Draft

Framework Document for Capacity Building

Guidelines for Workinggroup Discussions

Delft, May 1991

Preface

This Framework Document has no pretentions. It serves to assist you in preparing for the discussions in the working sessions, as you are working towards the formulation of the concepts and operational recommendations for the Delft Declaration. It adds to the UNDP Document on Capacity Building for Water Resources Management which concentrates more on the issues and structure of the water sector itself.

It means to provide a common terminology and discussion base. In your first working group session on Monday afternoon, it could prove worthwhile to spend time on creating consensus on the issues at stake and on the terminology. Indeed, we must recognise that the participants to the discussion come from varying professional and institutional backgrounds. Also, next to all participants have a typically technical or engineering specialisation - few have an experience specifically related to Capacity Building.

This Document does not have the ambition to be a comprehensive treatise. It is conceived as a compilation of relevant statements, schematised institutional and sector structures, and check-lists. The text is kept concise for rapid consultation.

Contributors to the text are an environmental engineer, a sanitary engineer, a water resources expert, an urban planner with a sociology background, and an irrigation specialist.

IHE,
Delft, 17 May 1991

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1 The Symposium Statement

1.1 Background

1 The experience of the past two decades, as formulated notably in the Mar del Plata Action Plan (1977), the New Delhi Statement (1990), and the policy of the UN Administrative Committee on Coordination Intersecretariat Group for Water Resources ACC-ISGW (1990), emphasises the urgent need for integrated, sustainable water resources management. It calls for a comprehensive vision on the 'water sector'.

The aims are to achieve a more efficient and sustainable supply management of water as a prime environmental resource, and to arrive simultaneously at more effective and again sustainable delivery to its users.

2 The size of the challenge implied is formidable; it can be gauged by the degree of complexity and interdependency of the sub-sectors involved, and by the vast differences in the type of work for equally important and interrelated activities as for example integrated water resources planning and management at the national level, and the implementation of a low-cost sanitation programme for an urban fringe area at the local level.

During the eighties a new dimension was added to this problematic, by recognising that water is in fact only one of the natural resources to be managed in an environmentally sustainable fashion. The environmental threats that pose economic and demographic growth necessitate global awareness and strategies to ensure balanced development.

3 The eighties have also taught us that progress in development is not lasting, does not take root, if the implementers view their task primarily as supplying physical infrastructure. The New Delhi Statement is clear in concluding that future long-term and sustainable development in the sectors must rely more on adequate assistance to and development of the local capacity. The sector must change its infrastructure supply orientation (supply of facilities to communities who presumably will once become consumers) into a demand orientation, becoming more responsive to the stated priorities and wishes of the communities.

1.2 Function and objective of the Symposium

4 The growing economic relevance of water and the looming spectre of increasing water resource shortages, led the UN Committee on Natural Resources to request ACC-ISGW to develop a strategy for a renewed commitment to the Mar del Plata Action Plan. Several UN agencies prepared sectoral documents, notably in preparation of the large 1992 Dublin Conference on Water and Development and the 1992 UN Conference on Environment and Development (FAO, 1990; UNDTCD, 1991; UNDP, 1991). Also the 1990 New Delhi Consultation identified a political consensus on a number of broad issues related to the effectiveness of the water sector (UNDP, 1990).

This Symposium will bring together the technical experts in the relevant fields to come to agreement on the key issues, and to rally a substantial part of the ESA (External Support Agency) community and countries around the strategies that need to be developed for capacity building. The

Symposium will bring forward recommendations as to what those Agencies and the countries could do to be supportive of these strategies. Key elements of action plans will be formulated.

The Symposium thus has a pivotal function towards operationalising the new concepts that have emerged from the eighties and are considered necessary for improving the efficiency and effectiveness of the sector.

5 The Symposium's outcome will be elaborated in such a way as to contribute strategic concepts and statements on capacity building to the 1992 Dublin Conference on Water and the Environment and the 1992 UN Conference for Environment and Development (UNCED).

1.3 Focus of the Symposium

6 This Symposium focusses on the strategies to build capacity for the purpose of managing water resources effectively with an aim of sustained adequate delivery of water to users. Capacity building involves development of institutions, managerial systems and human resources, which in turn require favourable policy environments.

7 The focus of the Symposium is threefold:

i A prerequisite to integrated development in the water resources sector is an accurate assessment of the demands in the several sub-sectors and the existing potentially available sources for meeting these demands. The focus on the demand-side will lead to a better linkage of the strategic activity of integrated water resources planning and management (WRM) with the water handling operations in the two large and relatively fragmented sub-sectors of water supply and sanitation (WSS) and irrigated agriculture (IRR). These sub-sectors are of prime concern in the context of sustainable water resources utilisation, in contrast to other large water utilisers, like hydropower, inland navigation, river engineering, etc., which generally are centralised, clearly organised, of pronounced technical nature, and with financial and political leverage. In WSS and IRR consumption takes place by the individual (household or farmer); the wide-scale sustainable provision of these services still hits on numerous difficulties at the workfloor level which can only be solved when the sector as a whole operates well. Many of these constraints appear to be common for the WSS and IRR sub-sectors.

To be examined are amongst others the water use efficiency, also at the farm and household level (wastage in irrigation and unaccounted-for-water in WSS), policies and regulations regarding abstractions, the valuation of water, pricing and charging for water use, cost recovery, prevention of water pollution, water reclamation in industry, city and agriculture, water logging and salinity, the attribution of responsibilities to institutions at national and local level, decentralisation and privatisation, small-scale water resources projects, human resources, training and education, consumer associations and other non-governmental agencies, etc.

ii Given the findings of the assessments, the Symposium will attempt to formulate what should be considered the key capacity-building issues that lie at the basis of any ineffectiveness. They may pertain e.g. to a lack of supportive policy and regulatory framework, failure to mobilise public participation, limited managerial capabilities to make institutions operate effectively, limited financial and technical capabilities, poor personnel management, and a general lack of communication ability (between grass-root and planner, as well as horizontal or between sub-sectors).

