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**CAPACITY-BUILDING PROGRAM FOR
INTEGRATED WATER RESOURCES MANAGEMENT**

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CAPACITY-BUILDING PROGRAM FOR INTEGRATED WATER RESOURCES MANAGEMENT

I. INTRODUCTION

Need for Integrated Water Resources Management

1. Water is a precious resource. Many developing countries are facing serious problems meeting the rapidly growing demands for water supplies in all sectors—domestic, industrial, irrigation, and power. The marginal cost of additional supplies is increasing, water quality is deteriorating, ecology and biodiversity problems have become serious, and intersectoral conflicts are becoming more frequent. The supply of water of acceptable quality at an affordable cost is emerging as a major challenge.
2. The main objective of integrated water resources management is to conserve, protect, and use the valuable water resources of a country, both surface and groundwater, most efficiently without damaging the environment. It involves comprehensive planning to meet the demands of all economic sectors—irrigation, water supply and sanitation, industry, hydropower, navigation, and recreation. It is not just the arid and the semi-arid countries with scarce water resources that need integrated management. Countries with abundant rainfall also need it to manage water shortages during the annual dry season and in drought years.
3. During the past two decades, there has been increasing global awareness of the need for comprehensive planning and integrated management of water resources that recognize water as an economic resource, ensure efficient, economic and environmentally sustainable development, and effectively meet the demands of all sectors. This need has become urgent in many developing countries due to increasing population growth, rapid urbanization, inefficient use, environmental degradation, and misallocation of resources. The challenges facing developing countries are managing diminishing supplies, protecting valuable watersheds from urban and agricultural pollution, and building and maintaining critical infrastructure with limited financial resources. These challenges would be more difficult to address in the future if adequate measures are not taken now to protect and conserve their water resources.
4. The concerns for protecting and conserving water as an important economic resource and an unifying element of a country's environment have been repeatedly emphasized at international conferences sponsored by the United Nations (UN). The need for integrated management of water resources was particularly stressed at the recent UN Conferences at New Delhi (1990), Delft (1991), Dublin (1992), and Rio de Janeiro (1992).
5. International financing agencies such as The World Bank have explicit policies which emphasize the need for comprehensive planning and integrated management of water resources. They are concerned that, despite their support for investments in irrigation, water supply, sanitation, and hydropower, developing countries' activities have often caused inefficient use of water, degradation of the environment, and misallocation of resources.

6. The need for integrated water resources management is well recognized. both among the developing countries and external support agencies. There is also strong consensus on the urgency of initiating measures to address this need.

Suggested Measures

7. The UN international conferences have underlined some of the key measures required to achieve the objectives of integrated water resources management. They include:

- ▶ Improving hydrologic, hydro-geologic, and environmental databases
- ▶ Decentralizing management responsibilities
- ▶ Assessing the long-term demands of various sectors and examining the links between them
- ▶ Examining the availability of water of the quality and in the quantities required to meet the demands
- ▶ Protecting water-related ecosystems
- ▶ Ensuring stakeholder participation in planning and management
- ▶ Introducing the required policy and institutional reforms
- ▶ Establishing legal and regulatory framework for dealing with pricing issues
- ▶ Training staff and upgrading skills
- ▶ Capacity-building to plan and implement the above measures.

This list is only illustrative. It represents the strong consensus of both international agencies and developing countries on the measures required for achieving integrated water resources management.

Current Methods of Implementing Integrated Water Resources Management

8. While there is strong consensus on the need for integrated water resources management and the measures to achieve its objectives, the current methods of implementing the measures differ significantly. Recognizing that integrated water resources management is an intersectoral and multi-interest activity, the Delft Conference (1991) stressed that water assessment (water sector work) is an essential first step and an important instrument for integrated management and that building the capacity of the institutions to carry out water assessments at the national, regional, and local levels is the key. Further, it emphasized that water assessments should be undertaken by teams provided by both government and external support agencies (ESAs), with the former constituting the nucleus and corporate memory of the planning process. The Conference recognized that capacity-building is a long-term continuing process that has to permeate all activities in the water sector, and it emphasized that capacity-building is essential for sustainable integrated water resources management.

9. International financing agencies, for example the World Bank, have stated that institutional weaknesses, distorted policies, and misguided investments are major causes affecting efficient development and use of water resources in many developing countries. They have also suggested an integrated approach to water resources management with emphasis on policy and institutional reforms, decentralized management and delivery structures, greater reliance on pricing and incentives, greater participation of stakeholders, and greater efforts for capacity-building. International financing agencies use their sector work, technical assistance, and lending to achieve the above objectives. Given the interdependence among sectors, the agencies incorporate water resources policy and management issues into their country policy dialogues and country assistance strategies and monitor progress through their normal interactions with the countries. If the progress on priority actions is unsatisfactory, the agencies propose to limit lending to sanitation, potable water for the poor, waste treatment, pollution control, drainage, distribution system, rehabilitation, and similar operations that are designed to conserve water and protect its quality. Further, the international financing agencies propose that individual water lending operations should discuss links to priorities for reforms as well as the impact on overall water-related program.

10. However, the problems of implementing the measures outlined above have not been adequately addressed and integrated water resource management remains an elusive goal in many developing countries.

