

# **An Assessment of Sustainability in the Approaches Adopted to Introduce Comprehensive Water Resources Management to Sri Lanka**

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## **ABSTRACT**

Sri Lanka has experienced many of the water resources management difficulties common to both developing and developed countries—a shortage of water for irrigation, hydropower and domestic use, competition between water-using sectors, degradation of water quality, particularly in urban and industrial areas, flood and drought impacts, and watershed degradation and resulting downstream hydrologic effects. Late in 1988, the government formally approved the policy of ‘participatory management’ for irrigation systems, which called for substantial devolution of authority and responsibility to FOs. To facilitate implementation of this policy, the Irrigation Management Policy Support Activity (IMPSA) was designed to carry out a systematic and analytical planning process to assess recent experiences and to formulate policies and guidelines for implementation of the new irrigation management policy. The outcome of IMPSA was expected to improve not only the implementation of ongoing projects, new projects, and programs consistent with the new policy but also public-sector organizations and staff to enable them to perform more effectively. IMPSA was a broadly participatory activity involving a wide range of stakeholders including specialists, policy makers, irrigation managers, and farmer representatives with an emphasis on achieving a broad consensus on future directions.

On a recommendation made by IMPSA and the National Steering Committee on Environment, a proposal to carry out a water resources master plan was presented to external donor agencies in 1992. As a result, late in 1993 the Asian Development Bank funded the ‘Institutional Assessment for Comprehensive Water Resources Management’ project to assess the institutional capacity for water resources management. This project was implemented over a 3-month period from October to December 1993. The project outcomes were the Strategic Framework and an Action Plan for comprehensive water resources management and the reaching of a consensus through a wide consultation process with most of the stakeholders of water resources, policy makers, water sub-sectoral agencies, private-sector water users, and NGOs involved in water supply and environmental sectors. The action plan focused mainly on the need to:

- develop a national water resources policy
- establish a permanent institutional arrangement for water-sector coordination
- prepare and enact a National Water Act and amend other water-related legislation

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- establish the systems needed to provide the data and information required by the decision makers
- carry out comprehensive planning in selected watersheds

It also recommended the formation of a Water Resources Council and a Technical Secretariat as an interim arrangement to support implementation of the Strategic Framework and the Action Plan.

Stemming from this project, the Government of Sri Lanka established a Water Resources Council (WRC) and a Water Resources Secretariat (WRS) during the period 1995–1996 and implemented a second Technical Assistance (TA) project, 'Institutional Strengthening for Comprehensive Water Resources Management,' also under ADB funding. A parallel FAO/Netherlands-funded 'Water Law and Policy Advisory Programme' is developing water legislation and assisting with groundwater policy. These projects have now drafted policy components on water rights and allocation, demand management, information management in the water resources sector, and groundwater management. Institutional recommendations, involving a new National Water Resources Authority and a permanent Water Resources Council, have been developed, as has draft legislation.

The IMPSA project made recommendations for policy and institutional interventions in the areas of both irrigated agriculture and general water resources policies. Although the government officials accepted IMPSA recommendations, they were not given official government approval. Policy and institutional development projects should be judged, in part, on the degree to which their results are a) internalized and b) endorsed by a majority of the stakeholders.

The present research study analyzes the outcome of the two projects with the ultimate aim of identifying the gaps or missing links for achieving implementation and long-term sustainability. Recommendations are made to improve efficiency and effectiveness in the internalization process. It is recommended that policy development and implementation should continue under a project mode with a phased reduction of donor support and increasing government commitment and ownership while developing strategies towards increasing the confidence of the water-sector stakeholders.

## BACKGROUND

Late in 1988, the government formally approved the policy of 'participatory management' for irrigation systems, which called for substantial devolution of authority and responsibility to FOs. To facilitate implementation of this policy, IMPSA was designed a) to carry out a systematic planning process to assess recent experiences and b) to formulate policies and guidelines to implement the new irrigation management policy. The outcome of IMPSA was expected to improve not only the implementation of ongoing projects, new projects, and programs consistent with the new policy but also public-sector organizations and staff to enable

them to perform more effectively. IMPSA was a broadly participatory activity involving a wide range of stakeholders including specialists, policy makers, irrigation managers, and farmer representatives with an emphasis on achieving a broad consensus on future directions. On a recommendation made by the IMPSA and the National Steering Committee on Environment, a proposal to carry out a water-resources master plan was presented to external donor agencies in 1992.