In this context agreement must be reached on which are the key institutions and on their possible role or mandate in the sector's organisation. The importance of some of these institutions may lie in their capacity to create an enabling environment. Institutions must be defined in the broad sense of actors and partners in the sector operations. They encompass notably the formal agencies, authorities, corporations, companies, national and local governments, consultants and contractors, beneficiaries, water users and their associations and committees, NGOs, the scientific and academic community, and the ESAs.

iii The attention for capacity building is relatively new. Confusion still exists on its precise meaning, its role and on how to make it an operational concept. The Symposium seeks to clarify this.

The Symposium will identify the key organisations and instruments that can be mobilised to develop the institutions and build the local capacity. It will explore and formulate strategies to make the sector work more effectively with respect to the establishment of sustainable water resources facilities and institutions. Specifications must be developed on how countries and ESAs can cooperate in helping capacity building in the sector.

In particular the Symposium can conceive and study the feasibility of a new generation of programme-oriented projects for the nineties, aiming at a systematic and comprehensive approach for capacity building.

8 The questions thus raised here are:

- where is the sector inefficient and/or ineffective,
- which institutions need therefore development and what capacity should be built,
- and by whom and how should this be carried out.

9 The agents for capacity building and institutional development are amongst others: non-governmental organisations; international professional associations and their national chapters; education, training and human resources development institutes; problem-oriented and fundamental research establishments; North-South twinning arrangements between institutions and utilities; consultants; multi-national corporations; banks and other financial institutions; etc.

1.4 Outputs of the Symposium: The Delft Declaration

10 Recognition and better understanding of the interdependency of the sub-sectors, and of similarities and differences between the sub-sectors.

11 Insight in the role of institutions and the enabling environment, in the context of the problems to be addressed in the water sector.

12 Agreement on the need for capacity building of identified institutions to arrive at more effective institutions and interventions.

13 Agreement on strategies to mobilise the factors that can be made instrumental in capacity building. The components of the strategies can take the form of concrete actions and intentions, or can be formulated as requirements and conditions for new sector related projects.

14 Development of a protocol for national/regional Rapid Assessments of Water Resources that would chart the physical and the institutional characteristics of the sector, evaluate its efficiency towards water resources and its effectiveness in meeting demand, and propose capacity building measures (see UNDP, 1991).

15 Recommendations in support of and preparation for the 1992 Dublin Conference on Water and the Environment and the UN Conference on Environment and Development (UNCED).

2 The Capacity Building Concept

2.1 Capacity Building: What It Is, What It Does

1 A sector needs to be **effective** in the delivery of its "services" or "products" to its customers and commissioners, and **efficient** in its use of its resources. In the case of the water sector, the services are e.g. tap water of given quality and quantity, healthy river and lake water, and adequate quantities to allow irrigation and shipping. These services are prerequisites to development and therefore must be **reliable**. Thus the sector must aim for long-term **sustainability**.

2 Also at the smaller scale of the individual project (or number of projects executed by an organisation) **effectiveness** and **efficiency** are called for. These aims are translated into quantitative targets that can be measured to gauge the project's or organisation's performance. The past decade however has higlighted a common procedure flaw: usually new infastructure got only assessed shortly after being taken in operation, whilst in fact long-term viability proved generally the critical aspect. This led to the recognition of two other criteria, namely **reliability** and **continuity**. Together they determine the project's **sustainability**.

However, high efficiency at sector level does not guarantee effectiveness in service delivery at project level.

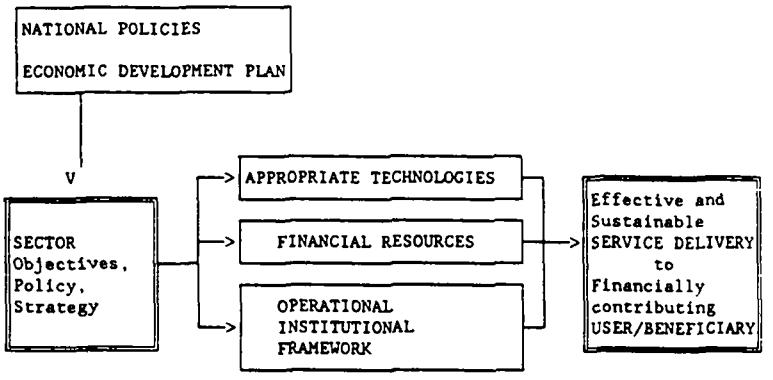
The sector's strategy must in addition fit national policies and economic development plans, and help to achieve targets in public and environmental health and well-being. It relates explicitly to environmental and human settlement policies.

3 The sector achieves its aims through (i) application of appropriate technologies (the hard-ware), (ii) use of financial resources and (iii) an operational institutional framework (the soft-ware). (Scheme 1).

Evidence grows that in the next decade the bottle-neck in sector development will not be any longer the availability of technologically sound answers, nor that of financial resources for investment purposes (see e.g. WB, 1990). Increasingly development and financial institutions point at the limited capacity of the countries' institutional framework to absorb loan and grant funds and convert them into worthwhile and sustainable projects and actions.

