Community and Economic Development in Pakistan: The Case of Citizen Community Boards in Hafizabad and Japanese Perspectives [*]

This version: January 2007
(Previous version: December 2006)

Takashi Kurosaki [$]

Abstract:

In 2001, a scheme called Citizen Community Board (CCB), a kind of community-based organization (CBO), was introduced in Pakistan, under which local people propose to the local government development projects through forming a CCB and upon approval the local government funds 80% of the project cost. Since 2001, however, both the number of CCBs and that of approved projects have been below the expected level. This raises a concern that the Pakistani society with limited historical experience in CBO-based development is too handicapped for the CCB scheme to be successful. Since 2004, JICA (Japan International Cooperation Agency) has been implementing a project to make the CCB program more effective and efficient, with Hafizabad District as a target district. This paper first summarizes the results of statistical analyses regarding the determinants of successful formation of a CCB and those of successful development activities conditional on the formation. This is based on the data we collected in a benchmark survey before JICA's intervention. The regression results show that rules within a CCB and the type of leadership are key to the success of CCB initiative, suggesting that the capacity building of CCBs and local communities is important. Then in the second part of the paper, we summarize the achievements of JICA's intervention during the year 2005-06. Our experiences show the effectiveness of field facilitators, supporting the view that the capacity building is indeed the constraint.

1. INTRODUCTION

In 2001, a scheme called Citizen Community Board (CCB), a kind of community-based organization (CBO), was introduced in Pakistan as a devolution policy, under which local people propose to the local government development projects through forming a CCB and upon approval the local government funds 80% of the project cost. Since 2001, however, both the number of CCBs and that of approved projects have been below the expected level. This raises a concern that the Pakistani society with limited historical experience in CBO-based development is too handicapped for the CCB scheme to be successful. Although the number of empirical studies on Pakistan's CCB scheme has been increasing [e.g., see Cheema and Mohmand (2004), Cheema et al (2006)], our understanding on conditions for a success of such schemes is limited. This paper thus attempts to analyze the conditions in the context of community and economic development in Pakistan from Japanese Perspectives.

Japan did not achieve the current level of well-being quickly. A long period of efforts to catch-up to the US exists before we reach the current level. At the time of Meiji Restoration in 1868, when the Japanese economy began its modernization effort, the economy totally depended on agriculture and the living conditions were desperately low, much poorer than the level enjoyed by Pakistani people in the 1970s [Maddison (2003)]. From this humble beginning, the Japanese economy grew to the current level. In our growth experience, the community played a significant role [Hirashima and Gooneratne (1996), Ohkama and Kikuchi (1996), Hayami and Godo (2005)]. Especially, the community's role was critically important in providing basic social services such as primary education [JICA (2004)]. The most important geographic unit for such community initiatives is "Gyosei Son" (administrative village), which roughly corresponds to "Union" in Pakistan today. Because of

this background, we expect that Japanese perspectives may have useful implications to the current case of Pakistan.[1] This expectation motivates this paper.

The role of community in economic development has been one of the focal issues in the theory of development economics as well [Hayami and Godo (2005)]. Devolution initiatives with community as a key actor are expected to contribute to efficiency, accountability, and transparency of poverty reduction policies through the utilization of local information and resources and nurturing the sense of ownership [Bardhan (2002)]. However, as Bardhan and Mukherjee (2000, 2005) show theoretically, such initiatives may be vulnerable to the capture by local elites. Whether the decentralization and local participation improve the welfare of disadvantaged people thus becomes an empirical question. According to the survey by Mansuri and Rao (2004), the evidence on whether devolution improved targeting and public goods formation is mixed but tends to be positive under enabling institutional environment. Another strand of related literature is empirical studies on the determinants of collective action to manage common property resources [see Bandiera et al. (2005) for a recent survey]. The existing studies have shown that as determinants of collective action (especially in irrigation), focal variables include social heterogeneity, group size, asset inequality, and leadership. Most studies find that inequality and social heterogeneity are detrimental to successful collective action.

