CHAPTER 11

SAMUNDI: WOMEN LEAD THE WAY

Photograph by Monique Mikhail.

Samundi was chosen as a case study in Maharashtra to represent an incredibly motivated tribal community that is using the Jalswarajya project to supply all their water needs. Theirs is a unique story of village women taking charge of their community's development. Background information for the case study came from interviews with IDE field staff who have worked and continue to work with Samundi community members throughout the Jalswarajya scheme construction. Field staff collected information from the participatory rural appraisal conducted by Adhar (Samundi's SO through Jalswarajya), met with Adhar and Vachan (another local NGO working with Samundi on a separate horticulture project), the president of the VWSC, and the VDO to collect information on the community. The remaining information was collected during a visit of international and national IDE staff during April 2007, during which the following meetings were held:

- Village tour by Women Empowerment Committee chair
- Conversation with tank contractor and a few village laborers working on tank construction
- Conversation with Women Empowerment Committee chair and another committee member
- Group interview with the VWSC chairman, one other VWSC member, one Gram Panchayat member, and one landless-community farm laborer
- Interview with Adhar staff member assigned to Samundi village

SITUATION ANALYSIS

COMMUNITY SETTING

Location

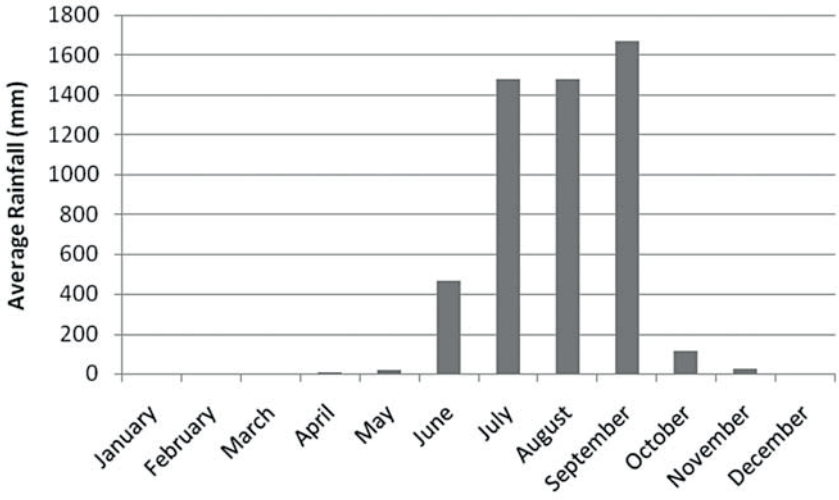
Samundi village is located in Trimbakeshwar Tehsil of Nasik District in Maharashtra. It is located about 40 km southwest of Nasik city and 14 km from Trimbakeshwar. There are all-weather roads providing easy access to Samundi village by bus or private vehicle.

Samundi is in a region that has very heavy rainfall during the monsoon and almost no rain for the remainder of the year, providing a feast-or-famine situation. The rainfall pattern can be seen in Figure 11.1. The environment at the beginning of the dry season can be seen in Plate 19.

Population/Demographics

There are 120 households in Samundi, totaling a population of 759. Of these households, 114 are tribal. Ninety-five percent of the people are from scheduled tribes (Mahadev Koli), 2 percent are Katkari (Scheduled Caste), and 3 percent are other castes.

Figure 11.1 Average rainfall in Samundi



Rainfall data from Trimbakeshwar observatory.

