

# Chapter 7

## Conclusion

There is an increasing call among tax-payers and financial donors to evaluate the effectiveness of development aid. However, quantitative impact evaluations of development projects, especially of community-based development (CBD) projects, are still limited. Based on a unique dataset this dissertation evaluates a particular CBD project, the Mahila Samakhya programme in India. It estimates the programme's effect on social capital, cooperation, immunization, school enrolment and credit.

The most prominent finding of the thesis relates to the substantial externalities that the programme generates for the broader community. Not taking into account such spillover effects can lead to a substantial under- (or over-) estimation of a programme's impact. In addition, the dissertation refutes the pessimistic stance that the impact of development aid cannot be measured.<sup>199</sup> Even without a randomized implementation and in the absence of a baseline survey, the slow scaling up of a programme can offer good opportunities to construct a comparable control group as counterfactual.

This concluding chapter will first briefly describe the Mahila Samakhya programme in Bihar. Next, it recapitulates the three main research questions. Section three summarizes the findings from the empirical chapters. The results are followed by a discussion of methodological issues. Section five sketches the limitations of the dissertation and provides suggestions for further research. The final section draws a number of policy recommendations.

### ***7.1 Background: The Mahila Samakhya programme in Bihar***

Living conditions in the North-Indian state Bihar are extremely harsh. Poverty is widespread. Many government services are of poor quality. Markets such as the credit market

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<sup>199</sup> See for example the report of the Commissie Draagvlak en Effectiviteit Ontwikkelings-samenwerking (de 'Commissie Dijkstal'), "Vertrouwen in een kwetsbare sector?", 6 April 2006.

are malfunctioning. These features of the Bihari economy, common to many other developing regions, call for action of the population to jointly address public good provision where the government fails and to engage in informal transactions among each other where access to formal markets is restricted. But despite the benefits attached to cooperation, few households in Bihar actually participate in collective action or in informal credit- and risk-sharing arrangements.

Especially the often illiterate women, regularly confined to a life of seclusion and subordination, remain conspicuously absent from the public domain. To address the lack of collective action and solidarity among women, the Mahila Samakhya programme was introduced in Bihar in 1992. This women's empowerment programme mobilizes and supports low-caste and otherwise disadvantaged women to identify and address their most urgent needs through joint action. In spite of the initial focus on education, over time the women's groups have addressed a broad range of issues.

The approach of Mahila Samakhya to development is far from exceptional. Development organizations increasingly recognize the importance of involving communities in project design and management. Among many other anticipated benefits, community-based development (CBD) would strengthen social capital in terms of trust, social interactions and norms of cooperation among community members. In turn, this would enhance communities' propensity to engage in collective action and empower them to become increasingly in control of their own future. In addition, enhanced social capital might generate potentially important externalities on the broader community, affecting socio-economic outcomes of households regardless of their own contributions to village life.

## ***7.2 Recapitulation of the research questions***

Given the increasingly large amounts of development aid devoted to CBD projects and the extensive literature on social capital and cooperation, surprisingly few quantitative empirical studies test the commonly accepted assumptions regarding social capital, cooperation and CBD projects. Empirical research that measures the spillover effects of CBD projects on the broader community is even scarcer. However, quantitative evidence on programme impact is necessary to make sound policy decisions. It either provides support for further expansion of CBD funding or else it might temper the too optimistic expectations regarding this channel of development aid. In addition, evaluations can highlight strong project components or point out opportunities for further improvement.

Using a unique, large-scale dataset of the Mahila Samakhya programme in Bihar, this dissertation has aimed to fill in parts of the gap in empirical evidence. The dataset encompasses 1991 households in 102 villages. It consists of 74 villages where the programme is active, and 28 comparable control villages where the programme is not yet implemented.

We randomly selected 20 households in each village for inclusion in the survey. In programme villages, both participants in the women's groups and non-participants were interviewed.