Objectives and Scope of the Paper

11. This paper proposes a strategy and a program for building the institutional capacity of developing countries to carry out water sector assessments (water sector work) on a systematic basis to acquire the knowledge, analyze the constraints, and formulate the policies, strategies and investment programs for managing their water resources. The proposed program stresses the need to establish the culture and values of sector work in the water organizations and to ensure their responsibility, commitment, and "ownership" of sector work and its results. It underscores the importance of country initiatives for policy and institutional reforms that are practical and compatible with their socio-economic, administrative, and political situations and stresses that the issue of commitment and ownership lies at the core of the countries' motivation and ability to define and implement the reform programs.

12. The proposed capacity-building program requires developing countries to establish explicit policies that make sector work a prerequisite for investment planning, to designate the organizations responsible for sector work, and to recognize the staff who could contribute to and lead the sector work. It suggests a design for technical assistance by external support agencies that encourages and supports country initiatives to develop their own agenda of policy and institutional reforms and implement these reforms at a pace suitable to a country's specific situations. Further the program recommends an organizational arrangement for external support agencies' technical assistance for implementing a three-year pilot capacity-building program

involving 10 operations to test implementation of measures to integrate water resources management in a group of countries that represent various characteristics in terms of size, scarcity of water resources, levels of economic development, and other features.

13. The scope of this paper is limited to development of the proposed measures and program for building the capacity of developing countries to carry out water sector assessments. It does not cover the processes involved in water sector assessments such as examining water supply and demands, legal and regulatory system, stakeholder participation, pricing issues, and environmental impact. A separate paper, "Water Resources Management Strategy—A Guide", describes these processes.

II. WATER SECTOR WORK

14. Developing the knowledge of the water sector and subsectors and analyzing their constraints are essential for formulating the strategies, investment programs, policy reforms and institutional improvements required for development of the sector and sub-sectors. International financing agencies such as the World Bank have explicit policies and comprehensive guidelines for analysis of the water and other economic sectors to formulate their country assistance strategies and lending programs. Few developing countries carry out such studies. However, the guidelines for sector work established by the international financial agencies are relevant and useful to developing countries wish to carry out similar studies. A brief summary of the World Bank's guidelines, with appropriate modifications to reflect the country perspective, is given below to illustrate the objectives and scope of the sector work and the issues involved in building the capacities of developing countries to undertake similar studies.

Objectives

15. The main objectives of sector work are:

- ▶ To provide the knowledge required to analyze the development problems, prospects and strategies
- ▶ To formulate the policy and institutional reforms required to address the sector's constraints and to identify the investment priorities
- ▶ To determine the impact of the sector on other sectors and on the economy as a whole
- ▶ To establish the framework for the country's medium- and long-term investment programs in the sector and carry out the required project work in a systematic way.

16. Sector work complements macro-economic work, and it is an essential link between economic analysis and project work. It ensures that investment projects are systematically identified and selected on the basis of a careful analysis of the structure and characteristics of the sector, the issues and priorities within the sector, the past performance of the sector, and its future role in the country's economy in terms of growth, employment, income distribution and other economic and social objectives. Because no sector functions in isolation, sector work determines the impact of the sector on the development of other economic sectors and ensures consistency in policy and investment decisions.

Types and Scope of Sector Work

17. Since the need for additional knowledge depends on the current state of sector knowledge and changes in operational objectives and concerns, the scope of sector work required by a country will vary over time. The scope of work also varies among countries, depending on the size and importance of the sector and the complexity of sector development problems. There are four categories of sector work—special sector studies, sector surveys, sector reviews, and sector memoranda. Special sector studies are required to address important specific problems such as water charges, institutional improvements, and maintenance and operations. Comprehensive sector and subsector surveys may be required from time to time to provide a broad analysis of the medium-and long-term development strategies and the policy options in the sector or subsector. Sector surveys covering the entire sector and sub-sectors require a large team of multidisciplinary staff. Sector reviews are carried out when sufficient knowledge of the sector is available from previous studies and only a broad review of the sector's problems and potential is required for updating the existing knowledge. The Sector memorandum synthesizes the existing sector knowledge and serves as the background document for reviewing policies, operations and future programs. It presents a coherent strategy for development of the sector and indicates the areas where further sector work is required.

18. The types and scopes of sector work described above provide the means of generating the sector knowledge required to meet the country's needs at a given time. The identification and selection of investment projects is based on the knowledge derived from sector work, the awareness of sectoral priorities, and the analysis of options for achieving them. Sector work is not a one-time activity. Development issues and priorities change from time to time and sector work of one type or other is required to provide the knowledge and the analysis to address them. Developing countries need to build their capacity to carry out water sector work in order to manage their water resources effectively.

III. CAPACITY-BUILDING

Current Capacity-Building Programs

19. International financing agencies have used their sector work, technical assistance, and lending as the main instruments for capacity-building in water as well as in other sectors. Although many technical assistance and lending programs have included training and skills-upgrading and have contributed to development of the water sector, their effectiveness for capacity-building has been limited. This is evident from the water sector studies carried out by international financing agencies in many developing countries which indicate that despite decades of technical and financial assistance the irrigation ministries and departments of these countries do not have the capacity to carry out the sector studies needed to ensure effective water management. With few exceptions, these institutions, which are major users of water resources, have neither the ability nor the organization to carry out the sector work required for sound planning and development of their water resources.