The Asian Development Bank accepted the proposal and provided funds for a TA project entitled 'Institutional Assessment for Comprehensive Water Resources Management' to assess the institutional capacity for water resources management, late in 1993. This project was implemented over a 3-month period from October to December 1993. The project outcomes were mainly a Strategic Framework and an Action Plan for comprehensive water resources management and the reaching of a consensus through a wide consultation process, with most of the stakeholders of water resources, policy makers, water sub-sectoral agencies, private-sector water users, and NGOs involved in water supply and environmental sectors. The action plan focused mainly on the need to:

- develop a national water resources policy
- establish a permanent institutional arrangement for water-sector coordination
- prepare and enact a National Water Act and amend other water-related legislation
- establish the systems needed to provide the data and information required by the decision makers
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It also recommended the formation of a Water Resources Council and a Technical Secretariat as an interim arrangement to support implementation of the Strategic Framework and the Action Plan.

Stemming from this project, the Government of Sri Lanka established a Water Resources Council (WRC) and a Water Resources Secretariat (WRS) during the period 1995–1996 and implemented a second TA project, 'Institutional Strengthening for Comprehensive Water Resources Management (ISCWRM)' also under ADB funding. A parallel FAO/Netherlands-funded 'Water Law and Policy Advisory Program (WLPAP)' is developing water legislation and assisting with groundwater policy. These projects have now drafted policy components on water rights and allocation, demand management, information management in the water sector, and groundwater management. Institutional recommendations, involving a new National Water Resources Authority and a permanent Water Resources Council, have been developed, as has draft legislation.

## OBJECTIVES

The objectives of this paper are to:

- examine the sustainability of the approaches followed by the WRC and the WRS to introduce the concepts, policies, and strategies for comprehensive water resources management, under project mode
- assess the sustainability of outputs in relation to acceptability to all stakeholders, of the proposed policies and institutional arrangements
- compare the approaches adopted by the ADB project with that of IMPSA in developing consensus for the recommendations
- identify strategies to improve efficiency and effectiveness in the internalization process to ensure sustainability in project outputs

## ANALYSIS

### **Irrigation Management Policy Support Activity (IMPSA)**

IMPSA was a 2-year policy formulation project implemented by the Ministry of Lands, Irrigation and Mahaweli Development in association with the Ministry of Agricultural Development and Research from June 1990 to June 1992. Its objective was to formulate policies and strategies to enhance the development of irrigated agriculture in Sri Lanka. The project was funded by USAID and implemented through the Irrigation Support Program in Asia and the Near East (ISPAN) in collaboration with the International Irrigation Management Institute (IIMI). IMPSA was carried out through a special secretariat to ensure efficient implementation of the project through avoidance of governmental procedures that generally lead to long delays in the implementation of the projects. All professionals serving in the secretariat were recruited as consultants for the project on relevant fields of specialization to ensure the high quality of the working papers.

IMPSA formed an Irrigation Management Policy Advisory Committee (IMPAC) under the chairmanship of the Secretary, Ministry of Lands, Irrigation and Mahaweli Development with members representing the heads of government agencies responsible for irrigation, agriculture, lands, and Mahaweli development, including Secretary, Ministry of Agriculture and Head, Sri Lanka Field Operations, IIMI. The main responsibility of the IMPAC was to approve policy papers prior to their presentation to the government.

The methods adopted for development of policy papers were through the preparation of staff working papers by consultants supported by consultation panels consisting of local experts representing the government agencies. Workshops and seminars were held to review the discussion papers. Local and foreign consultants were appointed for special studies on land,

marketing, irrigated agriculture, O&M of irrigation structures, economic and institutional aspects as well as social aspects. No consultations were held with nongovernmental organizations or the private sector engaged in input supply, output disposal, and processing of agricultural produce. Altogether 54 staff working papers were prepared, 26 workshops and seminars held, and 10 policy papers approved by the IMPAC.

The detachment of the administrative affairs of the IMPSA Secretariat from the Ministry of Lands, Irrigation and Mahaweli Development, without any dependence for funds, allowed it to operate independently. The advantages of this arrangement were less delays for completing planned outputs, simplified procedures for recruitment of staff, easier consultations with the stakeholders, and the possibility of making incentive payments on the spot for those who attended consultation meetings. Although somewhat independent of government procedures, IMPSA lacked both government commitment towards its funding and other local contributions.