With these two strands of literature as theoretical background, this paper presents a case study of CCBs in Hafizabad District, Punjab. Since 2004, JICA (Japan International Cooperation Agency) has been implementing a project to make the CCB program more

---

[1] A Japanese development project with similar motivation was successful in Indonesia in making the community-based and community-driven development more sustainable. See Kawamura (2005).

effective and efficient, with Hafizabad as a target district. This paper first presents the results of statistical analyses regarding the determinants of successful formation of a CCB and those of successful development activities conditional on the formation.[2] This is based on the data we collected in a benchmark survey before JICA's intervention. The regression results show that the rules within a CCB and the type of leadership are key to the success of CCB initiatives. Then in the second part of the paper, we summarize the achievements of JICA's intervention during the year 2005-06, focusing on the role of field facilitators.

The paper is organized as follows. Section 2 describes the background of the CCB scheme in Pakistan and introduces the JICA's Devolution Support Project. Section 3 summarizes the estimation results of statistical analyses for the CCB's success/failure in Hafizabad before JICA's intervention. Section 4 describes JICA's ongoing intervention to improve CCBs. Section 5 concludes the paper with the directions for further research and policy implications.

2. JICA'S DEVOLUTION SUPPORT PROJECT IN HAFIZABAD

Pakistan is characterized by a moderate success in economic growth with a substantial failure in human development such as basic health, education and gender equality. Underlying this situation is a society with unequal distribution of income and assets where the core network is based on familial, clan, and tribal relations, with limited historical experience in CBO-based cooperation in development efforts [JICA (2003)].

The current government led by Gen. Pervez Musharraf, which came to power after a

---

[2] This part (i.e., Section 3) is extracted from Kurosaki (2005).

military coup in October 1999, has been attempting to change this situation through two policy measures. The first is the *Devolution of Power*, implemented through the Local Government Ordnance (LGO), the first local government elections in August 2001, the second elections in 2005, and so on. The second policy measure is the *Poverty Reduction Strategy* based on the World Bank funded Poverty Reduction Strategy Paper (PRSP). Devolution is listed as one of the four pillars in the Full PRSP of December 2003 and thus closely linked with poverty reduction policies in Pakistan.

As one of the innovative schemes to implement Devolution policies, a new institution called Citizen Community Board (*CCB*) was introduced [GHK (2005), Cheema et al. (2006)]. A CCB is a voluntary organization based on the community in which people live. According to LGO, local people form a CCB with a chairman, a secretary, and general members. A registered CCB makes a proposal for development projects. The local government funds 80% of the total project cost. Since the promulgation of LGO in 2001, however, both the number of CCBs and the number of approved projects have been below the expected level [GHK (2005), JICA (2006)].

Against this background, JICA initiated in 2004 a project called the JICA Devolution Support Project (JICA-DSP) to make the CCB program more effective and efficient, with Hafizabad as a target district. In its initial phase in 2004-05, as a benchmark survey, JICA-DSP and Hafizabad District Government jointly worked to implement an organizational and institutional survey of local governments [GHK (2005)] and a socio-economic survey of Unions and CCBs in Hafizabad [RDPI (2005)].

Hafizabad is a small district on the bank of Chenab River [Kurosaki (2005)]. It has 42 unions/towns and contains 428 villages/circles. The district was separated from Gujranwala

District in 1993. The landscape is very flat throughout the district and the majority of farmland is irrigated. The main monsoon crop is Basmati rice and the main winter crop is wheat, both of which are cultivated simultaneously with various fodder crops for livestock, mostly cows and buffaloes. Hafizabad is known as a typical Punjab society dominated by a few big landlords and numerous owner-farmers, with substantial landless rural population [GHK (2005)]. Agricultural census data also show that land tenancy in Hafizabad is more frequently found than in other parts of Punjab [Kurosaki (2005), Table 1].

As a product of joint efforts by JICA-DSP and Hafizabad District Government, the CCB Improvement Plan [CIP] was launched on October 2005 and its second phase was under implementation at the time of this writing. The CIP's objective was to increase the number of CCB activities and the amount of budget released by local governments in Hafizabad within one year. The CCB Support Centre was established as a symbol of the CIP and with the offices of Executive District Officer-Community Development (ECO-CD) and District Officer-Social Welfare (DO-SW) placed under one roof along side the JICA-DSP team. Centering at the CCB Support Centre, the following activities were implemented:

Planning stage:

Publicity campaigns and information provision at the Support Centre.
Village visits and meetings by CCB Coordinators.
CCB information board in each Union.
Workshops and training by local governments.

