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# GLOBAL WATER PARTNERSHIP

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TECHNICAL ADVISORY COMMITTEE (TAC)

## THIRD TAC MEETING AND REGIONAL MEETING

MANILA, PHILIPPINES  
8 - 12 JUNE 1997

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SUMMARY REPORT - August 1997

71 - GWP 97-14327

## CONTENTS

1. Introduction.....	1
2. The TAC Meeting.....	2
2.1 Participation and Agenda.....	2
2.2 The Conceptual and Thematic Discussions.....	2
The Third Dublin Principle: The Role of Women in Water Management.....	2
Integrated Water Resources Management (IWRM).....	3
Water and Food Security.....	5
2.2 The GWP "Global Water Sector".....	7
Associated Programmes.....	7
2.3 The Regional Activities of TAC.....	9
Regional TACs.....	9
Progress In Southern Africa.....	10
2.4 TAC in the Future.....	10
The Future TAC.....	10
TAC Meetings In 1997.....	11
3. The Regional Meeting.....	12
3.1 Participation and Agenda.....	12
3.2 Conclusions and Recommendations.....	12
3.3 Priorities For Action By GWP In The Region.....	13
Appendix 1: Programme.....	14
Appendix 2: List of Papers Presented.....	17
Appendix 3: The Manila Statement for Promoting Sustainable Water Resources Management in the Southeast Asian Countries through a Regional Partnership.....	18
Appendix 4: List of Potential Follow-Up Projects. Outlines.....	20
Appendix 5: List of Participants.....	22

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## 1. INTRODUCTION

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The Technical Advisory Committee (TAC) of the Global Water Partnership met in Manila 8-12 June 1997. The TAC, joined by several observers and resource persons, met for three days, 8, 9 and 12 June to discuss its global agenda and thematic issues. The Regional Meeting followed during 10-11 June and was attended by several water professionals from Southeast Asia.

The meeting was hosted by the Asian Development Bank (ADB) in Manila. A regional contact group of eight renowned water resources professionals (the "G.8", also known as "Interim Southeast Asia TAC") assisted in the planning and implementation of the Regional Meeting.

This summary report covers both the TAC Meeting and the Regional Meeting; it will be issued to all participants of the GWP Consultative Group (CG) Meeting in August in Stockholm. In addition, full reports will be prepared for both meetings (the "Manila Reports") and made available. Abstracts of papers presented at the meeting will be included in the "Manila Reports," and the papers will be made available on request.

The purpose of this summary report is to provide a brief account of the issues discussed and the main conclusions and recommendations reached.

The summary report contains five appendices:

Appendix 1. Summary of meeting agenda

Appendix 2. List of background material for the meetings

Appendix 3. "The Manila Statement for Promoting Sustainable Water Resources Management in the Southeast Asian Countries through a Regional Water Partnership"

Appendix 4. "Project Concepts for Follow-up Action" as resulting from the Regional Meeting

Appendix 5. Lists of participants in TAC Meeting and Regional Meeting

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## **2. THE TAC MEETING**

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### **2.1 PARTICIPATION AND AGENDA**

The TAC Meeting was attended by 10 of the 12 TAC members, as well as observers and resource persons from ADB, the UNDP/World Bank Water Supply and Sanitation Programme (WSP), the International Irrigation Management Institute (IIMI), the Food and Agriculture Organization (FAO), the International Food Policy Research Institute (IFPRI), the International Programme for Technology Research in Irrigation and Drainage (IPTRID), the Southeast Asia G.8 and the Southern Africa G.6.

The discussions at the meeting were based on a number of discussion papers prepared by TAC members, IFPRI, and FAO, as indicated in appendix 2.

The agenda of the TAC included:

- Conceptual and thematic discussions regarding the role of women in water management; integrated water resources management (IWRM); and water and food security
- Discussion of the GWP's "Global Water Sector", i.e. GWP windows and associated programmes
- Discussion of TACs regional activities
- The future of TAC

### **2.2 THE CONCEPTUAL AND THEMATIC DISCUSSIONS**

#### **THE THIRD DUBLIN PRINCIPLE: THE ROLE OF WOMEN IN WATER MANAGEMENT**

Key issues and implications of the third Dublin principle on women's role in water resources management were identified and discussed, based on a discussion paper by Romana de los Reyes (see appendix 2 for full reference). It was concluded that:

Water management performance can be improved, and losses reduced, by building on the distinctive perceptions of women. This can and should be better documented and quantified. That may be a precondition for effecting real change.

