1. Key development issues and rationale for Bank involvement

Country Issues and Strategy. Irrigation remains a key constraint to the growth of agriculture, the main source of rural livelihoods in Nepal. In spite of substantial decline in poverty incidence between 1995/96 and 2003/04 – overall poverty rate down by 11 percentage points to 31 percent and rural poverty rate down to 35 percent (Nepal Living Standards Survey, 2003/04) - rural areas are still characterized by widespread and persistent poverty. This reduction in poverty incidence is largely attributed to remittance from Nepalese migrant workers. Both broad-based poverty reduction and progress towards the MDGs requires acceleration of agricultural growth – a key focus area of His Majesty’s Government of Nepal’s (HMGN) recent Poverty Reduction Strategy Paper (PRSP) – based on the Tenth Plan, 2002/3–2006/7 – and of the Bank CAS, which is strategically aligned with PRS. An improved and expanded irrigation system will be a key transformative input for agricultural growth. By enhancing water control and management, it can facilitate complementary investments in improved seeds, modern inputs and agronomic practices, and market-related investments which, together, will raise crop yields, cropping intensity and farm incomes.

Irrigation Sector. The characteristics and problems of the Irrigation sector in Nepal vary significantly between the Hills and the Terai. The Hill schemes are traditional farmer-managed irrigation systems (FMIS) which suffer typically from infrastructural weaknesses, owing to informal design and use of indigenous material as well as ravages of nature. On the other hand, the Terai has relatively large public irrigation systems (AMIS or agency-managed irrigation systems) which suffer from below-capacity performance, poor O&M, negligible cost recovery (below 5% on average) and highly inadequate maintenance funds. Both the Hills and Terai irrigation systems suffer from low water use efficiency and low agricultural productivity. With a few notable exceptions – which illustrate the potential for synergistic growth – irrigation schemes have only moderately improved productivity and had a modest impact on cropping intensity and crop diversification towards higher-value crops. The ICR of the recent Bank-supported NISP, which closed in June 2004, emphasized the need to integrate agriculture and water management interventions in order to derive full benefit from investments in irrigation.
Project and Rationale for Bank Involvement. In addition to the recently completed National Water Plan, HMGN has prepared an Irrigation Development Vision and Action Plan which aims to provide sustainable services for improved agriculture and livelihood support through controlled irrigation facilities, and based on local resource mobilization through a partnership of users, government, local bodies and the private sector. To implement this vision of sustainable, efficient and productive irrigation systems, the DOI is proposing the Irrigation and Water Resources Management Project (IWRMP), with Bank support, which will involve a combination of investments and institutional/policy reforms. Given the Bank’s long-standing role in the development of Nepal’s irrigation and water resources sector, Bank involvement is seen as crucial in helping crystallize institutional reforms and provide continuity to HMGN’s efforts in the sector. Bank support for this project would also help in building synergies with other Bank operations, especially the proposed Agriculture Commercialization and Trade project, as well as interventions in rural roads and infrastructure. The attempt to integrate agricultural and irrigation interventions would be in line with, and support, the recently launched HMGN initiative on Integrated Crop and Water Management.

Operational Environment. During the last few years the security situation in the country has considerably deteriorated, undermining the economy and the governance of the country. However, it has also generated, within reform-minded elements in the bureaucracy, a determined drive to build an economic and social base for sustained peace and development. There are therefore both constraints and opportunities, requiring an approach which is flexible and pragmatic. The current political and economic conditions of the country suggest that IWRMP needs to be modest in its institutional and policy reform components and should have a short preparation period and simple implementation strategy.

Project design has been influenced by the following considerations. A simple “repeater” project of NISP would be comparatively simple to launch but would miss out on some important lessons arising from the earlier project experience as reflected in the ICR. A deep-rooted approach to irrigation sector development would require considerable investments in institutional and organizational change which may not be feasible within the current political climate. The choice finally has been made for a project with substantial upfront investment in performance improvement of small and medium irrigation systems, on-farm water and agricultural productivity along with an embedded agenda for gradual institutional reform.

The proposed SIL operation could bridge previous operations with a future sector wide approach by fostering a better environment for reforms in collaboration with ADB and other partners. The project is tentatively estimated to cost around $55 million over a five-year period.

2. Proposed objective(s)

The objective of the proposed project is to: (i) improve irrigation service delivery; and (ii) enhance sustainability and productivity of selected irrigation systems in Nepal. This will be done through (a) irrigation infrastructure development and improvement; (b) completion and consolidation of irrigation management transfer reforms; and (c) institutional and policy support for better water management and productivity. The realization of these objectives will be measured by: (1) improvement in indicators of irrigation service delivery; (2) greater collection and more effective use of water charges by WUAs; and (3) increase in farm income through improvements in crop yield, cropping intensity and diversification into higher value crops.
3. Preliminary description

A. Irrigation Infrastructure Development and Improvement (US$38 million)

The output of this component will be better irrigation services from existing and/or new schemes in the Western regions, both in the Hills and Terai, which are or will be managed by farmers (FMIS). The component will involve (i) physical rehabilitation and modernization of FMIS in three western regions; (ii) identification, design and construction of new small and medium irrigation schemes; (iii) support for complementary, demand-driven local infrastructure (e.g., water supply, micro-hydel, rural access) that enhances efficiency and productivity; and (iv) on-farm investments in non-conventional irrigation technologies. Detailed selection criteria will be developed to guide the choice of schemes, keeping in mind specificities of schemes in the Hills and Terai. To exploit synergies, schemes in areas likely to be included in the Agriculture Commercialization and Trade Project and Rural Access Improvement and Decentralization Project will be given higher priority. Where appropriate, feasibility studies for micro-hydel power will be undertaken with the aim of securing investment from a parallel Bank-supported Power Development Project.

