

Nepal

Community Groundwater Irrigation Sector Project



Kiran Pandey

Agriculture is a very important sector of the Nepalese economy, accounting for about one-third of gross domestic product and providing the main source of livelihood for about 80% of the rural population, the majority of whom are small farmers. However, the agriculture sector has traditionally performed below expectations mainly due to the lack of reliable irrigation, particularly in the *Terai* (lowland plains), which has the potential for significant agriculture development through increased use of groundwater resources.

To fill this gap, the Asian Development Bank (ADB) approved the Community Groundwater

Irrigation Sector Project on 26 February 1998 to increase agricultural productivity on a sustainable basis and improve incomes of small farmers holding less than a hectare (ha) of land through participatory, demand-driven, and integrated group shallow tubewell development. The project area covered all 12 districts in the Terai from the central and eastern development regions. The project is in line with the strategic directions of ADB's South Asia Department, which focuses on sustainable infrastructure, climate change mitigation and adaptation, human development, regional cooperation and integration, public-private partnership, and good governance.

Project Results

Increase in year-round irrigated areas and socioeconomic empowerment.

The project's indirect benefits included formation and capacity development of community institutions, and social and economic empowerment of small and marginal farmers and women through their participation in field programs, including serving on the executive committees of water user groups and water users' associations.

The project's key quantifiable benefits would be an increase in year-round irrigated areas and agricultural production. The year-round irrigated area increased by 54,350 ha, which was 93% of the appraisal target of 58,200 ha. Cropping intensity increased by 79%, which was higher than the appraisal target of 50%. Average crop yield increased by 62%, which was higher than the appraisal expectations of an increase between 25% and 50%.

Annual total farm output increased by 278,892 tons—26% higher than the appraisal target of 221,300 tons.

The main reasons for exceeding crop yield targets included the large amount of time dedicated to irrigating the lands of group members and non-member fellow farmers by renting out shallow tubewells, and the achievement of water discharge capacity of shallow tubewells that was 50% higher than the appraisal estimate.

(continued overleaf)

Marginal and small farmers, mostly from disadvantaged communities and holding less than 1 hectare of land, had increased their annual net income by NRs30,000 (\$411) per hectare on average

Project Results

(continued)

Markets and access to public services in about 300 village development committees have been improved, including the completion of 241-kilometer farm-to-market roads. The capacity of government agencies and private service providers has been strengthened to support community irrigation development. The project provided 131 institutional and technical capacity-building training. A total of 7,334 groups have accessed credit. Nine financial institutions are involved in providing credit services to the farmers. The Nepal Rastra Bank has disbursed more than NRs80 million to the financial institutions to provide credit to the farmers.

Project activities helped women to play active roles in planning, implementing, and managing shallow tubewells, farm-to-market roads, and agriculture programs, which improved their confidence in local resource management and strengthened their social status



Kiran Pandey

The increase in incomes among marginal and small farmers has had positive impacts on their food security and family health care, and has directly contributed to poverty reduction



Kiran Pandey

Beneficiary households increased their annual net income by NRs18,315 (\$251) per hectare—significantly higher than the appraisal target—as a result of participation in the project

The Project at a Glance

Cost and financing: Asian Development Fund, \$10.16 million; Beneficiaries, \$0.74 million; Participating financial institutions, \$0.38 million; CIDA, \$3.43 million; Government of Nepal, \$3.23 million

Project approval date: 26 February 1998

Project theme: Economic growth

Status of project implementation: Closed

Loan closing date: 21 January 2008

Executing agency

Department of Irrigation
Moti Bahadur Kunwar
Project Director

ADB department

South Asia Department
Nepal Resident Mission
Govinda P. Gewali
Project Officer
ggewali@adb.org

Sources: Project information document, <http://pid.adb.org/pid/LoanView.htm?projNo=29236&seqNo=01&typeCd=3>; ADB. 2008. Completion Report, <http://adb.org/Documents/PCRs/NEP/29236-NEP-PCR.pdf>; ADB. 1998. *Report and Recommendation of the President*, <http://adb.org/Documents/RRPs/NEP/rrp-R2998.pdf>

Publication Stock No. ARM113443

June 2011