Global Water Partnership (GWP)
Technical Advisory Committee (TAC)
Regional Meeting on Water Resources Management in the ASEAN Countries

Hosted by the Asian Development Bank
10-11 June 1997

DISCUSSION PAPER

A WATER PARTNERSHIP FOR ASIA? MAKING A START IN THE ASEAN SUBREGION

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Introduction

1. This paper is offered as a contribution to discussion at the meeting of the Global Water Partnership (Technical Advisory Committee), at the Asian Development Bank in Manila, on 8-12 June 1997. The regional meeting on 10-11 June will focus on the ASEAN countries, and also will refer to the experience and role of External Support Agencies[2] (ESAs) in the region. An important topic to be reviewed is the opportunity and need to establish a regional arm of the Global Water Partnership in Asia, or a water partnership for Asia.[3]

2. The concept of the Global Water Partnership is still evolving. It has been stated[4] to be "a network of partners sharing the same perceptions, values and objectives". Its objectives are directed towards achieving integrated water resources management. Regional GWP members are expected to take the lead in carrying out GWP activities, because they are most aware of the issues and are best suited to identify and implement solutions. Indeed, regional groupings may eventually "take over" from the central GWP, as they pursue their own regional water development agendas.

3. In this paper, we discuss the impetus for partnership, the concept, benefits and costs, impediments and incentives, and opportunities for ESAs to promote partnership. We also consider the present activity of ESAs in the region, and a specific opportunity, that of cofinancing. Finally, the paper explores ways in which a water partnership for Asia might be established, and its relationship with the GWP.

4. The matters discussed in this paper could be considered at several scales, ranging from that of the ASEAN group alone, up to the entire Asia-Pacific region, in which the Asian Development Bank plays an important role. Whatever scale is chosen, perhaps the focal point of any discussion of partnership should be the countries themselves, and the needs of their citizens. This suggestion might provide the first point for discussion.

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[1] This paper was prepared by Professor Paul Mosley. It draws heavily on interviews with a large number of staff in the Asian Development Bank, whose assistance is gratefully acknowledged. A glossary of acronyms is provided at the end of the paper.

[2] External Support Agencies include multilateral and bilateral donor and lending agencies, whose mission is to provide development assistance to emerging nations.

[3] The companion discussion paper, *Key issues and strategies on integrated water resources management in the ASEAN Subregion*, addresses the specific actions which might be taken to improve water management in the region.

[4] Global Water Partnership, March 1997. *Building a network for sustainable water management.*

The Impetus for Partnership

5. The essence of a partnership is collaboration and communication, to achieve common or complementary goals. We would probably all agree that collaboration in the water sector in Asia is "a good thing". The impetus for increased collaboration - for the creation of effective partnerships - seems to be particularly powerful at present. There are many reasons for this (Box 1).

Box 1. The Impetus for Partnership

- *Growing competition for water among users.* This requires that water resources management and investment achieve new levels of sophistication and effectiveness.
- *The complex range of issues* associated with managing water resources in river basins and/or aquifers which are shared by two or more states or countries.
- *The need to coordinate and balance investments* to (a) address presently unmet needs, for example for access to even basic water supply and sanitation systems; (b) sustain the water resource and maintain existing infrastructure; and (c) respond to rising expectations and minimum acceptable standards for service provision.
- *The complexity of the water sector.* Effective collaboration is essential among multiple stakeholders with a variety of perspectives and goals, and often with primary interests in associated sectors, which regard water as a raw material, such as agriculture and public health.
- *External pressures on ESAs*, particularly the large multilateral lending and donor agencies, to change their management and operating styles to reflect trends in the private sector.
- *The growing importance of private sector sources of development finance*, which requires that international and governmental ESAs re-evaluate their roles.
- *The potential for enhanced collaboration* that is provided by new technology, particularly information technology and communications.
- Acceptance that *the participatory and consultative approach* to water management that is now conventionally advocated can, and should, be applied comprehensively by ESAs and governments to their own activities.
- The recognition that *meeting the needs of countries in a cost-effective manner* requires collaboration. Mobilising new resources is difficult, and existing resources must be used to the greatest possible effect.

6. An effective partnership must address these pressures, and others. We are not starting with a blank sheet of paper. There is already collaboration and communication in many ways and among many players, although perhaps they are less pervasive than needed. In developing an effective approach to a water partnership for Asia, we need to identify the pressures that are encouraging it, its benefits and costs, and the mechanisms that we might use to implement it.

7. In considering mechanisms for partnership, it is useful to recall the type of assets which might be exchanged or shared (Box 2). Water comes most quickly to mind, particularly in the context of inter-state or international river basins and aquifers. Flows of money, to enable investment in the sector, also are of great relevance to the present discussion. Data, information, and knowledge - intellectual property in all its forms - are key assets, which might be exchanged and shared among countries in the region. For example, Malaysian practice in water law, Indonesian experience in river basin management, or Singapore's expertise in water conservation and demand management are all assets which might provide benefits to other counties. By pinpointing the needs for and the sources of such assets, it might be possible to identify practical opportunities for partnership.

Box 2. Regional assets: opportunities for partnership?

- Water
- Money
- Meteorological, hydrological and natural resources databases
- Information
- Ideas, Experience, Knowledge
- Principles, Protocols, Procedures, Practices
- Skilled people

The Concept of Partnership

8. There is an obvious need to define very carefully the membership of an effective Global Water Partnership, or a regional equivalent in Asia or ASEAN. There are many stakeholders in the water sector, each with a role to play, and an effective partnership should link:

- Members of the community - the beneficiaries or users.
- Non-Governmental Organizations (NGOs, both national and international), and Community-Based Organizations (CBOs) such as farmers' organizations.
- Decision-makers - both elected representatives and appointed officials - at national, state, and local government levels.

- National agencies involved in water sector operations and management, including project implementing agencies etc, and those in related sectors, such as agriculture.
- Governments of countries in the region, particularly those which share river basins and/or aquifers with others.
- ESAs, including bilateral and multilateral agencies, donors and lenders.
- Professional and scientific organizations.
- Private sector investors, and service providers (*e.g.* construction firms, consultants).

9. An essential basis for effective water sector investment and partnership is a comprehensive strategic framework, at the national or federal level, for development in the sector. The water sector has complex linkages with many other aspects of a nation's economy, society, and the environment. Hence, a strategy may be required that goes well beyond water alone. It may need to take account of public health needs, food production and distribution, energy demands, and so forth. Such a comprehensive strategy should be based on a careful analysis of the sector and its links with other parts of the economy. This analysis would provide the context within which the government can set its priorities, and ESAs can identify how they might make their greatest contribution. The strategy may require investment funds and other resources beyond those which can be supplied by one or even several ESAs. Water sector strategies are likely to call increasingly upon private sector sources, as well as the beneficiaries themselves, through appropriate user charges.

10. Hence, partnership is needed, or has potential, at a number of levels (Box 3). It must meet the needs of all participants - governments, national and international agencies, and people - if it is to succeed. The over-arching goal of development assistance in the water sector, with which all participants are likely to agree, is to enable countries to provide for their populations' needs in all aspects of water management - public health and security, food and energy production, a sustainable biophysical environment, and so forth. In practice, efforts to develop effective partnerships are likely to focus on governments, because it is their responsibility to consider the needs of the community, and select a portfolio of investments that will best meet those needs. Several countries in Asia and the Pacific already are very successful in these areas, such as Malaysia, Singapore, and the Republic of Korea. Others still have much to achieve, such as the emerging countries of Cambodia, Laos, and several island states of the Southwest Pacific[5]. The majority of countries in Asia and the Pacific are in intermediate positions. They are making progress, but are hindered by a shortage of resources and rapidly expanding populations. A water partnership for Asia might, sensibly, focus on those countries with the greatest needs, or perhaps consider how those, which already have attained a high level of capability, can assist those which have not.

[5] Many countries in Asia and the Pacific are island nations. Although they may not share river basins or even boundaries with others, and have no particular need for exchange of water-related information, there are many other ways in which collaboration and communication can be beneficial.

Box 3. The Needs for Partnership

- Between the government, the community and NGOs/CBOs - the "grassroots".
- Between government agencies in the water sector and water-related sectors. Partnership across several levels of government, national/federal, provincial/state, and local, is likely to be needed. Professional organizations should also be included.
- Between countries in a region, particularly where they share a common water resource or where solutions developed in one might be readily transferred elsewhere.
- Between a government and ESAs which are providing investment funds and other assistance.
- Between the ESAs which are active in a particular country or group of countries.
- Between one or more ESAs and sources of investment funding in the private sector, nationally or internationally.

11. ESAs have their own pressures and goals, in addition to the primary one of providing development assistance. They have stakeholders in addition to the countries with which they work. These include governments and taxpayers in the case of national ODA agencies, individual donors in the case of charitable NGOs such as *Water for Survival*, or developed member countries in the case of multilateral agencies like ADB. Some ESAs may need to seek visibility and independence for their activities, to demonstrate to their stakeholders that they are achieving results and deserve continued resourcing. Others are able to play a relatively low key role, because their performance is evaluated in ways that are less reliant on project visibility. These differences may create positive opportunities for collaboration; they must certainly be taken into account in seeking to establish partnerships.