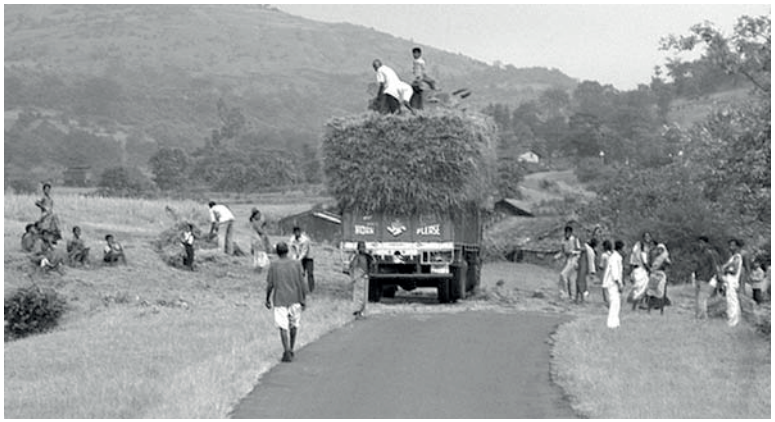
Socioeconomic Situation

Ninety-eight percent of the population is engaged in agriculture. Villagers who do have land have 1–10 ha. A few individuals have service jobs or do carpentry or masonry, and there are three shopkeepers and *paan*[1]-stall vendors. Food requirements, education, clothing, and healthcare comprise 70–80 percent of total expenditures. Some farmers use a portion of their land to grow grass in the rainy season, keeping some as fodder for their animals and selling the rest (see Figure 11.2). As is typical for a tribal village, 73 percent of the population lives below the poverty line (about INR 20,000 per year—$490), and the literacy rate averages 68.6 percent.

INITIATING CONTACT WITH THE COMMUNITY

After the first MUS Learning Alliance workshop (discussed in chapter 13), IDE staff worked with the Nasik District Jalswarajya office to review the villages implementing schemes and find those that might be a good fit for MUS. The SO for Samundi village, Adhar, was a local NGO with whom IDE had a previously developed relationship. Hence, IDE arranged with Adhar to receive information from the participatory rural appraisal they had conducted and then visited Samundi, which was 40 km from the IDE office in the city of Nasik. At this first visit, it became evident that Samundi had scarce water resources, and villagers had to walk long distances to obtain drinking water . Additionally, the village economy was dependent on agriculture, growing mostly rice and wheat, but no vegetables. Most of those below the poverty line were landless laborers or those who leased a small amount of land from other farmers. Yet despite these disadvantages, the community had already shown

Figure 11.2 Sale of grass for fodder in the rainy season



Photograph by Ratnakar Pawar.

great initiative in improving their village, using their own resources and mobilizing government projects. Based on all of these factors, IDE realized that Samundi would be a good fit for MUS.

At the initial visit, IDE staff met with all VWSC members and other villagers to discuss the concept of MUS and the way multiple uses might be incorporated into their Jalswarajya project. The idea of kitchen gardens with drip irrigation kits was discussed and demonstrated including advantages, care and maintenance, and cost. Although Samundi was very water scarce, they felt that once the new Jalswarajya scheme was installed, there would be enough water for drip irrigation of small kitchen gardens.

SAMUNDI VILLAGE DEVELOPMENT

Samundi's story is an extraordinary one for many reasons. About six years ago Samundi village was unorganized, and there were multiple disputing factions within the community. It was very dirty with trash strewn around the village. There were 14 local liquor manufacturers producing 200–250 liters of liquor per day that was sold within the village. High rates of alcohol consumption translated into high rates of crime. Fights would break out often, and women were often victims of abuse. As the villagers explained, "there was liquor, but not water to drink." The government was of little help because no government officer would dare come to the village after 4:00 p.m.

A Mr. Dixit who lived in a nearby village helped to organize the women in the community into a group called Mahila Mandal. In 2002 these women fought the liquor manufacturers and established prohibition in the village. And with the success of their prohibition efforts, women realized that they could be a force for change in their village. They began seeking out local NGOs

to assist them in development activities. These projects included building dirt roads, picking up trash, cleaning the drainage system, and planting trees.

It was about this time that the state of Maharashtra was in the midst of the previously mentioned four-year drought. During the drought, Samundi villagers only had an average of 5 liters/capita/day of water in the summer and 20 liters/capita/day in other seasons. During the four summer months their only means of obtaining domestic water was from tankers that came to the village. Thus, the Samundi women decided that they needed to do something about their water situation.

Figure 11.3a and b Community reforestation efforts

Photographs by Ratnakar Pawar.

SOIL AND WATER CONSERVATION PROGRAM

Mahila Mandal learned of the statewide Soil and Water Conservation Program and began planning. They sought the support of Vachan, a local NGO, who worked with all villagers in 2003–2004 to shift previous community grazing land into a 24-ha forest. The community planted trees and maintained the forest (see Figures 11.3a and b). They also placed a ban on tree cutting, fining violators INR 501 ($12). If villagers needed lumber for house construction, they were required to replant ten trees at minimum. With village labor they constructed three small check dams on the nearby stream for groundwater recharge. They constructed recharge pits (three feet wide and three feet deep) at each household for groundwater recharge. They then dug a community well on the outskirts of the village that was fed by water from a nearby pond. They hoped that this would make them less dependent on the tankers for drinking water .

