

## Progress in Java's Villages

**O**ED's 1999 evaluation of the Bank's assistance to Indonesia found that projects were not sufficiently geared to poverty reduction and that agriculture projects had not been targeted at the poorest. To probe development outcomes at the grassroots, OED revisited Indonesia in 2000 to evaluate the performance of three projects designed to improve diverse aspects of villagers' livelihoods; the focus was on the main island, Java.

Based on a survey of 197 people in 33 villages, OED concluded that interventions in health, agriculture, and infrastructure have had a positive impact. While it was not possible to quantify the degree of poverty reduction realized, project objectives were broadly consistent with poverty reduction and these objectives were met even though they did not always reflect villagers' top priorities. In two of the three projects, the positive results are likely to be sustained. Thus, for Java at least, the projects do not seem to have been materially affected by the 1997 financial crisis and its political aftershock.

### Approach

OED visited randomly selected villages in Central Java and Yogyakarta. In these two provinces, respectively, 14 percent and 8 percent of the rural population had incomes beneath the poverty line, compared with a nationwide average of 12 percent. When housing quality, schooling, and other poverty indicators are taken into account, the level of poverty in these provinces is greater than the income data suggest. The evaluation examined project outcomes in an area that is generally poor. It was not able to compare impact on the

poorest with impact on the less poor, or (given the wide geographical reach of the projects) to compare villages inside and outside each project.

OED used three separate questionnaires: one to village chiefs ( $N = 33$ ), one to village midwives ( $N = 15$ ), and one to mothers of children under five years of age ( $N = 148$ ). The relative weight given to this last group responded to OED's finding that projects in the 1990s had not adequately targeted rural women, who account for a disproportionately large share of the poor. The evaluation also applied a quality checklist to 32 roads built by 2 of the projects.

The following sections present, first, the nature and overall outcome of the projects and, second, the survey results.

### The Projects

One of the projects trained midwives to live and work in villages, in an effort to raise the health standards of mothers and children. The other two had in common an effort to involve villagers in building and maintaining small-scale infrastructure. One of them also sought to make agriculture more sustainable in order to raise the incomes of farm households. The objectives and outcomes of each project are outlined below.



### *Fifth Population Project (Part B only, US\$25million)*

Part B of this project (the rest of the project did not have a rural focus and was therefore not evaluated) helped the Health Ministry develop a workforce of village-based midwives who would, in collaboration with family planning workers, health center staff, traditional birth attendants, and village groups, work to reduce the death rate of mothers and newborns. The project met or exceeded its relevant objectives efficiently.

First, the regulatory framework was strengthened. A ministerial decree regulating the registration and practice of midwives was issued in 1996. This increases the autonomy of midwives, particularly in handling abnormal deliveries.

The second objective—strengthening training capacity—was partially achieved. The project developed an accreditation system for training schools, and 10 percent of the schools were formally accredited by project close. In 1994 a more systematic and process-oriented curriculum replaced that of 1991, reducing the training period for midwives from two-to-three years to one year. This change was made in response to the government's push to accelerate the deployment of midwives to the villages.

The third objective was fully achieved: the project set out to support the training of 16,000 village midwives and it helped train 16,085, or 30 percent of the total number of midwives the government sought to deploy in 1996. Training was spread over 97 nursing schools in the 13 project provinces. OED rated the outcome of Part B as highly satisfactory.

### *Yogyakarta Upland Area Development Project (US\$15.5 million)*

This project aimed to make a sustainable improvement in the incomes and living standards of upland residents, mainly farmers, through better resource management. The project included components to improve upland area soil conditions, introduce alternative upland conservation technology options, foster upland community development, and improve rural accessibility through rural road and bridge construction. The project covered 230 villages in Yogyakarta, compared with an appraisal estimate of 140. With hindsight, greater focus on off-farm employment would have enhanced the relevance of the project.

Yet, physical achievements were substantial. Two hundred and thirty-two kilometers of roads were built, and 39 bridges were improved, compared with appraisal estimates of 173 kilometers and 22 bridges. The project completed conservation measures in 518 micro-watersheds, against an appraisal target of 500. These measures included construction of bench and contour terraces, improved waterways and drop structures, and infiltration pits and terrace risers. The research and extension objective, which sought to promote alternative land use strategies in the watersheds, was supported

through the creation of 150 village demonstration plots (target, 140) and 111 hamlet nurseries (target, 80). Community development initiatives included distribution of seedlings and livestock, construction and rehabilitation of roads and bridges, improvements to water supply and sanitation, and creation of 1,586 hamlet revolving funds benefiting 175,000 farm families.

OED rated project outcome as satisfactory. The only shortfall of the project was the weak demonstration effect of the agriculture technology transfer component: farmers were not always willing to provide the additional labor input that the new technology called for.