Significantly, the problem identified here seems typical for other great undertakings in today's world: (i) the re-creation of the economic strength of the Middle and Eastern European countries does not hurt on lack of available funds but on weak structures in these countries, resulting in few proposals for fundable/sustainable projects, and (ii) large commercial enterprises have gone recently through substantial reorganisations to be better able to adapt to their swiftly changing commercial environment, and it becomes increasingly hard for them to find, keep and groom qualified human resources suitable for their institutional requirements (Naisbitt and Aburdene, 1986).

Building the capacity of these institutional frameworks is therefore the urgent and necessary task for the nineties.



Scheme 1 Scheme of the position of the sector and its tools through which it operates. Lines indicating feed-back mechanisms have been omitted here.

4 Several **institutions** take part in these frameworks. They are strongly influenced by governments through policy and regulation, creating an **enabling environment** in which the sector and the institutions can develop. Some institutions have **formal** mandates and structures, like governmental departments, professional organisations, corporations, and certain private groups and enterprises. Others are **informal**, in the sense that their role is not precisely outlined, their mandate not spelled out, or their structure unclear. This pertains for instance to user associations, and to the societal "inputs" that lead to a supportive political and legislative environment. (See also Section 5).

5 To improve sector performance, individual institutions often need **strengthening**. If the mission or structure of one or more institutions needs substantial reformulation or reorganisation **institutional development** becomes necessary. Developing enabling environments and individual institutions at the scale of a sector or sub-sector is called **capacity building**. Capacity building thus involves development of institutions, their managerial systems and their human resources, which in turn require favourable policy environments. (See also Section 6).

As a point in case the International Action Programme on Water and Sustainable Agricultural Development (FAO, 1990) concludes that 'institutions that deal with agriculture and water development need to be strengthened or restructured to meet efficiently the requirements of the farmers and to promote sustainable agricultural development. Principal institutions should have effective linkages with all other related institutions so as to optimize the use of physical, financial and human resources.'

6 At the level of a project, **sustainability** is defined as the capability of the project to continue to deliver service or products in an autonomous manner after the external (ESA) funding agency has withdrawn.

Sustainable development can be defined as 'a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and the institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations' (WCED, 1987). Or alternatively, as 'economic

change subject to the constancy of natural capital stock - the stock of environmental assets is held constant while the economy is allowed to develop whatever social goals are deemed appropriate' (Pearce, 1988).

2.2 Water as a Human Settlement Development Tool

7 The Symposium offers an unprecedented opportunity to place strategies for water resources capacity building in the broader perspective of human settlements planning and sustainable development.

Today, 800 millions of people live in settlements without essential public services - like health, education and clean water - and without jobs, and improved shelter and nutrition that could enhance their potential as human beings.

8 Notably the developing countries are confronted with unrestrained urbanisation and concomitant industrialisation, and in general with concentration in human settlements of a completely new dimension. These factors can become the vehicle for economic development, if i.a. water is available to make the vehicle run. Human settlements provide the setting in which most economic and social activities take place. Commitments to water supply for industrialisation, agricultural improvement, and the expansion of trade, all require an appropriately built environment in the form of cities, towns and villages.

Tragically, the problems of water supply, conflicting uses and pollution are at their most critical state in rapidly growing urban areas. Third World cities and towns already accomodate more than one third of their national populations and produce two thirds of the gross national product.

9 Achieving solutions to pressures for water demand and its corollary water degradation is a prerequisite for the well-being of communities and the elimination of bottlenecks to sustainable human settlement development and economic expansion. Therefore the broader context of water resources capacity building strategies should be i.a. to identify the issues concerning the supply and demand of water in human settlements and to develop strategies and actions that will enable governments and institutions to manage water resources in a manner that ensures sustained supply of economic and safe water to human settlements.

10 Bringing the human settlements criterion in the focus of the discussion implies important changes in perception. The multitude of settlements with their diverse location, composition and preferences have always been a challenge and headache for the sector professionals, yet they are at the same time a powerful opportunity if their support can be rallied; they may in fact be the only solution:

- the supply of services cannot be sustained without the political agreement from the side of the communities inhabiting the settlements. The sector needs to make further efforts to win their continued and unbiased support. A new 'contractual approach' between sector and communities as equal partners needs to be established recognising that communities have rights but also responsibilities;

- given the above, and the increasing numbers of interventions, the need arises to shorten the communication lines between local beneficiary and planner and decisionmaker. The need arises to decentralise planning and decisionmaking, and devolve power to local governments that will then have the means to become more responsive to local needs;

- because of the multitude of settlement locations plans and interventions of sub-sectors need integration to prevent spillage and counter-productiveness. An integral sector approach at national level is necessary but not sufficient. Integration must be achieved at local level as well. Examples are the Indonesian Integrated Urban Infrastructure Development (IUIDP) aiming at decentralising project planning, implementation and operation to provincial and local government, generating also more local financial resources, and the Small-scale Irrigation Projects (NN., 1990), i.a. in Thailand, in which one or a few towns can co-decide on an integral water use plan suiting their needs.

2.3 Preferred Changes - Achieving Sustainable Development Towards Building Capacity

11 It is suggested that the work group sessions pay special attention to such elements as

Local capacity building;
Focus on poverty - serving the unserved;
Meeting demand - providing services people want and will pay for;
Sharing costs - devising appropriate pricing levels and improving sector performance;
Appropriate innovations in technology, research and education and training;
Establishing achievable targets and effective monitoring systems;
Coordination - building intersectoral and collaborative national and international networks.

The groups may wish to emphasise the implementation of their ideas and findings by reference to

Key concepts and issues;
Developmental objectives;
Needs assessment;
Problem definition;
Inputs and outputs;
Sustainability;
Community management and the role of women and marginal low-income groups;
Opportunities for funding programmes, research, education and training.

