S.S. J. SEVIER

Contents lists available at ScienceDirect

## Women's Studies International Forum

journal homepage: www.elsevier.com/locate/wsif



# Are climate challenges reinforcing child and forced marriage and dowry as adaptation strategies in the context of Bangladesh?



Margaret Alston <sup>a,b,\*</sup>, Kerri Whittenbury <sup>b</sup>, Alex Haynes <sup>b</sup>, Naomi Godden <sup>b</sup>

- <sup>a</sup> Department of Social Work, Melbourne, Australia
- <sup>b</sup> Gender, Leadership and Social Sustainability (GLASS) research unit at Monash University, Melbourne, Australia

#### ARTICLE INFO

#### SYNOPSIS

Available online xxxx

This paper outlines the link between child and forced marriage, dowry and climate changes in Bangladesh. Drawing on a three year research study on the gendered impacts of climate change, we argue that climate crises are creating significant economic hardships. This has led to dowry being viewed by the families of young men as a form of capital accumulation. For the families of girls, dowry has become a significant burden, a burden that increases with the age of the girl. We argue that the economic crises created by climate challenges are leading to an increase in child and forced marriages because the dowry is cheaper. We conclude that attention to climate challenges must take a much broader focus on social consequences in order to protect the human rights of women and girls in vulnerable communities.

© 2014 Elsevier Ltd. All rights reserved.

## Introduction

Marriage in Bangladesh has been described as an economic transaction (Lindenbaum, 1981; Suran, Amin, Huq, & Chowdhury, 2004) or strategy for improving capital accumulation by way of the dowry system (Chowdhury, 2010). Dowry payments are a traditional custom whereby goods and money are transferred from the bride's family to the groom's and is widely practiced despite being illegal under the Bangladesh Dowry Prohibition Act of 1980. In recent times dowry demands have escalated and Chowdhury (2010) argues that the prime motivations are greed, growing consumerism, materialism, status seeking and rising living standards. In this paper we suggest there may now be a further compelling motivation for an increase in dowry demands-that is the effects of climate challenges on the livelihoods and resources of families. These challenges are motivating the families of young men to seek marriages for their sons, and thereby accumulate capital through dowry; and the families of girls and young women to seek forced marriages for their daughters because of the perceived economic risks associated with the continuance of education and the increasing costs of dowry as girls mature (Schuler, Bates, Islam, & Islam, 2006). The financial incentive for child marriage relates to the fact that a one-year higher age at marriage can increase the value of a dowry by nearly 50% (Do, Iyer, & Joshi, 2006). In suggesting that child marriages and dowry demands may be increasing as a result of climate change, and may in fact be viewed as climate (mal)-adaptation strategies, we draw on research conducted from 2011 to 2013 in three rural regions of Bangladesh, all of which are subject to extreme climate variability.

## **Dowry**

While self-arranged or love marriages, which generally do not involve dowry, are increasing particularly in urban areas of Bangladesh (Geirbo & Imam, 2006), arranged marriages with dowry obligations dominate. Dowry describes the practice of a bride's family giving large sums of money, jewelry and other goods to the groom's family supposedly to pay for their daughter's security, happiness and a good and timely marriage (Chowdhury, 2010 p. 203) and as security against divorce (Geirbo & Imam, 2006). It is a regional cultural practice rather than a religious one and appears to have spread widely since

<sup>\*</sup> Corresponding author at: Department of Social Work, Melbourne, Australia.

the late 1960s. Prior to this the practice was reversed and the *pon* (or bride price) required the groom's family to give money to the bride's in exchange for their daughter (Alma, 1985; Lindenbaum, 1981). Despite being made illegal in 1980, the practice of *dowry* is not only very common, but it is also increasing as male employment becomes more unstable (Bates, Schuler, Islam, & Islam, 2004; Blunch & Das, 2007; Huda, 2006; Suran et al., 2004).

Dowry is negotiated through a marriage broker, and the size and payment are affected by the age and wealth of the bride and groom, their status, the bride's physical characteristics, the perceived comparative qualities of the bride and groom, the bride's education and employment, and family alliances (see Chowdhury, 2010; Geirbo & Imam, 2006; Huda, 2006; Suran et al., 2004). It has also been argued that family planning programs, subsidized contraception, and therefore smaller families, have contributed to the rising price of dowry (Ambrus et al., 2010; Arunachalam & Naidu, 2006; Huda, 2006; Suran et al., 2004).

The practice of dowry specifically affects the poor, and particularly families with multiple daughters. Poor and ultrapoor families are more likely to marry their daughters at a very young age (as young as 9) to ease the family's financial burden (Schuler et al., 2006). Many families must sell land or take loans to pay dowry, and, if payments cannot be met, daughters are often beaten and/or returned to their family home potentially remaining separated and a cause of shame and dishonor for their families (Simmons, 1996). A further perceived risk of rising dowry expectations is that a daughter may remain unmarried (Huda, 2006). Thus, while many Bangladeshis condemn the practice (Bates et al., 2004; Schuler et al., 2006; Suran et al., 2004), most conform (Kamrunnahar, 2007). Consequently, girls have become a rope around their parents' necks (respondent, cited in Simmons, 1996 p.258), and are liabilities for their family (Chowdhury, 2010, p.198).