### **IMPSA Recommendations and Current Status**

The main recommendations of IMPSA are summarized below:

- promotion of FOs to take up management of irrigation systems or subsystems
- exempting farmers from paying irrigation service fees to the government in those systems whose O&M functions have been taken over by FOs
- restructuring of irrigation agencies and the establishment of proper coordinating mechanisms for irrigation management activities
- the institution of legal measures to facilitate the implementation of the participatory management process
- formulation of strategies for research and development
- the establishment of a National Water Resources Policy Planning body

Some of the recommendations that have been implemented are listed below:

The Irrigation Research Management Unit (IRMU) that was formed under the National Irrigation Rehabilitation Project has been absorbed into the Irrigation Department and funds have been committed from 1999 by the government for its operations. There has been a long delay in the recruitment of a multidisciplinary team of specialists for conducting research on irrigation management. The Research Advisory Council has not met for a long period and there is no clear focus on an appropriate research agenda.

The Irrigation Ordinance was amended to incorporate powers of the Project Management Committees. However, there have been practical difficulties in implementing the regulations, due to the slow progress made in the turnover of management responsibility to FOs. The organizational capabilities in irrigation agencies and in FOs have to be evaluated and an appropriate action plan formulated for time-bound achievement of the objectives.

A Water Resources Council and a Secretariat have been established as an interim arrangement to implement projects, develop a national water resources policy and water legislation, improve information management, prepare proposals for river-basin planning and management procedures and to recommend a permanent institutional arrangement for comprehensive water resources management.

A Central Coordinating Committee for Irrigation Management (CCCIM) has been formed and is functioning under the Ministry of Irrigation and Power. It has not extended the membership to allow FO participation. It has not been effective in catering to the envisaged changes required to improve the slow process of implementing the participatory approaches without a strong commitment by the irrigation and agriculture development agencies concerned. There is scope for strengthening the secretariat functions of the CCCIM to make it more effective, under a project that can be initiated through donor support.

Observation of the current status of the following key recommendations is noteworthy:

- The proposed Steering Committee for Watershed Management has not been formed.
- The proposed amalgamation of the Irrigation Management Division (IMD) with the ID has not taken place yet, as the proposed restructuring of the ID has not taken place.
- The provincial-level Coordinating Committee for irrigated agriculture has not been formed.
- Transfer of management functions of irrigation schemes to the FOs has been slow and no targets have been maintained using an action plan approach

### **Comments on IMPSA Approaches**

The role of the government in irrigation management has not changed from direct control of resources to the role of facilitator, provider of services, and regulator to ensure justice. However, the Mahaweli Authority of Sri Lanka (MASL) has proceeded with IMPSA's recommendations and has developed an action plan for handing over of the responsibilities of management of irrigation systems to FOs at distributary-channel level. They also have established system-level Project Management Committees and Subcommittees consisting of officials and farmer leaders. These developments took place when the Director, IMPSA was appointed as the Managing Director of the Mahaweli Economic Agency.

The mandate of the IMPSA project was extended from irrigation management to cover more global issues connected to agriculture through a holistic approach. However, consultations were limited to farmer representatives and government agencies and ministries responsible for irrigation, lands, agriculture, and policy planning. The IMPAC membership could have included representatives of farmer leaders and the private-sector operators in irrigated agriculture as well as representatives of other economic sectors such as trade and commerce. Participants at the workshops were limited to government officials and farmer representatives. Consultation panels also had only government officials as members.

The policies for irrigated agriculture and irrigation management were developed without an agreed policy on agricultural development and, hence, there were deviations in the views of the officials representing the agriculture sector. The main concerns of these divergent views were on issues relating to the tradeoff between paddy cultivation for maintaining food security and cultivation of commercial crops, private-sector involvement, marketable landholdings, and transfer of management functions of irrigation systems to FOs, etc. Consensus-building for policy recommendations, therefore, became a difficult task and ultimately faced difficulties due to lack of official government support. The decision of the IMPAC to obtain government approval through the submission of a joint cabinet paper presented by the Ministry of Lands, Irrigation and Mahaweli Development and the Ministry of Agricultural Development and Research was turned down by the Ministry of Agriculture. No proper strategy has been followed for obtaining approval for any major recommendation. As a result, responsibility for the various recommended activities could not be transferred to the line agencies for implementation.

