

---

# Improvement of Food Security in Bangladesh through Socio-Economic Empowerment of Women

ANIKA REINBOTT<sup>a\*</sup>

<sup>a</sup>*Dipl. Oecotroph., University of Bonn, Institute for Food and Resource Economics; Current research institute: Justus Liebig University of Giessen, Germany, Institute for International Nutrition*

*\*eMail: anika\_reinbott@gmx.de*

*Received 16 April 2012; accepted 1 April 2013*

---

## Abstract

Empowerment is one possible approach to increase political, social and economic participation of a target group and thus decrease food insecurity among vulnerable people. The objective of this research was to evaluate a socio-economic empowerment project implemented for 8 years in rural northern Bangladesh by using secondary data from 2000 and primary data from 2009. Three hundred women were primarily selected out of all existing and active 121 women groups formed during 8 years project implementation. Standardized interviews were conducted to collect quantitative data. In addition an overall qualitative analysis included focus group discussions, the review of project summaries and discussions with implementing staff. Data was collected on socio-economic status, rice storages and food consumption. In addition knowledge was gained on current activities of the women groups. The empowerment concept implemented in this setting was successful to increase the participants' political, social and economic engagement and visibility. Apart from that the utilization of skills for income generation led to an improvement of the socio-economic status and food insecurity became less common. Recommendations for future projects include the increase of female members among the NGO staff as well as the further follow-up and strengthening of political acceptance and visibility of the empowered participants to sustain the outcome of the project.

**Keywords:** Bangladesh, empowerment, income generating activities, food security

---

## Introduction

Causes of food insecurity and malnutrition are multi-dimensional (FAO, 1998) and are to be addressed from different angles. Empowerment is one possible approach to

increase political, social and economic participation of a target group. Empowerment is defined as a process of increasing self-responsibility as well as self-determination (GTZ 2004; Deutsche

Welthungerhilfe e.V. et al., 2009). In 2002, Narayan defined four basic pillars: information, inclusion and participation, accountability, and local organization capability. The concept of empowerment is frequently used in various development projects and addresses vulnerable and underprivileged groups, for example women. The aim of strengthening the group's or individual's capacity (Alsop 2006) is to enhance their political, economic and social participation in their community.

In Bangladesh, one of the poorest and populous countries in the world (CIA, 2012), the majority of the population lives in rural areas with their livelihood depending on agriculture and daily labour. With a risen human development index (146 out of 187) the country still remains below the regional average in terms of health, education and income (UNDP, 2013). Especially in rural areas gender inequality is a prevailing challenge. Bangladeshi women face many barriers withholding them to participate in political and economic decisions, as well as isolating them socially (Bates et al., 2004). Many women lack human capital like education (Roy et al., 2008). Childhood marriage is still practiced by more than one third and the rate of domestic violence against women remains high (Bates et al., 2004; NIPORT, 2004). Mainly the men are decision makers in Bangladeshi households and decide alone even on issues concerning women's health care or social contacts. Women's involvement in earning income for the household is low (CARE, 2005). About 40% of women between 15 and 24 are undernourished (BMI < 18.5 kg/m<sup>2</sup>) (UNICEF, 2007).

The development project „Socio-Economic Empowerment of Women and Hard Core Poor” (SEEWHP) was implemented in northwest Bangladesh from 2001 to 2011 under the local non-governmental organization (NGO) SKS Foundation which

was funded by the German NGO Andheri-Hilfe Bonn e.V. The project, located in a rural disaster-prone and one of the poorest areas of the country, aimed to develop empowerment of more than 2500 women in local community structures. The women living in rural areas were vulnerable with regard to access to food, human rights, education and resources such as health care or land. Poor nutritional status and malnutrition were, among others, issues to be addressed by governmental as well as non-governmental organizations. By initiating the formation of women groups, SKS Foundation's objective was the achievement of sustainable development through empowerment. By learning income generating activities (IGA), which can be differentiated into a) household-based activities and b) building networks and groups as group-based activities, the socio-economic situation as well as the visibility of women was to be improved.

A baseline survey was conducted in 2000 by SKS Foundation to assess the socio-economic status of potential participants. To evaluate the SEEWHP implementation methods in 2009, a follow-up survey was conducted. With the objective to evaluate the project achievements considering natural and cultural challenges as well as empowerment goals, quantitative data on socio-economic status (SES), health, and food consumption of the participants was collected. In addition focus group discussions, previous project summaries and observations of group meetings supported an overall qualitative interpretation. The results presented in this article only focus on the IGA as one empowerment tool implemented by the project and its impact on the food security situation and dietary diversity in the household.

