



21270 SOCIAL DEVELOPMENT NOTES

ENVIRONMENTALLY AND SOCIALLY SUSTAINABLE DEVELOPMENT NETWORK

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Sanliurfa and Harran Plains On-Farm and Village Development Project

The Project

The Southeastern Anatolian Project (SAP) is a regional development project comprising several irrigation and energy projects. One of these, the Sanliurfa and Harran Plains On-Farm and Village Development Project, aims to irrigate an area of 150,000 hectares, equivalent to 10 percent of all the cultivable land in Turkey. This would result in an increase of 50 percent in the total amount of irrigated land in the country. The completed project will cover an area of 400 settlement units and affect more than 200,000 people. More than half the project is complete, and 82,000 hectares have been irrigated. The proposed new World Bank-supported project targets rural development efforts, including in-field land improvement within the newly irrigated area of 178 village settlements. Land improvement refers to consolidation (agglomeration) of plots, land use planning, leveling for efficient irrigation, pavement of new field roads in cadastral management, and agricultural extension activities. This social assessment is part of the project preparation process and aims to identify an appropriate mix of project inputs to reduce poverty.

Social Assessment

The field work for the World Bank's social assessment (SA) was conducted in November 1998 through a partnership of the Turkish Rural and Urban Development Foundation, Oklahoma State University, and Water/Construction Engineering and Consulting Group. The specific objectives of the Bank's SA completed in October 1998 were to: (1) understand the

impact of the rapid agricultural modernization instigated by irrigation on various social groups according to ownership criteria and gender; (2) learn how those benefiting from irrigation assess the quality of material and technical services they are receiving, and find out what they expect in future; (3) identify stakeholders in order to enhance the possibility of participation of the population in sustained development based on project goals; and (4) propose monitoring and evaluation indicators for project management and implementation.

The SA was conducted in 35 villages chosen for their variability with respect to the extent of technological change in agriculture. The average size of these villages is 57 households and 400 people. Village background information was gathered through questionnaires and discussions with headmen or village elders. Within each village a sample of the households (a total of 450) was surveyed. In-depth interviews with stakeholder groups including women, landowners and landless peasants, and focus groups were conducted. Interviews with other stakeholders, especially agency representatives also contributed to the SA.

Findings and Implementation

Changes in Production Patterns

Large-scale investments in irrigation have substantially increased agricultural productivity and household incomes in the region. Household incomes from cultivation are approximately double in areas where irrigation canals exist. In absolute terms,

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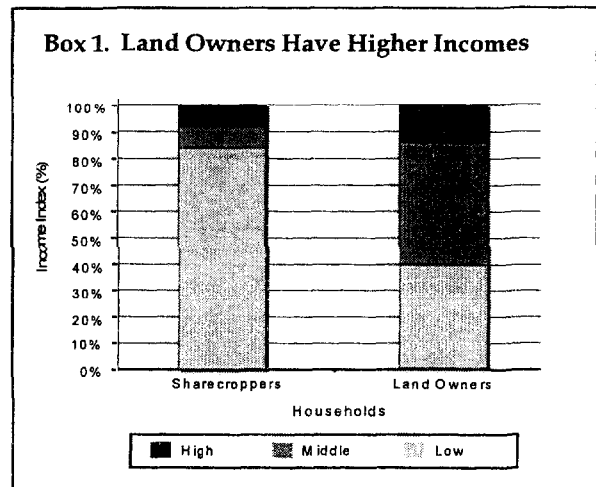
incomes and living conditions have improved for all segments of the population: landowners, tenants, sharecroppers, and workers. Relative to their situation prior to these investments, low-income groups made substantial improvements in their living standards. For instance, 71 percent of the landless used to have to migrate to other regions as seasonal laborers prior to these investments, but only 12 percent now find it necessary to do so. On the contrary, the region now receives migrant laborers from other regions – some on a permanent basis, and most on a seasonal basis.

As a result of transition to irrigated agriculture there has been a rapid shift in cropping patterns toward cotton. Ninety-three percent of households plant cotton. The labor-intensive nature of cotton production has enhanced employment prospects of landless laborers. In addition, irrigated cotton growth has increased incomes for sharecroppers (although 70 percent of the harvest revenues go to landowners). Besides the economic risks in cultivating a monocrop, land productivity is not high in cotton production. For these and other reasons, a shift away from cotton production would be desirable, but first, several constraints will need to be removed. Government subsidies of cotton discourage the cultivation of other cash crops. Since urban markets are not easily accessible, farmers are reluctant to shift to perishable crops. There is a shortage of marketing cooperatives. Finally, while improving in-farm road infrastructure will yield positive results, landowners, not the landless, will reap disproportionately high returns unless a socially feasible cost recovery mechanism is established. Currently, there is little incentive for cost recovery and the regional/local political structure is likely to continue to rely on the state for major investments as politicians derive the largest benefit from these investments.