3 Capacity Building: Issues and Linkages in the Sector

Scheme 2 reviews most key issues currently addressed by the sub-sectors of WRM, WSS and IRR. Many are common, yet some aspects are specific.

The sector is large and relies on the performance of its sub-sectors. Interdependency exists with other policies and sectors at national level. The Scheme is composed in such a way as to distinguish these three layers:

- the top layer at national or state level on which the broad comprehensive development plans and strategies are defined that together determine the 'general policy environment' which envelopes the water sector. This pertains notably to economic development plans and strategies, and the more specific industry and agriculture development plans. Also other policies regarding e.g. welfare, public health, state organisation and national security are decided here. Of particular interest to the water sector, and therefore separately mentioned, is the management plan for environmental resources, which covers conventional natural resources as well as the spatial and ecological quality potentials.

- a second layer, at which the general and integrated planning and management of the water resources is carried out. This planning exercise involves data collection and processing, and volume allocations. It is carried out in close cooperation (dual-way communication) with the institutions of the other sub-sectors. It certainly entails extensive negotiations to accomodate considerable pressure from the side of the implementing institutions who wish to secure their water rights.

- the third, inner layer features the different sub-sectors, each again with their own policies and strategies, and implementation structure.

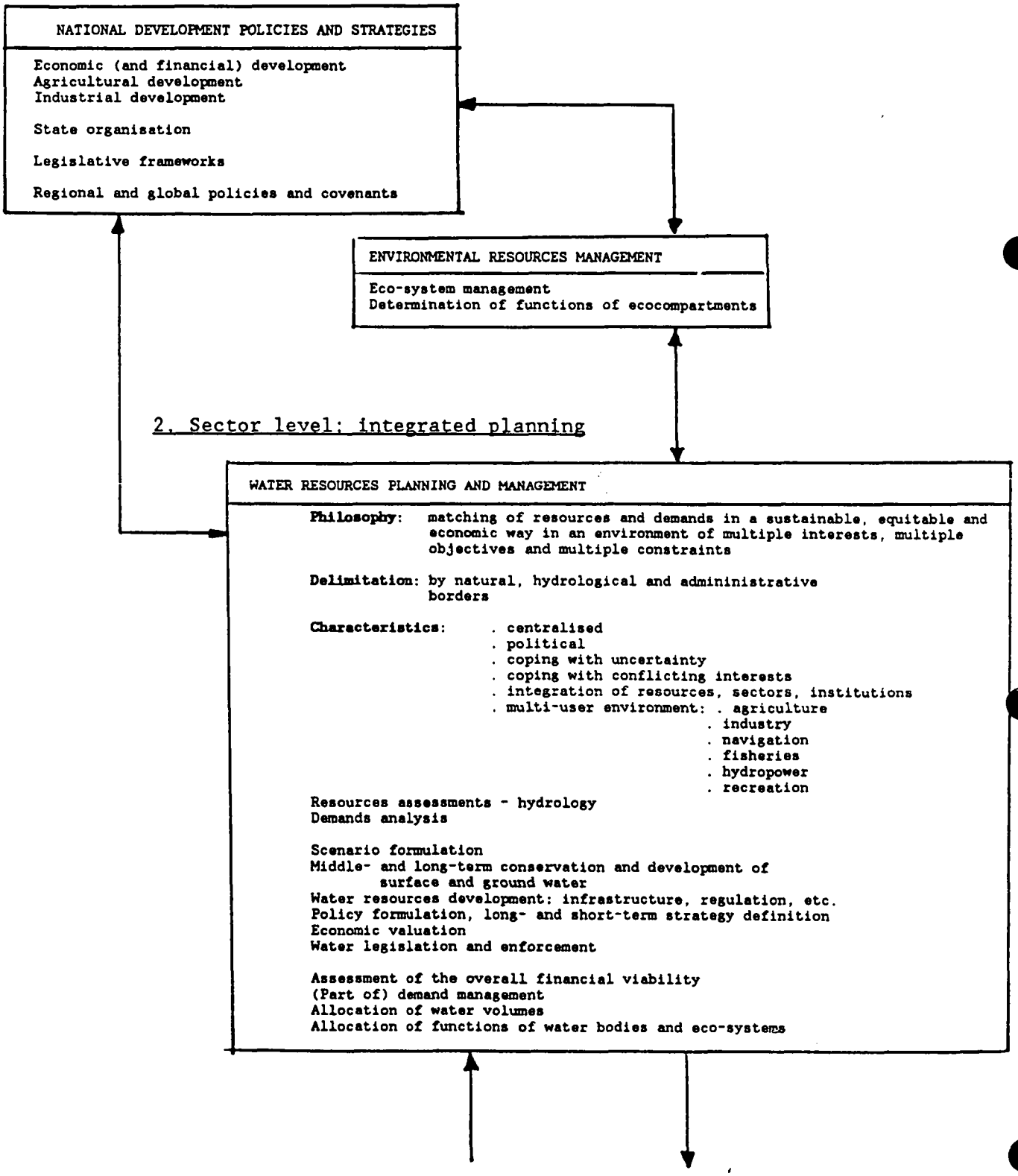
Intra-(sub)sectoral problems may occur. These are often caused by differences in mission and managerial culture of the organisations and enterprises involved. For example, water supply enterprises tend to be very conscious of the high commodity value of their product, and of the public health relevance of their work. They therefore are often organised in fairly autonomous enterprises. The fact that they operate as separate entities may render cooperation and joint decision making with other public work departments (drainage, sanitation, etc.) more complicated.

On the other hand it must be borne in mind that enterprises enjoying a relative autonomy, and that are of 'manageable' size, are amongst the most efficient and successful in the sector.