12. There are also many opportunities for partnership within the different groups of stakeholders. It has often been recognised, for instance, that national agencies, which have responsibilities in particular parts of the water sector, do not always collaborate. They may even compete with each other. It is important to facilitate collaboration and networking where the constraints on cost-effective water sector investment have been greatest in the past.

13. Participation of the community in the management of water resources and water sector investments is, perhaps, the most basic element of partnership in the sector. It has come to be regarded as essential for ensuring the long-term sustainability of investments. Development specialists declare that beneficiaries should participate in the conception, design and implementation of a water sector project, and subsequently in its management and operation. In so doing, they will develop a sense of ownership, a commitment to looking after the investment, and a willingness to contribute an appropriate share of the costs of operation and maintenance. An emphasis on beneficiary participation accepts a need for effective

partnership between the end-users, the implementing agency, the planning and design experts, and the decision-makers and investors. It recognises that projects which have been planned and implemented in a top-down fashion, with inadequate consultation with the intended customers, often have not been wholly successful.

Partnership: Benefits and Costs, Impediments and Incentives

14. A fully effective water partnership for Asia could be beneficial in a variety of ways (Box 4). Each will be achieved only as a result of a specific strategy and effort to do so.

15. Examples of effective collaboration among ESAs and their host countries can readily be cited. So too can examples where a lack of coordination has introduced problems, and has compromised project outcomes. There is a surprisingly small number of projects in which collaboration among ESAs is a significant feature of the project, and a far greater proportion of projects which are wholly independent. It appears that many ESAs select countries, sectoral areas of activity, or projects in which they are involved, to avoid impinging on the activities of other agencies. This presumably reduces the risk of overlap or duplication, and minimises the need for and cost of regular coordination. Nevertheless, periodic communication is necessary to ensure that each agency is informed of the activities of the others.

Box 4. Benefits of Partnership

- Enhanced *transfer of knowledge, experience, and information* on all aspects of water resources management - policy, law, project management procedures, etc. There are many specific examples of knowledge and skills in one country from which others could benefit, for example water law in Malaysia or river basin management in Indonesia.
- Unhindered *exchange of data and information* about water resources. This is particularly important among agencies within a given country, and between countries which have similar hydrologic regimes or which share river basins and aquifers.
- Exploitation of *complementary resources and capabilities*, for instance by linking a technical assistance grant for institutional development by a bilateral ESA to a loan for infrastructural investment by a multilateral ESA.
- More effective *targeting of investment funds* onto the areas of greatest need, and avoidance of fragmented efforts, duplication or excessive overlap.
- Greater *flows of investment funds*, by demonstrating the opportunities for and benefits of investment by the private sector, enhancing the ability of countries to recover costs from beneficiaries and thereby mobilize local resources, and reducing dissipation of resources through inefficiency and wastage.

16. It may be that in general the development needs in Asia and the Pacific are so great that there is "room for all", and the risk of duplication is small. However, some countries such as Laos may have limited capacity to absorb development assistance. Here, a strategy of avoidance by ESAs may not be effective, and more deliberate coordination may be required. More seriously, perhaps, a strategy of avoidance also limits the potential leverage and other benefits to be obtained from collaboration among organizations which have complementary capabilities and resources.

Box 5. Impediments to Partnership

- Practical hindrances, such as agencies and countries having different governing bodies, financial years, investment planning cycles, administrative procedures, project timetables, and arrangements for missions by ESA staff. It is often easier for ESA staff simply to proceed independently with project identification and planning. Administrative staff in a country who are confronted by ESAs with different policies and procedures do not have that opportunity, but must deal with the difficulties.
- The difficulty for ESA staff in building up familiarity with and understanding of the countries with which they work, because of job rotation or career advancement. A similar difficulty often arises in national water sector agencies, when capable staff are quickly promoted or move to agencies in other sectors.
- The short-term nature of some decision-making, particularly in the political arena, which hinders the development of sustained, long-term partnerships.
- A fear that collaboration may reduce control over a particular investment or project, increase the risk of failure, or reduce the prestige and credit gained from a successful project.
- A lack of positive incentive and reward for people to communicate and collaborate.

17. There are many other impediments at various levels to communication and collaboration. These must first be acknowledged, and then removed (Box 5). Ultimately, the amount of communication and collaboration in the water sector depends on the incentives that individual people have. However great the supposed benefits of collaboration to a country, ESA or other organization, individual people have the final decision over their own actions, whether they are elected representatives, salaried officials, or volunteers. If collaboration provides personal benefit in terms of remuneration, career advancement, professional pride, prestige, re-election chances, or other relevant considerations, an individual is more likely to promote it. The incentives must be greater than the disincentives already referred to, such as increased workload, reduced control, and increased risk of failure. This focuses attention very much onto the incentives and rewards that government agencies and ESAs provide for their staff, and the messages that they themselves send about the importance of effective partnerships.

Current ESA Involvement and Emphasis in the Water Sector

18. A survey has been carried out in recent months to determine the current level of activity of ESAs in Asia, and to invite views on priorities and possible initiatives that ESAs might take. Fourteen responses have been received, a 40% response rate. Only half of the responses provided complete information, and it is difficult to draw any conclusions from the data. They may be indicative of donors' willingness to cooperate, and it is perhaps reasonable to comment that even the very first step in partnership, simply exchanging and compiling information, has not been easy to take.

19. The ESAs which responded to the survey were in 1997 jointly financing projects with a total value of well over US$1 billion (many are multi-year projects, so this is not annual investment). A few were cofinanced projects, but in general the various ESAs tend to specialise in particular countries and in particular subsectors (Appendix 1). For example, AusAID has a particular interest in Indonesia, Philippines, and Viet Nam and in water supply, sanitation, and environmental health. Some ESAs are working cooperatively; Finland, Switzerland and Sweden all reported that they support the Mekong River Commission in various ways, for example. In addition to the ESAs which responded to the survey, the Asian Development Bank itself has a large investment program in the water sector (Appendix 2). The Bank's list of ongoing water sector projects[6] has a total (multi-year) value of US$5.77 billion. Loans for 19 projects were approved in 1996, with a total value of $1.31 billion (23% of total Bank lending).

20. ADB projects are located throughout Asia and the Pacific, and in all areas of the water sector. In the project listings of other ESAs, there was a preponderance of water supply and sanitation investments, but also a diverse range of other - frequently small scale - projects, for various types of hydrological data collection or support of capacity building, for example (see Appendix 2).

21. Only a few ESAs made any comments regarding their priorities in the water sector (Appendix 3). They were generally quite diverse, but three ESAs did mention collaboration in international river basins, and in particular in the Mekong River basin. JICA commented that its priorities are set in consultation with recipient governments and by budgetary constraints, a position with which most ESAs would probably agree. SIDA and FAO both emphasised the need for policy review and development as a basis for sustainable investments. The ADB's evolving priorities, identified in its regional water policy consultation proceedings, are consistent with these, and also with the goals of the GWP:

- Provide integrated packages of policy support, capacity building, and investment services to the water sector ...
- Catalyze water sector investment in the region, and promote policy change, capacity development, and greater public and private sector investment ...

[6] Asian Development Bank, 1997, *Water sector progress report 1996*. Water Sector Support Desk, OESD.

- Promote regional water sector cooperation, by supporting comparative analysis, research, and exchange of experience on priority regional water issues; representing regional water concerns at global fora; and supporting the coordinated management of water ...

22. Similarly, suggestions for ESA initiatives to strengthen water sector operations were varied, but rather limited in number. The opportunities for policy development were the only area mentioned by several ESAs (Appendix 3).

Promoting Partnership: Opportunities for External Support Agencies

23. A wide range of actions may be suggested for promoting communication and collaboration among ESAs. Experience shows, however, that a country focus is vital.

24. **Develop common policies for the water sector.** The greatest impact in a country seems to be possible when there is consensus among ESAs, and the country itself, on water sector policies and priorities. Common approaches are needed to common issues, such as how best to sustain operation and maintenance of an irrigation scheme. This will minimise inequity and the risk of eventual project failure.

25. Often, coordination among ESAs seems to be most effective during crises, such as large-scale floods, where the needs are urgent and obvious. Similarly, a common purpose during non-crisis conditions should have significant benefits.

26. **Help develop a national water sector strategy.** A sector strategy for the country is a desirable prerequisite for establishing priorities, assembling a portfolio of investments, and developing an effective combination of ESAs and other sources of assistance which capitalises on relative strengths and interests. It should be based on an authoritative sector review. The strategic framework and action plan for comprehensive water resources management in Sri Lanka is a recent example of such an approach. An essential element of a national strategy is achieving collaboration among national/federal, and also provincial/state, agencies involved in the water sector. ESAs may be able to play an effective catalytic role here.