## Methods

The data collection took place in the pre-harvest season in November 2009, which

was characterized by a lack of food sources especially in the northwestern parts of Bangladesh (Zug, 2006). Three hundred project participants out of 121 women groups formed by the project were randomly selected to be interviewed in 2009 by a random number method covering every village included in the project. Baseline and follow-up questionnaires were comparable in methods used to collect socio-economic data. However, for the follow-up survey an additional module on health and food consumption (7 days recall) (Elmadfa, 2004) was included. Quantitative data was collected conducting interviews with a pre-tested, standardized questionnaire. In addition, qualitative data was gathered in 6 focus group discussions with 6 randomly selected women groups. Data was collected by trained SKS Foundation staff who were familiar with the project region and the project participants.

Three income categories were created similar to the baseline survey, divided in regular income, irregular income and no income at all per household. In addition, the amount of the actual daily income was included in the follow-up questionnaire. The number of times rice was usually consumed per day was a mean to estimate food availability on the household level. Rice as a staple was interpreted as meals per day. Dietary diversity was represented in the frequency of the consumption of a variety of different foods in addition to rice during the foregone week.

Statistical data analyses were performed using IBM SPSS Statistics 18.0 (SPSS Inc., Chicago, USA) and Microsoft Office Excel 2007. Variable distributions were described and data was analyzed using the non-parametric Wilcoxon-Test. In addition odds ratio analyses were done to calculate the likelihood of certain indicators in dependency of others.

## Results

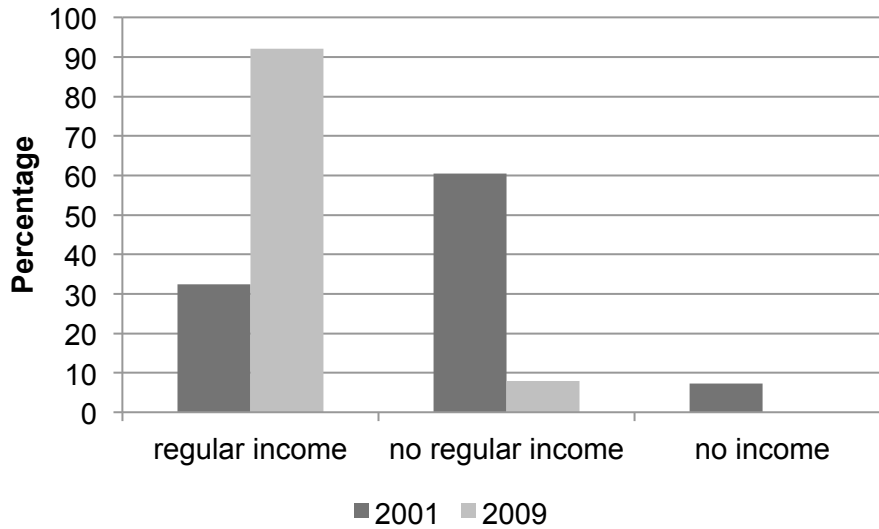
Three hundred women were eligible for data analysis. Baseline data was available from 141 women out of the 300 interviewed to be compared with data from 2009. The respondents were between 16 and 60 years old and participated in the project for a different number of years ranging from 1 to 8.

### General household characteristics

Households sizes in the sample ranged from 1 to 10 people (mean: 4.56) with on average 2 children per household. The majority of women were illiterate (68.6%) and worked mainly as housewives (30.6%). Additional income sources were agricultural activities, mainly livestock (42.6%) or an own business (12.6%). Four percent of the participants were working as a traditional birth attendant which was a skill taught by the project. Only 3.6% grew their own vegetables and fruits. Eighty percent of the households owned land beside their homestead which was mainly cultivated for crops and vegetables.