Implementation stage:

Quick CCB registration facility.
Proposal evaluation.
Inter-departmental technical meetings.

Monitoring stage:

Monitoring guides with detailed manuals.
Photo records.
Field monitoring by CCB Coordinators .

3. DETERMINANTS OF THE CCB'S SUCCESS/FAILURE

3.1 Data

In this section, we utilize a dataset compiled from the socio-economic survey of Unions and CCBs in 2004-05 [RDPI (2005)]. The *Union Profile* covering all of 42 Unions in Hafizabad and the *CCB Profile* covering all of 119 CCBs registered until the socio-economic survey have been compiled. From the Union Profile, village-level information for 428 villages is obtained. Since JICA's CIP was initiated in October 2005, the data used in this section show the situation *before* JICA's intervention.

At the time when the survey was ended (March 2005), 119 CCBs were registered. Three Unions had no CCB. Some Unions had more than one CCB. Twenty-five CCB projects were approved and only three schemes received funds. Total accumulated CCB fund in Hafizabad was Rs. 121.8 m (approx. US$ 2.5m) at the time of the socio-economic survey. At the same time, 7 of the 119 CCBs already disappeared and no information was obtained. From the remaining 112 CCBs, 77 drafted a project proposal and 58 submitted the proposal to the local government.

3.2 Empirical Models

Villagers organize collective action to form a CCB when their expected benefit from CCB registration is greater than its costs. Benefits and costs of such collective action depend on the village and Union characteristics such as economic and political activities, infrastructure, and leadership [Meinzen-Dick et al. (2002)]. Thus, the determinants of

successful formation of a CCB are analyzed by a village-level regression model:

$$\text{Prob}(Y_i = 1) = f(X_k b_1 + X_i b_2 + u_i), \tag{1}$$

where Y_i is the dummy variable for village i to have a CCB, X_k is a vector of the characteristics of Union k to which village i belongs, X_i is a vector of the village characteristics, b_1 and b_2 are vectors of parameters to be estimated, u_i is a zero-mean error term, and $f(.)$ is a probit, logit, or linear function.

Once a CCB is formed, CCB members organize collective action to prepare a CCB project draft. To prepare the draft successfully, the members need to coordinate potentially conflicting interests among them and to satisfy technical specifications required from the local government as an acceptable proposal for fund allocation. Therefore, the success of such collective action can be modeled by a CCB-level regression model:

$$\text{Prob}(Y_j = 1) = f(X_k b_1 + X_i b_2 + X_j b_3 + u_j), \tag{2}$$

where Y_j is the dummy variable for CCB j to organize collective action successfully (proposal drafted or submitted), X_j is a vector of the CCB characteristics (inequality, group size, heterogeneity, leadership, CCB rules, etc.).

3.3 Determinants of CCB Formation

The estimation results of equation (1) are summarized in Table 1. Among the village- and Union-level variables, there are six variables with statistical significance in all specifications (*popv_t*, *infl*, *litrate*, *schlden*, *d_bank*, *ngo*).

First, the village population (*popv_t*) is positively associated with CCB formation. This can be interpreted as a scale effect, not as a density effect, since the population density is also included in the model (insignificant). A related finding is the positive coefficient on the

population's literacy rate (*litrate*). Thus the large size of literate population favors CCB formation.

Second, leadership matters at the stage of CCB formation, as suggested by positive and significant coefficients on *infl* (the number of influential persons in the village) and on *ngo* (the number of NGOs in the Union). This confirms our field observations that NGOs are encouraging CCB formation at the grass root level and villagers turn to local influential persons for support when they begin something new. As the influential persons in the village, people listed landlords, village heads, teachers, social workers, religious leaders, etc. Interestingly, the types of the influential persons did not yield a statistically significant difference. Furthermore, *ucmeet* (the cumulative number of Union Council [UC] meetings) is not significant at all. If UCs are effective in encouraging villagers to form a CCB, we expect the coefficient on *ucmeet* to be positive. The regression results does not support this, suggesting that the number of UC meeting is not related with CCB promotion.