27. It is particularly important to have communication among ESAs, national agencies and the community of users at an early stage in strategic planning and project design. Early communication provides opportunity for changes without incurring considerable costs, embarrassment, and delay.

28. **Focus on outcomes.** A shared intention to achieve tangible results - successfully completed, operational, and sustainable projects which are providing community benefits - helps to ensure that investments are successful. Each stakeholder in the sector has its own objectives, which are potentially conflicting with those of others. Agreement on the basic purpose of investment in the water sector should help to avoid inconsistent objectives and

actions. It should also de-emphasize the importance of inputs to the process, such as amounts of capital attracted into the recipient country, or the percentage of a donor country's GNP allocated to overseas development assistance. The choice of appropriate measures of success is essential, to ensure that resources are allocated and administered with maximum impact.

29. **Seek opportunities for cofinancing.** Cofinancing is an arrangement in which two or more donors/lenders jointly provide funds for a given project. It offers a vehicle for maximising the value of an investment package, and mobilising additional resources. Its benefits are realized particularly through enhanced efficiency and effectiveness, rather than added investment. Cofinancing is sufficiently significant that it is dealt with separately in the next section, below.

30. **Catalyze private sector participation.** There are a number of ways in which ESAs can encourage and assist private sector investment. At the most basic level, policy dialogue with developing countries has helped to improve their policy climate in favor of private initiatives. More specific examples include the provision of guarantee financing, assistance in preparing the legal framework for Build-Operate-Own or Build-Operate-Transfer projects, and the provision of advice on optimal financing arrangements.

31. **Establish mechanisms for coordination between ESAs at country level.** A sound basis for coordination among ESAs appears to be consultation at the country level, through mechanisms such as "water sector consultative groups". It is important that such groups link not just ESAs, but also national governmental agencies, NGOs, and professional groups. A lack of coordination among ESAs can sometimes be traced to a lack of interest in coordination on the part of the host country. Mechanisms for coordination at country level can:

- ensure that the country's needs are understood, and clarify priorities in the water sector and related sectors;
- promote collaboration among the country's own agencies;
- define the outcomes of investment which will meet the requirements of all interests;
- develop in-country ownership of projects and other initiatives;
- allocate leadership and other roles, and avoid fragmentation;
- assist staff of ESAs to maintain originality and innovation in their thinking;
- identify gaps, and seek to draw in the resources - funds, expertise, etc - needed to fill them;
- monitor progress and resolve difficulties;
- exchange information including ESA progress reports on the water sector.[7]

[7] Asian Development Bank, 1997, *Water sector progress report 1996*. Water Sector Support Desk, OESD.

32. Coordination among ESAs tends to be most successful when it includes a strong "bottom-up" element, by mission leaders, staff of a resident office, or project staff. Informal communication and coordination often proves to be very effective, but for this (and any other) mechanism to work, there must be interest, opportunity and time. A view which seems to have some support is that "if we don't work together at the field level, the project won't work." Such an approach can be more widely adopted by staff if an ESA has a formal policy which encourages or requires collaboration. Of course, communication among ESAs at more senior levels is indispensable, to provide overall vision and leadership. Nevertheless, it is unlikely to be sufficiently frequent or detailed to address all the issues. Many people dismiss consultative mechanisms as "talkshops", but no partnership can function for long without effective communication. Email introduces tremendous potential for frequent and precise communication at much reduced cost, but it has disadvantages, such as being more impersonal (and still surprisingly time-consuming).

33. A particular area that may need attention is communication in circumstances where individual agencies from donor countries interact directly with their counterparts in the host country, rather than through central agencies in the two countries. It is desirable to ensure that other organizations working in the country are aware of such arrangements, to avoid problems and achieve complementarity.

34. **Ensure communication and coordination within ESAs.** The large multilateral and bilateral ESAs have requirements for internal communication on and evaluation of projects, and have systematic procedures to ensure that it happens. Pressure of work and the sheer number of projects may prevent perfect performance, but information technology increasingly helps staff to maintain awareness of relevant initiatives and developments.

35. A particular difficulty in achieving coordination among water-related projects in ESAs is that they are normally administered through several program offices. These might include agriculture (for irrigation), energy (for hydroelectric schemes), urban infrastructure (for sanitation), and so forth. ESAs also tend to focus on projects rather than comprehensive programs. This is because they normally respond to requests from their developing member countries for investment, in projects which may not be conceived in the context of a country strategy for the water sector. The need for a country strategy for the water sector, noted above, is matched by a similar need in ESAs for a strategy for the sector, perhaps at both regional level and for individual countries. This would place water-related projects in a broader context. It also would help to identify complementarities, issues and trends that might otherwise be overlooked.

36. **Empower the executing agency.** For complex projects, the effectiveness of the national project executing agency is critically important for ensuring that ESAs work together, or at least complement each other. In the Brantas River basin of Indonesia, for instance, ESAs have been effectively coordinated by a strong project office over a sustained period, with significant benefits to the project. On the other hand, there are examples of river basin projects where the executing agency was unable to coordinate activities supported by different

investors, so that activities in one part of the basin had a negative impact on investments in other parts.

37. **Give incentives and appropriate rewards to staff.** Incorporation into staff performance appraisal of behaviors associated with effective partnership will send a clear signal that these behaviours are recognized and rewarded. Such behaviors include awareness of other ESAs' programs, regular communication with other stakeholders in the country and the sector, and involvement in collaborative missions or projects. If they are recognized, staff increasingly will adopt them. It is essential, however, that the desired behaviours are rewarded, and certainly not penalised. Staff who are exhorted to seek collaborative projects with other ESAs, but are allocated no extra time or resources to carry out the necessary activities, are unlikely to perceive that collaboration is truly valued.

38. In summary, the opportunities for ESAs to increase collaboration are manifold. They extend from working with countries to develop water sector strategies within which an ESA can place its own investment plans, through to refining procedures for employee performance appraisal, thereby ensuring that the desired staff behaviour is encouraged and rewarded.

Opportunities for Cofinancing

39. A key desire of the Global Water Partnership is to mobilise resources for investment which would not otherwise have been available to the water sector. A possible means whereby this might be achieved is through cofinancing, in which resources are provided by two or more ESAs or private sector sources of investment funding. There are a number of mechanisms for cofinancing (Box 6).

Box 6. Mechanisms for cofinancing

- *Joint financing.* Both cofinanciers disburse funds independently to the executing agency, but all procurement is carried out according to the guidelines of the lead cofinancier.
- *Exclusive financing.* The lead cofinancier administers the funds of both, and all procurement is carried out according to its guidelines.
- *Parallel financing.* Both cofinanciers disburse funds independently to the executing agency for different components of a single project, and procurement for each component is carried out according to the guidelines of the cofinancier concerned.

40. The scope for cofinancing varies between subsectors, with the size and complexity of projects, and with the relative size of the transaction costs associated with different modes of financing. Half of ADB cofinancing during 1991-5 went to energy projects, including hydro-

electricity projects, with transport and communications ranked next[8]. During 1970-95, the water sector accounted for 19% of the projects which involved cofinancing, and 16% of the loan amount.

41. Some ESAs, such as the ADB, have policies actively to seek cofinancing opportunities, and staff are expected to take account of this during their programming missions. Implementation is variable. Some mission leaders and country program directors are strongly committed to the approach, others less so. Cofinancing can reduce the visibility of investment in a project, which may be a disincentive to its use.

42. Cofinancing arrangements can have a range of advantages[9], including:

- facilitation and formalisation of broadly-based collaborative arrangements;
- greater leverage and increased project impact, by mobilising additional resources;
- access to a wider range of complementary expertise and other resources;
- inclusion of project components which might not normally be considered, such as a grant for institutional strengthening in an infrastructural project;
- reduced administration expenses, particularly for the recipient country and cofinancing partner;
- creation of new opportunities for future investment, as links among ESAs and countries are enhanced.

43. The potential of cofinancing is indicated by the fact that, during 1970-95, over 400 ADB-assisted loan projects and programs received a total cofinancing of $21.9 billion. That total included $2.4 billion from commercial sources and $15.2 billion from official sources. During 1991-5, Bank loans to cofinanced projects totalled $9.4 billion, and cofinancing provided $11.8 billion. The ADB has collaborated with a wide range of cofinanciers, including bilateral and multilateral official sources, UN agencies, export-import banks, and commercial sources.

44. The willingness of organizations to collaborate within the framework of cofinancing arrangements is perhaps the most persuasive indicator of the potential value of collaboration in development assistance programs.

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[8] Asian Development Bank, 1996. *Cofinancing and guarantees.*

[9] See also Asian Development Bank, 1996. *Cofinancing and guarantees.*

Discussion

45. This paper has considered the case for collaboration and communication among ESAs and their host countries in Asia - a water partnership for Asia. The concept of partnership, and the benefits of collaboration, extend beyond ESAs alone, because of the critical importance of countries as the key partners in the investment and development process. Within a country, several groups of interests are involved - local communities, various levels of subnational government, the various agencies involved in the water sector, professional organizations, and senior policy- and decision-makers. Fully effective collaboration will draw all these into partnership. Moreover, there are significant opportunities for collaboration among countries, through transfer of knowledge, technology, and other resources.