### **Implementation of the ISCWRM Program and the 'WLPAP'**

The ADB-TA project 'Institutional Strengthening for Comprehensive Water Resources Management (ISCWRM)' was initiated in mid-1996 for a period of 30 months, with the formation of the Water Resources Council (WRC) as an interim institutional arrangement mainly to provide guidance and direction towards implementation of the project. The WRC consisted of Secretaries of the Ministries representing the water subsectors, the academic community, private-sector water users, NGOs, and a member of a federated FO. The Water Resources Secretariat was established in October, 1996 to implement the two projects. It comprised a Director, six Additional Directors and three support staff. The professional staff was recruited on a secondment basis through releases from the existing water agencies, some on a part-time basis. Due to delays in providing the secondment allowance, there was no motivation for their real inputs. The part-time arrangements have affected the functioning of the WRS although opportunities were granted for improving their knowledge by nominating them for study tours. There was no choice for selection of the seconded staff by the Director of the WRS.

The ADB fielded one Senior Technical Advisor (STA) and a Local Consultant to serve the project on a full-time basis. The STA is responsible for the ADB for the overall project outputs and financial management and has been fully involved in policy development and assisting in finalizing recommendations for institutional development activities. He had been able to formulate training courses and study tours for WRS staff and WRC members, and senior staff of some of the water agencies. He had also initiated a program to support the initiatives made by the University of Moratuwa to commence the Water Engineering and Resources Management Course leading to a Diploma and a Master of Engineering degree. These have led to capacity building both in the short- and the long-term and to create aware-

ness among a selected number of WRC members. Visits to Australia, New Zealand, Korea, Republic of China, Canada, UK, Thailand, Macao, and Mexico have yielded tremendous contributions towards implementation of the projects, in terms of better understanding of the approaches required for WRM activities.

The Local Consultant was responsible for the public information and consultation process while supporting the Secretariat in providing assistance in institutional development and policy guidance. He was also responsible for organizing consultation meetings with the public and government agencies. He has contributed papers to magazines and the Newsletter and has been actively involved in organizing publicity campaigns for the water resources issues and new policies.

Compared with the autonomous operational capacity of the IMPSA Secretariat, WRS has been subjected to governmental procedures without administrative and financial autonomy that had led to long delays in procurement with total dependence of the executing agency, the National Planning Department. Accordingly, the National Planning Department was involved in staff recruitment, approval for funding commitments, payment of allowances for Additional Directors and Working Group members for attending the meetings, etc. As the rent for the office facilities was to be provided under the government funds, the WRS suffered in its operations due to long delays in finding proper accommodation and in relocating during the project period.

The water legislation component of the action plan targeted at producing a draft Water Resources Act along with the development of a policy for groundwater resources management has been entrusted to the FAO regional project, which is based in Sri Lanka and covers Tanzania, Niger, Uganda, and Laos. The project commenced in February 1996, covering a 30-month period and was granted an extension from August 1998 and was due to be completed in December 1998. The entire project is operated by a Coordinator who is also a Legal Advisor supported by a Legal Associate, serving the project on a full-time basis covering the 5 countries with short-term local and foreign consultants.

#### **Status of Implementation of the Components of ISCWRM and FAO Projects**

***Development of a national water policy.*** The policy development activities were mainly focused on water allocation, water rights, demand management, information management, groundwater resources management, etc., according to a priority list agreed with the Water Resources Council and the ADB.

***Establishment of permanent institutional arrangement for water sector coordination and water resources management.*** An initial institutional analysis has been carried out to identify the service delivery functions separated from the water resources management functions. The latter that are not performed by the existing agencies have been identified for a new



agency to be created shortly. The development and implementation of water resources management policies through decentralized approaches would be the main responsibility of this agency. An advisory and coordinating body such as the current Water Resources Council has also been recommended, along with River Basin Planning Committees, to activate water resources planning functions in selected river basins.

***Preparation and enactment of a national water act and amendment of other water-related legislation.*** The draft Water Resources Act has been proposed with the following components:

- Enabling draft legislation and draft regulations consisting of provisions for the establishment of a National Water Resources Authority, river-basin planning, water allocation among subsectors, and issue of water rights and demand management measures such as the development of water conservation agreements and water data and information management systems through the development of a Memorandum of Understanding with data custodian agencies in the water sector.
- Addressing the provisions in the existing water-related legislation that need consolidation.