SANT GADGE BABA VILLAGE SANITATION CAMPAIGN

Samundi villagers began their sanitation efforts concurrently with the Soil and Water Conservation Program. In 2003, with the help of Vachan and Adhar (another local NGO), villagers contributed labor to clear the roads of trash and weed out invasive plants. Individual households constructed latrines, with the goal to have latrines in all households. Any household that was below the poverty line received an INR 1,200 ($29) subsidy from the Block Development Office to build its latrine. The total cost was around INR 2,000—$49. Some constructed their latrines inside the house (see Figure 11.4a), while others constructed them outside or near the house. Households that did not have sufficient funds took informal loans from Mahila Mandal, who had established a savings group through the government and had a revolving loan fund. Toilet facilities were also constructed for the village schools (see Figure 11.4b).

As part of the village sanitation project, open defecation was banned in the village, and the GP decided that violators would be fined INR 251 ($6). If someone sees a violator and does not report it, that person must pay a fine of INR 101 ($2.50). To date, only two people have violated the rule.

They also designed gravel soak pits at each household where wastewater from washing, cooking, and bathing drained from the house. This helped in the reduction of mosquito breeding because there were no longer stagnant pools of wastewater near the houses. In addition, all houses were painted and roads were repaired. With all of these efforts Samundi won the Tehsil-level first prize as well as prizes at the district and regional levels.

PREVIOUS DRINKING WATER SITUATION

The existing drinking water availability before Jalswarajya was not ideal. There were two hand pumps (only one of which worked in the dry season) and one dug well 1.5 km from the village with a bucket and rope to draw water (see

Figure 11.4a Newly constructed toilet inside a house. Photograph by Monique Mikhail.

Figure 11.4b Toilets for the village schools. Photograph by Ratnakar Pawar.

Figure 11.5). The hand pump that works year-round has a low discharge in dryer months, taking about 30 minutes to fill two 20 liter containers (see Plate 20). For a family of four, it would take two hours just to get enough domestic water for the day. However, this was easier than the half-hour walk each way to the dug well. One woman can reasonably carry three containers of water, so it would take two to three hours to fetch water from the well for domestic needs. With water in such short supply, long lines would form at the pumps, and disputes would arise over how many buckets an individual was taking, the length and order of the line, etc. Since there was no formal limitation on water quantity that a person was allowed to take from the tap, the community created informal rules. One person was limited to drawing two buckets at a time to try and ensure minimum needs were met.

There are also six private wells in the village that belong to wealthier households. They do share the water with villagers if there is not enough at the hand pumps. However, during the drier months all of these wells are low. Most of the livestock (cattle, goats, and sheep) get water from the nearby streams. Some households water their livestock near the wells.

THE JALSWARAJYA PROJECT

At the same time that Samundi was engaging in the Sanitation Campaign, the Jalswarajya project was initiated. Considering that both the Soil and Water Conservation Program and the Sanitation Campaign were prerequisites for being selected for a Jalswarajya project, Samundi had a good chance at selection. However, they were only beginning their sanitation efforts. As part of the