The factors discussed so far are determinants of the supply side of collective action in CCB formation. The demand side, i.e., the variables determining people's needs, has to be controlled for. Therefore, indicators for service delivery are included such as the number of schools, health workers, housing facilities, and the distance to banks and post offices. Among these variables, those with statistical significance have expected signs: villages in a Union with fewer schools (*schlden*) and more difficulty in bank access (*d_bank*) are more likely to form a CCB.[3]

---

[3] It is possible that *d_bank* may capture the extent of commercialization of the Union. In the literature on collective action (see Section 1), many authors have found that the extent of commercialization is detrimental to cooperation. The positive effect of *d_bank* is consistent with this interpretation as well.

3.4 Determinants of the Successful Preparation of a CCB Project Proposal

Once a CCB is formed, the next step is to prepare a proposal for CCB projects. Under what conditions, CCB members are successful in coordinating collective action that results in an acceptable project proposal? Estimation results based on equation (2) are summarized in Table 2. To examine different aspects of project preparation, we choose two dependent variables: a dummy for the preparation of a project proposal draft and a dummy for the submission of the proposal. Since submission is conditional on the draft preparation, it may be desirable to estimate a model of sequential decision making. As the first step to approach the desirable model, equation (2) is estimated for each of these dependent variables with the same explanatory variables. In other words, a completely reduced-form approach is adopted.

The estimation results show that among the village- and Union-level variables, those with statistical significance have the same sign as in Table 1. Residents' literacy (*litrate*) and the Union's disadvantage in the access to banks (*d_bank*) both increase the probability of successful preparation and submission of a CCB project proposal. The presence of NGO (*ngo*) increases the probability but the effect is statistically significant only at the stage of proposal submission. Other Union-level variables and village-level variables are mostly insignificant.

Among CCB-level variables, several variables have coefficients that are congruent across specifications. First, the collective action for project finalization takes time: *ccb_age* has a positive coefficient. Second, CCB's management and rules matter. Those CCBs holding a meeting regularly (*d_meet*) are more likely to prepare a draft and to submit the proposal; those CCBs not recording their activities properly (*miss_gen*) are less likely to prepare a draft

and to submit the proposal, though the latter effect on the submission was statistically significant only at the 20% level.

Third, the group size (*num_mem*) and the number of occupations among members (*n_occp*) have positive coefficients on proposal preparation and negative coefficients on proposal submission. Among them, the positive effect of *n_occp* on the preparation and the negative effect of *num_mem* on the submission are statistically significant. The negative effect of the member size is consistent with the findings in the majority of studies on collective action in irrigation management [Bandiera et al. (2005)]. Positive and significant effects of *n_occp* (the number of occupations among members) on the preparation of project proposals are against the findings in the literature that the social heterogeneity among members is detrimental to collective action [Bandiera et al. (2005)]. The regression result seems to suggest that the superiority in technical skills of more heterogeneous CCBs surpasses the disadvantage of such CCBs in terms of maintaining cooperation. In this sense, the regression result shows the lack of technical support from the CCB administration in preparing project proposals. However, at the stage of proposal submission, *n_occp* has a negative and insignificant effect on collective action, suggesting a possibility that the ill effect of *n_occp* appear at this stage that requires more coordination among CCB members because the submission of the proposal implies the official commitment of local people to pay 20% of the project cost.

Inequality in land holding among CCB members (*ineq_ld*) seems detrimental to the submission of the proposal although its effect is only marginally significant in the statistical sense. It may also capture the effects of the leadership through land holding (*lead_lnd*). The coefficient on *lead_lnd* is positive on *d_pdft* but negative on *d_subm*, both of which are

statistically significant only at the 10% level. This suggests a possibility that the effect of land inequality on collective action may differ depending on the stage of project preparation. This requires further research since the results here are weak and mixed.

The coefficients on *womenr* (the ratio of female CCB members) and *lead_sex* (a dummy for a female chairman) are negative but not statistically significant at all. This result shows that the disadvantage of female-dominated CCBs is not discernible, which may be a good sign considering the gender context of Pakistan.