Arguably the transactional nature of dowry increases women's vulnerability. Many suicides of young women are purportedly related to dowry (Huda, 2006) and dowry-related domestic violence is frequent and increasing (Bates et al., 2004; Chowdhury, 2010; Hossain, 2007; Huda, 2006; Suran et al., 2004). This includes dowry-related acid attacks, where young women of families who are unable to pay dowry are attacked with sulphuric acid, severely disfiguring their faces and bodies (Acid Survivors Foundation, 2011; Kabeer, 2011). Demands for additional dowry can continue after marriage, as the groom's family may make ongoing demands of the bride's family (Parveen & Leonhäuser, 2004), and this can occur in previously dowry-free love marriages (Naved, Newby, & Amin, 2001). Our work suggests that as economic conditions deteriorate as a result of climate change, dowry also becomes a source of capital accumulation that is revisited as an ongoing source of funding for the groom's family.

Payment of *dowry* can result in daughters not receiving any further inheritance from the family property (Huda, 2006), thereby establishing and consolidating patriarchal norms, compromising women's rights and isolating girls from their family of origin (Chowdhury, 2010; Huda, 2006; Lindenbaum, 1981). We argue that these pressures on girls and their families are now exacerbated by climate challenges facing Bangladesh—challenges that have increased the financial stressors on families and given impetus to dowry transactions. One result of this

increasing pressure is that daughters may be married at a very young age.

## Child and forced marriage

Child and forced marriage is already common across South Asia and is especially so in Bangladesh (Schuler et al., 2006). Nearly 80% of girls are married by the age of eighteen, with the median age at marriage being 15 (NIPORT et al, 2009). Marriage and wifehood are viewed as the normative social arrangement for Bangladeshi women, a view that is rarely challenged (Amin, 1998; Chowdhury, 2009; Kabir, Jahan, & Jahan, 2001) because of the cultural acceptance that it is crucial for women's social status, socioeconomic security and personal safety (Bates et al., 2004; Kabeer, 1997, 2011; Rozario, 2006; Zaman, 1999). Being unmarried poses great physical and social risks (Chowdhury, 2010 p.204). Parents, guardians or professional matchmakers generally arrange marriages, and girls have little participation in negotiations (Bhuiya, Chowdhury, Momen, & Khatan, 2005; Geirbo & Imam, 2006; Huda, 2006; Schuler et al., 2006; Zaman, 1995).

Quite apart from cheaper dowry expectations there are several reasons proffered by parents for marrying daughters early, all of which give some indication of the gendered social relations and disempowerment of young women in rural Bangladesh. These include to protect girls from rape and sexual harassment; the belief that younger girls are more compliant and less resistant; young men's sexual desires; the attraction of younger girls to older men; avoiding the risk of girls participating in premarital sex and therefore the potential gossip which influences marriageability and dowry; myths relating to young women's greater sexual and procreative power; young women being considered more physically attractive; the perception that having an unmarried daughter dishonours the family; and that older girls may be less fertile (Arends-Keunning & Amin, 2001; Chowdhury, 2010; Rozario, 2006; Schuler et al., 2006; Suran et al., 2004). Many of these reasons relate to the cultural perception of family 'honour' and the perceived risks to 'honour' associated with girls remaining unmarried, a view that ensures that young girls are constantly under surveillance and viewed with suspicion. Nonetheless as dowry demands become more entrenched, there is a growing view that the financial risks associated with girls remaining unmarried are equally problematic.

Meanwhile policy and health initiatives designed to reduce the fertility rate and population growth have focused attention on child marriage because it is associated with early childbearing and hence the rapid expansion of the population. The success of these policy and health initiatives is reduced because of high rates of early child-bearing and low contraceptive use among young girls, age differences of more than 5 years between the wife and husband, and the social expectation that couples must have children soon after marriage to indicate fertility (Kabir et al., 2001; Nahar & Min, 2008; Schuler et al., 2006). Schuler et al. (2006) point out that early childbearing is an abuse of the human rights of young women who must prove their fertility at a very young age before family planning is made available. Together with problematic access to services, early childbearing is linked to higher levels of morbidity and mortality, increased risk of complications and reduced access to education and work opportunities as girls are forced to drop out of school (Huda, 2006; CPD, 2009; see also UNICEF, 2010; NIPORT et al, 2009). The overall health consequences of child marriage and childbearing include generalised poor health, maternal and child mortality and morbidity, compromised ability to work, impoverishment, lack of empowerment, lack of familial harmony, domestic violence, and marital breakup (Schuler et al., 2006; UNICEF, 2010).