### *Village Infrastructure Project (US\$72.5 million)*

The project was designed as a pilot, targeted at the poorest 20 percent of villages on Java. It sought to involve villagers in decisionmaking about the use of grant funds, which were employed to build small-scale public works. It created jobs paid in cash for underemployed villagers to construct the infrastructure, and it mobilized villages to contribute to the cost of the works. The project covered 1,230 villages throughout Java (compared with an appraisal estimate of 1,200), assisting the building of 3,680 kilometers of rural roads, 7,790 meters of bridges, 2,427 water systems, 1,230 communal sanitation units, and two piers. In addition, there was a substantial short-term employment impact: unskilled laborers received an "incentive payment" in exchange for 13.4 million person-days of labor and, over a two-year period, 246 field engineers were employed. OED rated outcome as highly satisfactory.

### **The Survey Results**

The OED survey probed whether the projects were relevant to villagers, whether their objectives were achieved, and whether results were sustainable.

#### *Did the projects respond to villagers' perceived needs?*

OED asked village chiefs, midwives, and mothers to imagine that their village had none of the following: access roads, drinking water supply, latrines, primary school, or health post. They were asked to assume that there were funds for building only one of these items: which would they vote for? Each group named drinking water their top priority: overall, 53 percent placed this first, with little between-group variation. Chiefs and mothers gave second place to roads (respectively, 33 percent and 15 percent backed this option). For midwives, health posts ranked second (capturing 27 percent of their vote). A primary school came last, with only 6 percent of all respondents making it their top priority.

A key constituency from the perspective of assessing the needs of the poor is the mothers. Almost 60 percent made drinking water their first priority—an option that was not central to any of the three projects. Although drinking water supply is listed as one of the eligible

village projects in *Yogyakarta Upland Area Development*, there is no data in the completion report to indicate how many systems were built; the main infrastructure built was roads (voted first priority by one-third of village chiefs in the audit survey). Many villages in the limestone regions of Gunung Kidul are seriously short of drinking water—as several villagers pointed out to the OED mission—and it is therefore surprising that this was not reflected in the allocation of project funds. The mission estimated that in the subdistrict of Rongkop a household would have to spend the equivalent of 5 percent of the minimum wage on purchasing—from tankers—the 25 liters of water needed to cover daily needs. This calls into question whether the project was really demand-driven.

In the *Village Infrastructure Project*, the menu of infrastructure options was completely open, yet only 13 percent of the village grant was used to finance drinking water and sanitation, compared with 76 percent for roads. The implementation completion report notes that “women are the main beneficiaries from water supply installations,” which may explain why so many of the 149 mothers interviewed by the audit mission listed drinking water as their top priority. The emphasis given to roads may reflect the preferences of village chiefs and field engineers retained by the project. The mission learned that, in their consultation with villagers, project and government staff did not promote the openness of the community infrastructure menu as fully as they might have done.

In the case of the *Fifth Population Project*, the audit compared reported use of the midwives with use of traditional providers to see if villagers are expressing a demand for the new service. There were three findings. First, women are more likely to use a combination of services from traditional and new sources, rather than making sole use of one or the other. (This seems to be because midwives are treated as complements, not substitutes, for traditional providers: the latter offer support for a month or so after the birth—baby care, help with chores, massages). Second, *poor* women are more likely to use traditional attendants than trained midwives. Third, comparing mothers’ plans for future births with what they did in the past, support for making *sole* use of trained midwives appears to be growing. Thus, the project passes the relevance test because it appears to have correctly anticipated a latent demand for trained midwives. Moreover, previous attempts to upgrade the services provided by traditional providers—for example, through hygiene training—had not been successful.

Of the three projects, *Yogyakarta Upland Area Development*, while of adequate quality, is the least relevant. The major emphasis given to boosting farming productivity begs questions. The natural resource base is unpromising—large “farming” areas of Gunung Kidul are almost bare rock. In the villages visited by the audit mission, chiefs repeatedly talked of the need to diversify out of agriculture. Census data show that this district is the least diversified of

the eight that were targeted by the audit. At the same time, diversification is proceeding apace. Fifty-two percent of the mothers surveyed say that the head of their household’s main source of income comes from off the farm. The project’s support for backyard livestock (goats) possibly made sense given that this is not a land-intensive activity (and, moreover, because it targets women). But the case for investing heavily in soil stabilization is more difficult to demonstrate. A majority of village chiefs in Yogyakarta (59 percent) reported that soil erosion was not a major problem. In many cases this was probably not a reflection of the project’s success: many villages had developed impressive control measures (for example, stone facing of terrace risers) well before the project.

#### *Did the projects achieve their objectives?*

In the *Fifth Population Project* there was a question about whether government attempts to accelerate the deployment of village midwives had compromised both the quality of the training and the focus on locating midwives close to their area of origin. The survey found that the midwives were better trained than expected and in a good position to be integrated into the life of the village where they had been deployed. Of the 15 midwives interviewed, 70 percent were under the age of 30; all had graduated from senior secondary school, as well as nursing school; 53 percent had received two or more post-assignment training courses; 53 percent had been born in the district where they were now working; 93 percent spoke the local language; and 60 percent had been offered housing by the village on arrival.