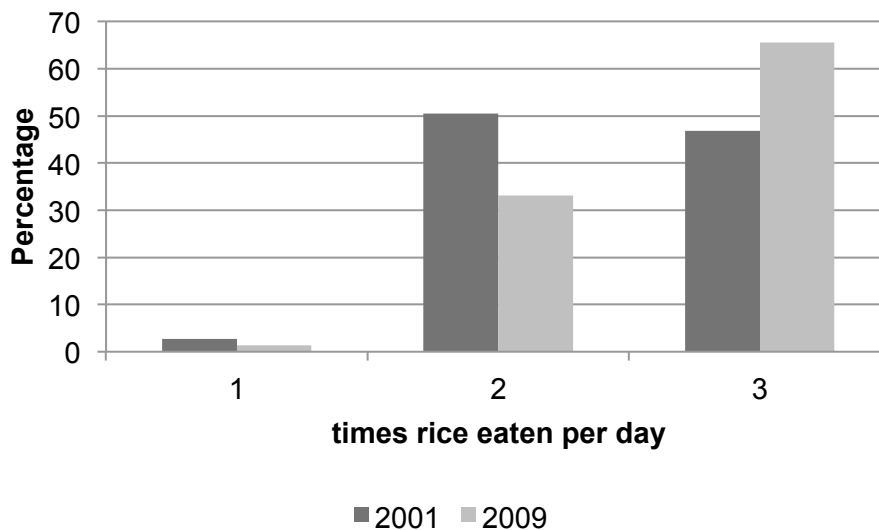
### Income Situation

The income situation of the participant's households had improved by comparing data from 2001 with 2009 with an increase of the number of households earning regular income (33% in 2000 to 92% in 2009) ( $p < 0.01$ , Diagram 1). The actual daily income for households with regular income was between 100 and 500 Taka (1.28 to 6.38 USD). The ones with irregular income earned on average less (between 0.64 to 1.28 USD). By 2009, no household in the sample reported to have no income source.

**Diagram 1:** Income status of the interviewed women's households in % (N=141)**Food security situation**

With the income generated, participants bought arable land which was used to generate additional income and household crops for domestic consumption. Diagram 2 shows the increase of the number of meals eaten per day by the participants in 2001 compared to

2009. Forty-seven percent were able to eat three meals per day in 2001 whereas in 2009 66% stated to consume three meals per day. This is significantly associated with the regularity of income ( $p < 0.01$ , Table 1).

**Diagram 2:** Average times rice was consumed per day over past 7 days in % (N=141)

The development of a stable income source among the participants had an impact on the availability of food in the household and thus on the number of meals consumed per day. The number of women who consumed only one meal per day at the beginning of the project was higher than in 2009 (38% and 10%, respectively).

Rice storage in the household was on average 11.17 days in 2009 (range: 0 to 180 days). Rice cultivating households were five times more likely to have rice storage worth for more than 4 days than non-rice-cultivating households in the sample.

**Table 1:** Number of meals per day by regularity of income in % (N=141)

Times of Rice Eaten a Day	Year		Year		Year	
	2001	2009	2001	2009	2001	2009
	1		2		3	
Regular income	-	0.8	5.6	29.1	94.4	70.1
Irregular income	-	9.1	76.1	72.7	23.9	18.2
No income	37.5	-	37.5	-	25.0	-

### Dietary Diversity

Moreover, it could be observed that the agricultural IGAs positively contributed to a diversified diet. Diets were high in fish but low in meat and animal source products as egg and milk. Meat consumption did not correlate with the ownership of animals. Taro, radish and eggplant were the vegetables most consumed amongst the interviewed women. Intake of vitamin A rich fruits was low. Women who reared cows were more likely to consume milk. Similarly, women who grew vegetables and fruits consumed these products more often than those who did not grow them.

### Empowerment

Women reported that earning their own income supported their independence and offered access to local markets. As a result the SES of their households improved with regard to income which increased through contribution of the additional income women brought home. In 2001 most of the nowadays participating women were dependent on their husbands with regard to income and decision making, however, after learning and applying their own skills their self-consciousness and self-responsibility

increased. Following the focus group discussions, they became active members of their own households and of their community.

### Discussion

The conducted research intended to evaluate the outcomes of the empowerment approach applied in the SEEWHP development project in rural Bangladesh designed to improve food security and build income-generating capacity.

The results of empirical studies of the last years show in how far respect towards and the recognition of women is influenced by various factors. Among these are the ability to independently earn an income, the skills to carry out an occupation apart from household work, the right to property, and to be a literate and educated participant of decisions within and outside the family (Sen, 1999). By collecting data on socio-economic and nutrition characteristics of the project participants, the research tried to scientifically contribute to the evaluation of the change of the living situation with regard to the women's role before and during the last phase of the intervention.

The impact of the implemented program on the living conditions underlines the success of such projects in terms of women's economic participation in Bangladesh.