There is much to be learned in the water sector in general from experience of the water supply and sanitation sector, which, relatively speaking, has made the most significant advances in approaches.

The discussion and analysis of women's role must separate general cultural issues from specific water related issues, and also consider the different roles in developed and developing countries.

GWP can and must make a contribution to documenting and demonstrating the necessity of much more active involvement of women in areas of water management which have been traditionally men's exclusive domain, especially at the decision making level. In doing so, GWP should start within its own ranks, demonstrating in action and not just in rhetoric that a better gender balance can make a difference. In further work TAC will seek the professional assistance of a gender expert.

### **INTEGRATED WATER RESOURCES MANAGEMENT (IWRM)**

Based on a number of written contributions from TAC members (see appendix 2), the discussion focused on two main issues: the IWRM concept, i.e. how to conceptualise and define IWRM in an operational manner; and the IWRM umbrella/window of the GWP, i.e. how to identify programmes, gaps, and potential associated programmes.

Due to the many points made in the background papers, and during the discussion, it is only possible to highlight a few key ones in this summary:

Advances in stakeholder participation and approaches that consider environmental issues in water resource management are generally much more advanced than issues like economic efficiency and social equity. This is a serious constraint to proper IWRM.

IWRM must strive for increased efficiency of water use (minimising non-productive losses), and for increased productivity (maximising output per unit of water). In doing so, too much focus is generally given to allocation while neglecting the issues of reuse and sequential use.

The lesson from the French experience is that IWRM is a process and it takes time. In creating proper institutions for water management, the following three elements are essential: a conscience (dedicated professionals); a forum (for all stakeholders to express their views); and a budget (allowing for revenue collection while creating incentives for rational water use).

Three basic types of official water allocation are currently used: allocation through central planning; allocation through participatory or negotiation approaches; and allocation through water markets. No general ranking of these three approaches is possible, but in most countries a combination of the latter two is usually appropriate.

Fragmentation and shared responsibilities are realities which are likely to prevail. The key issue for IWRM is to concentrate on adequate cross-sectoral coordination mechanisms and not necessarily on full institutional integration. It has to be recognised that all economic, physical and social systems are

interconnected and governments must develop organisations to cope with such interconnections which fit the economical and political circumstances of their countries.

Based on the discussion, the TAC decided to conclude with the following preliminary definition and framework for IWRM, which will be further developed and elaborated.

IWRM is a process which aims to ensure the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital environmental systems.

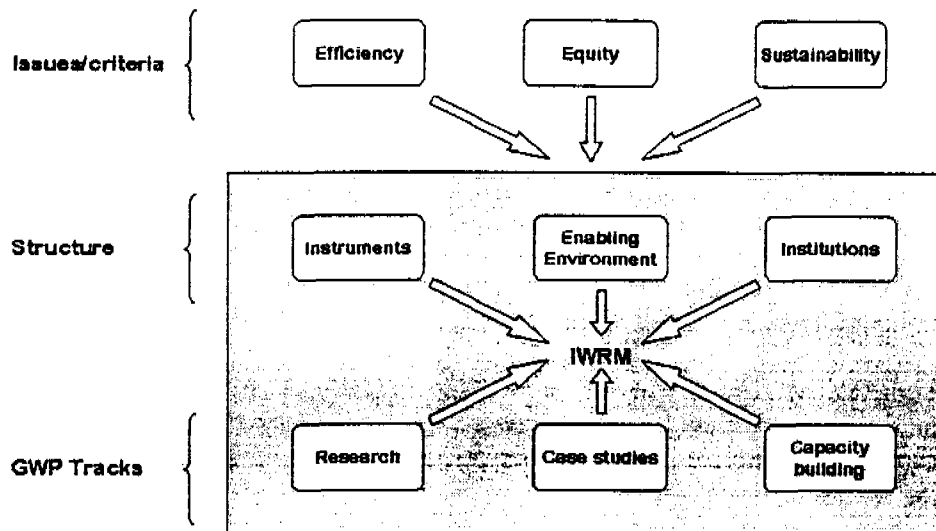


Figure 1: General framework for IWRM

Considering the close links between management of land and water resources, IWRM must consider economic efficiency in water use, equity in access, and environmental sustainability as overriding concerns and issues.