Another important outcome of improved irrigation is the increase in farm equipment and tractor ownership. A third of the interviewed households now own tractors (more than half of which were bought within the last three years). Landlords provide tractors for their sharecroppers' use and lease them out to other cultivators. Currently, farm equipment is owned almost exclusively by landowners, as landless laborers lack the collateral to access credit for acquiring technology and equipment.

Stratification and Distribution of Income

Sixty percent of the households are landless: they work as sharecroppers or in wage employment. Landlords with large holdings lease out some land, but predominantly engage sharecroppers. Family



farmers are owners of small plots who cultivate their own land and occasionally rent some land. The major source of income is farming – land ownership determines family income levels (box 1). Sharecroppers cultivate an average of 5 hectares while those who own land cultivate an average of 18 hectares. In sharecropping arrangements the landlord is responsible for the costs of material inputs and the sharecropper for all the labor. The sharecropper receives 30 percent of the output, which compares unfavorably to the usual 50 percent arrangement made for rain-fed agriculture. Animal ownership has declined with the reclaiming of former grazing land for irrigation. Only 18 percent of the households own cattle. Forty percent own sheep or goats.

The current distribution of assets, such as land, livestock, farm equipment, and income is highly unequal. Investments in agriculture are bound to disproportionately benefit landowners and those who are already wealthy. A clear social development challenge of any Bank-financed investment in this region where traditional, feudal relationships dominate is the identification of mechanisms through which those who are landless and poor can also benefit.

Social Conditions

Tribal affiliation is important. It serves as a social safety net – 99 percent of the population are members of tribes. The average household size is 6.6 with the majority of households consisting of nuclear families. Polygamy is prevalent in 17 percent of households. Women have subordinate roles. They do not receive their fair share in inheritance, and the tradition of bride price continues in 83 percent of households. Only 16 percent of women have completed primary education. Eighty-two percent of the women are

illiterate compared to 29 percent of the men. This gender gap is decreasing among school-age children — 46 percent of the girls and 41 percent of the boys are illiterate.

An unexpected benefit from the consolidation of plots has been the ratification of women's property rights. Women inherit land but de facto tenure is often exercised by the male head of household. With consolidation, land plots have to be properly registered. This process legitimizes women's legal rights of ownership. While it will take time for feudal traditions to change, the Bank's support for land consolidation will have a positive impact on the status of women.

Improvements in village infrastructure have not kept pace with agricultural technology and can work to the detriment of women. For example, 47 percent of households claim drinking water as the most important problem, but fetching water is predominantly a woman's task, and the wells are often far away. A solution to this problem would directly improve the welfare of women. It would also improve health, especially of children, since the deficient quality of drinking water is the main source of childhood disease and mortality.

Sixty-eight percent of the villages claim insufficiencies in primary education. In these villages 55 out of the 98 school-age children do not attend school. Twenty-nine percent of the villages complain that the school building is not serviceable, and 25 percent of the villages claim they have no primary school in their village. The principal reason for not sending children to school is the use of children's labor in agriculture. Children in poor households are required to accompany their families for seasonal labor elsewhere, and miss schooling opportunities. Thirty-five percent of children of landless families do not attend school. For small- and mid-level landowners, family labor is even more essential, 53 percent and 57 percent of these children, respectively, do not attend school. In the case of landowners of large plots, however, 86 percent of the children attend school. While the Bank provides high levels of support to the Basic Education Program of Turkey, solutions lie in strengthening the incomes of poor families.

Land Improvement

Leveling fields, which has already been done in 21 percent of the region, increases efficiency in water use. Average income from arable land is 38 percent higher in households where fields have been leveled. Irrigation without leveling land leads to flooding, over-irrigation, and salinity problems. Investments in

land improvement thus have a direct impact on incomes. However, investments in both land consolidation and land leveling primarily benefit those already wealthy, and current levels of farmer participation in cost recovery is low. Thus, those who are already better off enjoy a disproportionately high share of subsidized state investments in private property. The Bank should stress the importance of a socially equitable system of cost recovery for all investments in individually owned property.

