1. Country and Sector Background

Water Resources Problems. Indonesia’s water resources and irrigation sector faces increasingly complex long-term investment challenges and management problems which are likely to severely constrain the country’s economic development and food security, lead to a deterioration of public health and irreversibly damage its aquatic environment. They arise from the adverse synergistic impacts of population growth, urbanization and industrialization. The key sector problems are: (a) water allocation under local scarcity due to growth of non-irrigation water demand (b) inadequate urban access to piped water supply while affordable investment in urban water supply facilities is unable to cope with the growth in demand (c) water pollution and other adverse impacts of untreated municipal wastewater discharge and industrial and mining effluent disposal generate large diseconomies; (d) adverse impacts of watershed degradation such as increasing flood peaks, decreasing low flow and sedimentation diseconomies to water infrastructure; and (e) adverse environmental impacts of poorly planned swampland development to meet the country’s food self-sufficiency/cereal import substitution needs as well as income generation for transmigrant settlers.

Achieving Food Self-Sufficiency and Sustainable Irrigation. About 80% of domestic rice production comes from irrigated areas while only about 4% derives from reclaimed swampland. The investment strategy of maintaining rice self-sufficiency through expansion of irrigation and swamp reclamation needs review, especially with respect to the choice of most cost-effective and environmentally sustainable intervention. However, sustaining rice and food production requires an effective irrigation O&M program instead of de facto...
deferral of routine maintenance and reliance on periodic externally aided investment for irrigation scheme rehabilitation. Apart from production losses, deferred maintenance results in frequent rehabilitation capital expenditures that are 6-7 times higher in present value terms than that of a satisfactory routine maintenance program. Despite the preservation of central O&M funding in real terms at about $70-80 million/year since 1987, allocated funds are used primarily for staff and their activities, while whatever remains (15-40 percent of allocation), is generally used for urgent repairs needed to ensure water delivery elsewhere. Furthermore, since 1997, O&M funding is provided to provinces as part of the general provincial block grant transfer mechanism: this has resulted in provincial governments allocating 25% less resources to O&M while Rupiah devaluation has further reduced O&M budget value.

Investment Challenges. The essential investment needs of the sector are very high. They include: (a) at least US$1 billion to complete ongoing irrigation schemes in the Outer Islands over the next 5-10 years and about US$50-100 million/year for scheme rehabilitation (overcoming deferred maintenance and depreciation); and (b) about US$7.5 billion over the next ten years to achieve a target piped water supply coverage of 62% for the urban population. In view of growing wastewater generation as a result of improving access to piped water supply through house connections, urban sanitation needs and the magnitude of environmental diseconomies generated in the vicinity of large urban areas, it is imperative to revisit conventional wisdom which regards sewerage and sewage treatment as publicly and privately unaffordable in Indonesia. A 1998 study estimates that an investment of about $1 billion over the next five years for sewage collection in predominantly low income urban areas could cover about 60% of the urban population. However, this investment does not include municipal wastewater treatment needs.

Strategic Sector Investment Programming. The advent of the economic crisis has drastically reduced the publicly affordable expenditure envelope while demanding an increasing reliance on new regulatory and financial institutions for more sustainable and effective management of existing infrastructure and water use in both the urban and irrigated rural areas. Furthermore, urban competition for water requires the public’s recognition of water as an economic resource, together with an unavoidable need for greater--albeit less affordable--beneficiary contribution to the upkeep of its supply and distribution infrastructure. Although the Ministry of Public Works is responsible for water resources, irrigation and urban water supply, there is no coordinated strategic prioritization and allocation of scarce capital resources within the sector, let alone consideration of the environmental impact of increasing volumes of untreated urban effluents. Existing sector collective decision-making and regulatory institutions, as well as its financial and fiscal arrangements, are not up to such challenges. Clearly, structural reforms are needed to craft institutions to weigh the social opportunity and infrastructure costs involved in water quality management and seek an affordable mix of investments, financial mechanisms and regulatory interventions to achieve a sustainable level of environmental water quality.

Sector Structural Constraints. Mitigating the water resources and irrigation sector’s multi-faceted challenges and resolving its emerging issues is difficult because of: (a) the growing inadequacy of policy, legal and regulatory frameworks, (b) the hitherto lack of political will to implement legal provisions which would require payment for bulk irrigation water supply
and industrial effluent discharge fees; (c) weak sector institutions for integrated policy formulation, planning, governance, management, strategic allocation of scarce resources and water pollution control; (d) uncoordinated government agencies pursuing narrow functional mandates in addressing problems and diseconomies that require concerted inter-governmental cooperation and action; (e) ineffective administrative and implementation performance of provincial and district water resources and irrigation agencies; (f) a culture of agency preferences for construction-based externally-aided project-type solutions instead of effective service delivery and programs based on economic incentives and regulatory sanctions for beneficiary behavior modification; (g) the complexities of staff deployment and performance incentives, budget transfer and organizational structure that must be overcome to implement a policy of de-concentration and devolution of central government roles to regional and local governments; (h) the absence of mechanisms for stakeholder voice in sector decision-making institutions; and (i) inconsistent management data sets (e.g. for areas irrigated) and unreliable hydrological and water quality data. These general structural problems can only be overcome by the Government’s emerging political will to undertake a sector structural adjustment program within the broader framework of macroeconomic structural adjustment and overall national governance reforms.