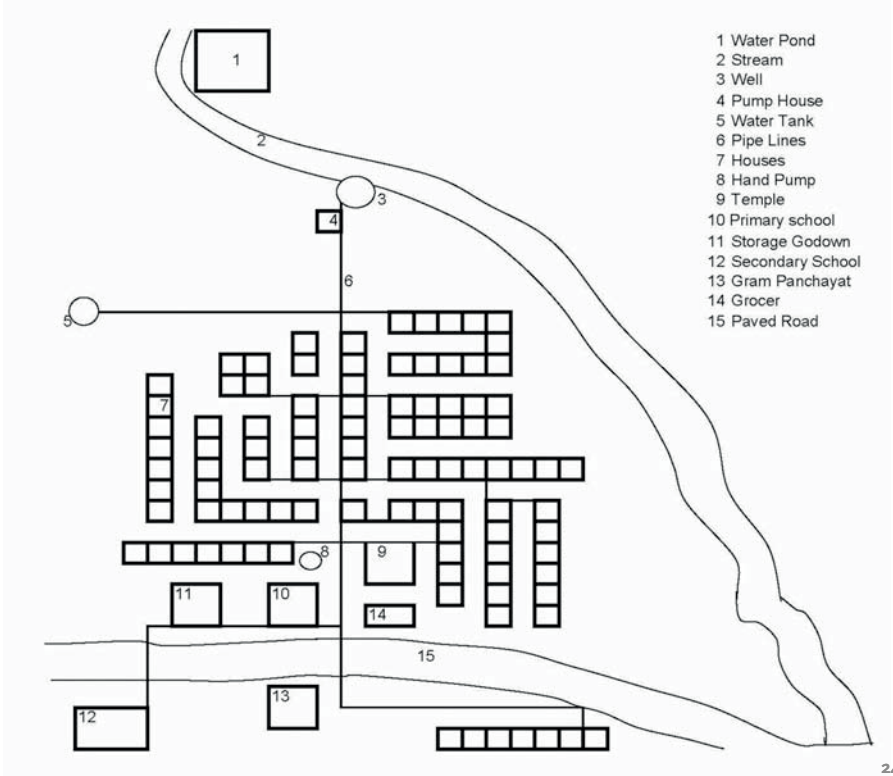
agreement for the Jalswarajya project, they were given one year into their Jalswarajya project to complete their sanitation efforts.

Starting the Project

In 2005 Jalswarajya was initiated in Nasik District and the Project put out a call for villages to apply. They sent a letter to every GP and also put advertisements in the newspaper so that communities could approach independently. The Samundi Village Development Officer and GP had a meeting with Mahila Mandal in Samundi to discuss whether they wanted to participate. Samundi decided that they were definitely interested and applied to be short-listed for the project. Three months later they received a letter from Jalswarajya that they had been accepted. Jalswarajya staff visited Samundi to explain the project conditions, and a formal contract was signed by the GP chair.

Next, Samundi interviewed a few local NGOs to determine which one they wanted to be their Support Organization. They chose Adhar to be their SO because it was the only local organization that had female staff, and they worked with women's groups in other neighboring communities. Once Adhar

Figure 11.5 Samundi schematic



Courtesy of Adhar, Samundi's Support organization.

was chosen, they helped the community form the three groups required of a Jalswarajya project—the Village Water and Sanitation Committee (VWSC), Women Empowerment Committee (WEC), and Social Audit Committee (these are explained in more detail in chapter 9). The VWSC in Samundi has 17 members including a president and secretary. The WEC has 16 women with a chairwoman and secretary. Adhar is responsible for training the WEC to be trainers for the remainder of the community on health issues and appropriate water use. All three of the committees bring concerns to the whole community, and the community is responsible for ratifying final decisions. But it is the Village Development Officer and VWSC chair who are jointly responsible for funds given by Jalswarajya. These funds are given in installments based on the project estimate drawn up during the detailed survey.

Once the three committees were formed, Jalswarajya gave the VWSC INR 25,000 ($613) for village visits to "model" locations so that Samundi could see the projects in other communities. At this time the community had to choose a Technical Service Provider (TSP) to design the system, either a private or government consultant. After visits to "model" villages, the VWSC met four times with Adhar and the TSP to conduct the participatory rural appraisal and determine what kind of project the community needed. Adhar gave the VWSC training on trash disposal, village sanitation/cleanliness, water conservation, and judicious water use.

At the same time, the WEC received their own funding of INR 10,000 ($245) for educational activities and INR 33,000 ($809) for starting an enterprise. They used most of this money for trainings and workshops. Training organizations and costs for trainings were predetermined by the Jalswarajya project; the WEC was merely responsible for choosing the NGO and paying them accordingly. Upon the recommendation of Adhar, the WEC chose the organization Josepha to provide vocational trainings on *papad*[2] making, pickle making, incense-stick production, chalk making, dairy, and poultry raising.