4. IMPACT OF INTERVENTIONS UNDER THE JICA-DSP PROJECT

The regression results in the previous section thus show that rules within a CCB and the type of leadership are key to the success of a CCB initiative. This finding suggests that the capacity building of CCBs and local communities, through technical and institutional support, is important. Under these conditions, JICA-DSP and Hafizabad District Government initiated the CIP (see Section 2 for its components).

As of November 2006, immediately after the second phase of the CIP was initiated, 242 CCBs were registered, including 93 that were registered newly under the JICA-DSP. Figure 1 shows the number of newly-registered CCBs in Hafizabad in three-month intervals from October 2003 to September 2006. A significant surge is observed in the first half of 2006, when the CIP Phase 1 was implemented. At the same time, completely inactive CCBs were deleted from the target of interventions ("CCB Cleaning"). The number of such deleted CCBs was 141. Out of the remaining CCBs, 35 have completed its project proposal with eleven more CCBs very close to completion.

On June 2006, thirteen proposals were approved by the District Government. These

proposals were for livestock development, vocational schools, and ambulance provision. Their total budget was 2.8 million Rs. At the time of this writing, twenty-two more proposals were waiting for the approval. They covered more diverse activities, including enhancement of school and health facilities and amounting to 5.4 million Rs.

These numbers show that one of the CIP's objective, i.e., to increase the number of CCB activities, was achieved successfully, although a more rigorous evaluation based on a comparison with scientific counterfactuals should be conducted for a definite conclusion. In promoting villagers' cooperation toward a CCB, village visits and meetings by CCB Coordinators were found to be very effective. This is consistent with the statistical finding in Section 3 that local leadership and NGO guidance are positive predictors of CCB formation. In addition, this seems to suggest that JICA's experiences in Indonesia [Kawamura (2005)] are useful and transferable to the case of CCBs in Pakistan. At this stage of the project, however, human resource constraints are coming to be binding. The number of Pakistani people capable of working as effective CCB Coordinators may not be sufficient. Thus a further investment in capacity building is needed.

The progress in increasing the amount of budget released by the government was steady but modest. An immediate task for the second phase of the CIP is thus to accelerate the approval process. The statistical finding in Section 3 that technical skills are lacking in the local people to prepare acceptable proposals is relevant in this context as well.

Therefore, the next task is to implement the remaining projects on time and to monitor them properly. By evaluating these projects and derive lessons for the next phase will complete the second phase, currently going-on.

5. CONCLUSION

This paper analyzed the conditions for a successful community-based, community-driven development in Pakistan. The analysis was based on a case study of Citizen Community Boards (CCBs) in Hafizabad, Pakistan, where Japan International Cooperation Agency (JICA) is implementing a project to make the CCB program more effective and efficient.

Based on regression analyses using benchmark data before JICA's intervention, we found that villages in Unions with higher literacy rates, with presence of NGOs in the Union and influential persons in the village, and with less access to schools and financial institutions are more likely to be successful in forming a CCB. The determinants of successful preparation of CCB development projects conditional on the CCB formation include the age of a CCB, more strict management (regular meeting and record keeping), and more technical skills (diversity in members' occupation). The effects of education, gender, and inequality on the project success probability were not clearly discernible, although a negative effect of land inequality on project submission was found. The statistical analyses thus seem to show that CCB-based collective action is possible even in the Pakistani society where the core network is not based on local residential areas, under the condition with favorable factors found in the regression analysis.

The implementation of the CCB Improvement Plan jointly by JICA and Hafizabad District Government shows a moderate success with respect to the objective of increasing CCB activities and to increasing the amount of budget released by the government on time. In promoting villagers' cooperation toward a CCB, village visits and meetings by CCB

Coordinators were found to be very effective, confirming the view that local leadership and NGO guidance are important. Considering the lack of such human resources in Pakistan, a further investment in capacity building is required.

Our experiences in Pakistan so far suggest that, in order to make the CCB (or participatory development in general) more sustainable in terms of planning, implementing, and monitoring, it is imperative to increase pro-poor components with active participation of the poor and the landless. In other words, to make CCB-type cooperation in development efforts possible in rural Pakistan, we need to pay sufficient attention to the heterogeneity of the local people (the depth of socio-economic gap among classes) and the potential of civil society institutions such as NGOs and the local elite in mobilizing the people.