20. International financing agencies carry out the sector work almost exclusively with their staff and consultants. The sector work is primarily designed to improve sector knowledge, and to identify priority projects and areas for policy intervention and development assistance. Sector work is intended to provide the underpinning for economic work, country assistance strategies, and policy dialogue with the borrowers rather than to build the capacity of developing countries to carry out similar studies. The knowledge generated by sector work and the methodology used for analysis of the issues and options should be useful to both the countries and the international financing agencies. With few exceptions, however, developing countries seem to be more interested in the projects identified by the sector work for securing financial assistance from these external agencies than in the sector work's recommendations for policy and institutional reforms.

21. International financing agencies often complain that their borrowers' commitment to projects financed by them is not strong enough to ensure success. A recent study called "Effective Implementation: Key to Development Impact" carried out by the World Bank's Portfolio Management Task Force concluded that many borrowers consider Bank-financed projects to be Bank projects rather than their own. The borrowers' lack of commitment and ownership does not relate to the physical works of the projects; it relates to the policy reforms, procurement procedures, and loan conditions included in the projects. Many borrowers tend to resist reforms, procedures, or conditions because they are different from existing policies and practices. Borrowers consider reforms, procedures, or conditions to be impositions that they are forced to accept. Even in cases where borrowers find the proposed policies and procedures useful, they are not able to follow the policies and procedures because borrowers are often overwhelmed by the administrative difficulties and the potential political risks of changing their existing systems.

22. When the countries have difficulties in owning Bank projects, which they implement and finance (partly from their own resources and partly from loans and credits they have to repay), it is unrealistic to expect them to own the Bank's sector work, which is financed

and carried out by the Bank without active involvement of the countries. The issue here is not the relevance and usefulness of the Bank's sector work; the issue is the borrowers' lack of commitment to and ownership of the findings and recommendations on policy and institutional reforms and their lack of willingness to follow these findings and recommendations.

23. These comments are not intended to suggest that the sector work carried out by international financing agencies is not useful to the countries, but rather to explain the factors constraining the ability of sector work to build capacity. Sector work is extremely useful to the countries that use the sector knowledge, the methodology and the analysis of the issues and options for carrying out their own review with such modifications as may be appropriate to their specific situations. It is also useful to countries that are interested more in the projects resulting from the sector work than in its recommendations for policy and institutional improvements because it provides knowledge and increases awareness of the issues which countries need to address sooner or later. Without the international agencies' sector work, countries would not have a sound basis for developing the sector, particularly when the countries themselves do not have the organization and the capacity to carry out sector studies on their own.

24. The program for capacity-building suggested by the Delft Conference has some useful features. It stresses that water assessments (water sector work) should be undertaken by teams provided by both the government and the external support agencies, with the former constituting the nucleus and corporate memory of the planning process. This program envisages participation by the countries in the water assessments. Its effectiveness in building capacity, however, depends on the nature of participation and the commitment of the country to implement the joint team's findings and recommendations. If the country's involvement is limited merely to secondment of its staff to work with the external support agencies' staff and consultants, the objectives of capacity-building will not be effectively achieved. However, if the country's staff participate as partners in decision making, and contribute productively by making sure that the team's findings and recommendations are practical and sustainable in the country's specific political, administrative, and socio-economic situation, then the capacity-building objectives will be achieved effectively. The Delft Conference recognized that capacity-building is a long-term continuing process and that it has to permeate all activities in the water sector to be effective. A solitary effort of a joint team of the external support agencies and the country set up to carry out an occasional water assessment task will not be sufficient. It should be repeated and the efforts should constitute a continuing process to permeate all activities in the water sector.

25. The Conference's recognition of the need for participation of the countries in water assessments is an important positive step. However, as stated in the paper presented by Okun and Lauria¹ at the Conference, mere participation of a country is not sufficient for building its capacity. The authors quoted the results of a study to demonstrate that failures in

¹ Okun, D.A. and Lauria, D.T. "Capacity Building for Water Sector Management," in *A Strategy of Water Sector Capacity Building*. Delft, The Netherlands: International Institute for Hydraulic and Environmental Engineering.

effective management of water resources were not due to the lack of technology or the availability of funds; even when adequate funds were available and established practices were used, effective water resources management was not sustained in most cases after the external agencies' support ceased. The authors emphasized that the initiative for capacity-building in the water sector must come from within the country. External agencies might promote capacity-building but investments in the sector would not be sustained if the countries were not themselves fully involved and committed at all levels.

A Capacity-Building Program for the Water Sector

26. This paper lays great stress on the country's initiative, responsibility, and ownership of water sector work and its recommendations, on its commitment to the need for capacity-building to achieve these objectives, and on its appreciation of the consequences if this need is not addressed effectively. It is not a new concept. The current strategies also emphasize the importance of the country's commitment to and ownership of the sector work results. However, the critical issue is whether these strategies are effective for ensuring country initiative, responsibility, ownership, and commitment. Experience shows that they are not effective for the reasons explained in previous paragraphs.

27. It is the thesis of this paper that commitment will be strong and sustainable if the countries build their capacity to initiate and carry out the water assessment (sector work) needed to develop an understanding of the sector issues and an appreciation of the consequences if they do not address them adequately. This understanding and appreciation will motivate the countries to take the measures required to address the sector issues. The sector work carried out by the countries will take into account the political, administrative, and socio-economic feasibility of its recommendations on policy and institutional reforms as much as their efficiency and economic merits. The political and administrative dimensions are often missing in the sector work done by external agencies. It is difficult for the latter to propose something which does not fully satisfy the efficiency and economic criteria or to compromise them in the interest of political expediency. Their findings and recommendations may be sound, but they are often too idealistic to suit the given situations of the countries or too impractical to be implemented in a single stage.