46. Other actors in the water sector must also be recognised, including national and international NGOs, and private sector sources of investment finance. Particularly important actors in many parts of the world are international river basin commissions like the Rhine Commission. In Asia, the Mekong River Commission is perhaps the best-known example at present. The Indo-Bangladesh Joint River Commission and the Indus Basin Treaty also are noteworthy examples of international collaboration in the region, and other international rivers may in the future have similar arrangements.

47. Having pointed to the range of stakeholders in the water sector in Asia and the Pacific, the question remains "if a regional arm of the GWP were to be established here, what needs should it meet, who might belong to it, and what could it look like?"

Box 7. Recommended National Water Sector Strategies

- Prepare and adopt a national water policy and action program.
- Invest to manage the country's priority river basins.
- Increase the autonomy and accountability of service providers.
- Develop incentives, regulation, and awareness for sustainable water use.
- Manage the use of shared water resources and develop cooperation.
- Enhance water information, consultation, and partnerships.
- Invest in capacity building, monitoring, and learning.

48. The consultative process for water policy development, led by the Asian Development Bank[10], seems to provide a sound basis for identifying needs in the region which could be

[10] Asian Development Bank, 1996. *Towards Effective Water Policy in the Asian and Pacific Region.* 3 volumes.

addressed by a partnership. It has identified seven key strategies for national water sector development (Box 7). These implicitly express needs in the sector, and it seems logical to target partnership efforts on them.

49. A water partnership for Asia could directly contribute to strategies (5), (6) and (7), since they are intrinsically collaborative in nature. The other four strategies are wholly consistent with the objectives and proposed activities of the GWP (see footnote 4), even though they relate to the national level. They could provide a framework for action within the context of a partnership. The companion discussion paper (see footnote 3) considers steps which might be taken to make progress on strategies (1), (2), and part of (4).

50. If a water partnership for Asia were to be developed, a major question concerns membership - should it be open to developing country governments, bilateral/multilateral ESAs, private sector firms, NGOs? Membership of the GWP in early 1997 consisted mostly of NGOs[11], but bilateral and multilateral ESAs so far have taken the leadership role. This paper has suggested that countries themselves are critical partners in water sector development. The June 1997 GWP-TAC meeting includes only ASEAN countries, but the opportunity for a wider partnership, extending to other Asian and West Pacific countries, should also be considered. The decision on membership would obviously reflect the objectives set for the partnership.

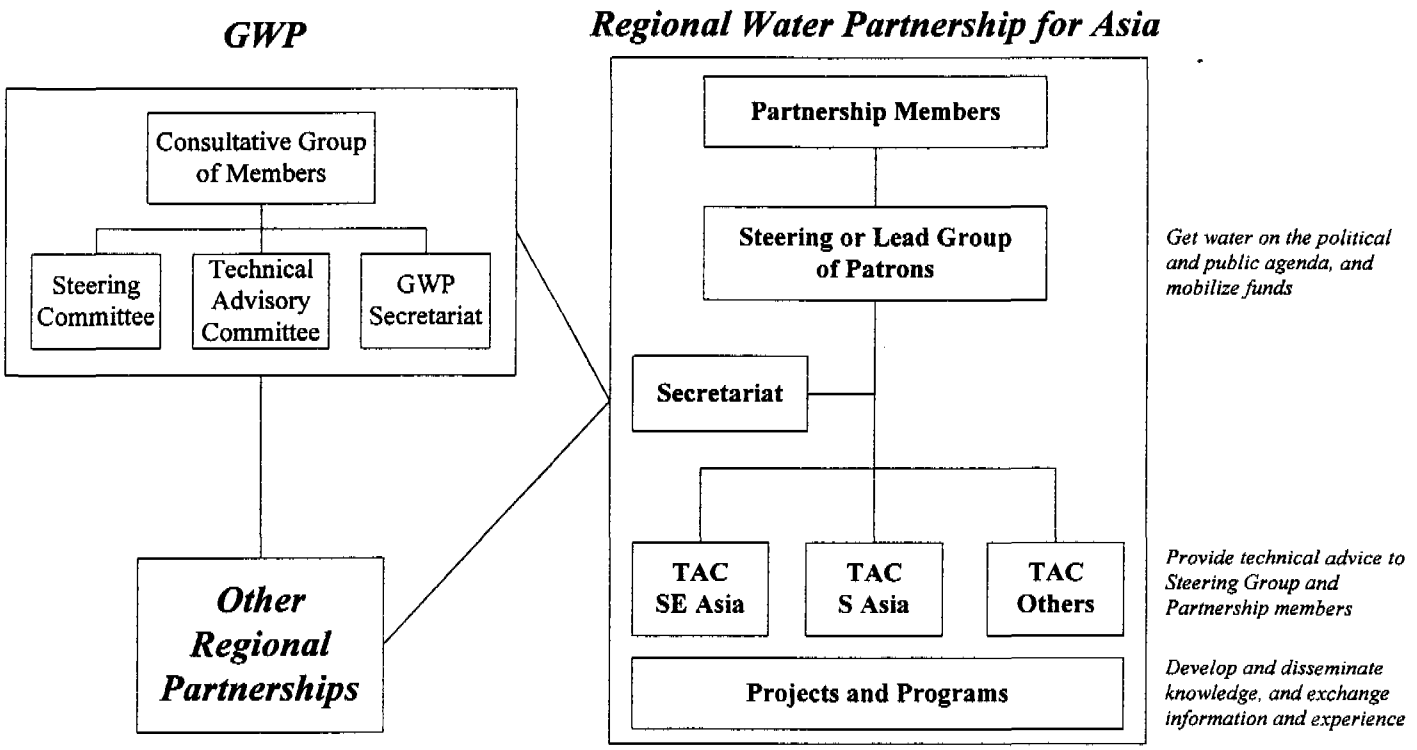
51. Arrangements would be needed for procedural, administrative and other necessary functions such as information dissemination. Leadership and financial support also would be required. The administrative and management structure should ideally follow the concept, found in the biological sciences, that "form follows function". The functions themselves would be defined in terms of the specific needs that the partnership was intended to meet, and the mechanisms appropriate for meeting them. The GWP has a structure which consists of four components, the Consultative Group of members, Steering Committee, Technical Advisory Committee, and Secretariat. These are linked to field programmes implemented by Partnership members. This relatively sophisticated structure may be more than a regional partnership would require, although the Partnership will "seek to replicate itself at sub-regional level" (see footnote 4). Its purpose is to "create a forum for dialogue on integrated water resources management, supported by a highly qualified advisory group using locally recruited expertise". This tends to focus attention on the particular role of a technical advisory committee, which the GWP regards as its "spearhead and operational arm".

52. Southeast Asian countries have already shown a commitment to collaboration in the water sector, through establishment in 1994 of the Committee for Water Resources. The ASEAN Secretariat in Jakarta provides a model for sub-regional collaboration, and might even provide a structure or host for a water partnership in Southeast Asia.

[11] Global Water Partnership, 1997. The Executive Secretary's report on progress since August 1996. Note CG 97/1.

Figure 1

Regional Water Partnership for Asia: a possible model



53. It might be desirable, in establishing administrative/support arrangements such as a modest secretariat, to link them closely with an existing organization.[12] International organizations involved in the water sector in the region include ADB, ESCAP, UNESCO, UNU, and WMO, as well as many bilateral ESAs. However, all do not appear to be equally well placed or appropriate to provide secretariat support for an endeavor like a regional water partnership. The Asian Development Bank initiated water policy consultations in the region in 1996, and has provided the present opportunity to debate the need for a water partnership for Asia. It may be prepared to take a leading role to help establish a secretariat, if a decision were made to proceed. Such a role would be consistent with the Bank's Medium Term Strategic Framework, and similar to that of the World Bank, which hosts the International Program for Irrigation and Drainage, the Global Environmental Fund, and several other global organizations.

54. Finally, it is appropriate to consider the role of the GWP, in any initiative to establish a Regional Water Partnership for Asia. There is already a move towards developing collaboration in Asia and the Pacific. The challenges in Asia's water sector are distinctive to the region, and perhaps are best addressed at regional level, drawing on regional expertise and resources. On the other hand, countries of Asia and the Pacific have benefited greatly from assistance from other parts of the world, particularly North America and Northern Europe, and no doubt can continue to do so. The GWP has the expressed aim of replicating itself at regional level. Perhaps, in future discussions on the nature of a Regional Water Partnership for Asia, attention should focus on the practicalities of how to do that.

55. Figure 1 presents a possible model for a Regional Water Partnership for Asia, associated with GWP. Drawing boxes and lines can focus attention on the structure rather than on what is to be achieved. It is useful to remember that - above all - a partnership relies on communication, both within itself, and with others outside.