One caveat of these conclusions is that they are derived from statistical relations among cross-section data and from our subjective observations in the field. The causality may be opposite to the one assumed in this paper. For example, interventions by CCB Coordinators and the local response to them are formed endogenously so that the characteristics of CCBs may reflect the process of endogenous matching. To elicit the true causal effects of these CCB characteristics and JICA's intervention on the CCB performance, we need exogenous variation. A rigorous evaluation based on such exogenous variation is left for further research.

REFERENCES

Bandiera, O., I. Barankay, and I. Rasul (2005) Cooperation in Collective Action. *The Economics of Transition*, 13: 3, 473-498.

Bardhan, P. (2002) Decentralization of Governance and Development. *Journal of Economic Perspectives* 16:4, 185-204.

Bardhan, P., and D. Mookherjee (2000) Capture and Governance at Local and National Levels. *American Economic Review* 90:2, 135-139.

----- (2005) Decentralizing antipoverty program delivery in developing countries. *Journal of Public Economics* 89:4, 675-704.

Cheema, A., A.I. Khwaja, and A. Qadir (2006) Local Government Reform in Pakistan: Context, Content, and Causes. In P. Bardhan and D. Mukherjee (eds.), *Decentralization and Local Governance in Developing Countries: A Comparative Perspective*, MIT Press, 257-284.

Cheema, A. and S.K. Mohmand (2004) The Political Economy of Devolved Provision: Equity-based Targeting or Elite Capture -- Case Evidence from 2 Pakistani Unions. Mimeo, Lahore University of Management Sciences. December 2004.

GHK (2005) *Local Government in Pakistan: An Organisational and Institutional Analysis, Evidence from Hafizabad District*. Report prepared for the Japan International Cooperation Agency (JICA), Devolution Support Project, March 2005.

Hayami, Y., and Y. Godo (2005) *Development Economics: From the Poverty to the Wealth of Nations*. Third Edition. New York: Oxford University Press.

Hirashima, S., and W. Gooneratne (eds.) (1996) *State and Community in Local Resource Management: The Asian Experience*, Delhi: Har-Anand Publications.

JICA [Japan International Cooperation Agency] (2003) *Country Study for Japan's Official Development Assistance to the Islamic Republic of Pakistan*, November 2003, JR03-19 (Japanese version).

----- (2004) *The History of Japan's Educational Development: What implications can be drawn for developing countries today*. March 2004, IIC JR 03-27.

Kawamura, Yoshio (2005) Facilitators and Externality for Endogenous Development: Lesson from the JICA-Indonesia Project for Community Development and Local Government for Poverty Reduction (Takalar Model). Paper presented at the JICA Devolution Support Project Seminar, *Citizen Community Board: Small, Steady, Sustainable Development*, Lahore, Pakistan. December 22, 2005.

Kurosaki, Takashi (2005) Determinants of Collective Action under Devolution Initiatives: The Case of Citizen Community Boards in Pakistan. *Pakistan Development Review* 44:3, 253-270.

Maddison, A. (2003) *The World Economy: Historical Statistics*. OECD Development Centre Studies, Paris: OECD.

Mansuri, G., and V. Rao (2004) Community-Based and -Driven Development: A Critical Review. *World Bank Research Observer* 19:1, 1-39.

Meinzen-Dick, R., K.V. Raju, and A. Gulati (2002) What Affects Organization and Collective Action for Managing Resources? Evidence from Canal Irrigation Systems in India. *World Development* 30:4, 649-666.

Ohkama, K., and M. Kikuchi (1996) Rural Infrastructure Development and Farmers' Participation: Farmers, Community, and Local Government in Pre-War Japanese Village. In Hirashima and Gooneratne (eds.) (1996), 41-93.

RDPI [Rural Development Policy Institute] (2005) *Baseline Survey of Hafizabad District: Social, Economic and Political Conditions for Good Governance*. Report prepared for JICA Devolution Support Project, April 2005.