Three general research questions were leading throughout the thesis. First of all, does the evidence yield support for the existence of a virtuous cycle between social capital and cooperation? And if so, is a CBD project such as Mahila Samakhya able to set in motion this self-reinforcing mechanism? This has been the main point of interest in chapter four.

Second, to what extent has Mahila Samakhya, through its impact on social capital and cooperation, been able to improve socio-economic outcomes in the programme villages? Chapter five focused on outcomes in terms of immunization and school enrolment. It discussed enhanced collective action as well as information diffusion as the most important underlying mechanisms for the generation of externalities. Outcomes in terms of informal credit transactions among households were the main topic of chapter six. In this respect, decreased monitoring and enforcement costs were put forward as the mechanism through which social capital influenced cooperation.

The third general research question that was addressed in the three empirical chapters refers to spillover effects. The generation of externalities among members of a group is one of the core aspects of most definitions of social capital. To what extent has the Mahila Samakhya programme been able to generate externalities on non-participants in programme villages, in terms of cooperative behavior, child outcomes or access to credit? Especially chapter five paid a lot of attention to the measurement of externalities in programme evaluation. This is hardly ever done in impact evaluations.

### ***7.3 Summary of the findings***

Overall, the results support part of the hypotheses while rejecting others. Chapter four examined the relationship between social capital in terms of trust and norms of reciprocity on the one hand and cooperation in terms of informal assistance and collective action on the other hand. It finds evidence of a strong relationship between norms of reciprocity, both at the individual and at the community level, and cooperation. Especially in small communities, the threat of social sanctions is effective in enhancing cooperation. However, individual norms of reciprocity are not unambiguously positive for cooperation. They will encourage an individual to cooperate or not, depending on the average levels of cooperation of others in the community.

In contrast to expectations however, trust only increases informal assistance but not participation in collective action. Conversely, positive past experiences with cooperation increase trust, but only in programme villages. This could stem in part from the explicit trust-building efforts of the programme. It could also indicate a critical level of cooperation that a

community needs to reach before households adapt their expectations regarding the cooperative intentions of others. Thus, we find evidence of a virtuous cycle between social capital and assistance in programme villages, but *not* between social capital and collective action. In other words, Mahila Samakhya will not be able to create a multiplier effect on communities' joint actions, at least not through this pathway.

Nonetheless, the results suggest a strong *direct* programme impact on collective action. Contributions to school maintenance and infrastructure projects are substantially larger in programme villages, probably due to several processes: a greater awareness about the benefits of joint action, the availability of additional resources, and enhanced confidence in one's own and one's neighbors' ability to change the status quo. Moreover, the findings indicate that both participants *and* non-participants in Mahila Samakhya villages have become more trusting and more likely to engage in collective action.

Increased trust and cooperation are valuable outcomes in themselves of course, but ultimately CBD projects such as Mahila Samakhya aim to improve socio-economic outcomes of the households involved. Therefore, chapter five explicitly looks at the impact of the programme on the immunization and school enrolment rates of children in programme villages, with a specific emphasis on externalities. The findings show that the programme has had a significant and large impact on immunization rates, preschool enrolment and school enrolment of children whose mothers participate in Mahila Samakhya. In addition, it has had a substantial spillover effect on children whose mothers *do not* participate themselves, but who live in a village where the programme is active. The immunization rates against tuberculosis, DTP and measles (but not polio), the preschool enrolment rates and the school enrolment rates of girls (but not boys) are significantly larger among non-participants than among the control group. These indirect effects are at least forty percent of the direct impact on participants.

The main mechanisms that have led to the externalities on immunization are thought to lie in information diffusion through daily social interactions as well as immunization campaigns organized by the women's groups. In addition, there is some evidence that the programme may have increased the pressure on public health officers to improve their performance. The increased enrolment rates are to a large extent related to the improved access. In many programme villages, parents have jointly set up informal preschools and primary girls' schools. In addition, demand for education has increased due to a greater awareness about the importance of education and perhaps better school quality. The fact that spillovers are found mainly among the Scheduled Castes population and a lot less among Muslims underscores the importance of interactions within social networks shaped by caste and religion.