Nonetheless there is a growing community awareness of these negative consequences, and a changing societal perception regarding women's education and employment. For example there is an opposing view that educated women can earn more and this provides some support for delayed marriage (Schuler et al., 2006). This is demonstrated most clearly in recent years by circumstances of young women who work in the garment factories in Dhaka-the age at marriage is higher for these women (Naved et al., 2001). Research also suggests that improved education for women is not only associated with delayed marriage but also increased contraceptive use, decreased family size, reduced infant mortality, and lower general mortality (Bates, Maselko, & Schuler, 2007; Hurt, Ronsmans, & Saha, 2004; Nahar & Min, 2008). Further, Bangladeshi women recognize that education decreases their vulnerability and increases their personal agency and bargaining power (Arends-Keunning & Amin, 2001). Thus while child marriage and dowry expectations are the norm, there is a growing awareness among women at least of the social, health and economic benefits of delayed marriage for women. In this paper we are suggesting that this awareness and the supporting policy frameworks are being overshadowed by the impacts of climate change and the economic implications of delayed marriage.

## Climate changes

In previous work the climate change predictions for Bangladesh have been detailed (Alston, in press). There is no doubt that Bangladesh is one of the most vulnerable countries to sea level rises in the world and is experiencing major challenges due to climate change—challenges that are critically affecting rural areas and reshaping social relations. Pender (2008) notes that temperatures will rise; seasons will become warmer; monsoonal rain and cyclones will be more intense and more frequent; rainfall flooding and major droughts will increase; riverbank erosion will continue; and groundwater availability and food security will be affected (Ahmed, 2006; Alam, 2004; Christensen et al., 2007; McGranahan, Balk, & Anderson, 2006; NAPA, 2005; Roach, 2005; Roy, 2008; Selvaraju, Subbiah, Baas, & Juergens, 2006; Tanner et al., 2007).

These factors have destabilized agricultural production and livelihood strategies in rural Bangladesh leading to a number of diverse adaptation strategies. How people adapt to these events is highly dependent on their resilience and capacity to adopt sustainable long-term actions. Moser and Ekstrom (2010) view adaptation as involv[ing] changes in social-ecological systems in response to actual and expected impacts of climate change [environmental factors] in the context of interacting nonclimatic changes. Thus the strategies adopted in Bangladesh are influenced by a range of factors including but not exclusive to the climate event. Additional factors include access to land and resources, agricultural production challenges, poverty, social supports and the level of NGO interventions. Where challenges are significant and resources and capacity are reduced, people

may adopt unsustainable coping strategies or less than desirable adaptations (Koelle & Shackleton, 2011; Taylor, Harris, & Ehrhart, 2010). It is our contention that this is the case in rural Bangladesh where climate changes appear to be facilitating child marriage and dowry transactions.

#### The research

In 2011-13 a research team from Monash University was funded under the Oxfam-Monash partnership to work with Oxfam colleagues assessing the gendered implications of climate change. This research took place across three regions of Bangladesh-Gaibandha in the north and Satkhira and Burguna in the south. Because of the exploratory nature of the research, a mixed methodology was adopted using both qualitative and quantitative methods. This enabled the team to undertake interviews and focus group discussions in the first phase of the project which was designed to assess the perceptions of local people on the nature and extent of climate challenges and the impacts of these on individual, family and community lives. In this first qualitative phase of the project 3 villages were chosen in each of the three regions (nine villages in total) where interviews (23) and focus groups (29) were conducted in 2011 and 2012. Following analysis of this data, a second quantitative phase was undertaken. For this phase a questionnaire was developed to assess the extent and significance of the issues raised in the first stage. During 2013 this survey was completed by 617 respondents in the same regions and in all but one of the villages. At the time of the survey this particular village was inaccessible due to flooding and an alternative village was added. In total, nine villages were surveyed. Additionally key informant interviews were conducted in Dhaka (10) with policy and civil society representatives. A series of feedback seminars took place in Dhaka in 2014 to disseminate results. These seminars were attended by a wide cross section of stakeholders and policy makers and included representatives of the villages that had taken part in the project. Ethics clearance for this project was obtained through the Monash University ethics committee processes.

This paper focuses on the impacts of climate changes as a further impetus for dowry to be viewed not only as a financial transaction but also as a critical, but potentially negative, climate change adaptation strategy.

An analysis of the age and marital status of our survey random sample illustrates that marriage is the normative state for women and men across the life span and that women are more likely to be married at a young age. Of the 617 survey participants, 546 were married and only 54 reported their status as never married (35 men and 19 women). Twelve respondents (9 of them women) were widowed and only 5 were divorced or separated.

### Results

Adaptations to climate-induced events

In our research we have observed a number of adaptive responses to climate challenges including out-migration to seek remittance income, changed agricultural production techniques and diversified livelihood strategies. Our survey participants were asked about the adaptations they personally adopt

in response to climate challenges. Table 1 provides details of adaptation strategies nominated by the 617 participants in our survey. The most critical strategies noted by participants are seeking government support, acquiring loans and changing their main income generating strategy. The latter includes an observable increase in rural out-migration as family members seek work elsewhere. Indicating the extreme poverty experienced by many affected by climate challenges, 38% noted that they had borrowed money to buy food. Of relevance to this paper is that 39% also stated that strategies include sending their children away to work and/or withdrawing them from school. As we note below, many of these are girls forced into marriages.