28. While it is important to build a country's capacity to undertake sector work, ensure its effective involvement in the process, and enhance its commitment to and ownership of sector work recommendations, achieving these objectives is difficult for the following reasons.

- ▶ Most developing countries have neither the organization nor the capacity to initiate and undertake sector work. They need external assistance to build their organization and capacity.
- ▶ External support agencies are willing to assist the countries, both technically and financially, to build their capacity to carry out water sector

studies, but they want to make sure that the countries are interested in and committed to capacity-building and will carry out the sector work efficiently and competently. To this end, they would like to review the terms of reference of the study, participate in the procurement of consultants, receive progress reports, and supervise implementation of the study.

- ▶ If the requirements of the external support agencies are similar to the practices currently followed by international development banks and the executive agencies of UN Development Program-financed studies, the problems of commitment and ownership experienced in the past are likely to continue and the capacity-building efforts would not be effective.
- ▶ Capacity-building is a long-term, continuous process. It requires consistent efforts and continuing assistance of external support agencies to build the institutions. It may be difficult for external support agencies to provide continuing assistance and remain involved for a sufficiently long time to sustain the capacity-building results.

29. The program for capacity-building must address the above issues. It should satisfy the need for country initiative, ownership, and responsibility as well as the concerns of external support agencies to ensure that the studies are carried out competently, the objectives of capacity-building are achieved, and the findings of the studies are effectively implemented. Because the proposed strategy is as important to the countries for building their capacity for sector work as it is to the external support agencies for ensuring the effectiveness of their assistance, the initiative for addressing the above issues must rest with the countries. External support agencies can assist but they cannot succeed if the beneficiary countries do not make serious efforts to achieve their objectives.

IV. BUILDING THE CAPACITY OF WATER SECTOR ORGANIZATIONS

30. Most water sector organizations in developing countries, such as the irrigation ministries and departments, the water and sanitary departments of city corporations, and the hydropower departments of power utilities, focus mainly on project work and operation and maintenance and do not pay adequate attention to sector issues. Their charters and manuals do not explicitly require them to carry out comprehensive sector studies as a necessary and essential activity for identifying projects and examining the investment priorities in the sector. They carry out feasibility studies of projects, but these studies generally cover only a cursory review of the sector. Moreover, their approach is more technocratic than strategic, and they focus more on such issues as water availability and demand, cost estimates, and other technical details than on policy, and institutional reforms, the impact of the sector on other sectors, and its contribution to national economy.

31. Most developing countries depend on the sector work carried out by international financing agencies for the knowledge and the analysis of sector issues. However, because countries are interested more in the projects than in the suggestions for policy and institutional reforms, they do not reap the full benefits of these studies.

32. Integrated water resources management requires adequate knowledge of the water sector and subsectors and a careful analysis of their development issues. Developing countries should establish explicit policies that recognize the need for acquiring that knowledge and for building the capacity of the organizations to carry out the required sector work. They should make sector work as mandatory as project work and consider it a prerequisite for identifying projects and examining their priorities. They should also designate the organizations responsible for carrying out sector work and make them accountable for it. External support agencies' assistance for building the capacity of water organizations for sector work will not be effective if the countries do not have the policy and the organizations responsible and accountable for carrying out sector work.

33. Water sector departments dealing with irrigation, water supply, and sanitation, hydropower and other subsectors often do not have the multidisciplinary staff to address sector issues comprehensively. They are also inadequately informed of the problems and development priorities of the other subsectors and their relative contributions to the national economy. While each subsector department should do the sector work concerning its subsector, it would be desirable for an apex organization such as the planning ministry or planning commission to carry out a comprehensive and integrated sector study using the inputs from the subsector departments. Most planning ministries and commissions have multidisciplinary staff. Their independence and distance from subsector departments ensures objectivity and their macroeconomic knowledge enhances the quality of sector work. However, most planning ministries and commissions in developing countries focus more on macroeconomic issues than on sector issues. In many countries the role of these ministries or commissions in economic management is not as strong in many countries as it should be. Strengthening this role and establishing the practice of comprehensive sector work within these organizations will improve the quality and effectiveness of their macroeconomic work and also provide the broad sector perspectives which the subsector departments and ministries are often too inadequately equipped to address.

34. Capacity-building involves developing the organization's sector work culture and enhancing its values of sector work. It is inexorably linked to the process of developing the commitment, responsibility, and ownership of the sector work and its recommendations. Not all managers and staff of an organization will be interested in or have the talent for sector work. There will be some among them, however, who have the potential to contribute productively and lead the sector work effort. Capacity-building for sector work requires identifying such staff, stimulating their interest, and preparing them to become the future managers of sector work.

35. The scope of sector work and the organization to carry out this function would vary according to the needs of the countries. Jordan, Syria, Tunisia, and other countries in the

Middle East and North Africa Region, where the scarcity of water is seriously constraining economic and social development, need effective organizations to carry out the sector work required for comprehensive planning and integrated management of their water resources. Countries such as China, India and Pakistan, with extensive irrigation systems and rapidly increasing urban and industrial demands for water, also need effective organizations for sector work. These countries have large provinces with their own water sector departments and economic planning ministries. They need to develop sector work capacity at the provincial level as well as the capacity for overview of the sector at the national level.