After the trainings, Josepha was supposed to help the WEC organize their bank loan to begin a small-scale enterprise. However, according to Adhar, Josepha failed to fulfill the remainder of their obligations to the community. Previous loans Mahila Mandal had received for work they were undertaking with Vachan had not yet been fully repaid. So there were complications on establishing a bank loan for the new enterprise. The bank Josepha had approached refused the loan, and Josepha did not seek other sources. Adhar admitted that they also did not follow-up with Josepha as well as they should have, and the WEC enterprise has faltered because of it.

Financing the Project

At this point the TSP performed a detailed survey of Samundi and created the water scheme design and cost estimate. Because it is a tribal community, Samundi was responsible for contributing only 5 percent of project costs; it chose to contribute 4 percent in labor and 1 percent in cash. According to the

estimate, Samundi got the first installment of INR 500,000 ($12,254) for well construction, excavation of the pond, and purchase of pipes. The second installment was INR 599,000 ($14,681) to purchase pumps, finish the pump house, build the storage tank, and connect the pipes to the village. The VWSC is still working on the tasks of the second installment with contractors and is in the process of deciding whether or not to provide all households with direct connections. The Jalswarajya Project monitors how the money is spent. If the VWSC spends more than the initial estimate, Jalswarajya can choose whether or not to supply the extra financing. Money allocated for a particular component (for example, the tank) is meant only for that component. The proposed cost estimates the TSP came up with are shown in Table 11.1.

Table 11.1: Jalswarajya scheme costs

Component of scheme	Cost (INR)	Cost ($)[3]
Well	218,526	5,356
Pump house	29,088	713
pumps	89,064	2,183
Intake main line	90,757	2,224
Overhead tank	248,008	6,079
Distribution lines	226,111	5,542
Water source strengthening (pond excavation)	208,082	5,100
Covering open drainage canals	200,000	4,902
Extra costs	68,000	1,667
Total	1,377,636	33,766

Source: VWSC data.

System Design

As planned by the TSP, the existing dug well would be renovated by deepening it to 50 feet and lining it (Plate 21). A pump house would be built to store two working three-horsepower pumps and one extra pump to use as backup if there are problems with one of the other two. A 50,000-liter overhead tank would be constructed, and a 500 m-long PVC pipe would deliver the water from the well to the tank. The tank was expected to fill twice per day. Underground drainage lanes would be constructed along with the water supply scheme.

Originally tapstands at every street corner were planned for distribution purposes. But some in the community were interested in household connections, so the community voted on whether or not to provide everyone with

direct connections. The community decided to build the direct connections. In the WEC chairwoman's opinion, household connections will encourage more responsible water use because people will be less likely to leave the water running. It also will create more equitable distribution, reducing water conflicts. Additionally, with home connections they will be responsible for water taxes (INR 450/household/year—$11). With water taxes, the VWSC will be able to shut off a household's connection if taxes go unpaid. This management mechanism will ensure better system payback for operation and maintenance requirements.

Once construction began, the design for the tank was reduced from 50,000 liters to 26,000 liters to reduce costs, so the distribution plan was adjusted to suit the new tank size. Figure 11.6 shows the construction of the 26,000-liter overhead tank. Water will be distributed to four different zones in the village. Each zone will receive water for one hour twice per day. However, the timing will depend upon when the power is available for pumping. The village currently undergo eight hours of load-shedding per day.

Figure 11.6 Construction of the 26,000 liter overhead tank

Photograph by Monique Mikhail.

Figure 11.7 Pond adjacent to drinking well after excavation

Photograph by Monique Mikhail.

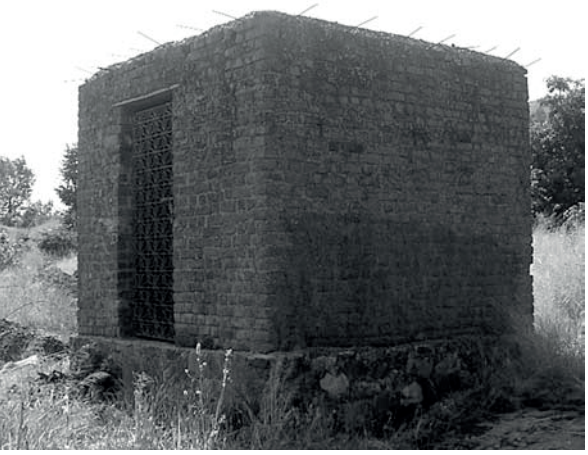
Along with construction of a new drinking water system, Jalswarajya encourages the continuation of the Soil and Water Conservation Program through a component of the project called "source strengthening activities." For these activities the community chose to excavate the pond (see Figure 11.7) to increase its storage capacity and recharge the groundwater supplying the nearby dug well. They removed 5,000,000 kg of silt to restore the pond's original 30-foot depth. This dredged silt was spread on the edges of the pond and on neighboring farmland.