TAC identified three principal elements as an operational structure of IWRM:

- The enabling environment, including the general framework of national policies, legislation, regulations and financing for IWRM
- The institutional framework, both within the general administrative structure, and within an appropriate river basin/catchment structure
- The management instruments for planning and prioritisation, to provide the required information and tools to guide rational allocation and management decisions, in a combination of regulatory and economic instruments

It was decided to make additional efforts, within the TAC and through collaboration with others, to further define and elaborate IWRM within this framework, with a view to defining the IWRM umbrella/window and associated programmes within the overall GWP "Global Water Sector." This would be on the agenda of the TAC meeting in Stockholm in August 1997. At that meeting Terms of Reference (ToR) and planning for an analysis of the IWRM umbrella/window will be discussed.

It was agreed that GWP can assist members in IWRM by facilitating activities and networking within the areas of research, capacity building and analyses of case studies. GWP initiatives on networking institutions engaged in research and capacity building within IWRM are under way, and at the regional level, efforts will focus on case studies to help determine and develop best practices.

## **WATER AND FOOD SECURITY**

Representatives of IFPRI, FAO, IIMI and IPTRID participated in this discussion of one of the most critical issues facing the water sector: How to sustain an increasing agricultural production with increasingly stressed water resources? The discussion developed around three main issues:

### ***Conceptual knowledge***

General problems in the discussion of water and food security are the lack of standardised terminology and approaches to projection studies, as well as the paucity of comparable data. In particular this applies to the two critical concepts: the definition of irrigation which IIMI defines as "any artificial means for changing natural flows of moisture/water for the purpose of securing supply in the rootzone of crops"; and the general definition of "water balance," including how to account for water reuse and sequential use in water balances as well as analyses of real water use efficiency at the basin scale.

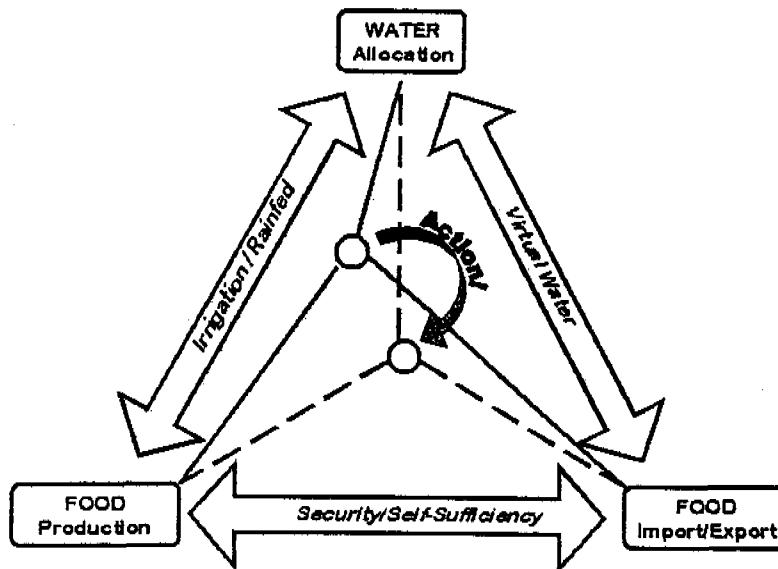
### ***Technical support to decision makers for allocation of water resources and related investments***

Water and globalisation must be considered in a holistic manner, often involving both the geopolitics and geoeconomics of food and water. The discussion of food security versus "food self-sufficiency" implies analyses of national production and international markets with a clear political dimension. Water professionals and managers may contribute to this discussion through working on concepts such as "virtual water" (i.e. the amount of water associated with specified units of production, such as tons of food grains, units of hydropower production etc.). Such analyses have led already in a number of countries to shifts in the use of water for food production to other uses, both within agriculture (cash crops) and in other sectors. Instruments for analysis and decision support in this area are required.

**Technical and managerial approaches for increasing water productivity while ensuring sustainability.**

A number of approaches for increasing and sustaining the productivity of water were discussed, including the concept of "precision irrigation". It was agreed that insufficient attention generally is given to drainage (as compared to the interest in irrigation); to operation and maintenance (as compared to the interest in investments); and to the close linkage between land use planning and water management for food production. It was also recognised that GWP must not neglect the rainfed sector and the implications of developments in this sector for downstream water use.

The discussion was summarised with the help of the following diagram indicating trade-offs that govern choices to be taken by countries in terms of water allocation, food production and food imports:



*Figure 2: Trade-offs in terms of water allocation, food production and food imports*

A number of areas for further investigation were identified, including development of concepts, management instruments and approaches within the three main areas discussed above.

Further discussion and developments to improve the understanding and management of water resources for world food security will be pursued by TAC, in collaboration with the GWP associated programmes of the GWP irrigation and drainage (I&D) window.