36. In sub-Saharan Africa, the highly seasonal and variable climatic conditions and the paucity of perennial water resources outside the humid zone of the Congo basin present enormous challenges for meeting the domestic and agricultural water demands. All the major rivers in Africa are international and development depends on cooperative arrangements for managing the water resources and carrying out the required water sector studies. Countries such as Lesotho and Laos that have economic interest in supplying water or hydropower to their more developed neighbors also need to address water sector issues to conserve and optimize the benefits from their water resources. However, given the small size of their water organizations, they may have to depend on external assistance rather than create their own capacity for sector work.

37. The dominant use of water in many developing countries is for irrigation which, by its expansion during the last half century, has provided food security and economic growth. However, due to the lack of effective management of the land and water resources, the irrigated areas in many countries are seriously affected by waterlogging, salinity and degradation of the environment. These problems are most serious in the Central Asian countries of Kazakstan, Uzbekistan, and Turkmenistan. Excessive diversion of the Amu and Syr river flows for irrigation has led to rapid desiccation of the Aral Sea and destruction of its ecosystem. Inadequate drainage has caused waterlogging and salinity. Excessive use of fertilizers and pesticides resulted in contamination of the groundwater and has seriously affected the health of millions of people. The Central Asian countries urgently need to build their regional and national organizations to carry out water sector studies and develop regional and national strategies for comprehensive planning and integrated management of their water resources to address these problems.

38. While all countries need to develop the knowledge and address the issues affecting development of their water resources, the scope of sector work, the arrangements for carrying it out, and the need for capacity-building have to be tailor made to meet their specific conditions and requirements.

39. Improving sector knowledge and developing strategies for addressing the sector issues is a continuous process. The experience of existing and ongoing projects in the water sub-sectors with respect to adequacy of their design, implementation, maintenance and operation, financial management, and sustainability of benefits indicates the problems, the areas for study

and the type of sector work required. However, a major sector study is a relatively short-term intensive activity and there may be a considerable lapse of time before the next one is taken up. An effective way to deal with such varying workloads is to hire consultants to provide the expertise and staff support required by the organizations. The planning ministries and commissions responsible for sector work, however, will be continuously involved in this activity because they have to develop the knowledge of other sectors of the economy besides the water sector

V. TECHNICAL ASSISTANCE FOR CAPACITY-BUILDING

40. Developing countries need technical assistance to build their capacity for the sector work required to develop the strategies and investment programs for integrated water resource management. The external support agencies give high priority to this type of assistance. Despite the favorable demand and supply features, technical assistance for capacity-building has not been as successful as technical assistance for project activities such as feasibility studies and project management. This is partly due to the difficulties inherent in developing the values and culture of the institutions for sector work. The prospects for success also suffered because, in many cases, the countries were not ready to receive and use the technical assistance effectively and the external support agencies' procedures for delivering technical assistance also inhibited capacity-building. A great deal of preparation and pre-investment work, including satisfying certain prerequisites for success, are necessary to ensure the effectiveness of technical assistance for capacity-building.

Demand for Technical Assistance

41. Most developing countries do not wish to accept loans for technical assistance, particularly for such purposes as capacity-building; they prefer grant financing. Moreover, after the technical assistance programs are approved, countries do not pay as much attention to their implementation as they do for investment projects, although capacity-building for sector work is important for developing sound projects. While grant financing may be necessary to provide the incentives for capacity-building, it will not be productive if the countries are not adequately prepared and ready to receive and use the technical assistance effectively. The requests for technical assistance, therefore, should be reviewed critically to distinguish between apparent demand and true demand and to make sure that the countries would use it effectively.

Demonstration of Country Commitment

42. To demonstrate its commitment to capacity-building and create the basic conditions for developing the organization's culture and values of sector work, the country seeking technical assistance should take the following actions:

- ▶ Establish explicit policies that recognize the importance of sector work and make it a prerequisite for sound project work
- ▶ Designate the organizations responsible for carrying out sector work and establish the arrangements for monitoring their performance and their accountability for the results
- ▶ Identify the managers and staff in the designated organizations who have the talent and the potential for contributing to and leading the sector work effort, and establish personnel policies that encourage and recognize such talents.

These requirements are necessary to lay the basic foundations for building the capacity and developing the institutional culture for sector work on a sustainable basis.

Factors for Consideration of External Support Agencies

43. The external support agencies should recognize that the success of their assistance also depends on their own performance. Capacity-building requires management through motivation. Procedures are important, but they should take into account the human factors. The external support agencies should focus on the objectives of technical assistance and the measures to achieve them effectively. External support agencies should avoid the general tendency to overemphasize procedures that inhibit motivation. Their assistance should contribute to providing the range of policy and institutional options available to the country to address the sector issues, but they should accept that the decision to pursue a specific option rests with the country. They should not attempt to drive their own agenda of reforms although it is based on the successful experience of developed countries. Rather, they should encourage the countries to develop their own agenda for addressing policy and institutional constraints in a way and at a pace they can sustain in their specific political and administrative environments. The issue of commitment and ownership lies at the core of the countries' motivation and ability to define and successfully build capacity.

44. Two specific issues that have an important effect on a country's motivation, commitment and ownership deserve special consideration. They include the procedures for procuring consultants and the ways of supervising technical assistance. The impact of these issues on the success of capacity-building programs is discussed below.