Following the results, the surveyed development project applied a successful approach and contributed to the improvement of the SES and food security amongst the majority of participants. Especially with regard to the local challenges and the high number of landless people in the project area (IRIN, 2010) the project's outcomes shown in the results chapter prove success. As Kabeer et al., (2011) already found out, women who find paid employment seem to have more power on decision making for their own health or to invest money in possessions and goods. Also Anderson et al., (2009) reported the importance of income and its impact on empowerment and especially meant employment outside one's own household. The surveyed project created those income sources with success. The participants became aware of the advantages and the necessity of putting their own abilities into best possible use.

A study from Rafiqul from 2011 underlines the importance of the inclusion of husbands in project activities as they might feel the need to reject all the new ideas the women bring home. As they usually dominate the women's decisions, they could prevent them from successfully applying IGAs. SKS Foundation applied this method mainly sensitively and reliably. The empowerment of the women significantly contributed to an improvement of the whole households' SES.

To strengthen the developed structures in a sustainable way the cooperation between local government and the women groups need to be strengthened, especially as the government is still

dominated by males. According to Harrold (2007), sustainability still remains a challenge to empowerment approaches in terms of linkage to government bodies. Support from the government side is a crucial criterion to sustain empowerment goals and thus gender equality (Khan, 2006). SKS Foundation's women groups reached visibility by forming groups and actively becoming aware of their rights and possibility of interaction.

For further analysis of dietary patterns and nutritional status, anthropometric measurements need to be conducted and more detailed food frequency protocols need to be applied. As this research project lacks a control group, another follow-up study would have to include such a group.

### **Conclusion**

The results obtained by the research gave evidence for the successful implementation of the empowerment approach applied in the surveyed project. SKS foundation was able to improve food security among the participants' households, to stabilize and thus increase daily income and to diversify the diets of the participants.

### **Acknowledgements**

I would like to thank the Andheri Hilfe Bonn e.V. (AHB) who gave me the opportunity for this research. Special thanks to Dr. Martin Peter Houscht, Bangladesh Project Coordinator, AHB, who was a great supporter and advisor during the preparation and data collection phase and in fruitful discussions during the writing of my thesis. I gratefully acknowledge the cooperation with SKS foundation, their hospitality and assistance with the data collection. Also the participation of the women in the project to be interviewed is sincerely appreciated. I would like to express my sincere thanks to Olaf Sabelus,

Laura Göttmann, Rebekka Hannes and Hanna Pütz for their support during the whole research period and the revision of my work. Dr. Marion Schopp's and Prof. Dr. Kutsch's support as supervisors is

gratefully acknowledged. Last but not least, I would like to thank the anonymous reviewers in the FOFJ editorial board for their revision and helpful comments.

## References

- Alsop, R., Bertelsen, M.F., Holland J. (2006). Empowerment in Practice. The World Bank. Washington. USA.
- Anderson, S., Eswaran, M. (2009). What determines female autonomy? Evidence from Bangladesh. In: Journal of Development Economics. 90 (2), 179–191.
- Bates, L.M., Schuler S.R., Islam F., Islam M.K. (2004). International Family Planning Perspectives. 30 (4), 190–199. Retrieved March 27, 2013, from: <https://guttmacher.org/pubs/journals/3019004.html>.
- CARE (2005). CARE report on Monga. Retrieved April 20, 2010, from: <http://www.lcgbangladesh.org/derweb/achieve/docs/2005/CARE%20Report%20on%20Monga%20%28Nov%202005%29.pdf>
- Central Intelligence Agency (2012). The World Factbook – Bangladesh. Retrieved February 26, 2013, from: <https://www.cia.gov/library/publications/the-world-factbook/geos/bg.html>.
- Deutsche Welthungerhilfe e.V., Internationales Forschungsinstitut für Ernährungspolitik (IFPRI), Concern Worldwide (2009). Welthunger-Index. Herausforderung Hunger: Wie die Finanzkrise den Hunger verschärft und warum es auf die Frauen ankommt. Köln: DFS Druck. p.34
- Elmadfa, I. (2004). Ernährungslehre. Ulmer UTB. Stuttgart.
- FAO (1998). Rome Declaration on World Food Security and World Food Summit Plan of Action. Retrieved October 15, 2012, from: <http://www.fao.org/docrep/003/w3613e/w3613e00.htm>
- Fitzgibbon, A., Spadacini, B.M., Abraha N. (n.d.). Empowering Women?. CARE International, Nairobi, Kenya. Retrieved March 27, 2013, from: [http://expert.care.at/downloads/careexpert/CARE\\_ECAR\\_Empowering%20Women.pdf](http://expert.care.at/downloads/careexpert/CARE_ECAR_Empowering%20Women.pdf)
- GTZ (Gesellschaft für Technische Zusammenarbeit) (2004). Empowerment. Retrieved from: <http://www.gtz.de/de/dokumente/de-SVMP-empowerment.pdf>
- Harrold, D.K. (2007). Legal Empowerment Strategies in Bangladesh: Empowering Women and Poor People through Legal Means. Retrieved March 27, 2013, from: [http://www.bracresearch.org/reports/Legal\\_Empowerment.pdf](http://www.bracresearch.org/reports/Legal_Empowerment.pdf)
- Houscht, M.P. (1999). Entwicklungspolitik und Entwicklungszusammenarbeit im interkulturellen Kontakt und Konflikt. Fallstudie Bangladesh. Trier.
- IRIN (2010). BANGLADESH: Landless numbers on the rise. Retrieved March 28, 2013, from: <http://www.irinnews.org/Report/89399/BANGLADESH-Landless-numbers-on-the-rise>.
- Kabeer, N.; Mahmud, S., Tasneem, S. (2011). Does Paid Work Provide a Pathway to Women's Empowerment? Empirical Findings from Bangladesh. Retrieved March 23, 2013, from: <http://www.ids.ac.uk/files/dmfile/Wp375.pdf>