## 2.2 THE GWP "GLOBAL WATER SECTOR"

### ASSOCIATED PROGRAMMES

Representatives of the already identified "associated programmes" of the GWP participated in this discussion: UNDP/World Bank Water Supply and Sanitation Programme (WSP) of the water supply and sanitation (WSS) window, and IIMI, FAO and IPTRID of the irrigation and drainage (I&D) window.

In brief, the GWP "Global Water Sector" consists of a number of "windows", or sub-sectors, which are tied together within GWP under the general umbrella of IWRM: enabling environment, institutional framework and management instruments for sustainable water resources management. Each window will be made up of a number of associated programmes which together provide the backbone of international assistance for the water sector as a whole, for IWRM, as well as for the individual sub-sectors. The role of GWP is to ensure the coherence, quality and cross-sectoral coordination of this network, within and between windows, to the benefit of all members be it developing countries, donor agencies, NGOs or private sector organisations.

The TAC meeting briefly recapitulated the criteria for selection of associated programmes: commitment to the general Dublin-Rio principles, including the need for cross-sectoral dialogue and coordination; the ability to make normative contributions within their respective windows; a reasonable geographical coverage; and internationally recognised performance within their areas of expertise. It was stressed that associated programmes are independent and self-sustaining.

The task in the initial stages of the GWP is to analyse the structure of the Global Water Sector, including windows and requirements for services within these windows; identify programmes and gaps within the structure; and as a result identify associated programmes and requirements to these programmes to meet the needs of the Global Water Sector.

The meeting briefly discussed status and progress on associated programmes:

#### ***The IWRM umbrella/window***

References were made to discussions as reported above. The process of analysing the umbrella/window and identifying potential associated programmes will be initiated in Stockholm in August 1997.

#### ***The water supply and sanitation (WSS) window***

Currently the WSS window has one associated programme, the WSP. This programme covers the needs within community water supply and sanitation in rural and peri-urban areas. The programme is managed from Washington, but operates in the field through five regional offices (Jakarta, Delhi, Nairobi, Abidjan, La Paz). TAC has discussed the programme at an earlier meeting, and at the June meeting a presentation was made by

the regional manager for South East Asia, who stressed the necessity of establishing links between the regional programme and other regional activities and networks within water, including the GWP South East Asia TAC likely to be established in the near future.

As part of the next TAC Meeting in Brazil in November 1997, at which urban water issues and utilities will be discussed, efforts will be made to "broaden" the WSS window through additional associated programmes with focus on urban WSS problems and utilities. The approach to analysing the WSS sector as a whole will be discussed at the TAC meeting in Stockholm in August 1997. It has yet to be debated and decided by TAC whether urban WSS and utilities should be dealt with as one or two windows.

#### ***The irrigation and drainage (I&D) window***

The I&D window, and three associated programmes IIMI, FAO and IPTRID, have been the subject of a number of meetings with the TAC and the TAC sub-group on I&D. At the GWP Consultative Group meeting in Marrakech in March 1997 it was decided that the I&D window will be subject to a comprehensive study by TAC. Draft ToR were presented and discussed.

This discussion has since been continued at a meeting in July 1997 in Wallingford, UK, of the Consultative Group of IPTRID which includes WB, UNDP, the UK Department for International Development (DfID, formerly ODA), International Commission for Irrigation and Drainage (ICID), IIMI and FAO. The study is planned for completion in early 1998.

#### ***The environment/ecosystem window***

This window was discussed only very briefly. It will be addressed at the TAC meeting in Stockholm in August 1997, based on preparatory work of a sub-group of the TAC which met with a few interested parties in July to prepare discussion drafts.

#### ***Other windows***

The Interim TAC (1996 - 1997) planned to address the above mentioned windows as first priority. Other windows could include sub-sectors such as energy, hydropower, industry, navigation, recreation, freshwater fisheries, etc., individually or in various combinations.

## 2.3 THE REGIONAL ACTIVITIES OF TAC

### REGIONAL TACS

The concept and roles of regional TACs were discussed. Details were discussed as part of the review of the draft Terms of Reference for the Southern Africa TAC (SATAC), but for regional TACs (RTACs) in general the following broad principles were agreed:

- RTACs relate to the overall objectives and strategies of GWP and should be considered as replica of GWP TAC at the regional level. There are to consist of independent groups of outstanding water resources professionals of different backgrounds serving in their personal capacity.
- RTACs need strong local (regional/country) legitimacy. They must be recognised and welcomed by key stakeholders in the regions and countries in order to be effective, and shall work in close coordination with existing regional and national structures.
- While RTACs are replica of TAC, they do have closer links to networking, experience - sharing and implementation, and they place less emphasis on conceptual work.
- Members of RTACs are part time (3-4 person-weeks per year, more for the chairperson), and will be served by a small secretariat at the location of the chairperson.
- One or more members of TAC are assigned as liaisons members to particular RTACs. The chairpersons of the RTACs are considered ex-officio members of the TAC.
- The RTACs decide on their own mode of operation, including frequency of regular meetings (in different countries of the region), ad-hoc groups and meetings, use of external consultants, etc.
- Establishment of regional funds to support local consultancies for the RTACs and other related purposes should be pursued where possible

Draft Terms of Reference for SATAC were discussed and endorsed for presentation to the GWP Steering Committee and Consultative Group, following appropriate consultation with the region as represented by members of the Technical Committee of SADC Water Sector.

## **PROGRESS IN SOUTHERN AFRICA**

The TAC again took note of the follow-up by GWP in Southern Africa following the TAC meeting in Windhoek in November 1996 as also described in notes to the GWP Consultative Group in Marrakech in March 1997.

In the brief discussion that followed the following points were raised:

TAC welcomed the progress made on initiatives from the Windhoek meeting which illustrated the special character and added value of GWP as facilitator and promoter of knowledge generation and experience sharing. It was emphasised that GWP should not duplicate the work of donors and engage in normal project implementation.

GWP has not yet played a significant role in donor coordination. Such coordination is required, and GWP including the TAC and SATAC, should play a role, but proper mechanisms for doing so have yet to be identified.

In reviewing project proposals resulting from Windhoek, TAC raised a number of technical questions which indicated the important role of TAC as a mechanism for quality assurance of GWP initiatives. However, with the limited capacity of TAC, this role should be revisited and considered along with the role of the regional TAC.

## **2.4 TAC IN THE FUTURE**

### **THE FUTURE TAC**

The present TAC is an interim group serving for the period 1996-1997. Draft Terms of Reference for the permanent TAC were discussed, including its composition and work programme and venues/sub-regions for TAC meetings in 1998-1999.

The resulting draft Terms of Reference for TAC will be presented to the Steering Committee and Consultative Group in Stockholm in August 1997.

As for the 1998 - 1999 work programme, the following criteria were considered in the identification of sub-regions:

- Characteristics of the regions, i.e. variety in climatic and hydrological regimes, types of water resources problems (e.g. droughts in Southern Africa; pollution in East/Central Europe etc.), and differences in general economic developments

- Other activities by GWP in the regions, including "facilitated meetings" co-sponsored by bilateral donors and GWP
- Geographically equitable development of GWP coverage

Prioritising between a long list of potential sub-regions, TAC recommended the following venues for TAC in 1998 - 1999:

- South Asia and Eastern/Central Europe in 1998
- North Africa and China in 1999

### **TAC MEETINGS IN 1997**

#### ***Stockholm August 1997***

The TAC Meeting in Stockholm (12 - 13 August 1997) will be devoted to the analysis of the GWP Global Water Sector, including definition of windows and Terms of Reference for identification of associated programmes, with particular emphasis on the IWRM umbrella/window and the environment/ecosystem window. Preparations for the Brazil meeting will also be discussed.

#### ***Brazil November 1997***

The TAC will meet in Brazil during 14-20 November 1997. The meeting will consist of a three-day TAC Meeting and a two-day Regional Meeting. The TAC Meeting will address these issues: water for big cities, utilities, and public-private partnerships. A brief initial discussion of these topics took place, and a number of preparatory steps for the meeting were agreed. The Regional Meeting will be hosted by the Brazilian Association of Water Resources with the support of the Inter American Development Bank (IDB). Preparatory steps, including the identification of a regional contact group ("G.6-10") were discussed.

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### **3. THE REGIONAL MEETING**

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#### **3.1 PARTICIPATION AND AGENDA**

The Regional Meeting was attended by 91 water resources professionals from the ASEAN countries, GWP, regional and international organisations, and donor organisations. The meeting was organised in three parts: an introductory plenary session for ½ day; a 1 day of discussions in four parallel working groups; and a concluding ½ day plenary session. Discussion papers for the meeting had been prepared by the G.8 on key issues related to water in the South East Asian countries, and by ADB on regional partnership issues and possibilities.

The meeting adopted the appended "Manila Statement" (appendix 3), which welcomed GWP and identified a number of follow-up actions, including the formation of the Southeast Asia TAC (SEATAC).