Child and forced marriage—a mal-adaptation strategy?

While our research reveals that the threat to family honour remains the dominant factor in child marriage, it also indicates that climate changes appear to be increasing the numbers of girls who are forced to marry. Honour is a nebulous concept based on patriarchal views of gender relations held by some community members, neighbors and family. Girls live with the reality that they are at risk and constantly under surveillance. Men and boys use the practice of eve-teasing, or sexual harassment, to influence and shame families into marrying their daughters. Eve-teasing ranges from sexual comments and innuendos to extreme forms of violence used by men against women and girls. More recently it has included the use of electronic devices including the photo-shopping of images of girls taken on mobile phones into compromising photos that are then shown to their families and others in the communities.

Because of eve-teasing and the threat of violence and dishonour, there is increasing pressure on families to marry their daughters to protect them and to maintain the standing of the family in the community. Respondents in our research rarely spoke about a girl's reputation in a positive sense. Rather there is a basic assumption that girls' honour must be protected and their behavior and freedom curtailed. Gossip is a critical factor in this surveillance—any indication of what is viewed by some as 'untoward' behavior is quickly spread and ensures that

**Table 1** Adaptation strategies most likely to be adopted.

Adaptation strategy	Women	Men	Total
Seek government support	54%	56%	55%
Change main income generating strategy	48%	58%	53%
Acquire loan to resume agricultural activities	51%	45%	48%
Acquire loan to buy food	38%	37%	38%
Seek NGO support	34%	27%	30%
Mortgage land	30%	23.5%	27%
Increase wage labor	21%	26%	24%
Send children away for work	17%	22%	20%
Take children out of school	20%	19%	19%
Borrowing	20%	15%	18%
Seasonal migration	12%	17.5%	15%
Sell productive assets	8%	14%	11.5%
Spend less	9%	14%	11.5%
Acquire loan for new business	11%	11%	11%
Support from friends and relatives	9%	11%	9%
Migrate permanently	7%	8%	8%

NB respondents were able to nominate several options.

the behavior of young girls is tightly controlled and that their families view their marriage with a sense of relief.

If your daughter is not married off they assume that she has some kind of problem and they talk about it behind your back. People can make a lot of mistakes when they are young. But if anything like this happens by chance, you are in deep trouble. The people will start making any sort of gossip centring on that mistake. That is also another reason to have the girls married off early. The father of the girls will naturally want to have their daughter carted off before rumours start to spread. That is the basic reason why we can't wait for our daughter's marriage. Regardless of economic condition, we are compelled to marry our daughters off at a very early age. And people even sell their lands to pull off such a feat. (Older man, Gaibandha)

Girls married at a young age are often mistreated, expected to act as servants to their husband's family and beaten. Some girls resist and return to their parents' home, a few being allowed to stay.

But my daughter says, "No." she says, "death is a better option than being there in that [husband's] house again. I won't go there. I won't go to live there. I'll rather face whatever is written in my fate." (Older woman, Gaibandha)

Our findings suggest that despite the threat to family honour posed by unmarried young women, child marriage is no guarantee that young girls and their families are economically, socially or psychologically better off.

Dowry

Nonetheless as a result of the mounting pressure to control girls' behavior and marry them early, the practice of dowry is widespread and demands are increasing, a view supported by participants in this research. As one older participant in our research notes:

Problems are mostly around marriage and dowry. Say if there had been no dowry in the country, we would live more peacefully. (Older man. Barguna)

The major change from dower being paid by the groom's family to dowry now being paid by the bride's evokes much speculation among older participants. Some view this as resulting from women being more visible in public, and therefore less desirable, and also as a result of girls receiving education.

When I got married, there was no thought of the groom getting a single dime. Rather the groom had to pay 100 tk to bring the wife along with him. And that money had to be paid to the father of the bride. The groom had to pay the cost of the ceremony. Now, it's the other way around. If you go to any boy or the boy's father, they ask for money or things. (Older man, Gaibandha)

In the past the women used to cover their whole body and never go out from home. That's why they were attractive to men and they give dowry to marry them but now women are not using the religious code of dress. Men can easily see them. That's why the system has been changed. (Older man, Barguna)

Despite these perceptions there is little doubt that male respondents and their families view marriage as an economic transaction. One father confirmed this when he described how a potential bridegroom asked to look over the cow he was to receive as part of the dowry before he met his future wife. This caused her father to describe with disgust his experience with paying dowry.