The draft Water Resources Act should be followed up to the point of its passage through parliament to become effective for implementation. The draft legislation is to be submitted to the Legal Draftsman's Department initially for final approval through consistency checks. To facilitate this process, key officials of the Legal Draftsmen's Department and the Attorney General's Department were appointed to the Working Group on water legislation.

***Establishment of systems needed to provide data and information required by decision makers***

Recommendations have been made for the establishment of a collaborative network to improve data collection and processing methods while introducing a data sharing agreement with the existing data custodian agencies (who are also the primary data users) and the proposed new water resources authority. The data agreements are directed at information requirements for purposes of water resources management functions to be carried out by the authority. Attention should also be paid to solving problems of data accessibility and quality and reliability of data for rational decision making for a variety of purposes. A policy is currently being drafted for information management in the water sector.

**PUBLIC INFORMATION AND CONSULTATION**

Several strategies have been developed for stakeholder consultations among the government and provincial agencies and NGOs/Community-Based Organizations (CBOs) in the outsta-

tions. The stakeholder groups consisted of professionals, policy makers, and water managers in the water resources sector, and major water users. The leading NGOs working in the environmental, water, and sanitation service sectors were formed into a Working Group along with representatives of mass electronic media. The main objectives of such meetings were to identify water-related issues within the districts and to disseminate information on project-related activities including draft policies and legislation. The Working Group has been transformed into a Community Water Front, and is expected to play a key role in consensus building among public stakeholders.

One of the key strategies adopted for the smooth introduction of new draft policies on water resources management was to educate the NGO leaders serving in the working group in the subject matter of water resources prior to discussion on water allocation policies. The Working Groups have been established in respect of water resources policy development, institutional development, information management, groundwater policy, water legislation, and public information and consultation. Over 25 consultation meetings of the Working Groups were conducted with the participation of expert groups representing the government agencies, NGOs, and the private sector. In addition, eight meetings of the Interagency Coordinating Committee (ICC) consisting of heads of all water-related agencies have been concluded. The recommendations for water resources policy and institutional development, water legislation, and information management were discussed at ten meetings of the Water Resources Council up to the end of September 1998.

## **SUSTAINABILITY OF THE 'ISCWRM' AND 'WLPAP' PROJECTS**

The outputs of the ISCWRM project can be expected as follows:

- policy framework and national water resources policies relating to water allocations, demand management, groundwater resources management, and information management
- recommendations for institutional arrangements for the establishment of the National Water Resources Authority (NWRA) and the WRC

Sustainability of the recommendations will depend on the potential for implementing the above policies and legislation including regulations through appropriate institutions and linkages with other water agencies and decentralized administration systems. The implementation of the policies is to be coordinated by the WRS/NWRA through a decentralized approach and needs the support of the national agencies, provincial-, Divisional/District- and local-level administration, and NGO/CBOs. It is imperative to identify the proper institutional arrangements that would not only be cost-effective but also be capable of carrying the responsibilities for the water resources management functions, at local level. The WRS and the NWRA are expected to be small agencies, with a limited number of professionals, in specialized subject areas that could be performed mainly through delegation and developing partnerships with

existing agencies and administrative units. The main institutional structure for implementation of the policies and enforcement of regulations would be through national, provincial, and lower administrative arrangements. Strategic management approaches may also be required to ascertain long-term sustainability of the water resources management efforts, by strengthening the relevant agencies and institutions through capacity-building programs. However, with the lessons learned from the IMPSA project, several improvements have been suggested for project approaches and strategies for policy development and continued donor support for policy implementation phase as follows:

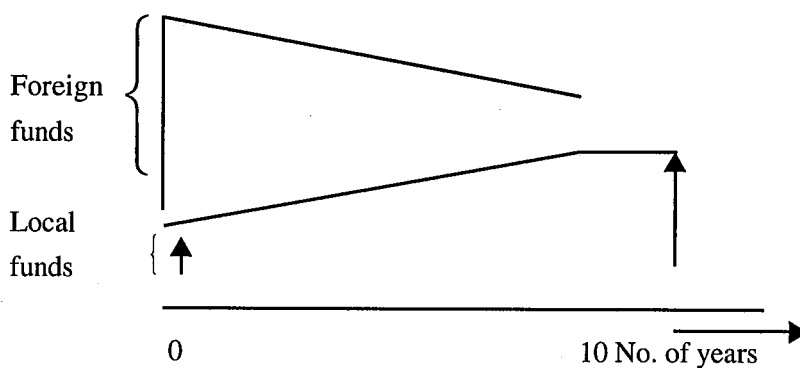
- The policy implementation phase has been incorporated under the ADB-Western River Basin Sector project specially designed for preparatory work such as resource assessment and information dissemination.
- Future investments by the ADB have been made conditional on the acceptance of the policy by the government followed by legislation.
- An action plan for policy implementation under the ISCWRM project is to be approved by the WRC.
- Adequate government commitment towards strengthening of the WRS.
- Seeking Cabinet approval for key recommendations relating to policy, institutions, and legislation as a condition for donor assistance for the Western River Basin Sector project.

## **APPROACHES FOR ACHIEVING SUSTAINABILITY IN PROJECT OBJECTIVES**

The sustainability of a project involved in developing policies and legislation will eventually lead to a change process and to the acceptance of the recommendations by the respective governments as well as by stakeholders who are affected by these recommendations. Usually, a bottom-up approach is considered appropriate for such activities although it is hard to practice. When such policies are developed under a project mode, most experiences show poor achievement of results beyond the project period due to lack of preparatory work in the form of appropriate strategies and commitments created on the part of project clients. The need for policy interventions, backed by legislation, has been established in the three projects mentioned above. Some of the key issues that have to be considered are the alternative strategies required for implementing the policies, through a phased withdrawal of donor support as shown in the diagram below:

## **INVOLVEMENT OF EXTERNAL SUPPORT**

It is important that the government provides funds at the beginning of the project to meet part of the cost of activities envisaged in policy formulation. This would show commitment towards the realization of the objectives through the project and less dependence on foreign funds during policy implementation. It is important to continue donor support during policy



implementation, though to a limited extent, and progressively reduce foreign aid with a corresponding increase in government financing over a period of time. This is necessary for several reasons such as pilot-testing where series of changes, in terms of attitudes of stakeholders, new responsibilities and organizational development, capacity building and new information bases, and procedures can be tried out. There is evidence to show that several foreign-funded projects involved in the introduction of new policies have failed to achieve their objectives mainly due to lack of resources and commitment by the recipient government. Projects have also failed due to distortions in acceptance arising from resistance to change by the stakeholder groups and noncompliance of strategies followed in the policy implementation process.

Hence, donor assistance should be withdrawn on a gradual basis, while supporting achievement of sustainability of the project objectives through an evolutionary approach. Since an increased commitment of local funds will be required during the operational phase, the government should earmark additional funds well in advance after a proper evaluation of the action plans drawn up for implementation. After some time when the policy implementation procedures are in place, it will be reflected by a horizontal line showing the total government-fund commitments towards policy implementation as constant recurrent costs. As funding constraints have been identified as one of the main factors affecting sustainability, continuation of adequate support by the donors would be essential. Donor support is needed beyond the policy development and planning phases and should be extended to the policy implementation and evaluation phases. The other factors that would influence sustainability include, proper understanding of the benefits to water users and society, water issues, political leadership, cost sharing by the stakeholders, adherence of donors to condition for loans and grants, etc.

## RECOMMENDATIONS

The following recommendations could be made in relation to the objectives of the paper:

1. **Sustainability of the Approaches Followed by the WRC and the WRS to Introduce the Concepts, Policies, and Strategies for Comprehensive Water Resources Management, under Project Mode**

The policies were developed through a series of consultations involving all stakeholder groups at different levels such as community groups, NGOs, professionals attached to government and private-sector agencies, and government policy makers including heads of departments. Opportunities were created for direct consultations with the ministers responsible for water, subsectors environment, and the natural resources prior to seeking cabinet approval for implementation of the recommendations under the two projects. Senior officers of the Legal Draftsmen's Department and the Attorney General's Department were included in the Working Group on water legislation. The two projects were executed by the National Planning Department of the Ministry of Finance and Planning, which had a neutral commitment towards subsectoral interests while providing the leadership for other ministries to respond positively to the recommendations in relation to cross-cutting issues and solutions. The importance of meeting national objectives of socioeconomic development and environmental sustainability in addressing the water resources management issues has also been highlighted.