The follow-up actions, and the steps to be taken in forming the regional TAC, were identified after the meeting in discussion between the G.8, GWP and ADB representatives. A note summarising the initially proposed immediate "Project Concepts and Follow-up Actions" is appended (appendix 4)

The working group discussions addressed four key issues, as identified by the G.8 on the basis of the regional consultation meeting convened by ADB in 1996. The consultation also resulted in production of the three volume report: "Towards Effective Water Policy in the Asian and Pacific Region". The selected four key issues were: management approaches at the national level; management approaches at the river basin level; management approaches for water conservation and savings; and proposed actions by GWP in the region.

#### **3.2 CONCLUSIONS AND RECOMMENDATIONS**

The conclusions and recommendations of the meeting were summarised by the TAC Chairman. The main conclusions by the working groups sessions were:

##### ***Management at the national level***

An apex body for IWRM at the national level is needed, but its form and functions will depend on the particular local conditions. Key pre-conditions for the effectiveness of such a body include the political will and its empowerment, based on awareness of the need for IWRM in the public and among key stakeholders, especially political decision makers.

### ***Management at the river basin level***

There is no single solution or prescription for a river basin organisation (RBO), not even within a country. RBOs should be created only in response to demand, and with functions appropriate to the local situation. RBOs need clearly defined mandates and functions, spelled out in legislation and backed by political will.

### ***Management approaches for water conservation and savings***

Pricing and charging are critically important instruments for water conservation. Supply management is still required, but increased attention must be given to demand management practices. Public awareness of water scarcity is a precondition for effective water conservation management and reuse of water. All uses and users of water must be considered in water conservation strategies, including requirements for ecosystem maintenance

## **3.3 PRIORITIES FOR ACTION BY GWP IN THE REGION**

The following priorities were identified independently by all four working groups:

- Collection, dissemination, and sharing of experience through workshops, seminars, study tours, etc., and building on case studies
- Collection and dissemination of data and information, including development of regional data bases and use of the internet through an "information mall" and other means
- Development and dissemination of knowledge, methodologies, and guidelines, based on analyses of experiences in countries of the region
- Facilitation of awareness - raising for integrated water resources management, especially at the political level; and
- Support for capacity building in all aspects of IWRM

The appended "Project Concepts for Follow-up Action" proposes a number of initially suggested actions along these lines, as identified jointly by the G.8, GWP and ADB after the meeting. As an "Interim SEATAC," the G.8 is working with GWP and ADB to mature these ideas into fundable projects. The work has since been continued at a follow-up meeting in July.

The cooperation between GWP and ADB in organising and implementing the meeting was excellent, and it was clearly demonstrated that the two organisations have mutual interest, potential, and complementary advantages in assisting the region in integrated water resources management.

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## APPENDIX 1: PROGRAMME

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### TAC meeting, part 1

#### Sunday 8 June

- 08:30-09:00 *Agenda and Report of Windhoek meeting*  
09:00-09:30 *GWP/TAC since last meeting*  
09:30-10:00 *Follow-up in Southern Africa*  
10:00-10:15 *BREAK*  
10:15-11:00 *The Southern Africa TAC (SATAC)*  
11:00-12:30 *The third Dublin principle: The role of women in water resources management*  
12:30-13:30 *LUNCH*  
13:30-18:00 *Integrated Water Resources Management (IWRM): The concept, the GWP window*  
(Break 15:30-15:45)

#### Monday 9 June

- 09:00-12:30 *Water and food security*  
(Break 10:30-10:45)  
12:30-13:30 *LUNCH*  
13:30-16:00 *Associated programmes*  
(Break 15:00-15:15)  
16:00-18:00 *Preparatory meeting with the ASEAN G.8*

#### Regional Meeting

#### Tuesday, 10 June

- 08:00-08:30 Registration of participants (ADB Auditorium)  
08:30-08:35 Welcome Address by  
Kazi F. Jalal, Chief, Office of Environment and  
Social Development, Asian Development Bank  
08:35-08:45 Opening Address by  
President Mitsuo Sato, Asian Development Bank