Now it is quite impossible to marry without dowry. The amount is 10,000. 20,000, 30.000 thousand and more ... now it is quite impossible. Most are not married without dowry, There is a great demand [on the family for] money, though they forget to know the name of the girl but not forget about dowry. It is very funny, the cow that is given as dowry, firstly they wanted to see it. Their curiosity is about how nice the cow is. It is like a market of dowry, they take [marry] a little girl but do not take her without dowry. (Older man Gaibandha)

## Discussion—the link to climate change

While it is evident that the impetus for child marriage and dowry is related to cultural expectations concerning honor and the escalating costs of dowry, we argue that these processes are exacerbated by the climate challenges being experienced by families in rural Bangladesh. Critically the ability of families to maintain reputation and honor in circumstances where climate impacts and environmental disasters have occurred is severely compromised (Rashid & Michaud (2000). APIT (2009) reports that increased sexual violence following Cyclone Sidr resulted in a rise in polygamy, child marriages, unwanted pregnancies, mental health disorders and sexually transmitted infections. Further, women's vulnerability to unwanted pregnancies is exacerbated by the interruption of supply of birth control pills following a disaster (Nasreen, 2008). Our research supports the view that the marriage of young girls is increasing as a result of climate challenges (Save the Children 2006).

Of note is that 45% (276) of respondents to our survey reported that girls were now being forced into child marriages as a direct result of climate events and subsequent poverty. This view was reinforced in interviews and focus groups in the three regions. A key driver for child marriage in disaster sites is the link to the economic situation of families and the stark reality of living in extreme poverty. Many families take loans to buy food. In these circumstances girls are viewed as an economic burden and a threat to ongoing food security and food availability. The marriage of young girls reduces pressure on the family's food supplies. As one man explained:

See, the man who has a daughter, he has to marry her off. Or else you have to feed her. (Older male, Gaibandha)

NGO workers reinforced the association between food insecurity following a climate disaster and child marriage.

The government refuses to call it famine, so [it is] scarcity of food – it's a drought prone area and [there's a] lack of sufficient rain and ability to cultivate. This has been going on for 40 or 50 years. But the intensity is increasing now. They're losing more land to river erosion. And there, the girls, at a much younger age, there is child marriage, and there's also trafficking. (NGO Key informant, Dhaka)

Desperate to marry their daughters, many of these families commit to dowry despite being unable to pay. Our research confirms that dowry has become a source of significant friction resulting in widespread community discord and ongoing violence against women. Particularly concerning are the ongoing requests for further dowry. When families cannot pay, women are particularly at risk.

My husband pressed me for more dowry. But at that time my parents were unable to give that. We were just hand to mouth. They could only feed us but they were not able to give something to anybody. I was with my husband at his house; he used to beat me for money, for dowry. I sent a message to my father about the torture on me and asked for money. I told them that I could not stay there anymore. How do I live like that!! My parents tried to take me away from that home. They wondered how long I could live like that! How long I will be beaten by my husband and tortured like that? They waited for a while and one day they took me to them. After that they talked to me in detail. They asked me the reason why my husband is torturing me. I told that if I give him 70 thousand taka as dowry, I can continue to stay with him. If not I cannot live with my husband. My husband pushed me out from home and threatens me. My father was unable to pay that 70 thousand taka and I could not carry on the family any more. *My situation was so bad!!* (Young woman, Barguna)

Several women endorsed these comments, reporting that violence occurs when families are unable to fulfill their dowry commitments or when new demands for additional dowry are made. Negotiations to reduce dowry are seldom successful.

Female village leaders who took part in the research note that they try to prevent child marriages. In particular teachers and health workers attempt to persuade families to resist the pressure to marry their daughters early.

I heard from someone that a child marriage is going to take place in an area. Then, I went there and spoke to the family against child marriage. Then the marriage did not take place ... The girl was not of marriageable age. She was only 12 or 14 years old. She was about to be married off at that tender age. Then we went there in a group and convinced her parents that marrying off their daughter at an early age will damage her health and will create a number of problems—the boy will demand dowry later, he will then beat the girl for dowry. The girl's parents understood that. (Young female teacher Barguna)

Dowry, child and forced marriage and education access

Evidence of the pressure for child marriages also emerges in other aspects of our research. When asked to explain how climate change is affecting educational access, 9% of respondents noted that they withdrew their daughters from school for marriage because of the financial pressures facing the family and the need to reduce dowry expectations (Table 2).

Of the 58 respondents who noted that they had taken their daughters out of school for marriage, the age at the child's marriage ranged from 12 to 17, 31 (53%) of them being 12 and 13 (see Table 3).

While further research is needed, there is compelling evidence emerging from our research that increased numbers of

**Table 2** Impacts of climate changes on educational access.

Type of impact	Women	Men	Total
Increased hardship in getting children to school	22%	24%	23%
Pressure to take children out of school	8%	10%	9%
Financial hardship	92%	90%	91%
Took daughter out of school to work	14%	14%	14%
Took son out of school to work	9%	8%	9%
Gone without something/sold something to keep daughter in school	7%	11%	9%
Gone without something/sold something to keep son in school	10%	11%	11%
Took daughter out of school for marriage	9%	8%	9%

child and forced marriages may be a consequence of climate events. In the areas affected by climate challenges that formed the basis of our research, families struggle with the competing realities of poverty, food insecurity, destabilized livelihoods and cultural expectations. Child and forced marriages of girls appear to be short term solutions designed to ease both the food security and future financial pressures on families, but one that results in poverty and hardship, a lack of education access, the threat of violence and health consequences from early childbirth. It also reduces the impact of the national campaigns to slow population growth.