System Construction

Once the system was planned, three separate contractors were hired for system construction. The VWSC provided the well contractor with the necessary materials, and he is constructing it himself, charging the VWSC the local labor rate. For the pond excavation, the pond contractor brought in equipment and paid villagers on an hourly basis for their labor. For the tank and pipelines, the VWSC bought the pipe and other necessary materials; the tank contractor hired villagers for unskilled labor at an hourly wage and skilled labor from outside the village. For all of the labor, villagers received an hourly wage of INR 100 ($2.45) for men and INR 80 ($1.96) for women. At this stage the system construction has been just recently finished. The VWSC was unable to pay for the full well deepening and construction from the expenses given to them by Jalswarajya and had to borrow from the source-strengthening funds to finish the well.

The community originally wanted to build the well and pump house itself to save on contractor expenses. But a large portion of the pump house broke soon after being built, and the community has had to bring in a contractor to fix it (see Figures 11.8a and b). The WEC chairwoman said that this experience taught them the importance of not taking short cuts to getting the proper construction work completed.

Figure 11.8a Newly constructed pump house



Photograph by Ratnakar Pawar.

Figure 11.8b Broken pump house

Photograph by Monique Mikhail.

Operation and Maintenance

Once the scheme is completed, an operator will be hired. The operator will be responsible for operating, controlling, and maintaining the pump sets as well as reporting to the VWSC if any problems occur. The water tax mentioned above will be used to pay the electricity bills for pumping. Any remaining money will be kept in a maintenance fund. Whenever additional funds for operation and maintenance are required, they will be collected from users by the VWSC at that time. Three of the village youth were also sent to the Industrial Technology Institute[4] in Nasik city to be trained on masonry and operation and maintenance of the scheme. They will assist the operator.

INCORPORATING MUS

After IDE's first visit to Samundi in January 2005, IDE staff visited the village 15 times in the next three months. They participated in VWSC meetings, discussed MUS with villagers, and assessed the potential for MUS work within the Jalswarajya project. The number of families with space for kitchen gardens and the community land they wished to irrigate was determined. The primary school is planning to drip irrigate a kitchen garden on its land to provide vegetables for the children and to demonstrate drip irrigation of vegetables to the whole community. The community is also planning to use the community land around the temple to install a garden irrigated with drip lines.

Since the Jalswarajya project was designed for the projected village population in 2020, there is currently excess water for productive use. IDE staff discussed the choice of increasing the pipe diameter to deliver a larger volume of water to homes, but the community decided it would rather run the system for a longer period of time during each distribution instead of increas-

ing the pipe diameter. Households also decided to use domestic wastewater for irrigating the kitchen gardens.

It was agreed that as soon as the Jalswarajya scheme was completed, villagers would purchase the drip kits and Adhar would train them on how to install, operate, care for, and maintain the kits. IDE has already trained Adhar on their installation and use. One kitchen-garden drip kit can irrigate an area of 100 m^2 and costs around INR 500 ($12). Families can also opt to purchase a vegetable seed kit for INR 50 ($1.20) containing seeds of ten different vegetables (okra, spinach, drumstick, eggplant, gourd, tomato, onion, garlic, coriander, and papaya).

Since it is largely the women in the village who are responsible for kitchen garden cultivation, and the women are the primary motivators in Samundi, the idea was very popular. About 70 percent of the households have decided to install and cultivate vegetable gardens, using IDE's drip kits, for both consumption and extra income. Adhar will be training the community on kit use soon. The women also realized that they would not only have income from their produce, but would save money on the vegetables that they are currently purchasing from the market. Each household spends around INR 100 ($2.45) per month on vegetables. If they plant vegetable gardens, they can save INR 70 ($1.72) per month. Excess produce can be sold in the nearby market of Trimbakeshwar.