2. Objectives

The reforms that comprise the conditions of tranche payment release would address the sector’s problems and structural deficiencies through policies requiring an integrated approach based on cost-effective strategies to be implemented through fiscally and environmentally sustainable programs. The specific loan objectives are to improve: (a) the national institutional framework for water resources development and management; (b) improve the organizational and financial framework for river basin management; (c) regulatory institutions and implementation instruments for regional water quality management; and (d) irrigation management performance and fiscal sustainability through farmer organization empowerment for participatory irrigation management.

3. Rationale for Bank’s Involvement

The Indonesia Water Resources Sector Adjustment Loan (WATSAL) forms part of the Bank’s strategic objective to address the Indonesian economic crisis through an integrated package of four adjustment and governance operations (Policy Reform Support Loan II, Social Safety Net Structural Adjustment Loan, Governance Reform Loan and WATSAL). The loan amount is tentatively set to form part of the Bank’s commitment to an overall external financing plan worked out with the Government and IMF, Bank, ADB and bilateral donors in the July 1998 CGI meetings. Indonesia needs external support to finance its projected fiscal deficit of 2.5% of GDP for FY 98/99 and 5.8% of GDP in FY 99/00. This deficit is an integral part of a strategy of macroeconomic fiscal stimulus to reverse economic contraction and revive growth. Most of the expenditures are for bank restructuring and mitigating the social costs of the economic crisis. Without this support, Indonesia would not be able to sustain the necessary social expenditures and bear the costs of bank restructuring without risk of hyperinflation.

Sector adjustment must be begun now if the country is to adequately cope with 21st century challenges of population growth, urbanization, socio-
economic reconstruction and government reformation. Bank support of the
Government’s WATSAL Reform Program would consolidate the Bank’s involvement in
the sector by: (a) sustaining the Bank’s dialogue about sector issues with GOI
and exposing it to international best practice; and (b) setting future Bank
and donor support for sector investment programs on a firm policy, legal,
regulatory and institutional foundation. The proposed operation is unique for
Indonesia in that its Reform Program is an outcome of internal government
self-analysis of institutional deficiencies, on-going public consultations
and, the reformation aspirations of a wide coalition of interests within
government and civil society seeking a paradigm shift in sector management.
Consequently, expeditious loan approval would consolidate and further energize
the efforts of the reformist elements in the sector to prepare and complete
the program.

4. Description

Loan Concept. Over the past decade, the Bank and Asian Development Bank
(ADB) have sought to persuade the Government of Indonesia (GOI) to initiate
improvements and reforms which would lead to formal adoption of integrated
national and provincial water resources development and management policies,
strategies, institutions and programs. Given the pro-reformation environment
prevailing in Indonesia and within the present government, it has been agreed
that the necessary reforms could be now be implemented using the following
two-stage strategy: (a) a US$300 million three-tranche Water Resources Sector
Adjustment Loan providing general balance-of-payments support (against a
negative list of imports) in return for a GOI commitment to undertake a
detailed set of policy, legal, institutional and regulatory reforms in the
water resources and irrigation sector; and (b) a subsequent Bank and donor-
supported investment and capacity-building assistance program to enable sector
management and operations under the already implemented WATSAL reform
framework. Donor assistance coordination would be arranged by establishing a
GOI-donor forum in the form of a Local CGI for Water Resources and Irrigation
Management.

The Policy Matrix. The Policy Matrix furnished by GOI addresses the
WATSAL objectives through four key sets of reforms as follows.

(a) Facilitate environmentally and socially sustainable management of water
resources by improving national policies and, institutional, regulatory and
decision-support frameworks. Sub-objectives under this overall objective
include: (i) establishment of an effective intergovernmental water resources
and irrigation management coordination framework; (ii) adoption and
implementation of a National Water Resources Policy (NWRP) and NWRP
Implementation Plan to guide sector planning, programming, budgeting real-time
management and regulation; (iii) establishment of institutions for stakeholder
involvement in water resources management and irrigation policy formation and
decision-making; (iv) amending water resources legislation to provide for
regional autonomy and private sector involvement in water resources
development; (v) improving water resources and irrigation management
information and decision-support systems and (vi) more effective water
resources planning and real-time resource management by improving the quality
and reliability of the national hydrological and groundwater data systems, and
the national water quality monitoring framework.