- 08:45-08:50 Statement by Torkil Jønch-Clausen, Chairman, Technical Advisory Committee, Global Water Partnership
- 08:50-09:30 Background and Status of the Global Water Partnership by Torkil Jønch-Clausen, Chairman, Technical Advisory Committee, Global Water Partnership
- 09:30-10:00 Report of the GWP Technical Advisory Committee Meeting on 8-9 June by R. Bhatia.
- 10:00-10:30 BREAK
- 10:30-11:00 Key Issues and Strategies on Integrated Water Resources Management in the ASEAN Subregion, by Angel Alejandrino
- 11:00-11:30 A Water Partnership for Asia? - Making a Start in the ASEAN Subregion, by Paul Mosley
- 11:30-12:00 Discussion
- 12:00-12:15 Introduction to Working Group Sessions
- 12:15-13:30 LUNCH
- 13:30-15:15 Working Group Session 1:  
Management Approaches at the National Level including Water Sector Coordination, Policy and Legislation
- 15:15-15:30 BREAK
- 15:30-17:00 Working Group Session 2:  
Management Approaches at the River Basin Level
- 17:00-19:00 Reception hosted by Kazi F. Jalal, Chief, Office of Environment and Social Development, Asian Development Bank

**Wednesday, 11 June**

- 08:00-08:45 Plenary Presentation of Working Group Results, sessions 1 & 2
- 08:45-10:15 Working Group Session 3:  
Management Approaches to Water Savings and Conservation:
- 10:15-10:30 BREAK
- 10:30-12:15 Working Group Session 4:  
GWP's Role and Activities in the ASEAN Subregion
- 12:30-13:30 LUNCH
- 13:30-14:15 Plenary Presentation of Working Group Results, sessions 3 & 4 and of the Draft Meeting Statement
- 14:15-15:15 Plenary Discussion
- 15:15-15:30 BREAK
- 15:30-16:00 Presentation of CD ROM Water Atlas (IIMI) to interested participants
- 16:00-16:30 Summing-up by GWP-TAC Chair and Adoption of the Meeting Statement

16:30-16:45      Closing Remarks by Kazi F. Jalal, Chief, Office of Environment and  
Social Development, Asian Development Bank  
Closing Remarks by Torkil Jønch-Clausen, Chairman, Technical Advisory  
Committee, Global Water Partnership

**TAC meeting, part 2**

**Thursday 12 June**

09:00-10:30      *Assessment and conclusion of regional meeting (with G.8 and ADB)*  
10:30-10:45      *BREAK*  
10:45-12:00      *The future TAC*  
12:00-13:00      *LUNCH*  
13:00-14:30      *Preparations for the Stockholm TAC meeting*  
14:30-15:30      *Preparations for the Brazil TAC meeting*  
15:30-15:45      *BREAK*  
15:45-17:00      *Summing up on TAC programming for 1997*  
17:00              *CLOSURE*

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## APPENDIX 2: LIST OF PAPERS PRESENTED

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1. "Role of women in the provision, management and safeguarding of water", R. de los Reyes
2. "Dublin principles and sanitation", A. Wright
3. "Water planning and water legislation, from the perspective of the Dublin Principles", M. Solanes
4. "Integrated Water Resources Management in tropical regions, water related land use an essential component", M. Falkenmark
5. "Report on IWRM", I. Cheret
6. "Integrated Water Resources Management: a central issue for the Global Water Partnership", J. Kindler
7. "IWRM: preliminary review, conceptual framework", K. Sandstrom and R. Bhatia
8. "Water allocation among competing uses: an application of Integrated Water Resources Management (IWRM) to the Subernarekha Basin, India", Ramesh Bhatia
9. "Combining Stakeholder participation with interactive modeling as an approach to basin planning and water management: Vaigai Basin in Tamilnadu, India", Peter Rogers
10. "Water and land policy and global food supply", M. Rosegrant
11. "Water and food security: some thoughts on strategy and practical actions following the summit", A. Kandiah
12. "Food security through irrigation. Implications for policy makers", R. Bhatia. M. Ait Kadi and J. Rey.
13. "Water as an economic good: a solution or a problem ?", C. Perry, D. Seckler, M. Rock.
14. "The IIMI indicator of relative water scarcity", D. Seckler, R. de Silva
15. "The environmental dimensions of integrated water resources management", J. Kindler
16. "Water for big cities: big problems easy solutions?", P. Rogers
17. "Key issues and strategies on Integrated Water Resources Management in the ASEAN Subregion", A. Alejandrino
18. "A Water Partnership for Asia? Making a start in the ASEAN Sub-Region", Paul Mosley.

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### **APPENDIX 3: THE MANILA STATEMENT FOR PROMOTING SUSTAINABLE WATER RESOURCES MANAGEMENT IN THE SOUTHEAST ASIAN COUNTRIES THROUGH A REGIONAL PARTNERSHIP.**

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Water is becoming the most critical resource in the Asian and Pacific Region. The population of the Region is expected to increase from 2.9 billion in 1990 to 4.2 billion in 2025, when over half its people will live in urban areas. Water shortages will increase, competition for water will intensify, flood losses will escalate, water pollution will worsen together with the health risks and environmental damage involved. Water resources will need to be developed and protected, and water services expanded and improved. Steps can and must be taken at the national level to meet these challenges, and there are many opportunities for the countries of the Region to work together in Partnership.