56. We have already discussed who might be Partnership members. Establishing a Steering or Lead Group of Patrons is important to set the direction of the Partnership. It would have the essential role of building political "water awareness" and support, and mobilizing resources. The GWP places a strong emphasis on the role of its Technical Advisory Committee (TAC). The model in Figure 1 suggests that such Committees might be necessary for distinct groupings of Partnership members - Southeast Asia, South Asia, and others, since the region is so large and diverse. The need for several Technical Advisory Committees makes the establishment of a Steering or Lead Group even more important.

57. The Regional Meeting on 10-11 June 1997 at the ADB concluded that the establishment of a Regional TAC for Southeast Asia is the first step in forming the Regional Water Partnership, with a TAC secretariat to be shared with the Committee for Water Resources for the ASEAN Region in Bangkok. Senior government representatives from Southeast Asia are to be invited to GWP's next Consultative Group Meeting in Stockholm in August 1997, and they may take the second step, by nominating an interim group of about

[12] The GWP is based at Sida headquarters in Stockholm.

four Patrons to start the Steering or Lead Group. In view of the role played by the ADB in similar regional cooperation initiatives such as the Greater Mekong Subregional Economic Cooperation, and the South Asia Group Quadrangle Cooperation, ADB is well placed to provide secretariat services to a Regional Water Partnership. In his opening address to the Regional Meeting, ADB's President stated: "I appreciate the work of the new Global Water Partnership to forge collaboration between countries, financiers, and other stakeholders. I believe that we can 'prime the pump' by catalyzing water policy reforms in our member countries. We can also help to initiate a new generation of water projects based on the principles I just mentioned. If a Regional Water Partnership in Asia can make such collaboration more effective, then I believe that the Asian Development Bank has justification to support its establishment. This would be consistent with recommendations of our regional consultations last year."

Glossary of acronyms

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CBO	Community-Based Organization
ESA	External Support Agency
ESCAP	Economic and Social Commission for Asia and the Pacific
GNP	Gross National Product
GWP	Global Water Partnership
NGO	Non-governmental Organization
ODA	Overseas Development Assistance
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNU	United Nations University
WMO	World Meteorological Organisation

ESA Involvement in the Water Sector, 1996

Country	ESA	Project type	Value
ASEAN	GTZ, Germany	Rural WS&S	DM10.8m
Asia	WHO	WS&S	US$1m
Bangladesh	Danida	WS&S, Noakhali	DKK1.8m
Bangladesh	Danida	Int. training network	DKK1.5m
Bangladesh	Danida	NGO Forum	DKK4.5m
Bangladesh	Danida	Urban WS&S	DKK15.6m
Bangladesh	SDC, Switzerland	WS&S	SFR0.3m (cofinancing)
Bangladesh	SDC, Switzerland	Irrigation	SFR2.7m
Bhutan	Danida	WS&S	DKK2m
Cambodia	AusAID	Water supply, Kompong Thom	A$0.7m
Cambodia	JICA, Japan	Phnom Penh drainage	nd
Cambodia	JICA, Japan	WS, Siem Reap	nd
China	AusAID	Urban environment review, Chongqing	A$0.1m (cofinanced)
China	AusAID	Flood mitigation	A$3.7m
China	NORAD	Urban WS&S	
India	AusAID	Waste water treatment, Delhi and Hyderabad	
India	Danida	WS, 4 states	DKK15m
India	SDC, Switzerland	Participatory watershed mgmt	SFR3m
Indonesia	World Bank, Indonesia Office	Java irrigation	US$160m
Indonesia	World Bank, Indonesia Office	Provincial irrigation	US$100m
Indonesia	World Bank, Indonesia Office	Integrated swamps	US$50m
Indonesia	World Bank, Indonesia Office	Groundwater	US$3.5m
Indonesia	AusAID	Community health, Alor Island	
Indonesia	AusAID	Watershed management, Noelmina watershed	
Indonesia	AusAID	WS&S, E Timor	A$13m
Indonesia	AusAID	WS&S, Nusa Tenggara Barat	A$25m
Indonesia	AusAID	WS&S, Flores	A$24m
Indonesia	DfID, UK	Groundwater monitoring	UKL0.5m
Indonesia	SDC, Switzerland	Urban WS&S, Yogyakarta	SFR3m
Indonesia	GTZ, Germany	WS quality control	DM4.1m
Indonesia	GTZ, Germany	WS planning, Sumatra/Java	DM0.2m
indonesia	GTZ, Germany	WS&S, various areas	DM1.8m
Indonesia	GTZ, Germany	WS consulting, Bengkulu	DM6.8m
Indonesia	GTZ, Germany	Irrigation planning	DM8.5m
Indonesia	GTZ, Germany	WS, Surabaya industrial estate	DM19.6m
Indonesia	GTZ, Germany	Provincial WS	DM10.9m
Indonesia	GTZ, Germany	WS, various cities	DM134.6m
Indonesia	BADC, Belgium	PDAM Surabaya	US$1m
Indonesia	BADC, Belgium	WS, Timor	US$1.46m
Lao PDR	NORAD	Hydropower capacity bldg	US$0.3m
Lao PDR	NORAD	Waste water monitoring	US$0.2m
Lao PDR	Sida	Rural WS&S	US$5.5m
Maldives	Danida	WS&S, Male	DKK18m grant

Mekong R basin	DIDC, Finland	Hydrological data	US$5m
Mekong R basin	Sida	Support to Mekong River Comm	US$4.7m
Mekong R basin	SDC, Switzerland	Support to Mekong River Comm	SFR4.8m
Mekong R basin	JICA, Japan	MRC water quality	US$5m
Mongolia	AusAID	WS&S and urban services	(cofinanced)
Nepal	DfID, UK	Rural water supply	UKL1.9m
Nepal	DIDC, Finland	Rural WS&S	US$15m
Nepal	NORAD	Hydropower capacity bldg	US$0.3m
Pakistan	SDC, Switzerland	WS&S	SFR0.4m
Pakistan	SDC, Switzerland	Irrigation	SFR28.3m
Pakistan	SDC, Switzerland	Salinity control	SFR29m
Philippines	AusAID	WS&S, NW Mindanao	
Philippines	AusAID	WS&S, C Visayas	A$21m
Philippines	Danida	Urban WS	DKK16.4m grant
Philippines	GTZ, Germany	WS, various areas	DM3.5m
Philippines	GTZ, Germany	Rural WS&S	DM3.6m
Philippines	GTZ, Germany	Irrigation schemes	DM15m
South Asia	Sida	Participatory development	US$0.5m (cofinancing)
Sri Lanka	DfID, UK	Sewerage, Colombo	UKL1.9m
Sri Lanka	DfID, UK	Hydropower	UKL0.5m
Thailand	SDC, Switzerland	AIT support	SFR2.9m
Thailand	GTZ, Germany	WS&S	DM1.4m
Thailand	GTZ, Germany	Irrigation schemes	DM16.4m
Thailand	GTZ, Germany	Irrigation scheme maintenance	DM48m.
Thailand	GTZ, Germany	Education for resource mgrs	DM5m
Thailand	GTZ, Germany	River control	DM14.3m
Thailand	GTZ, Germany	WS&S	DM19m
Vietnam	AusAID	WS&S, Danang	
Vietnam	AusAID	WS&S, provinces	A$45m
Vietnam	DIDC, Finland	WS, Hanoi	US$80m
Vietnam	DIDC, Finland	WS&S, Haiphong	US$15m
Vietnam	Danida	Rural WS&S	DKK6.1m
Vietnam	Danida	Urban WS	DKK73.7m
Vietnam	NORAD	Multipurpose project, Rao Quan	US$0.9m
Vietnam	GTZ, Germany	WS, Phong Phu	DM0.1m
Vietnam	GTZ, Germany	WS&S, Viet Tri	DM31m
Vietnam	BADC, Belgium	HCMC canal sanitation	US$5.15m
Vietnam	JICA, Japan	WS, Hanoi	nd