Chapter six takes up the issue of caste and religious heterogeneity further and relates it to informal credit transactions among households. In situations of limited enforcement, repeated social interactions are essential for monitoring and social sanctioning, which in turn

reduce the risk of default. For a given population size, heterogeneity reduces the size of social networks, or risk pools, and hence the likelihood that a household can borrow money from its friends, neighbors or relatives. In that case, households have no other option than to accept the usurious interest rates of local moneylenders. The results confirm that heterogeneity in the village has a negative effect on the probability of lending from friends, neighbors or relatives instead of the moneylender. However, they also indicate that heterogeneity can have a positive impact on the risk management strategies of households. In more diverse villages, households are more likely to obtain credit for investment (in contrast to credit for consumption) and thus more likely to improve their future income-generating capacity. This positive effect of heterogeneity is often ignored.

The Mahila Samakhya programme attenuates the negative impact of heterogeneity on informal loans from friends and neighbors, most likely because it enhances trust, interactions and cooperation across caste barriers. Nonetheless, we find that the *overall* number of loans, regardless of their source, is lower in programme villages. Potential mechanisms that lead to this reduction in credit transactions are a simultaneous increase in informal risk-sharing transactions (such as gifts or other forms of assistance), a reduced need to roll over debt with extremely high interest payments, and improved risk management strategies in programme villages versus the control group. The results in chapter six apply to non-participant households, i.e. they capture spillover effects of the programme on the broader community. In contrast, participants in programme villages make extensive use of their access to the rotating savings and credit groups of Mahila Samakhya.

## **7.4 Methodological issues**

From the analysis, a number of methodological issues emerge. First of all, it is indisputable that a truly randomized implementation of the programme or at least the availability of baseline data would have made the impact evaluation a lot more straightforward. But often randomization is politically or practically unfeasible. Likewise, the number of programmes that start with a baseline survey before implementation is so limited that it would reduce evaluation opportunities dramatically. A restriction to such optimal conditions would imply that it is too late to evaluate the large majority of currently ongoing projects. However, organizational constraints often lead to a gradual expansion of development programmes. The slow scaling up of programmes allows for a quasi-experimental survey design. As discussed in chapter three, the matching procedure of the Mahila Samakhya programme blocks with control blocks resulted in a treatment group and a highly comparable control group to serve as counterfactual.

Second, our approach of using three sample groups including both participants and non-participants in programme villages as well as control households is a relatively easy way

of capturing externalities of community programmes on the broader community. On the other hand, the treatment group may be defined such that it encompasses all potential beneficiaries, both direct and indirect, of a programme. In that case, the impact estimates will capture the entire programme effect. However, such broad categories dilute the effect on participants that most programme managers will be interested in, and do not allow for a separate analysis of externalities.

Another advantage of having a control group as well as participants and non-participants in programme villages is that it allows for a direct test of the exclusion restriction for instrumental variables. It is often very difficult to plausibly argue that a variable only affects an outcome variable through its effect on the participation decision. When the correlation between the instrument and the outcome variable can be tested directly in the control group and is found to be small and insignificant, this provides a strong argument for its exclusion from the outcome equation and hence for its validity as an instrument.

A fourth methodological comment resulting from the empirical analysis is the importance of looking beyond correlations and trying to disentangle the direction of causality instead. This can yield surprising and unexpected findings, as chapter four shows regarding the relationship between trust and collective action.

Fifth, the ambiguous relation between individual norms of reciprocity and cooperation underscores once more that strong norms cannot always be considered as “good”. The social capital literature often assumes that strong norms are beneficial for group members. But whether that is true depends crucially on the context and the outcomes under consideration.

