensively. In this study, these aspects were recognized as greatly significant.

Further investigation on the topic with quantitative and qualitative approaches could contribute to a better understanding of the complex relationship between mobile phone use and the physical and virtual mobility of rural women in Bangladesh. Although a lot of research is dedicated to women's empowerment, mobility and gendered space, as well as to women and ICT, there are still unanswered questions on the impact of ICT on women's (small-scale) mobility.

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Annex

Zusammenfassung (Abstract)

Die vorliegende Diplomarbeit beschäftigt sich mit den Einflüssen der Mobiltelefonnutzung auf die Mobilität von Frauen im ländlichen Bangladesch. Diese sind in ihrem Zugang zu Ressourcen, wie z.B. Einkommen, stark eingeschränkt, was unter anderem auf soziokulturelle Wertvorstellungen und gesellschaftliche Genderstrukturen zurückzuführen ist. Frauen im ländlichen Bangladesch sind in ihrer Lebensgestaltung auf den häuslichen Raum beschränkt, da sie meist keinen gewinnbringenden beruflichen Aktivitäten nachgehen, und daher "nur" der Haushalt in ihrem Verantwortungsbereich liegt. Ihr Verhalten richtet sich nach einem soziokulturellen Konzept "Purdah", welches Genderungleichheiten und die räumliche Abgeschiedenheit von Frauen unterstützt. Daher bewegen sich Frauen seltener in den öffentlichen Raum als Männer und sind in ihrer Mobilität oftmals auf männliche Begleitpersonen angewiesen. Mangelnde Mobilität kann nicht nur den Zugang zu Ressourcen verhindern, sondern auch soziale Isolation verstärken. Die Nutzung von Mobiltelefonen könnte hier aber eine wichtige Rolle spielen um Frauen, v.a. die räumlich immobil sind, einerseits im Zugang zu Ressourcen zu stärken und andererseits ihre sozialen Kontakte zu stärken. Die dadurch erzeugte "virtuelle Mobilität" kann räumliche Distanzbarrieren umgehen. Diese Diplomarbeit untersucht, wie Mobiltelefone auf das Mobilitätsverhalten von Frauen wirken, z.B. ob diese räumliche Bewegung verstärken oder reduzieren. Dafür werden das Mobilitätsverhalten sowie der Zugang zu und die Nutzung von Mobiltelefonen von Frauen untersucht, um Zusammenhänge und Einflüsse zu analysieren. Es wurde unter anderem erkannt, dass gerade Frauen, die weder mobil noch sozial eingebunden sind, mit ihrer Situation unzufrieden sind und sich daher ein Mobiltelefon wünschen um ihre sozialen Kontakte zu pflegen. Denen gegenüber stehen Frauen, die regelmäßig beruflichen Aktivitäten außerhalb des Hauses nachgehen, und daher eine erhöhte Mobilität aber auch eine verstärkte Mobiltelefonnutzung aufweisen. Diese Frauen sind dadurch gewissermaßen autonomer, obwohl auch sie Mobilitätseinschränkungen erleben. Weiters wurde erkannt, dass Mobiltelefone als Unterstützung zur persönlichen Sicherheit wahrgenommen werden, da Frauen jederzeit unterwegs jemanden anrufen können (z.B. in Notsituationen). Dies hat Einfluss auf ihre Mobilität, da sie sich einerseits sicherer fühlen und sich andererseits eher autonomer (z.B. unbegleitet) bewegen können.