Inter-(sub)sectoral problems are more common, as sub-sectors are not used to cooperate. This leads to the need for integral approaches on national planning level. Because of the equal importance of effective service delivery at local level, integration there is also mandatory. Such integrated approaches can be found e.g. in the Small-scale Irrigation Projects, i.a. in Thailand, in which one or a few towns can co-decide on an integral water use plan suiting their local needs. The long and often ineffective communication lines with the respective technical ministries in the capital can thus be shortened, whilst at the same time the highly qualified technicians in these ministries are not any longer obliged to manage large amounts of relatively unimportant information.

Scheme 2 Key issues in the water sector: commonalities and differences.

1. National or state level



3. Sector level: the implementing sub-sectors

WATER SUPPLY AND SANITATION

Philosophy: intention to be oriented on demand

Approach: determined by administrative borders

Characteristics:
- . fair agreement between govt and user
- . centralised staff, of medium size
- . relatively autonomous enterprises or depts.
- . in metered systems incentive for water conservation
- . increasing accountability of enterprise and user through stronger linkage of service and fee

Water supply:
- . domestic uses
- . industrial uses
- . other uses
- . physical losses

Availability of water: surface, deep/shallow ground water

Consumption (market) control:
- . tariffs, rates
- . regulation (wrt building, wells, etc.)
- . community involvement
- . other

Policy formulation, long- and short-term strategies

External considerations:
- . public health
- . human settlements
- . equity re financial burden for service

Spatial implications:
- . relation with water source area
- . relation with service area
- . institutional: relation with regionalisation
- . land use plans

Financial/economic plan - cost recovery

Sector organisation: central/regional/local govt., private initiatives (NGO, commercial, community, etc.)

Drainage, waste water and flood control
- . domestic
- . industrial
- . (urban and rural) run-off
- . storm water

Origin, pathways and fate of pollutant flows

Impact on . public health
- . environmental health
- . water resources availability
- . eco-system sustainability/ development

Consumption (market) control:
- . taxes, rates
- . regulation (discharge consents, fines, legal and fin. incentives)
- . reuse and recycling (in-plant, in agriculture)
- . community involvement
- . other

Policy formulation, long- and short-term strategies

External considerations:
- . public health
- . human settlements
- . equity wrt financial burden for service
- . national policies wrt govt. role, "consumer/polluter pays" principle
- . industrial development
- . economic loss minimization

Spatial implications:
- . relation with water source area
- . relation with service area
- . institutional: relation with regionalisation
- . land use plans

Financial/economic plan - cost recovery

Sector organisation: central/regional/local govt., private initiatives (NGO, Commercial, etc.)

Intersectoral flows of communication, coordination and collaboration

Data collection and distribution

AGRICULTURE/IRRIGATION

Philosophy: oriented on supply

Approach: determined by hydrology and ecology

Characteristics:
- . often opposed interests of govt and user
- . large field staff of lower level; org. spatially distributed, more hierarchy
- . strong govt control, also on agriculture production
- . poor feeling of accountability of board and user; poor linkage between service and fee

Irrigation:
- . agricultural use
- . physical losses
- . conveyance to other sub-sectors

Availability: surface, ground water

Fluctuations in demand and availability

Conjunctive use, reuse

Consumption control:
- . regulation
- . (taxes on land area)
- . (rates, community involvement)

Policy formulation, long- and short-term strategies

External considerations:
- . prevention of spreading of diseases
- . human settlements
- . equity, reliability and adequacy
- . erosion control

Spatial implications:
- . relation with water source area
- . relation with service area
- . institutional: primary system under govt, tertiary system under farmers;
- . large variety in size, distribution method and management structure

Cost recovery: usually far below O&M costs; often problematic because flow cannot be measured or stopped; fees often concealed

Waste water and drainage (and flood) control
- . water logging
- . soil salinity control
- . surface run-off
- . ground water run-off

No consumption control as yet

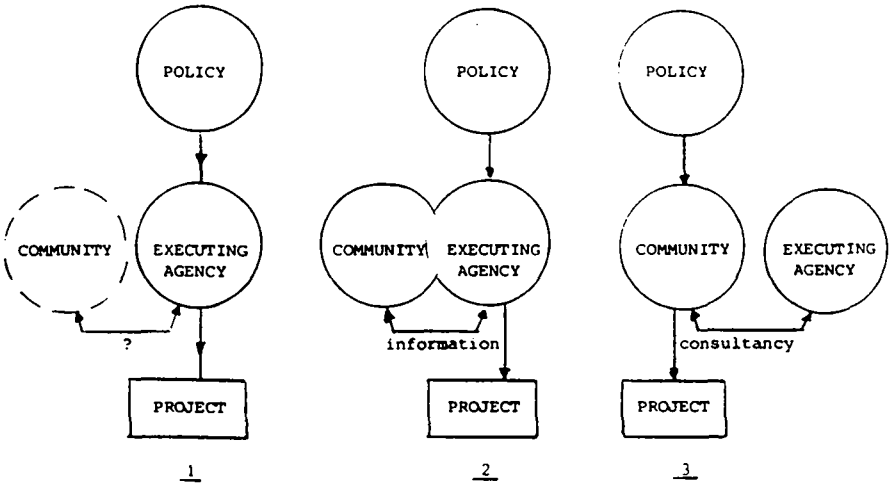
Policy formulation, long- and short-term strategies

External considerations: rudimentary as yet, except
- . disease spread control
- . reuse of drainage in irrigation

Spatial implications: as left column

Financial/economic plan: rudimentary

Usually water supply has priority



Scheme 3 Changing Structure of Decision Making

The actors are traditional, their roles must change.