The WRC that reflects government and nongovernmental interests such as water-related Ministries with the highest authorities, NGOs, private-sector water users, FOs, and the academic community, had created an ownership covering both the state and the other stakeholder groups. This arrangement is a vast improvement on stakeholder involvement as against consultations limited to government officials in the IMPAC and IMPAC Subcommittee. The risk of failure in the implementation of policies was minimized by stressing on the short- and long-term benefits accruing to the water users and to the society as a whole. The WRC has made a strong effort and made a recommendation to the government to incorporate components leading to policy implementation and capacity building in the Project Preparatory Technical Assistance project 'Western River Basin Sector.' However, it is recommended that the implementation of water resources policies should be phased out through preparatory work being undertaken during the above project period of 1 year.

## **2. Assessing the Sustainability of Outputs in Relation to Acceptability to All Stakeholders of the Proposed Policies and Institutional Arrangements**

The policy recommendations have been designed to address the most important emerging issues relating to water allocation, groundwater management, demand management, improvement to water resources information systems, and to the introduction of the concepts and procedures for water resources planning at the river-basin level. The stakeholder interests have been taken into consideration in developing the above policies although some of the issues relating to watershed management, water quality management, and subsectoral water efficiency objectives have also been regarded important for direct interventions by the government, according to the views of the majority stakeholders. However, it has been decided that these secondary objectives are to be achieved through well-coordinated programs as many existing agencies are currently held responsible for such programs at varying degrees of

intensity. Considering the absolute necessity for, and limitations in, addressing the above aspects, which are closely related to water resources management functions, sustainability of policy, legislation, and institutional recommendations would face certain risk levels. It is recommended that adequate awareness needs to be created among the water users, water managers, and policy makers at all levels of administration to implement water resources policies effectively.

### **3. Comparison of the Approaches Adopted by the ADB Project with those of IMPSA in Developing Consensus for the Recommendations**

The ISCWRM approaches have been directed towards sustainability criteria compared to methods adopted by the IMPSA process in the following aspects:

- continuation of donor support during an implementation phase by the ADB with the introduction of the Western River Basin Sector project specifically to implement and pilot-test the ISCWRM policy recommendations
- the strategic use of ongoing donor support to ensure implementation of the recommended actions under a time-bound action plan being a condition attached to future loans and grants
- requirement for a clear action plan with assigned responsibilities for relevant agencies

However, the following risk factors would have to be seriously considered with the above approach:

- Recommendations and action plan should be carefully designed to reflect an acceptable rate of change. Overly ambitious recommendations will reduce recipient willingness to cooperate.
- Awareness and support from a wide range of stakeholders and senior decision makers. There should be ongoing communication with stakeholders and decision makers both during the project and into the implementation phase.
- A long delay expected in placing a legal basis for implementation of the recommended actions and the required publicity and public acceptance at field level.
- Government commitment in the form of adequate funding and other resources such as trained manpower, equipment, facilities, and clearly laid-down procedures for successful implementation.
- Extent of cooperation received by the national, provincial, divisional, and local-level agencies and officials in the absence of a clear mandate on top of the current functions assigned to such agencies

#### **4. Identifying Strategies to Improve Efficiency and Effectiveness in the Internalization Process to Ensure Sustainability in Project Outputs**

The following strategies may have to be adopted to improve efficiency and effectiveness in the internalization process to ensure sustainability of project outputs:

- Ensuring political, agency, and public support for the policy recommendations at national, provincial, and local levels will be required through special meetings arranged with the government and stakeholder groups and organizing public seminars and discussions through the mass media.
- Needs assessment would be essential in terms of human resources, logistics, other facilities and capacity while capability assessment of different administrative lines of authority would be required prior to handing over of key responsibilities.
- The existing legislation that can be applied to issue permits for extraction of water from any water body can be explored to issue entitlements until the new legislation is introduced.
- In the implementation of water allocation policy, decisions may have to be taken on priority issues of water for some subsectors according to neutral criteria acceptable to subsectoral agencies/groups based on social, economic, technical, and environmental considerations and other location-specific factors.
- Estimates for fees charged for the issue of entitlements will have to be based on actual cost of water resources management based on the cost of basin planning, administrative costs, and cost of equipment used for physical structures, coupled to factors concerning ability and willingness to pay, etc.
- Role of the subsectoral agencies in determining the total water requirements for subsectoral uses at basin level should be clearly laid down through a consultation process.
- A special strategy should be adopted to expedite procedures followed by the Legal Draftsmen's Department.
- The CEA should be strengthened to implement the legislation on water quality maintenance through attachment of provisions under water allocation procedures to Environmental Pollution License and Environmental Impact Assessment regulations.