Asian Development Bank
List of Water Sector Projects for 1997

		Project Title	Loan Amount (M$)	Date Approved
Loan				
INO		Northern Sumatra Irrigated Agric. Improvement Sector	100.000	1997
INO		Capacity Building of PDAMs for Water Loss Reduction (Sector)	66.000	1997
INO		Metro Medan Urban Development	100.000	1997
KAZ		Water Resources Management and Land Improvement	40.000	1997
KIR		Integrated Urban Development	12.000	1997
MAL		Lower Saribas Agriculture Development	32.000	1997
NEP		Community Groundwater Sector	35.000	1997
PAK		Korangi Sewerage and Wastewater Management	70.000	1997
PAK		Flood Protection II	100.000	1997
PAK		Punjab Irrigation Management	10.000	1997
PAK		D.G. Khan Rural Development	50.000	1997
PRC		Zhejang Water Conservation	100.000	1997
SAM		Integrated Urban Development	12.000	1997
SRI		Third Water Supply and Sanitation Project	60.000	1997
SRI		Upper Watershed Management	30.000	1997
THA		Bangkok Metropolitan Region Wastewater Management	150.000	1997
VIE	1515	Forestry Sector	33.000	20-Mar-97
VIE	1514	Second Provincial Towns Water Supply and Sanitation	69.000	27-Feb-97
Project Preparatory Technical Assistance				
BAN		Kalni-Kushiyara River Improvement	0.300	1997
INO		Sumatra Urban Areas Development	0.600	1997
INO		South Sumatra Integrated Swamp Development	0.600	1997
INO		Eastern Indonesia Water Supply and Sanitation Sector Project	0.000	1997
INO		Water Resources Development in NTB	0.100	1997
PAK		Quetta/Sibi Urban Water Supply	0.800	1997
PHI		Pasig River Environmental Management and Rehabilitation	0.800	1997
PHI		Second Irrigation Sector	0.550	1997
PRC		Heilongjiang Water Supply	0.600	1997
PRC		Fuzhou Water Supply and Waste Water Treatment	0.000	1997
PRC	2770	Fuzhou Water Supply and Wastewater Treatment	0.598	14-Mar-97
TUV		Urban Improvement	0.350	1997
VIE		Second Red River Water Resources (Sector)	0.300	1997

Advisory Technical Assistance

BHU	2764	Irrigation Program Strengthening	0.300	07-Mar-97
PRC	2751	Capacity Building of Wastewater Treatment Operations in Anhui Province	0.400	27-Jan-97
PRC	2773	Water Supply Tariff Study	0.600	24-Mar-97

Private Sector

INO		Medan Water Supply Project	45.000	1997

Regional Technical Assistance

	5725	A Regional Training Course on Reducing Distribution Water Losses in Developing Member Countries	0.075	07-Mar-97
	5730	Global Water Partnership - Technical Advisory Committee Meeting	0.100	27-Jan-97
		TOTAL:	**1,121.075**	

Asian Development Bank
List of Water Sector Loan Approvals for 1996

	Number	Project Title	Loan Amount(M$)	Sector(M$)	Date Approved
PAK	1424	Ghazi Barotha Hydropower	500.000	500.00	16-Jan-96
INO	1425	North Java Flood Control Sector	45.000	45.00	18-Jan-96
INO	1426	North Java Flood Control Sector	45.000	45.00	18-Jan-96
NEP	1437	Second Irrigation Sector	25.000	25.00	16-May-96
PHI	1440	Rural Water Supply and Sanitation Sector	18.500	18.50	04-Jun-96
PHI	1441	Rural Water Supply and Sanitation Sector	18.500	18.50	04-Jun-96
NEP	1452	Kali Gandaki "A" Hydroelectric Power	160.000	160.00	23-Jul-96
PHI	1453	Bukidnon Integrated Area Development	20.000	8.42	23-Jul-96
LAO	1456	Nam Leuk Hydropower	52.000	52.00	10-Sep-96
FSM	1459	Water Supply and Sanitation	10.600	10.60	19-Sep-96
SRI	1462	North Central Province Rural Development	20.000	4.88	24-Sep-96
NEP	1464	Fourth Rural Water Supply and Sanitation Sector	20.000	20.00	24-Sep-96
PAK	1467	Bahawalpur Rural Development	38.000	5.76	26-Sep-96
CAM	1468	Phnom Penh Water Supply and Drainage	20.000	20.00	26-Sep-96
PHI	1472	Small Towns Water Supply Sector	50.000	50.00	30-Sep-96
INO	1479	South Java Flood Control Sector	103.000	103.00	07-Nov-96
BAN	1486	Forestry Sector	50.000	35.00	21-Nov-96
LAO	1488	Community-Managed Irrigation Sector	14.700	14.70	21-Nov-96
PRC	1490	Anhui Environmental Improvement Project for Municipal Wastewater Treatment	28.000	28.00	26-Nov-96
PAK	1493	Social Action Program (Sector) Project II	200.000	42.60	28-Nov-96
MAL	1500	Klang River Basin Improvement and Flood Mitigation Project	26.300	26.30	05-Dec-96
INO	1511	Metropolitan Bogor, Tangerang and Bekasi Urban Development (Sector) Project	80.000	80.00	19-Dec-96
		Total =	**1,544.60**	**1,313.26**	

Asian Development Bank

List of Water Sector TA Approvals in 1996

	No.	Project Title	Amount(M$)	Date Approved
AOTA				
NEP	2522	Capacity Building in the Department of Irrigation	0.60	11-Jan-96
PAK	2563	Forestry Sector	14.15	30-Apr-96
VAN	2597	Sanitation Master Plan for Port Vila	0.36	27-Jun-96
FIJ	2621	Corporatization of the Water and Sewerage Section of the Ministry of Public Works, Infrastructure and Transport	0.60	30-Jul-96
FSM	2646	Capacity Building for Management and Operation of Water Supply and Sanitation Systems	0.59	19-Sep-96
CAM	2669	Institutional Support to the Water Supply Sector	0.50	24-Oct-96
INO	2679	Assessment of Options for Sustainable Irrigation Development	1.12	05-Nov-96
PRC	2693	Formulation of an Integrated Environmental Management Plan for the Chao Lake Basin	0.80	26-Nov-96
		Subtotal =	**$ 18.71 Million**	
PPTA				
CAM	2554	Community Irrigation Rehabilitation	0.10	09-Apr-96
PAK	2562	Second Flood Protection Sector	0.80	30-Apr-96
THA	2568	Northeast Region Water Supply and Sanitation	0.60	14-May-96
VIE	2575	Phuoc Hoa Multipurpose Water Resources	0.60	31-May-96
INO	2580	Integrated River Basin Development Project in Maluku and in East Nusa Tenggara	0.86	05-Jun-96
INO	2588	Northern Sumatra Irrigated Agricultural Improvement	0.60	13-Jun-96
NEP	2589	Community Groundwater in Irrigation Sector	0.60	13-Jun-96
CAM	2592	Stung Chinit Water Resource Development	0.80	25-Jun-96
SRI	2609	Rural Water Supply and Sanitation Sector	0.60	17-Jul-96
VIE	2615	Red River Waterways	0.98	24-Jul-96
SRI	2619	Upper Watershed Management	0.60	25-Jul-96
KAZ	2677	Water Resources Management and Land Improvement	0.10	04-Nov-96
THA	2698	Khon Ken Water Supply and Sanitation	0.55	05-Dec-96
LAO	2711	Small Towns Water Supply and Sanitation	0.50	13-Dec-96
LAO	2734	Nam Ngum Watershed Management	1.20	23-Dec-96
		Subtotal =	**$ 9.49 Million**	
RETA	5694	Second Water Utilities Data Book for the Asian and Pacific Region	0.40	29-Jul-96
	5697	Se Kong-Se San and NamTheun River Basins Hydropower Development Study	2.50	22-Aug-96
		Subtotal =	**$ 2.90 Million**	

Asian Development Bank
List of Ongoing Water Sector Projects by DMC

		Amount(M$)	Date Approved
Bangladesh			
Loan			
1125	Northeast Minor Irrigation	73.00	21-Nov-91
1124	Dhaka Integrated Flood Protection	91.50	21-Nov-91
1159	Second Bhola Irrigation	39.80	27-Feb-92
1202	Secondary Towns Integrated Flood Protection	55.00	03-Dec-92
1264	Second Water Supply and Sanitation	31.00	16-Nov-93
1289	Khulna-Jessore Drainage Rehabilitation	50.00	14-Dec-93
1291	Southwest Area Water Resources Development	3.15	16-Dec-93
1381	Small-Scale Water Resources Development Sector	32.00	26-Sep-95
1399	Command Area Development	30.00	07-Nov-95
1486	Forestry Sector	50.00	21-Nov-96
AOTA			
1980	Institutional Strengthening of Pourashavas for Urban Water Supply and Sanitation Services	0.45	16-Nov-93
2012	Khulna-Jessore Drainage Rehabilitation	0.92	14-Dec-93
2051	Socio-Environmental Assessment of Meghna-Dhonagoda Irrigation Project	0.10	29-Dec-93
Cambodia			
Loan			
1468	Phnom Penh Water Supply and Drainage	20.00	26-Sep-96
PPTA			
2554	Community Irrigation Rehabilitation	0.10	09-Apr-96
2592	Stung Chinit Water Resource Development	0.80	25-Jun-96
AOTA			
2669	Institutional Support to the Water Supply Sector	0.50	24-Oct-96
Federated States of Micronesia			
Loan			
1459	Water Supply and Sanitation	10.60	19-Sep-96
AOTA			
2646	Capacity Building for Management and Operation of Water Supply and Sanitation Systems	0.59	19-Sep-96
Fiji			
AOTA			
2621	Corporatization of the Water and Sewerage Section of the Ministry of Public Works, Infrastructure and Transport	0.60	30-Jul-96
Indonesia			
Loan			
1017	Integrated Irrigation Sector	170.00	17-Apr-90
1018	Integrated Irrigation Sector	30.00	17-Apr-90
1069	Second IKK Water Supply Sector	39.00	18-Dec-90
1089	Inland Waterways	45.00	18-Jul-91
1126	Central Java Groundwater Irrigation Development	51.00	26-Nov-91