Table 1: Summary of the Determinants of CCB Formation in a Village

Explanatory variables		Effects[1]
Village-level variables		
popv_t	Population of the village (1000)	(+++)
fmrate	Female population/male population	n.s.
popv_mn	Minorities population/total population	n.s.
infl	Number of influential persons in the village	(++)
Union-level variables[2]		
popden	Population density in Union (nos/acre)	n.s.
litrate	Adult literacy rates (%)	(++)
schlden	Number of schools per 1000 persons	(--)
lhwden	Number of lady health workers per 1000 persons	n.s.
h_water	Ratio of households with tap water	n.s.
d_bank	Distance to the nearest bank branch (km)	(+++)
d_po	Distance to the nearest post office (km)	(-)
ucmeet	Number of Union Council meetings held so far	n.s.
ngo	Number of NGOs registered	(+++)

Notes:

(1) "n.s." indicates that the variable has a statistically insignificant coefficient (at the 10% level) in all specifications. "(+)" indicates that the variable has a positive coefficient in all specifications but statistically significant (at the 10% level) in only some of them. "(++)" indicates that the variable has a positive and significant coefficient in all specifications with statistical significance levels at 5 to 10%. "(+++)" indicates that the variable has a positive and significant coefficient in all specifications with statistical significance levels at 1%. "(-)" indicates that the variable has a negative coefficient in all specifications but statistically significant (at the 10% level) in only some of them. "(--)" indicates that the variable has a negative and significant coefficient in all specifications with statistical significance levels at 5 to 10%. "(---)" indicates that the variable has a negative and significant coefficient in all specifications with statistical significance levels at 1%.

(2) In addition the variables listed above, two Union-level dummy variables controlling for data quality were also included.

Source: Adapted from Kurosaki (2005), Table 4.

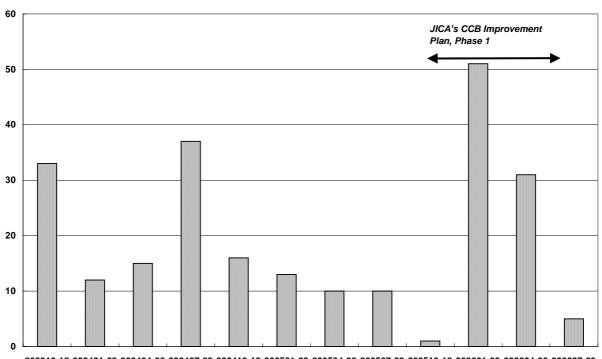Table 2: Summary of the Determinants of the Preparation of a Project Proposal

Explanatory variables		Effect on the preparation of project proposal draft	Effect on the submission of project proposal
CCB-level variables			
ccb_age	Weeks since CCB registration	(+)	(++)
num_mem	Number of CCB members	n.s.	(--)
womenr	Ratio of female CCB members	n.s.	n.s.
d_meet	Dummy for the regular meeting	(+++)	(+++)
n_occp	Number of occupations among members	(++)	n.s.
ineq_ed	Inequality in CCB members' education (max schooling years - min schooling years)	n.s.	n.s.
ineq_ld	Inequality in CCB members' landholding (max acreage - min acreage) in 10 acres	n.s.	(--)
lead_sex	Chairman's sex dummy (=1 if female)	n.s.	n.s.
lead_age	Chairman's age (years)	(+)	n.s.
lead_edy	Chairman's schooling years	n.s.	n.s.
lead_lnd	Chairman's landholding in 10 acres	(+)	(-)
miss_gen	Dummy for the incomplete CCB records	(---)	n.s.
Village-level variables			
popv_t	Population of the village (1000)	n.s.	(-)
infl	Number of influential persons in the village	n.s.	n.s.
Union-level variables			
litrate	Adult literacy rates (%)	(+++)	(+++)
schlden	Number of schools per 1000 persons	n.s.	(+)
d_bank	Distance to the nearest bank branch (km)	(+)	(++)
ngo	Number of NGOs registered	n.s.	(++)

Notes: See notes to Table 1.

Source: Adapted from Kurosaki (2005), Table 5.

Figure 1. Number of newly-registered CCBs in Hafizabad (3 month interval)
Data: JICA-DSP database.