## Competing challenges

A particular point that critically crosscuts the relationship between climate changes and child and forced marriage is the increased influence of patriarchal and fundamental religious interpretations in Bangladesh. There is increasing evidence of fundamentalist practices and the impact of these on the lives of women and girls. Our team witnessed the power of these forces first hand during a visit in 2011 when the revised women's policy was endorsed by the Bangladeshis parliament. Among other things this policy gave women greater property rights. A national strike followed, instigated by those holding fundamentalist beliefs concerning women's rights and freedoms. Widespread violence ensued. People were attacked on the streets, buses overturned, and cars set alight. It appears that as women gain more freedom, there is increasing evidence of a backlash led by those with fundamentalist views-views that threaten to wind back women's hard won, although minimal freedom. The rise of fundamentalism may also have a significant influence on child and forced marriages.

One of the outcomes of this combination of events is that women and their increased freedom and visibility are being blamed in some quarters for climate change. Respondents

**Table 3**Age at which the 58 respondents noted their daughters had been married as a result of climate events.

Age-yrs	Number
12	9
13	22
14	7
15	9
16	7
17	4

reported that some fundamentalist religious leaders place the blame for climate challenges on women themselves and hold them responsible for the problems in society. The backlash has added to the pressure for child marriage as a strategy to curb women's power and is a successful attempt to restrict the rights of girls to education.

We have heard this at a religious meeting. They say we do not listen to our husbands, we do the wrong thing and for this the weather is changing. This imam does not listen to the news. So he does not know how the weather actually changed. We cannot get them to understand that the weather is changing because of smoke from mills and factories. **Their opinion is that for this disaster we women are responsible.** (Young woman, Barguna)

[A religious leader said] women are working out of their home that's why [climate change] is happening. It's the curse of Allah. (First respondent)

I would like to say something more ... If you can give us a job like road repairing that can help. We are needy; we need something to do to earn. If we do the job AND cover our body and head according to the custom of Islam will it do any harm? Poor Muslim women need to eat also, don't they? (Second respondent) (Women's focus group Barguna)

Many respondents expressed a view that there is a strong backlash against women's freedom and that actions are being introduced to further restrict women's rights. The influence of fundamentalist religious leaders and their representatives is growing in particularly rural areas and their views and edicts are taken seriously. This in combination with climate challenges, and the significance of family honor, is increasing the risk of child and forced marriages.

## **Conclusion**

In this paper we note that marriage is viewed as the normative state for women in Bangladesh and that marriages generally take place at a relatively young age. We also argue that dowry payments are widely viewed as a source of capital accumulation in a society where many live in extreme poverty. Further there are growing expectations that dowry is a form of security for the families of the young men involved, a security that can be revisited.

The link between child and forced marriage and dowry is well established—dowry payments for young girls are cheaper and both the girl's and young men's families perceive that there are advantages to girls being married early. Chief among these are cultural expectations linking women with family honor, ensuring the marriage of daughters is often viewed with relief.

In this paper we propose that climate changes have added impetus to the forced marriage of young girls. This occurs for several reasons—the dowry is cheaper and food insecurity results in the marriage of girls being viewed as a positive benefit for their families' basic survival. Because of dowry expectations families believe that there are economic risks associated with delayed marriage, risks that they believe they cannot afford. We conclude that climate challenges are

resulting in forced marriages of very young girls, resulting in many dropping out of school, and in many cases experiencing violence.

Despite widespread campaigns by governments and NGOs exposing the dangers of child marriage and child childbirth—and the link to population growth in a country that appears vastly over-populated—climate change appears to be undermining these initiatives. We argue that there is a strong case for government and NGOs to develop social support structures designed to protect girls and to allow them to continue their education. There is also a need for renewed attention to the dowry system as a destabilizing practice that undermines the human rights of women and girls.

There is little doubt that climate changes are increasing the economic hardship of families most affected. We would argue the need for governments and NGOs to address these compromised economic positions by providing more sustaining economic and social supports for families critically affected by climate challenges. To do otherwise risks cementing adaptation strategies that significantly compromise young girls.

## Acknowledgement

The research on which this paper was based was funded by the Oxfam–Monash Partnership.