4.1 Changing Roles: The Agency and The Beneficiaries

Agency management

In the conventional situation two parties may schematically be distinguished in the preparation, implementation and operation of a project: the (government) agency and the beneficiary community (Scheme 3, left). The roles of these parties are rather straightforward. The agency plays the leading role having insights in policy, managing the funds, possessing the technical expertise and burdened with a generally strenuous task to increase coverage within a limited time. By comparison, the beneficiary is (assumed) ignorant, incapable and inactive. The role of the community is negligible; the target group is a liability rather than an asset. In the resulting situation "the community is by-passed in the hurry to get the job done" (WHO/SEARO, 1985).

To the surprise of the agencies the systems built with this approach are not very successful: some do not function, others do but are ignored, most are financial disasters and few bring intended benefits, as local demand has not been developed.

Energies and activities in this situation are dominated by a **supply orientation**:
higher-level government believes to know in detail what is good for the community and transforms funds into (usually) physical facilities from which the people are supposed to benefit.

Joint management

In the intermediate situation, nowadays more and more common, the parties remain the same but the roles change (Scheme 3, middle). Although the agency remains the project initiator, the insight is put to practice that the community should play a more prominent role in the entire project cycle, and that, consequently, the agency must take a step back. In this approach "community involvement" and later "community participation" become strategies for more successful projects. The role of the community develops from trench digging, via consultation to participation in decision making. The hesitating agencies are appealed by this approach because communities, when accepting an increased share of the responsibility, appear prepared to shoulder a variety of tasks, and most importantly, at least part of the burden of the worrisome operational phase when skyrocketing operational budgets and excessive manpower demands stretch agency resources to the limit.

Community management

In a further developed approach the agency's role becomes even less prominent (Scheme 3, right). Communities are emancipating into partners, conscious of the developmental process, and informed about their rights and the various government programmes from which they can benefit. They wish, and can be assisted to become able to decide their own development priorities within the limits of the governmental policies and

available resources. Sector agencies help the community choose between options and may be invited to develop and execute sectoral plans fitting an overall development initiative commensurate with available resources.

The participation in priority setting and decision making leads to increased commitment and **institutionalised demand** for which people are more willing to pay.

This structural development is basically the same as encountered in governmental decentralisation and/or decision making power devolution to lower-level authorities (see also Section 2.2).

As the New Delhi Statement formulates it: "Community management goes beyond simple participation. It aims to empower and equip communities to own and control their systems" (UNDP, 1990).

4.2 Changing Roles: Demand for Institutions at Local and National Level

The fundamental point in the previous Section is that any output from an institution is basically a 'service' to meet an existing demand, which as such can be developed.

Consequently, the legitimacy of a (new) institution at national level depends on how convinced the 'client institutions' are that the new 'services' will meet their real needs. Again, this demand often needs to be identified or uncovered, and developed.

Such local demand ensures a capacity which carries the institutions.

Demand development is therefore an essential part of capacity building.

For example, the establishment of appropriate institutions responsible for integrated water resources planning and management can only succeed if the (already existing) water agencies as well as the political environment become convinced of the benefits for their own organisation and for the nation as a whole. This implies that they first have to become convinced that a problem exists.

4.3 Changing Roles: Training Project as Change Agent

The International Training Network for Water and Waste Management (ITN)

The International Training Network for Water and Waste Management is a joint initiative of bilateral and multilateral development agencies in support of the International Water Supply and Sanitation Decade. With a long-term objective to improve the efficiency of investments and the extension of water supply and sanitation services to low-income groups in rural and urban areas, the programme aims to strengthen the capacity of sector and educational institutions within developing countries to carry out training and other human resources development activities on low-cost water and waste management.

The human resources development activities in low-cost water supply and environmental sanitation in the ITN programme are directed at a very large and diverse target group incorporating field staff but also decision makers, should cover a variety of integrated technical task fields such as water supply, sanitation, drainage, water resources and solid waste, and be based on the multi-disciplinary approach that includes areas like institutional assessment, community development and management, cost recovery, health and hygiene education.

Considering the complexity of the issue, the magnitude of the task, the usually specialised character of individual sector and educational institutions, and the relatively small size of the ITN programme, the approach taken by some of the more successful existing ITN centres is not to start yet another independent development activity, but rather to identify existing opportunities, and reinforce, mobilise and utilise the human resources development infrastructure to achieve its objective. In this approach the different institutions, that may be investment agencies, government and other sector institutions, universities and NGOs, become participants in a national (or regional) training network in which the ITN Centre plays a catalysing and bonding role.

In this network the participating institutions pool their resources, enabling them to develop and implement more effective training materials, methods and programmes.

The crucial feature is that while carrying out the ITN activities these institutions retain their original mandates and structure. They are not forced or lured into short-term projects that concentrate on physical infrastructure provision. Such projects, with their external financial support have to focus on target achievements and specific project requirements; existing institutions are temporarily reinforced only to help meet the targets. As a corollary such projects bring standing, project cars, topped-up salaries and other benefits to the institutions at the expense of dropping them again once the project is completed, without necessarily having strengthened them.

In contrast the ITN concept stimulates and professionalises the training capabilities of the institutions, and helps them carry out, rendering simultaneously the institution itself more professional and respectable. This is most likely to support the sustainable character of that institution.

This activity implies very careful working procedures, establishment of good mutual understanding between the counterparts, external assistance which is primarily geared at policy and strategy development and managerial and generic assistance (e.g. training of trainers) with a high multiplier effect, and in an evaluation of project progress giving priority to better institutional performance. In general this procedure can be considered a **process** or **programmatic** approach allowing for intensive feed-back and in-course improvement.