Procurement of Consultants

45. The external support agencies follow procedures for procuring consultants that ensure quality, efficiency and economy. The procedures require selection of consultants through competition. However, a distinction is made between the competitive bidding for selection of contractors and consultants. In the case of contractors, the contract is awarded to the responsive

bidder who offers the lowest price. In the case of consultants, however, additional factors are taken into account. For example, the procedures give high priority to quality. They also give due weight to the country's preference and allow the country to select consultants of its choice provided the said consultants are competent and satisfy the criteria of quality, efficiency and economy. The procedures recognize the importance of the country's work relationships with the consultants and its successful experience based on their performance on previous jobs. They also allow the country to select consultants on a "sole search" basis provided the above criteria are met. These policies and guidelines are sound.

46. In practice, however, the external support agencies' staff often fail to appreciate the important considerations in the selection of consultants stated above. They tend to follow the standard procedures of short listing four to six consultants from different countries, inviting proposals, evaluating them, giving high marks for quality and also taking into account the price without making it an overriding factor. These standard procedures are alright for project work. However, the requirements of sector work are different because sector work involves strategic planning, policy formulation and sensitive political and institutional issues in addition to technical issues. A country needs assistance from consultants in whom it has confidence, who are aware of its political, administrative and socio-economic constraints, and who have proved useful on previous jobs in assisting the country to address these constraints in a pragmatic way. If the external support agencies insist on the standard procedures as they often do, there is the risk that the selected consultants may be too new to the country to be useful, or they may not enjoy the country's confidence to address the sensitive policy and institutional issues effectively. Developing countries have complained that expatriate consultants and advisors often look to the external support agencies as their employers. They tend to recommend measures that meet these agencies' perceptions of quality and to substitute for the country's will both in determining the policies and recommending the procedures for implementing them. In such cases, the countries neither own the consultants nor are they committed to their recommendations.

47. UN Development Program-financed sector related studies which are executed by international development banks have more problems of this kind than the studies financed by the banks themselves. In the latter case, the country appoints the consultants with the approval of the banks while in the former case, the banks appoint the consultants with the concurrence of the country. In theory the difference in the two cases may not be significant because the final decision is agreed upon by both parties. In practice, however, the perceptions of both the consultants and the country on the question of who is the employer are different in the two cases.

48. The procedures for selection of consultants for capacity-building assistance should give due weight to the choice of the country based on its successful working relations with the consultants and their performance on previous jobs. The country should be allowed to select consultants on a "sole search" basis in such cases provided the external support agencies are satisfied that the said consultants are competent and can provide the required quality of services.

These special procedures, which are allowed under most external support agencies' guidelines, are particularly important for capacity-building assistance.

Supervision of Technical Assistance

49. International development banks have elaborate procedures for reviewing the sector reports prepared by their staff at various stages of their preparation. The methodologies used for analysis of sector issues and the recommended policy and institutional reforms are reviewed by managers at various levels. These reviews ensure the quality of sector work. However, because the involvement of the countries in the sector work is minimal, their commitment to the results of the sector work is not ensured.

50. Sector-related studies included as components of investment projects financed by international development banks are usually carried out by consultants. The banks are expected to supervise these studies in the same way as they do for the studies carried out directly by them. In practice, however, these studies are not adequately supervised because the banks rely on the consultants to ensure quality. This is also the case for the UNDP-financed studies executed by the international development banks. In both cases, the quality of analysis and the soundness of the recommendations depend on the competence of consultants and their commitment to quality. However, the budgets and time schedules for such studies are often very tight and the consultants have little option but to complete the report as fast as they could according to the resources allocated and the time schedules prescribed in their contracts. The lack of adequate involvement of the country in these studies also affects their usefulness.

51. The normal procedures followed by the international development banks to supervise the sector studies carried out by their staff and consultants is not appropriate for supervising the sector work carried out by a country. The problems inherent in these procedures should be avoided in supervising the technical assistance for sector work to be carried out by the countries. Giving the countries a great deal of flexibility in selecting consultants in whom they have confidence will strengthen their sense of responsibility, their interest in getting involved and their supervision to ensure the quality of the study. Because the countries will be responsible for quality of the study and the usefulness of its recommendations, their commitment and ownership is ensured. The external support agencies should supervise the technical assistance for the study in a way that encourages these initiatives and supports the countries' own efforts to ensure the quality of analysis and their search for options to address the sector issues. They bank staff should not be seen as imposing solutions of their own. Rather, they should encourage the countries to develop solutions that are practical and sustainable in their specific political, administrative and socio-economic environment. The solutions developed in the first instance may not be ideal. The progress should be measured by the extent of the countries' involvement, the increase in their awareness of the sector's constraints, their appreciation of the need to address them, and the steps they have taken to march forward. The sector work in these cases should be viewed both as a training and capacity-building effort and an opportunity for the country to acquire the sector knowledge and examine the sector issues objectively and

independently with the help of user-friendly technical experts procured under the technical assistance.

52. The external support agencies should give due consideration to the factors discussed above in procuring consultants and supervising technical assistance. The objectives of building developing countries' capacity for carrying out sector work, formulating strategies and ensuring their commitment to the results should not be sacrificed by following procedures that are not conducive to achieving these objectives.