- Khan, M.R. (2006). Women, Participation and Empowerment in Local Government: Parishad Perspective. *Asian Affairs*. 29 (1), 73-92.
- Kromrey, H. (2009). *Empirische Sozialforschung. Modelle und Methoden der standardisierten Datenerhebung und Datenauswertung*. 12. Edition, Stuttgart.
- Narayan, D. (2002). *Empowerment and Poverty Reduction. A Sourcebook*. 1. Edition. Washington DC.
- National Institute of Population Research and Training (NIPORT) Dhaka, Bangladesh and Mitra and Associates Dhaka, Bangladesh, Measure DHS (2004). *Bangladesh Demographic and Health Survey. ORC Macro*. Calverton. Maryland. US.
- Nazneen, S., Hossain, N., Sultan, M. (2011). National Discourses on Women's Empowerment in Bangladesh: Continuities and Change Institute of Development Studies. IDS Working Paper 368. Retrieved March 20, 2013, from: <http://www.ids.ac.uk/files/dmfile/Wp368.pdf>
- Njuki, J. (n.d.). Women's Economic empowerment for promoting food security and nutrition. International Livestock Research Institute. Retrieved from: <http://www.un.org/womenwatch/daw/csw/csw56/panels/panel1-presentation-Njuki.pdf> (cited: 20.03.2013).
- Rafiqul, I. (2011). Rural Women's Empowerment through Self-income Generating Activities: A Study on NGOs Credit Programs in Bangladesh. *Journal of Global Citizenship and Equity Education*. 1 (1).
- Roy K., Blomqvist, H., Clark, C. (2008). Institutions and Gender Empowerment in the Global Economy. *World Scientific Studies in International Economics* (Hrsg.). Band 5. Singapur.
- Sen, A. (1999). *Development as Freedom*. United States.
- Sen, A. (2007). *Ökonomie für den Menschen. Wege zu Gerechtigkeit und Solidarität in der Marktwirtschaft*. 4. Edition. München.
- Tiermann, V. (2003). *Einführung Statistik*. Wiesbaden.
- UNDP (2013). *International Human Development indicators*. Retrieved March 20, 2013, from: <http://hdrstats.undp.org/en/countries/profiles/BGD.html>
- UNICEF (2007). *State of the World's Children: The Double Dividend of Gender Equality*. Retrieved from: <http://www.unicef.org/sowc07/docs/sowc07.pdf>.
- Worldbank (2009). *Bangladesh at a glance*. Retrieved March 20, 2013, from: [http://devdata.worldbank.org/AAG/bgd\\_aag.pdf](http://devdata.worldbank.org/AAG/bgd_aag.pdf)
- Zaman, F. (2012). *Bangladeshi Women's Political Empowerment In Urban Local Governance South Asia Research*. 32 (2), 81-101.
- Zug, S. (2006). *Monga - Seasonal Food Insecurity in Bangladesh - Bringing the Information Together*. The Journal of Social Studies, No. 111. Centre for Social Studies, Dhaka. Retrieved March 29, 2013, from: [s.zug\\_seasonalfoodsecuritybd\\_journal\\_of\\_social\\_studies.pdf](http://www.sug_seasonalfoodsecuritybd_journal_of_social_studies.pdf)