The issues and strategies listed above are creating widespread social change, which is never easy, particularly in traditional societies. External factors (droughts, economic shocks, etc.) may contribute at a more fundamental level. Leadership at the national government level and senior agency official level are also very important for sustaining the efforts of the lead agency. Coordinated donor pressure can be very important as long as it is carefully applied. Change may also arise from various other sources, including stakeholder pressure and pressure from progressive elements within agencies, etc. These "deeper" factors are generally beyond the control of project design and must simply be grasped when and if they become available.

## CONCLUSIONS

In addition to the analysis required for assessment of sustainability, details of the three projects have been discussed in this paper with a view to provide an overview of the background, constraints, and limitations within which they have been implemented. The lessons learnt during IMPSA have been addressed in the implementation of ISCWRM and FAO/Water Law Projects. A comparison has been made in this paper on the IMPSA efforts and approaches for the introduction of irrigated agriculture and irrigation management policies with those relating to water resources policies, legislation, and institutional arrangements. It indicates a need for a careful planning approach for implementation of project outputs over a phased program supported by external assistance. The foreign inputs can be withdrawn gradually depending on the commitment of the government to fully internalize the policy implementation process. Factors that had affected the sustainability of IMPSA recommendations are listed below:

- Lack of ownership with the existing agencies responsible for irrigated agriculture. There were divergent views among the officers responsible for irrigation management and agricultural development, especially on private-sector involvement, food security needs, empowerment of farmers with management responsibilities, etc., which had acted negatively in seeking government approval.
- No mechanism was developed for internalization of the policy implementation process. The action plan was submitted only to the Ministry of Lands, Irrigation and Mahaweli Development after the project was completed and had to be abandoned due to lack of an institutional mechanism and publicity among agency officials. There were no clearly laid down responsibilities, assigned for each agency for policy implementation according to the action plan, that were acceptable to the agencies.
- There was no pilot-testing phase identified for activities recommended. There were no recommendations for pilot-testing of the key activities identified for policy implementation.
- There were no investments identified for each activity proposed under the recommendations for implementation of the policies. The policy activities could have been coupled to a broad identification of net benefit streams along with an investment portfolio, which could have been in the form of proposals to attract the donor community.
- Prior agreement could have been reached for the Water Resources Development Division of the Ministry of Lands, Irrigation and Mahaweli Development to take over some of the policy implementation functions relating to irrigation management.
- A targeted time frame and specific funds could have been agreed upon for the implementation of key recommended actions according to a Strategic Action Plan. There were no



fund commitments and a targeted time frame by the government for initiation of actions to internalize the policy recommendations, even at the Ministry/Departmental level.

Considering the multidisciplinary approach proposed for water resources policies, market development, watershed management, private-sector participation, etc., an independent agency outside irrigated agriculture could have been appointed as the main agency responsible for implementation of the policy-related activities for irrigated agriculture.

One of the strategies for donor pressure would be to limit the assistance programs with conditions stipulated for adherence to the policy package. The external support has already been provided for continuation of the strengthening process of the local efforts to take up new challenges in the implementation phases of the recommendations made under the ISCWRM and WLPAP projects. Assistance has been provided through the Western River Basin Sector project, and other facilities to be provided under NORAD and CIDA assistance for improvements in management information and resource assessment studies. The formation and operations of the National Water Resources Authority will require a strong professional approach for implementation of resources management functions through collaborative arrangements with existing water agencies and administrative units. It may have to receive continued external support that will extend to other supporting agencies for sustaining the current growth level, with a heavy commitment by the government. Considering the number of prerequisites that need to be fulfilled prior to pilot-testing of the recommended policy components under the Western River Basin Sector Project, the above factors relating to IMPSA, ISCWRM, and the FAO-Water Law project should be considered as a learning experience for a preparatory phase.

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