(b) Strengthen the organizational, financial and administrative framework for
river basin water resources management. The objective has three components, namely: (i) fostering integrated management and regulation of surface and groundwater by establishment of adequately funded and appropriately staffed river basin management units within the provincial administrations; (ii) establishing sustainable self-financing corporate river basin management organizations in strategic river basins; (iii) introducing a water use rights system for secure, equitable and efficient water allocation to all water users with due consideration of conservation and other non-consumptive water uses.

(c) Improve regulatory institutions and implementation arrangements for effective regional water quality management. This objective would be achieved by two sub-objectives, namely: (i) improving the legal, institutional and regulatory framework for enforceable water pollution control and effective surface and groundwater water quality management; and (ii) establishing an incentive framework for compliance with water pollution control regulations by private and public sector establishments and commercial estates.

(d) Improve the performance and sustainability of public irrigation schemes by establishing an institutional framework for transparent and accountable delivery of irrigation services and participatory fiscal support to democratic farmer organizations empowered with autonomous governance and financial authority to gainfully manage and control higher level irrigation networks for which they are willing to accept full responsibility. This overall objective seeks to achieve four principal sub-objectives, namely: (i) creation of an incentive framework in line with national reformation principles that provides benefits from WUA membership and facilitates a national program that replaces "top-down" administrative fiat with rapid "demand-based" establishment of empowered WUAs and WUAFs; (ii) agency accountability for improvement of irrigation services and infrastructure through institutions for transparent and participatory joint management of irrigation schemes by both local government irrigation agencies and farmer organization representatives; (iii) improved fiscal sustainability of scheme O&M and rehabilitation through nation-wide irrigator payment of Irrigation Service Fees and contributions to government funding of scheme rehabilitation programs; and (iv) reorganization of the management of government irrigation services to focus on both effective development of farmer irrigation organizations, as well as serving their needs and objectives.

5. Financing

The loan would be US$300 million under standard IBRD terms. The first tranche--upon loan effectiveness--would be US$50 million; the second and third tranches would be US$100 million and US$150 million respectively, payable upon fulfillment of the reform program comprising the second and third release conditions.

Implementation

An inter-governmental Task Force of senior officials from the sector ministries as well as NGO representatives has been appointed by the Minister of Planning to prepare and process the various reforms comprising the Policy Matrix attached to the Government’s Letter of Sector Policy. The process will receive ministerial oversight from: (i) a WATSAL Task Force Steering Committee composed of the Directors General of sector ministries; and (ii) an inter-ministerial Coordinating Team for “Policies on Efficient River Utilization
and Sustainable Watershed Management" which was established by Presidential Decree No. 9 on January 14, 1999.

7. Sustainability

    Sustainability of the reforms will be ensured as: (a) all reforms require issue or amendment of a Basic Law, Government Regulations and Decrees; (b) the National Water Policy and Action Plan is to be incorporated into the policy statements of the "Broad State Policy Guidelines" (GHBN) for the 7th Five Year Plan (Repelita VII); (c) sector institutions and regulatory arrangements would be reorganized to facilitate implementation of the new policies; and (d) new organizations would be established to implement the policies nationwide.

8. Lessons Learned from Past Operations in the Sector

    Piecemeal reforms as part of loan conditionality are ineffective. Accordingly, GOI ownership has been sought for an overall reform planned by all affected ministries and agencies with appropriate inputs from civil society derived by public consultation.

9. Program of Targeted Intervention (PTI) No

10. Environment Aspects

    A Sector Environmental Assesment (SEA) was prepared by GOI in accordance with the Bank's Operational Policy on Environmental Assessment (OP 4.01). SEA preparation was accompanied by a two-stage public consultation process to inform the public and selected stakeholder representatives about the proposed reforms and SEA findings. The public consultation process was designed after consultation with NGOs and two NGOs were used to assist GOI in organizing the consultation process and obtaining public inputs. The SEA assesses the potential environmental and social impacts of the proposed policy, institutional and regulatory actions required for the loan. The SEA concludes that the proposed WATSAL reforms are not likely to induce any adverse environmental or social impacts and would result in a major improvement in sector management. In fact, the reforms specifically address improvement of Indonesia's fresh water habitats, would lead to farmer empowerment in irrigation management as well as stakeholder representation in sector policy formulation and decision-making institutions. A copy of the SEA has been deposited in the Public Information Center for public information.

11. Program Objective Categories (POC) EN

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Note: This is information on an evolving project. Certain activities and/or components may not be included in the final project.

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Annex

Because this is a Category B project, it may be required that the borrower prepare a separate EA report. If a separate EA report is required, once it is prepared and submitted to the Bank, in accordance with OP 4.01, Environmental Assessment, it will be filed as an annex to the Public Information Document (PID).

If no separate EA report is required, the PID will not contain an EA annex; the findings and recommendations of the EA will be reflected in the body of the PID.

Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.