Benefits to the External Support Agencies

53. Building the capacity of developing countries to carry out sector work also helps to improve the quality of sector work carried by the external support agencies for developing their country assistance strategies and lending programs. For example, in the case of the sector work carried out by international development banks, the bank staff identify the sector issues, analyze the options to address them, outline the investment priorities, and recommend the policy and institutional reforms needed to improve the efficiency and productivity of the sector. The involvement of the countries in these studies is minimal. However, if the countries develop their capacity to carry out their sector work systematically and formulate the investment priorities and the policy and institutional reforms appropriate to their specific situations, the bank staff will benefit from the countries' perceptions and analysis of the issues and options, and will be able to carry out a meaningful and productive dialogue with the countries. The bank staff may differ with the countries' investment priorities. They may also find that the proposed policy and institutional reforms are not adequate to address the sector's constraints. Bank staff, however, will know how far the countries are willing and able to make policy and institutional changes on their own. This knowledge will help the bank staff to explore strategies to persuade the countries to do better. Further, they will be able to assess the feasibility of the options they propose to recommend for their management's consideration. The countries' sector work, therefore, complements the banks' sector work. It will also help the countries to understand better the rationale of the banks' recommendations on policy and institutional reforms.

VI. PROGRAM FRAMEWORK AND ORGANIZATION

54. The earlier chapters indicate that both the developing countries and the external support agencies recognize the need for integrated water resources management for sustainable development. They also agree on the measures required to address this need and the urgency of initiating those measures. An effective strategy to achieve these objectives requires that developing countries should build their capacity to carry out the water sector work necessary to provide the knowledge of the sector issues and the options to address them. Preliminary investigations carried out for this report indicate strong interest on the part of developing countries to build their capacity for sector work. The external support agencies have also indicated their willingness to give priority to technical assistance for this purpose.

55. This chapter presents the proposed program framework and organizational arrangements for providing technical assistance to developing countries to build their capacity for water sector work. Further, it suggests that the proposed program framework and the organizational arrangements for its implementation be discussed by representatives of external support agencies and selected developing countries at an international workshop to develop consensus on various aspects of the proposal.

Program Objectives

56. The primary objective of the proposed program is to assist developing countries to build their capacity for carrying out the water sector work so that they are able to develop the knowledge, analyze the issues, and formulate the policies and programs for integrated management of their water resources. The program is designed to reinforce the countries' commitment to and ownership of the sector work findings and recommendations. Introducing political and administrative constraints in the analysis of sector issues, in addition to economic and efficiency factors, will lead to pragmatic solutions which can be sustained in the political, administrative and socio-economic environment of the countries.

57. The program will also complement the sector work carried out by external support agencies for formulating their country assistance strategies and lending programs. Their dialogue with the countries on policy and institutional reforms will be more effective and meaningful. The program will serve as the first step of a larger capacity-building effort to cover other economic sectors at a later stage.

Program Size

58. Capacity-building for water sector work represents a new initiative. It involves developing the values and sector work culture in the countries to explore appropriate strategies for integrated water resources management. The design of the program, the modalities of assistance, and the arrangements for implementation and supervision have to be innovated and tested to demonstrate their efficiency, cost-effectiveness, and usefulness in achieving the objectives. The proposed program, therefore, should be considered experimental and should be designed as a pilot program for an initial period of three years. The program should cover ten technical assistance operations during the pilot phase. This number is large enough to test the program design and implementation arrangements and demonstrate the program's effectiveness under various country conditions. It is also not too large for the experimental and pilot phase. This approach would permit expansion of the program after the first three years if the experience of the pilot phase demonstrated its usefulness and the developing countries' demand for technical assistance continues to remain strong.

Eligibility Criteria for Assistance

59. It would be useful to include in the three-year phase a group of countries that represent various characteristics in terms of size, severity of water resources management problems, levels of economic development, and geographical coverage. However, the overriding criteria for eligibility for assistance should be:

- ▶ The country's need for integrated water resources management to ensure efficient, economic and environmentally sustainable development for meeting the demands of all sectors
- ▶ The urgency of addressing this need
- ▶ The readiness of the country to receive the assistance and to use it effectively
- ▶ The prospect of making substantial progress in achieving the program objectives to justify the assistance.

60. Some important requirements for meeting the above eligibility criteria are outlined below.

- ▶ Water resources are an important sector of the country's economy.
- ▶ The country is facing difficult challenges in managing diminishing supplies for ever-increasing demands, in protecting valuable watersheds from urban and agricultural pollution, and in building and maintaining critical infrastructure with limited financial resources.
- ▶ It will be more difficult for the country to address its water resources development problems in the future if adequate measures are not taken now to protect and conserve the water resources.
- ▶ Despite significant water sector studies carried out by international development banks in the past, the country has not been able to implement their recommendations for policy and institutional reforms to address the sector's constraints.
- ▶ The awareness of the water sector's constraints at all levels in the country, and the appreciation of the consequences if the constraints are not adequately addressed, are important to provide the incentives and enhance the country's commitment to take the required measures, and that these objectives could be achieved if the country builds its capacity to carry out

the water sector work, analyzes the sector's constraints and develops the solutions to address them.

- ▶ The country has demonstrated its readiness to receive technical assistance for capacity-building and to use it effectively by taking such measures as establishing explicit policies that recognize the importance of sector work, requiring sector work as a prerequisite for sound project work, designating the organizations responsible for carrying out the sector work, identifying the managers and staff who have the talent and the potential for doing the sector work, and establishing personnel policies that encourage and recognize such talent.