The participants of the Regional Meeting on Water Resources Management in the Southeast Asian countries recognised these opportunities and adopted this Manila statement. Coming from a wide range of national and international organisations, both governmental and non-governmental, with interests in the water sector, they met under the auspices of the Technical Advisory Committee of the Global Water Partnership (GWP) and the Asian Development Bank (ADB) in Manila, Philippines, on 10-11 June 1997.

The participants considered that water policy, legislation, institutional capabilities, financial resources, and implementation capacity are inadequate to support sustainable water resources management in the Southeast Asian Region. Guidance for improving the situation is provided by the Dublin Principles on Water and Sustainable Development adopted by the Earth Summit at Rio de Janeiro in 1992, and the Principles for Effective Water Policy resulting from the Regional Consultation Workshop convened by ADB in 1996. This consultation process developed Seven Strategies for Effective Water Sector Development at the country level.

The task now was to evaluate ways these strategies could be implemented to suit the needs and conditions of South East Asian countries. In working groups addressing management approaches at the national level and at the river basin level, as well as management approaches for water savings and conservation, the participants made a number of specific observations and recommendations for action which will be reflected in the "Manila report" from the meeting.

The participants welcomed the formation and aims of the Global Water Partnership for promotion of Integrated Water Resources Management. They recognise the opportunities for the countries in the region to work together, in order to achieve the maximum impact from water sector developments. They further noted the complementarity and potential for close collaboration between GWP, ADB and others as convincingly demonstrated by the Manila meeting.

The participants identified a number of priority initiatives for the Partnership, mostly concerning the collection and dissemination of experiences, data and information within the region; the development and dissemination of methodologies based on country and regional experiences; facilitation of awareness raising at all levels, including the political level; and facilitation of capacity building for sustainable water resources management. These initiatives will be reflected in the "Manila report", and pursued by interested stakeholders in the countries of Southeast Asia in collaboration with GWP, ADB and other external support agencies.

In order to start the process towards formation of a regional water partnership, as part of the GWP, the formation of a Southeast Asia Technical Advisory Committee was seen as a first step. This independent group would have representation from all major stakeholder groups (governments, NGO's, private sector and academic institutions), and would be formed in close cooperation with existing regional networks and contact groups for water resources management (such as the Committee on Water Resources for the ASEAN Region). In this connection, the meeting appreciated the offer of ADB to support the establishment of such a regional water partnership.

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## APPENDIX 4: LIST OF POTENTIAL FOLLOW-UP PROJECTS. OUTLINES.

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Nine priority actions for follow-up to the Regional Meeting were identified by the Regional Contact Group ("G8"). These actions aim to implement the *Main Recommendations* of the Regional Meeting, and the commitments expressed in the Manila Statement. They also are consistent with the Objectives of the Global Water Partnership, and with the Strategies for Effective Water Resources Development defined as a result of the ADB 1996 Regional Consultation Meeting.

The *Main Recommendations* and commitments are:

- Move towards a regional water partnership
- Facilitate awareness raising
- Collect and disseminate data and information
- Develop knowledge, methodologies and guidelines
- Collect and share experience
- Facilitate capacity building
- Coordinate ESA action

The nine priority actions are:

1. Establish a GWP Regional Technical Advisory Committee (SEATAC), and provide ongoing secretariat support for the Committee.
2. Convene a *Southeast Asian Caucus* of countries at the GWP Consultative Group Meeting in Stockholm, August 1997.
3. Establish an Internet-based information service in the water sector.
4. Define water sector needs in countries of the region, as required, by compiling a National Water Sector Profile.
5. Undertake comparative analysis, based on a set of regional and global case studies, of policy and practice in integrated water resource management. Disseminate findings through publications, workshops, and a major regional conference (see 7).
6. Develop guidance material on key issues (defined by SEATAC), and transfer knowledge/technology via workshops and roving seminars.
7. Mount a major regional conference on institution-building in the water sector, based on the comparative analysis in action 5.
8. Convene a Ministerial Conference on Effective Water Policy and Investment.

9. **Establish an annual consultation meeting among ESAs active in the water sector, as a forum for regular contact. Support this forum by facilitating information exchange (e.g. by on-line project information).**

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