#### References

- Acid Survivors Foundation (2011). Statistics. (online). Available from: http://www.acidsurvivors.org/statistics.html [20 July 2011]
- Advancing Public Interest Trust (APIT) (2009). A study on change in women's life after Sidr based on a case study OGB after Sidr 2007 in Bangladesh. Oxford: Oxfam Great Britain.
- Ahmed, A. U. (2006). Bangladesh climate change impacts and vulnerability:

  A synthesis. Dhaka: Climate Change Cell, Bangladesh Department of
- Alam, M. (2004). Adverse impacts of climate change on development of Bangladesh: Integrating adaptation into politics and activities. CLACC Working Paper No. 1, Bangladesh. Dhaka: Bangladesh Centre for Advanced Studies.
- Alma, S. (1985). Women and poverty in Bangladesh. Women's Studies International Forum, 8(4), 361–371.
- Alston, Margaret (2014). Women and climate change in Bangladesh. Routledge women in Asia series. (in press).
- Ambrus, Attila, Field, Erica, & Torero, Maximo (2010). Muslim family law, prenuptial agreements, and the emergence of dowry in Bangladesh. *The Quarterly Journal of Economics*, 125(3), 1349–1397.
- Amin, S. (1998). Family structure and change in rural Bangladesh. *Population Studies*, 52(2), 201–213.
- Arends-Keunning, M., & Amin, S. (2001). Women's capabilities and the right to education in Bangladesh. Risks and Rights in the 21st Century: Papers from the Women and Gender in Global Perspectives Program Symposium, University of Illinois at Urbana-Champaign, October 2000. International Journal of Politics, Culture, and Society, Vol. 15, No. 1. (pp. 125–142).
- Arunachalam, R., & Naidu, S. (2006). Do men pay for fertility? Marriage market effects of a family planning experiment in Bangladesh. *Working paper*. Berkeley: University of California.
- Bates, L. M., Maselko, J., & Schuler, S. R. (2007). Women's education and the timing of marriage and childbearing in the next generation: evidence from rural Bangladesh. *Studies in Family Planning*, 38(2), 101–112.
- Bates, L. M., Schuler, S. R., Islam, F., & Islam, K. (2004). Socioeconomic factors and processes associated with domestic violence in rural Bangladesh. *International Family Planning Perspectives*, 30(4), 190–199.
- Bhuiya, A. A., Chowdhury, M. R., Momen, M., & Khatan, M. (2005). Marital disruption: Determinants and consequences on the lives of women in a rural area of Bangladesh. *Journal of Health, Population and Nutrition*, 23(1), 82–94.
- Blunch, N. -H., & Das, M. B. (2007). Changing norms about gender equality in education: Evidence from Bangladesh. *Policy Research Working Papers* No. 4404. Washington: World Bank.

- Centre for Policy Dialogue (CPD) (2009). Report No. 98: Achieving universal primary education with quality and equity. Dhaka: Centre for Policy Dialogue.
- Chowdhury, F. (2009). Theorising patriarchy: The Bangladesh context. Asia Journal of Social Science, 37, 599–622.
- Chowdhury, Farah Deeba (2010). Dowry, women and law in Bangladesh. *International Journal of Law, Policy and the Family*, 24(2), 198–221.
- Christensen, J. H., Hewitson, B., Busuioc, A., Chen, A., Gao, X., Held, I., et al. (2007). Regional climate projections. In S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor, & H. L. Miller (Eds.), Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press.
- Do, Q. -T., Iyer, S., & Joshi, S. (2006). The economics of consanguineous marriages. World Bank Policy Research Working Paper Series, No. 4085 ([online]. Available from: <a href="http://econ.worldbank.org">http://econ.worldbank.org</a> [25 May 2011]).
- Geirbo, H. C., & Imam, N. (2006). The motivations behind giving and taking dowry. BRAC Research Monograph Series, No. 28. Dhaka: BRAC Research and Evaluation Division.
- Hossain, K. T. (2007). Violence against women in Bangladesh. In C. S. Keung, H. Traver, & L. Xiuguo (Eds.), Proceeding of the 8th Annual Conference of Hong Kong Sociological Association Narratives and Perspectives in Sociology: Understanding the Past, Envisaging the Future (pp. 257–264).
- Huda, S. (2006). Dowry in Bangladesh: Compromising women's rights. South Asia Research, 26, 249–268.
- Hurt, L. S., Ronsmans, C., & Saha, S. (2004). Effects of education and other socioeconomic factors on middle age mortality in rural Bangladesh. *Journal* of Epidemiology and Community Health, 58, 315–320.
- Kabeer, N. (1997). Women, wages and intra-household power relations in urban Bangladesh. *Development and Change*, 28, 261–302.
- Kabeer, N. (2011). Between affiliation and autonomy: Navigating pathways of women's empowerment and gender justice in rural Bangladesh. *Development* and Change, 42(2), 499–528.
- Kabir, A., Jahan, G., & Jahan, R. (2001). Female age at marriage as a determinant of fertility. *The Sciences*, 1(6), 372–376.
- Kamrunnahar, M. (2007). Domestic violence against women in Bangladesh: A study of Rajshahi City. Yokohama Journal of Technology Management Studies, 6, 51–61.
- Koelle, Bettina, & Shackleton, Sheona (2011). Presentation to the world universities network limits to adaptation group. Penn: Penn State University.
- Lindenbaum, S. (1981). Implications for women of changing marriage transactions in Bangladesh. Studies in Family Planning, 12(1), 394–401.
- McGranahan, G., Balk, D., & Anderson, B. (2006). Low coastal zone settlements. *Tiempo*, 59, 23–26.
- Moser, Susanne C., & Ekstrom, Julia A. (2010). A framework to diagnose barriers to climate change adaptation. *PDAS*, 107(51), 22026–22031.
- Nahar, Q., & Min, H. (2008). Trends and determinants of adolescent childbearing in Bangladesh. DHS Working Paper Series. Calverton: USAID.
- NAPA (2005). National Adaptation Programme of Action (NAPA) Final Report.