Finally, the last chapter clearly showed how aggregation into a single group can mask otherwise strong but opposite effects of a variable on the underlying categories. The negative effect of heterogeneity on the prevalence of (informal) consumption loans is counteracted by the positive effect on investments in diverse communities. An analysis of the total amount of loans does not pick up either effect but results in a small and statistically insignificant coefficient on the heterogeneity variable.

## ***7.5 Suggestions for further research***

A number of limitations, especially with respect to the available data, points towards directions of further research. As mentioned before, a panel dataset would have greatly facilitated the analysis, not only of programme impact, but also of the underlying dynamics in terms of trust, norms and cooperation. Two survey rounds at a one-year interval for example would allow for a direct comparison of initial with ultimate levels of trust and link the change to collective activities during the intermediate period. This is likely to yield more precise estimates that are easier to interpret. Such an approach would also allow testing our assumption of relatively stable norms of reciprocity over time.

In addition, the measurement of trust and reciprocity would have benefited if complemented with alternative proxy variables. Such variables could be derived from behavior in experimental games or from standardized, validated psychological tools. The ongoing discussion regarding the validity of survey measures of trust certainly warrants the additional efforts of collecting attitudinal data in a variety of ways. A substantial number of experiments focuses on the measurement of trust. A similar exercise for the measurement of norms of reciprocity would be very useful in this respect. Likewise, it would be interesting to test the validity of empowerment-related survey questions with experiments specifically designed to measure empowerment in situations of household bargaining as well as collective action in the public domain.

To improve our understanding of the underlying mechanisms, additional research that explicitly incorporates social network effects appears to be a logical next step. Survey data yield suggestive evidence that externalities are generated through the daily social interactions among women in a village. But a social network analysis can provide a much more thorough analysis of the type of links (in terms of strength, distance, etc.) that are particularly important to disseminate specific types of information. This would yield valuable guidelines to optimize the effects of awareness raising campaigns for example. Similarly, better insights into the characteristics of social links among households that facilitate credit and other informal transactions would further increase our understanding of how to reduce the obstacles to cooperation among households when formal markets are still malfunctioning.

More detailed information on the motivations of individuals to contribute to community projects would also be very valuable. A greater emphasis on the role of empowerment and self-confidence seems to be especially promising. Perhaps the virtuous cycle, absent for the relationship between collective action and trust, is found instead for the relationship between collective action and empowerment, self-confidence and voice. This would suggest including a more psychological perspective into theories of collective action, incorporating concepts such as the locus of control in addition to the economic building blocks of behavior.

The disadvantaged position of the Mahila Samakhya target group in Bihar may be representative of the role and experiences of women in South Asia, but not in other parts of the world. In most African countries for example, women's associations and other voluntary community groups play a strong and important role in daily life. In such circumstances, it is possible that prior experiences with collective action induce individuals to fully participate in a new CBD project right from its introduction in the community. This calls for care when transposing the findings to a different social context.

Finally, the extrapolation of the results to other types of CBD projects is not as straightforward as it may seem. The Mahila Samakhya programme puts a strong emphasis on the initial period of sensitization and trust-building which may take up to a year in some cases. In contrast, many CBD projects provide community members with a only a few days or

a few weeks at most of participatory training activities, based on a philosophy of ‘learning-by-doing’. However, many projects are dealing with minorities such as Scheduled Castes, indigenous populations or women. It is highly questionable whether such a short period of capacity building is sufficient to overcome people’s long-term habituation to exclusionary mechanisms within a social system. In that sense, our results may provide an upper bound of the impact to be expected from CBD projects that work especially with minority groups. Therefore, it would be very interesting to set up a comparative impact evaluation of CBD projects that share their objectives but differ in their design. Is Mahila Samakhya successful because of its careful but slow approach or would a different project be able to reach similar results with a substantially more rapid initial stage of mobilization?

## **7.6 Policy recommendations**

What do these findings and results teach us for future development policies? First of all, it is clear that a women’s empowerment programme such as Mahila Samakhya, which focuses on trust-building, solidarity and collective action, can have a substantial impact on the social and economic situation of the households involved.