"The ITN general concept and development objectives are sound and clearly oriented to capacity building" (World Bank, 1991).

5.1 Creating a Favourable Policy Environment

Capacity Building was described in Section 2.1 as including the establishment of a favourable or enabling policy environment.

A national policy environment is a result of internal socio-economic and political factors balanced against external determining factors like policies and working procedures of financing agencies, and international and regional policies and agreements. For the creation of a favourable policy environment for a sector external and internal factors need to be examined.

National (internal) factors

e.g.
- degree of priority attributed to to issues in the water sector at national and regional/provincial level;
- segmentation of responsibilities in the sector over various departments and ministries;
- national political structure;
- political climate regarding devolution of power to more autonomous enterprises and authorities;
- regulation and law structure; law enforcement;
- salary scales and career opportunities for civil servants;
- guidelines for civil service;
- education and training policies;
- degree of organisation of water users and their participation in decision making;
- public opinion.

International (external) factors

External factors are international political, economic and financial parameters that generally are taken into account in the national or internal decision making processes.

Factors of relevance are e.g.
- bilateral, multilateral and regional international agreements concerning the sector;
- policies, financing prerequisites and procedures of ESAs.

To create an enabling environment the objectives of the various interested groups should be made mutually compatible and in accordance with the requirements of the ultimate (planned) beneficiaries.

Special political support and legal control are required if not all objectives and needs of the interested groups can be satified.

Scheme 4 Typical enumeration of institutions and factors that need strengthening.

OUTER SHELL : INTERNATIONAL LEVEL

International enabling environment

ESAs
Internat. development banks
Internat. agreements and policies

MIDDLE SHELL : STATE LEVEL

National enabling environment

Recognised priorities
Political structures
Segmentation of responsibilities in the sector
Regulation and law structure, law enforcement
Salary scales, incentives and career opportunities & guidelines for civil service
Educational policies
Public opinion
Development degree of user associations & their participation in decisionmaking

Institutions

Technical (line) Ministries
National planning boards
Parliamentary structure, political parties & lobby groups
Educational institutes
Research establishments
Press and educational publications and broadcasts

INNER SHELL : THE SECTOR (NATIONAL AND LOCAL)

Enabling environment

Relations of above with consumers/users/clientele
Regulations, standard instructions
Subsidies and other financial arrangements
Managerial environment and culture of organisations

Institutions

Water, drainage, irrigation, etc. boards, corporations, authorities, etc.
National (line) Ministries
Local government: policy making and planning
Water, sanitation, etc. departments
Local (implementing) consultants
Contractors
Associations of consumers and users at village/town /city quarter level
Informal influentials: religious leaders, landowners, etc.

5.2 The Institutions and Factors that Need Strengthening or Development

Scheme 4 provides an overview of the institutions concerned, and of the factors determining the enabling environment that allow a sector to set and meet its goals.

The institutions and environmental factors can be considered active in three distinct 'shells', of which the outer one includes the international factors, and the inner one those operating in the water sector.

It is important to realise that capacity building implies active intervention and, when aiming at the sector, may lead to substantial reorganisations like mergers, reassignment of responsibilities, changes in inter- and intra-sectoral procedures, changes in regulation and legislation, and establishment of new institutions. Similarly, when it aims at individual institutions it may initiate substantial reorganisation.

Scheme 5 Enumeration of capacity building agents and interventions. The Scheme follows the structure of Scheme 4.

OUTER SHELL : INTERNATIONAL LEVEL

Agents	Interventions
ESAs	Policy and managerial assistance International
institutions	

MIDDLE SHELL : STATE LEVEL

Agents
ESAs
Press, lobby groups
National Advisory Boards
Consultants in sector-organisation and public administration

INNER SHELL : THE SECTOR (NATIONAL AND LOCAL)

Agents	Interventions
Technical Assistance (TA) by ESA	Training
Technical line Ministries assisting local level	Education
Generic Ministries assisting other technical Ministries	Public awareness and commitment
	Quality control and certification
Research and development establishments, and specialised data and information collection and management institutes	Technical and managerial guidelines and standards
	Data and information management
Certification and quality control institutes	Communication improvement in the circles of and between scientists, engineers, service suppliers and users
Professional associations	
National development banks and financiers	
Formal educational system	
Problem-oriented post-graduate education	
Vocational and technical training institutes	Enhancement of managerial systems and
Management consultants, consultants with TA and training mandate	and personnel career opportunities
NGOs	
Extension and public information services	
Consumer organisations, ombudsmen	
Educational publications and broadcasts	

6.1 The Capacity Building Agents and Interventions

6.2 A Model for Operationalising Capacity Building Agents

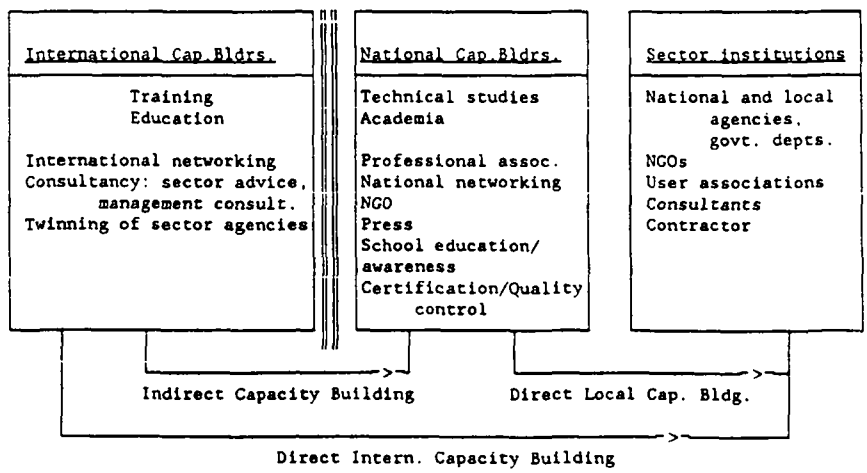
The institutions that are to be strenghthened or developed are located in the country. As suggested in the preceding Section countries dispose themselves of a substantial number of institutions that are or can become capacity building agents.