Drainage, too, is insufficient and its improvement is crucial for both economic and environmental reasons. Sixty-four percent of landowners say that main drainage ditches are insufficient, 88 percent say that no drainage exists at all in their own fields. Without proper drainage, farmers risk problems with salinity, soil erosion, and contaminated water. Although there is some willingness on the part of landowners to help finance the costs of leveling and draining fields, the amounts offered were low.

Land consolidation increases the value of land and lowers the cost of irrigation infrastructure. Seventy-eight percent of the landowning respondents said that in areas in which a number of small plots were consolidated into larger plots household income from arable agriculture increased by 39 percent, benefiting a larger share of the population. Considering that landless sharecroppers receive one-third of this increase, it is important that the Bank support further land consolidation measures.

Institutions

Insufficient coordination among various agencies responsible for rural development and lack of knowledge about the institutions responsible for development projects has led to a low level of trust in public institutions. Civil society organizations are weak. Strengthening these organizations to enhance participation of the landless would significantly improve the economic status of the poor. Currently, there are 11 water-user associations in the irrigated area, which are neither run efficiently nor democratically. Each village is represented by a headman and two representatives. The associations are managed by seven-member committees that often consist of the leaders of lineages and tend to reflect the traditional social order of the region. Not surprisingly, complaints about water-users associations are widespread — 38 percent of the heads of household, and 57 percent of the village headmen feel that the allocation of water is not fair. Enhancing participation of sharecroppers in water-user associations is of particular importance, and these organizations can serve as channels to improve sharecroppers' welfare.

Extension services are deficient. Information about optimum irrigation techniques, agricultural innovations, modes of crop diversification, and nonagricultural income-generation possibilities is not available. Only 18 percent of the households were able to obtain any information from one of the extension agencies (agronomists in the Provincial Agricultural Directorate, in the Village Services Directorate, and the Land Reform Directorate). Irrigation water is insufficient mostly due to the lack of knowledge of irrigation techniques and efficient water use. More information would likely result in more people contributing to the overall cost of the project.

Recommendations

The stakeholder consultations support a rich list of recommendations. Those that are of particular relevance for the design of the proposed Bank project include the following:

Agriculture

Irrigation increases incomes and benefits the entire population. Its expansion should be expedited and its management improved. The implementation of irrigation systems should be accompanied by effective extension services that offer information about optimum irrigation techniques, intensification, and the cultivation of crops other than cotton. The cultivation of such labor-intensive crops as vegetables and fruits that do not require much land may increase benefits to those with little or no land and enhance the potential for nonagricultural activities such as packing, cleaning, drying, canning, and freezing.

A similar argument holds for raising livestock, especially cows. In addition to raising crops for human consumption, animal feed can be grown intensively. This could create employment opportunities for landless laborers and increase their income-earning potential. Credit schemes that target this population would help provide the required initial capital.

Village Infrastructure

Safe drinking water emerges as the most crucial input into the welfare of the population. Its ready availability will improve health conditions, contribute to the eradication of diseases, lower infant mortality, and improve women's quality of life. The

Bank should support drinking water projects and encourage user participation in labor- and other project-related costs. Encouraging schooling for children aged 6 to 14 should be made a high priority. A subsidy scheme for the poorer segments of the population, in which a small long-term loan (repayable after the child completes schooling) could be given to families to compensate for lost labor.

Land Improvement

Consolidation of plots has been a success and is essential to justify decades of investments made in the region. Irrigation, land consolidation, leveling, drainage, and improvement of in-farm roads should be seen as integrated components of a unified development package. To enhance equity in the distribution of state- and Bank-financed investments, participation of landowners should be secured and labor intensive modes of production should be emphasized. The willingness of the local population to contribute to the project's costs and labor requirements of in-field development projects falls short of the actual costs of improvements.

Institutional Development

Improved coordination is also needed. The lack of information about farming technology and cropping decisions needs to be addressed. While the SAP project foresees a development of labor-intensive farming, farmers lack basic information about different crops, irrigation techniques, water use, and market opportunities. Frequent over-irrigation hinders development sustainability. Finally, cultivators should be better informed about the operations and plans of the agencies that deliver and coordinate SAP services so farmers can make independent and optional decisions.

Water-user associations are potentially the most important participatory structures constituting the interface between irrigation technology and farmers. Ideally, these associations would be encouraged to take on responsibility for a wider scope of activities, involving not only the distribution of water but also the technology of water use, field management, and cropping decisions. Eventually they may evolve into purchasing and marketing cooperatives. At the moment, however, water-users associations are believed to work unfairly. These associations should be encouraged to work in a more democratic and participatory manner to foster trust and help ensure predictability in their operations.