  Dhaka: Ministry of Environment and Forest, Government of the People's Republic of Bangladesh.
- Nasreen, M. (2008). Violence against women during flood and post-flood situations in Bangladesh. Dhaka: ActionAid Bangladesh.
- National Institute of Population Research and Training (NIPORT), Mitra and Associates, & Macro International (2009). Bangladesh Demographic and Health Survey 2007. Dhaka, Bangladesh and Calverton, Maryland, USA: National Institute of Population Research and Training, Mitra and Associates, and Macro International (http://www.measuredhs.com/pubs/pdf/FR207/FR207[April-10-2009].pdf Date accessed July 28, 2013).
- Naved, R. T., Newby, M., & Amin, S. (2001). The effects of migration and work on marriage of female garment workers in Bangladesh. *International Journal of Population Geography*, 7, 91–104.
- Parveen, S., & Leonhäuser, I. -U. (2004, October). Empowerment of rural women in Bangladesh: A household level analysis. Abstracts of German Tropentag, Humbold-University, Berlin, 5.-7., 95 ((online) Available from: <a href="http://www.tropentag.de/2004/abstracts/full/382.pdf">http://www.tropentag.de/2004/abstracts/full/382.pdf</a>> [25 May 2011]).
- Pender, J. S. (2008). What is climate change? And how it will affect Bangladesh. Briefing Paper. (Final Draft). . Dhaka, Bangladesh: Church of Bangladesh Social Development Programme.
- Roach, R. (2005). Dried up, drowned out: Voices from the developing world on a changing climate. Teddington, Middlesex, UK: Tearfund.
- Roy, P. (2008 March 9). Groundwater depletion hampers irrigation. Dhaka: The Daily Star.
- Rashid, S. F., & Michaud, S. (2000). Female adolescents and their sexuality: notions of honour, shame, purity and pollution during the floods. *Disasters*, 24(1), 54–70.
- Rozario, S. (2006). The new burqa in Bangladesh: Empowerment or violation of women's rights? *Women's Studies International Forum*, 29, 368–380.

- Schuler, S. R., Bates, L. M., Islam, F., & Islam, K. (2006). The timing of marriage and childbearing among rural families in Bangladesh: Choosing between competing risks. Social Science & Medicine, 62, 2826–2837.
- Selvaraju, R., Subbiah, A.R., Baas, S., & Juergens, I. (2006). Livelihood adaptation to climate variability and change in drought prone areas of Bangladesh:

  Developing institutions and options. Rome: Asian Disaster Preparedness Centre, Food And Agriculture Organization Of The United Nations.
- Simmons, R. (1996). Women's lives in transition: A qualitative analysis of the fertility decline in Bangladesh. Studies in Family Planning, 27(5), 251–268.
   Suran, L., Amin, S., Huq, L., & Chowdhury, K. (2004). Does dowry improve life
- Suran, L., Amin, S., Huq, L., & Chowdhury, K. (2004). Does dowry improve life for brides? A test of the bequest theory of dowry in rural Bangladesh. Population Council Policy Research Division Working Papers No. 195 ([online]. Available from: <a href="http://www.popcouncil.org/pdfs/wp/195.pdf">http://www.popcouncil.org/pdfs/wp/195.pdf</a> [4 June 2011]).
- Tanner, T. M., Hassan, A., Islam, K. M. N., Conway, D., Mechler, R., Ahmed, A. U., et al. (2007). ORCHID: Piloting climate risk screening in DFID Bangladesh. Detailed research report. . UK: Institute of Development Studies, University of Sussex.
- Taylor, Anna, Harris, Katie, & Ehrhart, Charles (2010). Adaptation: Key terms Tiempo Issue 77 October, 10–13 (http://www.tiempocyberclimate.org/portal/ archive/pdf/tiempo77low.pdf Date accessed May 16, 2011).
- UNICEF (2010). Women and girls in Bangladesh. Dhaka: UNICEF Bangladesh. Zaman, H. (1995). Resistance against seclusion: women, work and patriarchy in Bangladesh. Canadian Journal of Development Studies, 105–122.
- Zaman, H. (1999). Violence against women in Bangladesh: issues and responses. Women's Studies International Forum, 22(1), 37–48.