For the evaluation of the *Yogyakarta Upland Area Development Project*, on-farm inspections and interviews were carried out in 17 Yogyakarta villages. Terraces appear to be well maintained, and there is ample evidence of grasses and perennial crops—which may enhance soil stability—although some of these measures predated the project. The roads that were built are of adequate quality. There has been no significant increase in the goat herd as a result of the project; and revolving funds—whether or not they were created by the project—have continued to grow.

With respect to works built by the *Village Infrastructure Project*, the mission inspected 20 roads, finding that design quality was average to good. Based on the audit team’s roadside evaluation, road quality was comparable to that in the Yogyakarta project. However, village chiefs in Yogyakarta rated road quality more highly than their counterparts in Central Java.

In Gunung Kidul, Yogyakarta, the survey examined eight villages that had been served by both the Upland Area Development and the Village Infrastructure Project. OED asked villagers which of the two projects had made the larger positive impact on their lives. There was no clear preference between the projects: of the 14 persons interviewed, 7 preferred the Village Infrastructure Project, 5 preferred the Yogyakarta Project, and 2 said there was

no significant difference in impact between the projects. Even in the same village there was not always a consensus: in three of the eight villages, preferences were evenly divided between the two projects. Those who favored the Village Infrastructure Project tended to single out the large volume of paid, short-term employment created by road building. Those who preferred the Yogyakarta Project were more likely to emphasize the longer-term benefits and the direct impact on farming productivity.

#### *Are the positive results of these projects likely to endure?*

Eight of the 15 *midwives* interviewed had been in the village more than 3 years—that is, they had remained when their first contract expired. Ten midwives indicated that they would stay in the village at the end of their current contract. There is also clearly a demand for the service from fee-paying clients. In the survey villages, 9 of the 15 midwives indicated that their income from private fees was at least double the amount of their government stipend. Thus, the project results seem likely to be sustained.

The improvement to *rural roads* made by both the Yogyakarta Upland Area Development Project and the Village Infrastructure Project seems to have been sustained. In the areas visited by OED, maintenance is carried out regularly, mainly by unpaid villagers drafted by the village chief. Maintenance activities rarely seem to extend beyond the filling of potholes with sand and small stones; without mechanized compaction—no evidence of this was found—this is barely adequate for steeply sloping roads. Nevertheless, almost three-quarters of village chiefs interviewed claimed that roads are better maintained now than they were 5 years ago. In some places, villagers have used their own funds to asphalt the steepest inclines: this was true of roads built under both projects. Also, both projects score roughly the same on erosion resistance. In both cases, therefore, sustainability is rated as likely.

The *revolving funds* set up by the Yogyakarta Upland Area Development Project are still being maintained. In Kepek village, a goat farmer told the mission that the local revolving fund had received Rp 700,000 from the project and now had a paid-up capital of Rp 3 million, a growth rate of 16 percent in real terms. Ten of the 24 households in the fund had borrowed sums of Rp 40,000–60,000, paying back a minimum of Rp 1,000 per month plus an interest charge of 0.5 percent. Two of the ten borrowers had temporary repayment problems, but these had been resolved using a combination of group support and sanctions. A similar pattern was found in other villages, and in no case did a fund collapse. Therefore, the sustainability of this component of the project is rated likely.

The ease of access to loans from revolving funds and, in some cases, banks has probably enhanced the sustainability of all three projects. Each of the 33 villages visited had an active revolving fund and, in every case, village


chiefs indicated the fund had grown in size during the previous five years. Not all villagers have the same demand for, or access to, these funds. Of the mothers interviewed, 38 percent indicated that they had taken a loan in the last five years, but only 18 percent had borrowed from the revolving fund. Village mid-wives prefer to borrow from banks: almost half of those interviewed had taken loans, but none had borrowed from revolving funds. They have used loans to buy midwifery equipment and supplies, renovate clinic space, and purchase the bicycles and motorbikes that are indispensable for their work.

#### Conclusions

Project results do not appear to have been materially disrupted by the 1997 East Asian financial crisis. Evidently the crisis was felt more in the cities than in the countryside. A majority of village chiefs and women reported to OED that most people were better-off than they had been five years before. It was striking that all of the 33 villages visited had robust financial institutions, including well-capitalized revolving funds that are accessible to people of diverse income groups. This provides a sound context for further development and continued work to reduce poverty. Another Bank survey of rural Central Java reached the same conclusion, finding agreement among men, women, and young people that well-being had increased in the ten years up to 1999, with a 10–15 percent fall in the proportion of poor households.<sup>1</sup>

<sup>1</sup> Based on interviews with 72 people in rural Genengsari, Central Java; see "Indonesia: Consultations with the Poor," report presented to the Global Synthesis Workshop, September 22–23, 1999, Poverty Group, World Bank.

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