A capacity building strategy directed at a country will therefore consist of direct and indirect inputs towards the implementing sector institutions (Scheme 6). The direct international inputs comprise projects and programmes in which ESA supported and regional organisations provide the main assistance to the implementing agency. In the direct national inputs, the external or internal financier relies on capabilities and knowledge of a local capacity building agent (e.g. a university, management consultant or information specialist) to support fellow country institutions. In the indirect approach, the ultimate target remain the sector institutions, but the programme's focus lies on strengthening the local capacity building agents. The latter can be termed building the capacity of the local capacity building agents, in analogy of 'training of trainers'. The indirect approach could be the most sustainable.

Special attention deserve networks in which typical capacity building institutions collaborate and mutually reinforce eachother (e.g. Chapters of international professional associations, the ITN-type of training network - see Section 4.3).

Some types of institution can be active as implementing agency, and as capacity builder, like NGOs.

Scheme 6 A model for operationalising direct and indirect capacity building activities.



6.3 Some Options for Water Resources Capacity Building

This Section looks at options for ESAs and countries to influence, reformulate or initiate common and new types of projects and programmes so that the objectives of higher efficiency and effectiveness in the national water sectors are achieved.

'Common' project types are typically geared towards the supply of a well described physical product like a facility or a piece of infrastructure, for example an irrigation scheme, urban infrastructure (water management and/or supply), or software for the modelling of water quantity and quality in a watershed. Most ESA assistance is presently still involved in these projects, not in the least of course because many countries are in dire need of physical infrastructure for their development. The capacity building measures in these projects are nearly always of minor if not negligible importance in the whole package, are often poorly focussed and generally receive little attention from the side of project managers and counterparts. Also, because of the familiarity with, and the predictability and specificity (Israel, 1987) of the activities, targets can be relatively easily defined and are expressed in quantities like percentage coverage, kilometers of drains, degree of rehabilitation, etc.

'New' types would rather aim by priority at the development of institutions or sector. As secondary aim they may envisage delivering physical infrastructure or other 'products'. This secondary objective is achieved preferably through the activities of strengthened or (further) developed institutions. Because of lower familiarity with and specificity of these activities, targets and criteria to measure success are more difficult to define and can hardly be quantified.

However, both projects geared at physical infrastructure provision and those aiming primarily at capacity building can serve the goals of an improved water sector.

Projects need to become formulated as '**change agents**' directed towards influencing the philosophy of the water sector and developing the sector's capacity.

Formulation of operational objectives for the water sector

1. Any project in the water sector should, as far as feasible, support the policy of enhanced integrated water planning and management at the national or local level.

2. Any project in the water sector should only receive approval from the country and/or financier if it is based i.a. on a sound study of its impact on the local/regional water resources. This should involve quantity and quality considerations.

3. Specific projects/programmes should be devised to help local authorities identify the need for integrated water resources planning and management.

4. Planning agencies should be assisted in their capabilities to improve their

planning as well as to cooperate more efficiently with other implementing agencies in the sector. This involves i.a. improved communication and decision making procedures.

5. Projects need to be supported which are specifically designed to improve sustainability based on the criteria of
- water resources scarcity,
- environment,
- finance,
- institutions.

Education, training, twinning, professional associations

6. Education and training remain key aspects of capacity building.

7. To render sector institutions more autonomous, it may be necessary to emphasise more conceptual and innovating thinking. For this purpose more long-term and better focussed (postgraduate) education is necessary.

8. To strengthen institutions in their regular activities, on-the-job training is more suitable.

9. Institutions should as a matter of routine allow in their organisation for training/education of their technical and managerial staff.

10. Depending on aims and conditions, some types of education and training are preferably implemented in the country itself, strengthening simultaneously the local educational capacities.
However, for educational purposes it remains necessary to provide extensive exposure to the experiences in a regional or international context.

11. Education and training programmes should meet specified demands. Using them more efficiently for institutional strengthening or development, implies that simultaneously all relevant levels in the organisation need to be exposed (decision makers, managers, engineers, technicians) to avoid deadlocks in newly emerging initiatives.

12. Twinning of similar sector agencies (North-South, or South-South) is a useful channel for highly specific information and expertise. However, the personnel capacity and twinning experience with the North partner may be restricted.

13. International professional associations need to develop in a sustainable way national Chapters to generate and support exchange of professional and scientific information at national levels.

Technical assistance

13. Distinction should be made between projects that aim specifically at infrastructure provision, and those that aim in addition or exclusively at institutional development.

14. The need grows for projects or programmes consisting primarily of capacity building or institutional development measures.

15. Consultants should be distinguished in function of their specialisation:
- as implementing specialists for physical infrastructure,
- as sector specialists who can assist governments in sector development,
- as managerial specialists who can assist in improving the efficiency and effectiveness of organisations and public administration.

Devloping demand

16. In order to strengthen the role of the users/beneficiaries, projects should, more than already is the case, allow at the start of any physical implementation project for comprehensive institutional analysis (one-year preparatory phase). This would lead i.a. to involvement of the future users in the planning and decision making process.

17. Enhanced demand formulation should improve cost recovery and hence sustainability.

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