When discussing the extra income they could receive, the women in Samundi indicated several items they would spend the extra cash on:

- their savings group
- constructive village work
- education of the children (monthly fee for school books)
- medicine and healthcare
- clothing

Women stated that they were making virtually no income from their current agriculture (rice and *nagli*[5], only grown during the rainy season). Because of low returns on their crops, they sometimes do not have the money to pay their Mahila Mandal savings group dues for two to three months in a row. And the national cooperative bank in Trimbakeshwar will not lend to women's groups. They realized that the income from kitchen-garden vegetables would boost their household earnings. They also mentioned that most of the village youth were unwilling to assist in agriculture, so the fact that the women could grow the kitchen gardens on their own was favorable to them.

During a previous project with Adhar, 50 households in the village had planted mango and cashew trees on their own land (the total number of trees was roughly 540). These households will use pond water from the recently excavated pond to irrigate the trees.

OUTCOMES

The villagers feel positive about the Jalswarajya project and pending cultivation of kitchen gardens. They are also incredibly pleased about the broader changes that have occurred over the last few years. The WEC chairwoman mentioned that crime has decreased dramatically and that the community is now able to resolve most disputes internally. She was very excited about the possibility of kitchen gardens because until now farmers have been limited to growing rain-fed crops. They could not afford to dig wells to irrigate their crops. She thought that using drip irrigation will allow them to cultivate with wastewater and a small amount of extra water from the domestic system.

HEALTH AND INCOME

When the VWSC men were asked what the biggest benefit of the project will be, they agreed that health and sanitation were the most critical improvements. They believed that the increased availability of clean water and fresh vegetables would greatly benefit their health. They also commented about the increased cleanliness of the village from the Sanitation Campaign, which was already positively impacting health. Interestingly, although the men felt that improved health would be the greatest impact, the two women interviewed were most interested in the ability to increase income through sale of produce from the kitchen gardens.

CAPACITY BUILDING AND COMMUNITY PROFILE

The community also felt that they had gained knowledge and improved their standing in the district through the series of projects. They described the increased awareness of water resource management and sanitation in the community. They outlined how their ability to work with outside groups and obtain resources from the government for community improvements had increased. And they were generally just proud of their village. Samundi is recognized as a model village by the government and has won awards with its efforts. They now have outside visitors coming to see their village.

EQUAL BENEFIT

All those who were interviewed felt that the scheme would benefit rich and poor in the village equally because the nutrition kits are cheap enough even for the poor in the village to afford. And although the 60 households on the village outskirts will have more space for the gardens, even the landless will be able to use them. One of the men interviewed was a landless farmer who said that he currently works other farmers' land and shares the produce with the landowner (80 percent to the landless farmer; 20 percent to the landowner). However, for such a small amount of land as is required for the kit-

chen garden, the landowner usually does not request any payment, allowing the landless farmer to keep all the fruits of his labor. Thus, although the landless farmers will be required to purchase their own kits, they will be allowed to cultivate and sell the produce for income.

COMMUNITY INITIATIVE

When speaking with the staff from Adhar, IDE staff received very positive feedback about the community. Adhar is an SO for multiple communities through Jalswarajya and said that Samundi was unique in their experience: they were very cooperative and not laden with village politics. Adhar staff said that Samundi is a special place because even though they are tribal and the literacy rate is lower, the women are especially active and intelligent. When asked to take on a task, they would accomplish it quickly and did not always require Adhar's assistance. If they called a WEC meeting, all members were always present.

On the downside, there were a few problems. Adhar staff felt that the project had dragged on too long because of bad planning. It was impossible to work during the rainy season due to heavy rainfall, causing delays. There were also difficulties with documentation: monthly reports on activities and finances were not always completed on time.

CONCLUSIONS

Although each Jalswarajya project is only meant to take 18 months, most projects are not completed in this amount of time. Samundi received an extension because the latrines took longer to construct than anticipated. However, even with a shorter latrine-construction time, it would have been impossible to complete the project within the designated timeframe. Jalswarajya does not factor in the nearly three-month-long rainy season, when it is next to impossible to work on construction. Clearly the planned project period should reflect reality more closely.