Moreover, the effects may reach far beyond its direct participants. Children are substantially more likely to be immunized and enrolled when a women’s group is active in their community regardless of their mothers’ own participation. Households become significantly less dependent on the notorious moneylenders for credit, even if they are not a member of Mahila Samakhya themselves. Not taking into account such externalities in impact evaluations might seriously underestimate programme impact. To the extent that continuation of funding is dependent on cost-benefit analyses, biased impact estimates could ultimately lead to the termination of effective projects.

Despite their successes, the Mahila Samakhya groups do not reach *all* disadvantaged children in the villages to an equal extent. Whereas Scheduled Castes children benefit a lot from the spillovers, Muslim children are affected substantially less by the programme. Given the extremely low immunization and enrolment rates among Muslims, the programme should pay considerably more attention to the active involvement of Muslims in order to counteract any exclusionary mechanism that hampers the participation of Muslim women in the women’s groups.

The Mahila Samakhya programme not only improves child outcomes, it also attenuates the negative impact of heterogeneity on informal loan transactions among friends and neighbors. Meanwhile, diversity can also positively affect the demand for investment loans, which is often ignored in discussions about heterogeneity. It is considered a challenge to formulate policies that lift the negative impact of heterogeneity on informal credit without resorting to the undesirable measures of coercive migration or segregation and without

hampering the positive effects on investment loans. Our results show that a programme that fosters inter-caste and inter-religious trust and cooperation may be a good alternative.

Some reservations are in place. The programme appears to be very successful in improving a number of outcomes that were identified to be the main benefits of Mahila Samakhya by the community members. Except for school enrolment, these outcomes were not identified as such in the original project objectives. Moreover, the women's groups operate at their own pace and take up new activities at their own demand. The careful period of sensitization and empowerment by facilitators prevents the programme from rapidly coming to scale. That is, funders of the programme are neither fully in control of financial disbursements nor of project outcomes. Obviously, this asks for a great patience on their part as well as a considerable devolution of control to local communities. It is to be seen whether this is compatible with the internal incentive and reward mechanisms of multilateral and other donors.

Despite the evidence of the positive impact of Mahila Samakhya, the findings do not support the hypothesis that the programme has set in motion a self-reinforcing cycle of increasing trust and collective action within the community. This result casts serious doubts on the potential of other CBD projects to do so, especially since Mahila Samakhya is rather unique in the amount of time and efforts that it puts in enhancing social capital and cooperation.

One implication of the absence of such a cycle is that sustainability remains an important issue. In fact, at the time of the survey it seemed unlikely that the individual women's groups could function independently of the programme's support, resources, training and stimulation. This is not necessarily a disqualification. If the women's groups reach certain social objectives as effectively and efficiently as the government would, long-term financial support for the programme would relieve an already overburdened government of some of its tasks while at the same time empowering local communities. It does however temper the sometimes very optimistic expectations regarding the potential impact of community-based development. It also warns against a too rapid withdrawal of development organizations out of local communities. A subsequent collapse of collective action could throw the entire community into a state of mistrust and apathy, as anecdotal evidence suggests.

Finally, development organizations often seem hesitant to subject themselves to rigorous, outside evaluations. Hopefully, this dissertation helps to take away some of their fears. Studies should and can be set up broad enough to encompass the most important outcomes and the most important beneficiaries of a programme. A positive evaluation will provide a powerful tool for fund-raising. Some of the results may be below expectations and an evaluation will point this out. But thereby it can help to improve project design and enhance future outcomes. Think for example of the finding that Muslim children, who are most in need of health interventions, benefit substantially less from the programme than

others. In the most extreme case, an evaluation might show that a project performs systematically worse than other project types with similar objectives. Also this knowledge is important. In a world of limited financial and human resources, evaluations can guide decisions of policy-makers and programme managers to invest in the best alternative for development.