61. These eligibility requirements may appear too demanding. However, it is important to stress that the objective of the programs is not to provide technical assistance to produce sector reports. The main objectives are to build the country's capacity to analyze and address the sector issues, to ensure its ownership of the sector work findings and recommendations, and to enhance its commitment to implement them. These goals will not be met adequately if the country's demand for assistance is not serious and the country is not ready to receive assistance and use it effectively.

Organizational Framework

62. The external support agencies' organization for providing technical assistance should be designed to achieve the program objectives effectively. Its procedures, particularly for procurement of consultants and supervision of program implementation, should underline the country's responsibility for conducting sector work, promote its ownership of the study's recommendations, and enhance its commitment to implement them. The organization should be able to respond effectively to changes in the technical assistance needs and functions over the years. It should measure its success not by the number of technical assistance operations, but by the number of countries that developed their capacity for sector work and introduced the required policy and institutional reforms to address the sector's constraints. The organization during the pilot phase should be small, but it should be of adequate size to achieve the program objectives effectively.

Proposed Secretariat

63. Following the success of the organizational arrangements established for similar initiatives by the external support agencies, it is proposed that the program be served by a secretariat. The basic function of the secretariat would be to implement the proposed program for building the capacity of developing countries for carrying out the water sector work. Depending on the available resources, the secretariat's activities could include:

- ▶ Increasing the countries' awareness of the availability of technical assistance and the criteria for eligibility
- ▶ Processing the requests for assistance and evaluating the seriousness of the demand and the readiness of the countries to receive assistance and use it effectively
- ▶ Assisting countries, if asked, in taking the measures required to meet the eligibility criteria
- ▶ Managing procurement of consultants and supervision of program implementations in ways that encourage the countries' initiative, responsibility, ownership and commitment
- ▶ Fostering collaboration with international institutions and development banks such as IIMI, UNDP, IWRA, ICID, FAO, IFPRI, IBRD and ADB which are involved in water management and water sector studies in developing countries
- ▶ Analyzing successful examples of water sector work carried out by international institutions and development banks to identify the factors which contributed to success and their replicability, and using this information to improve the design and implementation arrangements of the proposed capacity-building program.

64. The secretariat will be helped and supervised in carrying out the proposed program through the following mechanisms:

- ▶ **Advisory Council.** The council of multidisciplinary technical, policy, and institutional experts would guide the work program of the secretariat. It would advise on the strategies to design, organize and implement the program, and review the institutional and thematic activities pursued by the secretariat.
- ▶ **Support Group of Donors.** The support group would assess the financing needs of the program and mobilize necessary resources. It would review and approve the overall work program and budget of the secretariat. A steering committee of participating donors would be more actively involved in the functioning of the secretariat so that the program performance is consistent with the objectives of the pilot phase.
- ▶ **Task Forces.** The task forces would be organized as necessary to assist the secretariat in formulating specific objectives, strategies and criteria for

selection of countries for capacity-building and for carrying out the thematic activities.

Personnel Requirements

65. It is proposed that the secretariat be headed by an executive secretary who would be assisted by two full-time professional staff for planning and implementing the proposed program. A list of the required expertise and specializations will be identified and updated from time to time to serve as task managers to assist the secretariat in its activities and to provide such assistance to the participating countries as they may require. The secretariat would also include one full-time support staff for providing secretarial and administrative services for the program. There may be other personnel needs which are not easy to define precisely at this time. An appropriate contingency provision would be included in the budget to meet such unforeseen needs.

Funding Requirements

66. The funding requirements of the three-year pilot phase program are based on the following assumptions:

- ▶ The participating countries will finance the local currency costs of the programs.
- ▶ The salaries of the two full-time professional staff required to assist the executive secretary in planning and implementing the proposed programs will be provided in cash or kind by the home countries of these staff. Their travel costs however, will be covered from the secretariat's budget.
- ▶ The cost of the consultants required to assist the countries in carrying out the sector work and formulating the strategies for integrated water resource management will be covered by the home countries of the consultants.
- ▶ Each technical operation will require, on average, about one year to complete and the three-year pilot phase program will include about ten operations.

67. Based on the above assumptions, the total cost of the program during the three-year pilot phase would amount to approximately US\$ 3 million. This figure includes the funds required for about 10 technical assistance operations, the cost of the proposed secretariat,

including secretarial services and office space, the cost of specialist consultants (task managers), and the travel budget for the staff and consultants during the three-year period of the pilot phase.

First-Year Activities

68. Assuming that there is strong consensus at the proposed international workshop to initiate the program broadly on the lines outlined in this paper and that external support agencies are willing to commit the required funds, the following actions are necessary to launch the program in the first year:

- ▶ Setting up and finalizing the various organizational arrangements outlined in this paper and establishing the necessary support and accountability for the secretariat's function.
- ▶ Recruiting the executive secretary and the secretariat staff and setting up the office.
- ▶ Identifying the task managers and preparing a list taking into account their availability and the acceptability of their terms.
- ▶ Preparing an information brochure to increase the countries' awareness of the availability of technical assistance for capacity-building and the criteria for eligibility.
- ▶ Processing requests for assistance and setting the program in motion.
- ▶ Exploring collaboration with international institutions involved in water management and water sector studies.
- ▶ Initiating action for identifying successful examples of water sector work carried out by international agencies in the past and analyzing the lesson to be learned.

69. As soon as possible thereafter, the program for the first year would be extended into other activities in line with the overall objectives of the proposed initiative.