Additionally, the VWSC was unable to pay for the full well digging and construction from the money they were allotted and had to borrow from the source-strengthening funds. Although this is technically not allowed in the Jalswarajya project, there was no other way for them to come up with the money necessary to complete the project. Since the community is not responsible for determining projected costs but must work within them, Jalswarajya should create a process whereby the community can request extra funds if the TSP underestimated the required cost of a certain component.

The unfortunate situation with Josepha and lack of follow-up by Adhar to ensure Josepha's compliance with their responsibilities speaks to the payment mechanism of Support Organizations within Jalswarajya. The SOs do

not receive enough funds to accomplish their important job. The SO receives the same funding regardless of project length or community need (only INR 70 or $1.72 per person in the community for the entire project period). This is a disincentive to work with the community beyond the bare minimum. For Samundi, Adhar only received a total of INR 8,400 ($206) for the entire project. And although Samundi is a motivated community, the people's lack of education meant that they required more help throughout the process than did other communities. Construction has been underway for two years and is not yet completed. Even with a fairly good local NGO like Adhar, the lack of adequate provision translates into fewer visits to the community and less follow-up than is necessary. In fact, when IDE staff were attempting to contact Adhar staff, Adhar explained that they had downsized due to inadequate funding. It took multiple tries to connect with the correct staff member. If it was difficult for IDE to contact Adhar, it must be even more difficult for the community to reach them when they're needed.

The importance of the roles of the SO and the training organization cannot be understated. When IDE staff visited Samundi, the WEC chairwoman expressed her excitement about the dairy they were planning to establish (if and when they receive a bank loan). When asked about the idea behind the dairy, the chairwoman explained that the Josepha trainer had really emphasized the concept of a dairy to the WEC and said that with the purchase of cattle, they would be able to make good income. This shows how impressionable the community is to the enterprise suggestions of the training organization. And although the women will undoubtedly continue trying on their own, the fact that Josepha abandoned the effort shows that not all training organi-

Figure 11.9 Cattle watering at the drinking water well

Photograph by Monique Mikhail.

zations appropriately use their power. The role of the SO, particularly in knowledge dissemination, is also critical. Although Adhar provided training on water management, it is unclear whether they educated the community about water quality and source protection. As seen in Figure 11.9, IDE staff saw cattle watering at the drinking water well during the field visit. Although the well is under construction and will eventually be lined, it is still the current drinking water source for villagers. The possibility of livestock feces contaminating the well and the need to cover the well are clearly not well understood by the villagers. It is a significant oversight of the Jalswarajya project that these issues are not clearly explained to communities constructing drinking water projects, particularly considering that once the project is completed, it will be the community's responsibility to maintain it.

When looking at Samundi's multiple-water-use requirements, the need for better linkages with other parts of society become apparent. The national cooperative bank in Trimbakeshwar will not lend to women's groups, causing difficulty for the WEC in receiving a loan for their enterprise activities. Mahila Mandal needs access to a larger source of credit than their small revolving loan fund if they are to initiate the types of activities that Jalswarajya is suggesting. If Jalswarajya is promoting the establishment of enterprises by women, then they should help make linkages with credit as part of that initiative. The statewide lending situation must expand to incorporate women. Similarly, 14 km is a long way for women from this community to take produce to market without some form of transportation. Even on the bus it will be difficult for them to haul their vegetables to market, and the bus only runs sporadically. Establishment of a marketing committee for the women to combine their produce for sale and coordinate transport to market would help them in this endeavor.

Yet despite the myriad challenges Samundi (and particularly the women in the community) faced a few years ago, they have shown incredible spirit and energy in working together to improve their situation. From alcohol prohibition to kitchen gardens, they have revealed that even communities with few financial resources and little social capital have the ability to improve their situation and take responsibility for water resource management. They understand the need for equitable distribution through household connections to ameliorate past water conflict at the public taps. They are also a good example of a community working within the constraints of the Jalswarajya Project to use wastewater and the current excess in the drinking water system for productive use. Time will tell whether or not this productive use will continue past 2020, when all of the domestic water is meant to be allocated. If the enthusiasm of the community continues, they will utilize other opportunities well before then to achieve their water resource needs.