		Amount(M$)	Date Approved
1158	Water Pollution Control	8.40	04-Feb-92
1258	Sustainable Agricultural Development in Irian Jaya	28.00	26-Oct-93
1296	Second Integrated Irrigation Sector	100.00	20-Jan-94
1339	Capacity Building Project in the Water Resources Sector	27.72	06-Dec-94
1352	Rural Water Supply and Sanitation Sector	85.00	02-Feb-95
1378	Farmer Managed Irrigation Systems	26.30	21-Sep-95
1425	North Java Flood Control Sector	45.00	18-Jan-96
1426	North Java Flood Control Sector	45.00	18-Jan-96
1479	South Java Flood Control Sector	103.00	07-Nov-96
1511	Metropolitan Bogor, Tangerang and Bekasi Urban Development (Sector) Project	80.00	19-Dec-96
PPTA			
2507	Water Loss Reduction (Sector)	0.10	26-Dec-95
2580	Integrated River Basin Development Project in Maluku and in East Nusa Tenggara	0.86	05-Jun-96
2588	Northern Sumatra Irrigated Agricultural Improvement	0.60	13-Jun-96
AOTA			
2501	Water Tariff Strucuture and Financial Policies of Water Enterprises	0.60	22-Dec-95
2679	Assessment of Options for Sustainable Irrigation Development	1.12	05-Nov-96
Kyrgyz Republic			
AOTA			
2451	Building Capacity for the Formation and Management of Water Users Associations	0.86	23-Nov-95
Lao People's Democratic Republic			
Loan			
1122	Southern Provincial Towns Water Supply	9.60	19-Nov-91
1190	Rehabilitation and Upgrading of Vientiane Water Supply	9.50	17-Nov-92
1214	Nam Song Hydropower Development	31.50	21-Dec-92
1267	Northern Provincial Towns Water Supply and Sanitation	13.00	18-Nov-93
1456	Nam Leuk Hydropower	52.00	10-Sep-96
1488	Community-Managed Irrigation Sector	14.70	21-Nov-96
PPTA			
2711	Small Towns Water Supply and Sanitation	0.50	13-Dec-96
2734	Nam Ngum Watershed Management	1.20	23-Dec-96
Malaysia			
Loan			
1068	Northern Terengganu Rural Development (Phase I)	15.00	13-Dec-90
1197	Rehabilitation and Upgrading of Water Supply Systems Sector	105.00	26-Nov-92
1238	Second Pahang Barat Integrated Agriculture Development	28.50	29-Jun-93
1500	Klang River Basin Improvement & Flood Mitigation	40.20	5-Dec-96
Marshall Islands			
Loan			
1389	Majuro Water Supply and Sanitation	9.20	29-Sep-95
Nepal			
Loan			
867	East Rapti Irrigation	30.40	26-Nov-87
923	Irrigation Sector	36.30	22-Nov-88

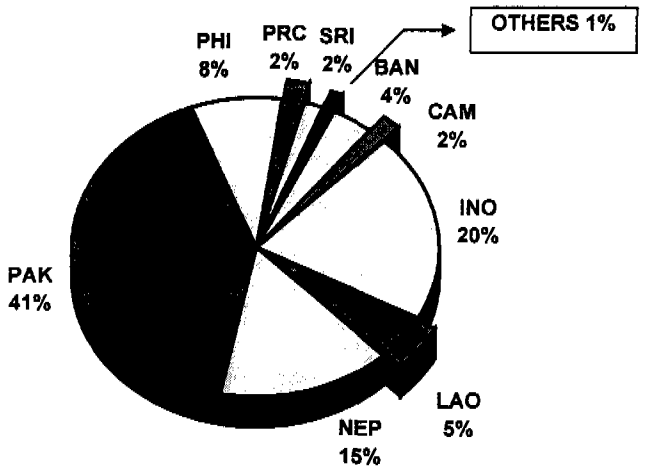
		Amount(M$)	Date Approved
1040	Forestry Sector Program	40.00	23-Oct-90
1114	Upper Sagarmatha Agricultural Development	13.26	31-Oct-91
1113	Rajapur Irrigation Rehabilitation	16.62	31-Oct-91
1165	Third Water Supply and Sanitation Sector	20.00	25-Jun-92
1311	Irrigation Management Transfer	12.91	13-Sep-94
1437	Second Irrigation Sector	25.00	16-May-96
1452	Kali Gandaki "A" Hydroelectric Power	160.00	23-Jul-96
1464	Fourth Rural Water Supply and Sanitation Sector	20.00	24-Sep-96
PPTA			
2589	Community Groundwater in Irrigation Sector	0.60	13-Jun-96
AOTA			
1969	Environmental Monitoring and Mgt of the East Rapti Irrigation Project	0.22	26-Oct-93
2522	Capacity Building in the Department of Irrigation	0.60	11-Jan-96
Pakistan			
Loan			
837	Flood Protection Sector	115.00	25-Aug-87
838	Chitral Area Development	23.50	27-Aug-87
901	Khushab Salinity Control and Reclamation	53.00	22-Sep-88
976	Swabi Salinity Control and Reclamation Project	118.00	26-Oct-89
1002	Karachi Sewerage	34.00	14-Dec-89
1001	Karachi Sewerage	51.00	14-Dec-89
1012	Second Barani Area Development	25.00	20-Feb-90
1146	Chashma Right Bank Irrigation (Stage III)	185.00	17-Dec-91
1209	Flood Damage Restoration (Sector)	100.00	15-Dec-92
1260	Urban Water Supply and Sanitation	72.00	04-Nov-93
1297	Third Punjab On-Farm Water Management	62.16	08-Mar-94
1349	Punjab Rural Water Supply and Sanitation (Sector)	46.00	31-Jan-95
1350	Marala-Ravi Link Canal System Technical Assistance	3.20	31-Jan-95
1403	Forestry Sector	42.60	09-Nov-95
1413	National Drainage (Sector)	140.00	12-Dec-95
1424	Ghazi Barotha Hydropower	500.00	16-Jan-96
1467	Bahawalpur Rural Development	38.00	26-Sep-96
PPTA			
2562	Second Flood Protection Sector	0.80	30-Apr-96
AOTA			
2563	Forestry Sector	14.15	30-Apr-96
Papua New Guinea			
Loan			
1211	Third Urban Water Supply	11.30	15-Dec-92
People's Republic of China			
Loan			
1242	Guangzhou Pumped Storage Stage II	200.00	03-Aug-93
1313	Dalian Water Supply	160.00	20-Sep-94
1318	Hunan Lingjintan Hydropower	116.00	27-Sep-94
1417	Fujian Minhuatan Hydropower	170.00	14-Dec-95
1490	Anhui Environmental Improvement Project for Mun. Wastewater Treatment	28.00	26-Nov-96

		Amount(M$)	Date Approved
PPTA			
2511	Zhejiang-Shanxi Water Conservancy	1.00	26-Dec-95
AOTA			
2073	Changjiang Water and Soil Conservation and Environmental Protection	0.60	24-Mar-94
2309	Preliminary Analysis of Guizhou Hongjiadu Hydropower and Hebei Zhanghewan Pumped Storage	0.10	09-Mar-95
2310	Preliminary Analysis of Gansu Xiaoxia and Jiangxi Taihe Hydropower	0.10	09-Mar-95
2332	Inland Waterways Transport Development Seminar	0.10	10-May-95
2372	Preliminary Analysis of Water Resources Projects	0.10	04-Aug-95
2407	Capacity Building for Soil and Water Conservation	0.59	28-Sep-95
2504	Seminar on BOT in the Water Supply Sector	0.10	22-Dec-95
2693	Formulation of an Integrated Environmental Management Plan for the Chao Lake Basin	0.80	26-Nov-96
Philippines			
Loan			
915	Sorsogon Integrated Area Development	24.10	03-Nov-88
986	Angat Water Supply Optimization	130.00	14-Nov-89
1034	Second Palawan Integrated Area Development	33.00	27-Sep-90
1033	Second Palawan Integrated Area Development	25.00	27-Sep-90
1048	Irrigation Systems Improvement	9.00	08-Nov-90
1049	Irrigation Systems Improvement	20.00	08-Nov-90
1056	Metropolitan Cebu Water Supply	16.00	29-Nov-90
1057	Metropolitan Cebu Water Supply	6.00	29-Nov-90
1136	Kabulnan Irrigation and Area Development	48.00	28-Nov-91
1150	Manila South Water Distribution	31.40	19-Dec-91
1191	Forestry Sector	50.00	19-Nov-92
1269	Municipal Water Supply	43.20	25-Nov-93
1365	Second Irrigation Systems Improvement	15.00	29-Aug-95
1366	Second Irrigation Systems Improvement	15.00	29-Aug-95
1379	Umiray-Angat Transbasin	92.00	21-Sep-95
1440	Rural Water Supply and Sanitation Sector	18.50	04-Jun-96
1441	Rural Water Supply and Sanitation Sector	18.50	04-Jun-96
1453	Bukidnon Integrated Area Development	20.00	23-Jul-96
1472	Small Towns Water Supply Sector	50.00	30-Sep-96
AOTA			
1995	Institutional Strengthening of LWUA and Water Districts	0.59	25-Nov-93
2417	Water Resources Management (Angat Reservoir)	0.10	06-Oct-95
Sri Lanka			
Loan			
1128	Southern Province Rural Development	38.00	26-Nov-91
1166	North Western Province Water Resources Development	30.00	25-Jun-92
1235	Second Water Supply and Sanitation	40.00	17-Jun-93
1462	North Central Province Rural Development	20.00	24-Sep-96
PPTA			
2609	Rural Water Supply and Sanitation Sector	0.60	17-Jul-96
2619	Upper Watershed Management	0.60	25-Jul-96
AOTA			
1900	Management Strengthening of the National Water Supply and Drainage Board	55.20	26-Oct-93
2422	Institutional Strengthening for Comprehensive Water Resources Management	1.57	12-Oct-95