B. Irrigation Management Transfer Reform (US$9 million)

The output of this component will be improved arrangements and instruments for O&M of public irrigation schemes completing and consolidating water management transfer to user groups in the Terai. This process was initiated during NISP. In case of public schemes being proposed for transfer during this project, this component will involve (i) a program of minor rehabilitation. And for all schemes covered by this component – whether already transferred or to be transferred – it will involve: (ii) preparing and implementing an Asset Management Plan which will set priorities for rehabilitation and maintenance for the relevant irrigation schemes; (iii) defining and financially supporting incentive mechanisms including matching grants; (iv) improving capacity of DOI regional/field offices to provide assistance during emergencies to small and medium schemes (transferred to and being managed by the farmers); (v) developing efficient institutional arrangements for investments in rehabilitation and maintenance (e.g., contracting and outsourcing) and (vi) developing groundwater irrigation, including through support for rural electrification...

C. Institutional and Policy Support for Better Water Management and Productivity (US$8 million)

The output of this component is more streamlined and effective provision of water-management and irrigation-related services. It involves three sub-components:

(i) Water Resource Management. This would involve multi-tiered interventions to build up the relevant institutions. At the national level (i) a study would be undertaken to explore scope for developing the Water and Energy Commission (WECS) into an apex normative and regulatory body for overseeing planning for integrated development, management and regulation of water resources. Next, in the context of multiple water use, in selected river basins the component would involve: (ii) conducting legal and institutional studies to implement a system of formal access to water; and (iii) preparation of legal and technical instruments to resolve multiple water use and allocation issues in selected river basins for medium and long term irrigation development including hydropower generation possibilities; and (iv)
implementation of telemetric systems to provide information about water availability and use at different levels for planning and operation purposes. Finally, in selected irrigated schemes, it would involve: (v) updating of inventory of irrigation systems, census of its users and total water use; (vi) formalization and registration of present uses and water allocation arrangements for each user group; and (vii) establishment of effective and equitable regulations for water distribution among users in each system.

(ii) Irrigation Service Improvement. Covering all irrigation systems/schemes included in the project, this sub-component would involve (i) strengthening of fee collection by water user groups; (ii) use of contractual arrangements to clearly specify the rights and obligations of DoI as the bulk water supplier and the users; (iii) use of benchmarking for all public irrigation services; and (iv) installation of water measuring devices for greater transparency and accountability. To achieve this, training and capacity building of DoI field staff and members of users groups will be undertaken and the DoI will be appropriately restructured for assuming new roles (such as inter-sectoral planning, control and legal enforcement, and groundwater management) after transferring irrigation services provision to WUAs.

(iii) Integrated Crop and Water Management. Building on the pilot initiative of On-Farm Water Management program undertaken under NISP, this sub-component will focus on enhancing the efficiency of irrigation water use rather than water supply. It would seek to enhance productivity and profitability of agriculture by promoting improved water management and agronomic practices and facilitating better linkages with input and output markets. Activities under this sub-component are likely to benefit from, and support, the recently launched HMGN program for Integrated Crop and Water Management. This a joint undertaking of Department of Irrigation (DOI), Department of Agriculture (DOA) and Agriculture Development Bank (ADB) supported, as required, by related agencies such as National Agricultural Research Centre (NARC), National Seed Company, Agriculture Input Company and National Irrigation Water User Association.

4. Safeguard policies that might apply

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<th>Yes</th>
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<tr>
<td>Environmental Assessment (OP/BP 4.01)</td>
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| The construction works envisaged under the project is small scale and involve mainly rehabilitation of existing structures. The Project, therefore requires only preliminary assessment. Therefore, an Integrated Social and Environmetal Assessment (ISEA) would be undertaken in order to develop Social and Environment Management Framework (ESMF) for the project. ESMF will define steps and level of environmental investigations required in each subproject.
| Natural Habitats (OP/BP 4.04)                     | X   |    |     |
| Forests (OP/BP 4.36)                             | X   |    |     |
| Pest Management (OP 4.09)                        | X   |    |     |
| Physical Cultural Resources (OP/BP 4.11)         | X   |    |     |
| Indigenous Peoples (OP/BP 4.10)                  | X   |    |     |
| The proposed project is not expected to have significant impact on the vulnerable and indigenous people. A Vulnerable Community Development Strategy. will be developed as part of ESMF in order to ensure consultation with indigenous, tribal, minority and funerale groups. The strategy will also ensure that these groups of people benefit from the project.
| Involuntary Resettlement (OP/BP 4.12)            | X   |    |     |
| No major involuntary resettlement and rehabilitation is anticipated under the project. The Integrated Social and Environmental Study will however assess this in more depth. As an
outcome of the ISEA/ESMF study, Resettlement Policy Framework (RFP) will be prepared in the event some land acquisition become unavoidable, or if project activities result in loss of privately owned assets or displaced people.

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<td>Safety of Dams (OP/BP 4.37)</td>
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<td>Projects on International Waterways (OP/BP 7.50)</td>
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<td>Projects in Disputed Areas (OP/BP 7.60)</td>
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Environmental Category:  B - Partial Assessment

5. Tentative financing
Source: ($m.)
BORROWER/RECIPIENT  10
Farmers’ Contribution  5
IDA Grant  50
Total  65

6. Contact point

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