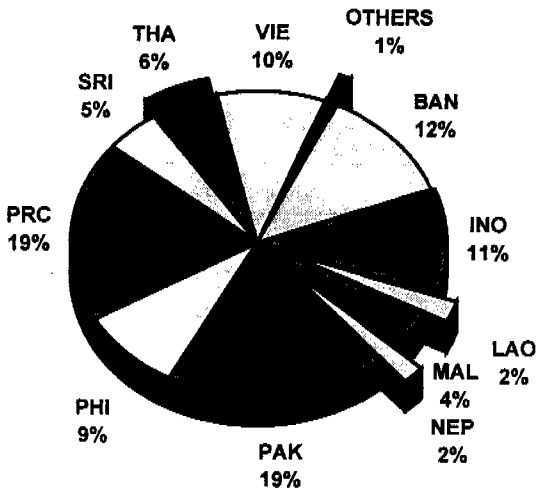
		Amount(M$)	Date Approved
Thailand			
AOTA			
2499	Strengthening National Financing and Cost Recovery Policies for the Wastewater Management Sector	0.60	21-Dec-95
Loan			
1326	Chonburi Water Supply	38.50	18-Oct-94
1410	Samut Prakarn Wastewater Management Pollution Control	150.00	07-Dec-95
PPTA			
2303	Bangkok Metropolitan Region Wastewater Management Action Plan and Feasibility Study	0.60	24-Feb-95
2568	Northeast Region Water Supply and Sanitation	0.60	14-May-96
2698	Khon Ken Water Supply and Sanitation	0.55	05-Dec-96
Vanuatu			
AOTA			
2597	Sanitation Master Plan for Port Vila	0.36	27-Jun-96
Viet Nam			
Loan			
1259	Irrigation and Flood Protection Rehabilitation	76.50	26-Oct-93
1273	Ho Chi Minh City Water Supply and Sanitation Rehab.	65.00	29-Nov-93
1344	Red River Delta Water Resources Sector	60.00	13-Dec-94
1361	Provincial Towns Water Supply and Sanitation	66.00	17-Aug-95
1404	Fisheries Infrastructure Improvement	57.00	16-Nov-95
PPTA			
2411	Forestry Sector and Watershed Management	0.60	02-Oct-95
2575	Phuoc Hoa Multipurpose Water Resources	0.60	31-May-96
2615	Red River Waterways	0.98	24-Jul-96
AOTA			
2444	Capacity Building of Ministry of Fisheries	1.00	16-Nov-95
	Total =	**$ 5,765.93 Million**	
RETA			
5536	Promoting Subregional Cooperation Among Cambodia, the PRC, LAO PDR, Myanmar, Thailand and Vietnam	4.00	10-Jun-93
5608	Economic Evaluation Methodology in Water Supply Projects	.60	14 Dec 94
5656	Water Resources Development and Management	.60	12-Dec-96
5694	Second Water Utilities Data Book for the Asian and Pacific Region	0.40	29-Jul-96
5697	Se Kong-Se San and NamTheun River Basins Hydropower Development Study	2.50	22-Aug-96
	RETA Total =	**$ 8.10 Million**	
	Grand Total =	**$ 5,774.03 Million**	

Geographical Distribution of ADB Water Sector Operations[1]

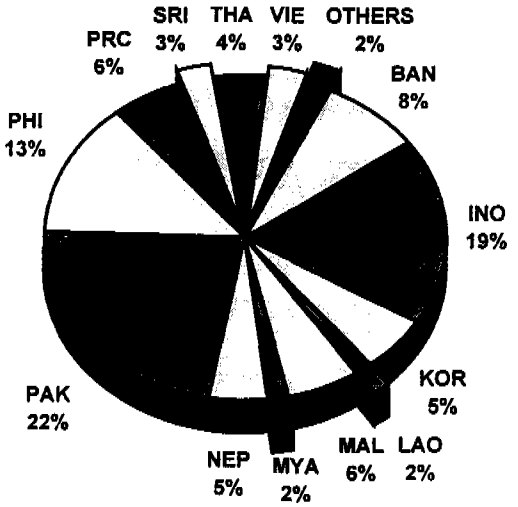
Approved in 1996



Approved in 1991-95



Total: 1968-96



[1] Loans, PPTAs and AOTAs

APPENDIX 3
Agency Priorities and Suggestions for Regional Initiatives to Strengthen Water Sector Operations

Agency	Agency Priorities and Suggested Regional Initiatives to Strengthen Water Sector Operations
BADC, Belgium	• The BADC *priority* is public health care, basic education, agriculture and food security, basic infrastructure and society building. The emphasis is on rural water supply, sanitation and irrigation, as basic rural infrastructure in support of and part of multisectoral development. It has a particular interest in partnership with the Philippines and Vietnam. • greater emphasis on integrated water planning at sub-regional scale • stimulation on the transfer of knowledge and technology
Finland	• The IDC *priority* is long-term partnership with Nepal and Vietnam, and participation in joint programmes, including the Aral Sea and Mekong basins. A suggested *initiative* is: • Develop a showcase of successful commercialisation of water utility operations (Haiphong), using regional expertise.
FAO	The FAO *priority* is: • Provide multi-disciplinary support and training for review and reform of national and local water sector policy, legislation, and administration, with emphasis on water scarcity management. Suggested *initiatives* include: • a regional programme on water scarcity management • a regional programme on river basin management • a programme of consistent national water sector policy review
JICA	• The JICA *priority* is global environmental issues, and issues such as drinking water supply which are of widespread relevance. All projects are developed in response to specific requests from recipient governments, however.
SIDA, Sweden	Water sector *priorities* are: • national strategy and policy formulation for water supply and sanitation • river basin development, with focus on Mekong River basin • application of IWRM concepts in support of sustainable development and poverty alleviation.

- Suggested *initiatives* include:
- Support regional cooperation to achieve equitable and sustainable water management, incorporating integrated river basin planning and conflict resolution; use the Mekong River as a case example.
- Support for policy development and national capacity building in the water supply and sanitation sub-sector.

World Health Organisation

WHO *priorities* are:

- promoting safe water supply and adequate sanitation as basic components of primary health care
- improving technical capabilities in managing water supply- and sanitation-related risks to health
- promoting appropriate and environmentally safe technology for (2) above
- strengthening national and local water supply- and sanitation-related environmental health information systems

DfID, UK

DfID's *priority* is:

- Capitalise on growing interest in shared water resources, specifically through the work of the Mekong River Commission
- A suggested *initiative* is:
- Encourage the development of national water policies following the Dublin Principles.

World Bank-Indonesia Dept

A suggested *initiative* is:

- Conduct annual gatherings of water resources stakeholders within the region

ADB

Proposed *initiatives* are listed in four key result areas:

- Provide integrated water sector investment programs
- Develop regional cooperation in the water sector, including regional meetings, comparative analysis, regional research network, subregional information exchange, support for shared water resources, global water fora
- Catalyzing water sector investments in the region
- Strengthening the Bank's own water sector capacity

Agency	Suggestions to catalyze water sector investments
AusAID	Key emerging *challenges* include: • ensuring that water supply projects are integrated with catchment management • facilitating private sector investment in infrastructure • providing funding for O&M through appropriate water pricing • institutional strengthening of government water management agencies • improving cross-institutional linkages between water sector agencies • fostering development of CBOs
BADC, Belgium	• Promote partnerships and transfer of knowledge/technology between foreign and local water supply companies.
FAO	• A regional initiative on water scarcity and river basin management, and a consistent programme for national water sector policy review
JICA	• JICA's policy is to give a free hand to recipient governments to choose areas in which investment in development projects will provide greatest benefits.
SIDA, Sweden	• Development of national strategy, policy, and institutions, including strong coordination of ESAs
DfID, UK	• Greater cooperation is required between agencies, within an agreed policy framework