

Integrated Water Resources Management (IWRM)

Context

> *" IWRM is a process which promotes 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 the vital ecosystem. "*
>
> *Global Water Partnership 2000*

Following this definition Integrated Water Resources Management (IWRM) calls for a sustainable management of water resources and has been accepted at the international level as the most appropriate concept for sustainable water management.

At the Dublin Conference on Water and the Environment in 1992, IWRM has been confirmed and propagated at international level. Four guiding principles that came out of the Dublin Conference require special consideration:

- Water is a finite and vulnerable resource, essential to sustain life, development and the environment.
- Water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels.
- Women play a central part in the provision, management and safeguarding of water.
- Water has an economic value in all its competing uses and should be recognised as an economic good.

These principles are based on the three sustainable dimensions of sustainability: ecological sustainability, social equity and economic efficiency (BMZ Water Sector Strategy, 2006).

The German Federal Ministry for Economic Cooperation and Development (BMZ) promotes the IWRM concept and the Dublin principles as guiding framework for German Development Cooperation in the water sector. Consequently, BMZ requests its water programmes to contribute to economic and social welfare, equity and sustainability. The way towards *"sustainable water management"* through IWRM has to be regarded as a sequential and adaptive process which considers different sectors and stakeholders.

For *"the coordinated development and management of water, land and other resources"*, the IWRM concept emphasises inter-sectoral coherence of policies and programmes. To achieve sustainable water management, the sectors related to water need to interact, communicate and coordinate their policies and programmes. These sectors can comprise municipal water supply and sanitation, industry, agriculture, energy, transport, environment, fisheries, tourism and public health.

IWRM seeks to foster decentralised democratic management forms as well as the participation of all water resources stakeholders. The approach calls for a common perception and understanding of water problems and challenges amongst the major stakeholders at national, regional and local level on the one hand and for sequential and participatory decision making processes on the other.

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GIZ approach to IWRM

GIZ works towards sustainable development in global partnerships. Within the water sector, GIZ cooperates with its partners to manage water in a sustainable manner. IWRM constitutes the overall framework for GIZ's capacity development programmes in the water sector.

When putting IWRM into practice, GIZ works towards setting up processes for sustainable water management which take into account different water users' objectives. Water users often have conflicting interests, so mechanisms to deal with user conflicts have to be installed. IWRM requires a continuous search for a balance of power and interests across several sectors and levels of decision making. Working towards IWRM means for GIZ to look at the following aspects:

- Coordinating water sector planning and interventions with other water related sectors (especially agriculture, industry, environment and public health)
- Interlinking different levels of decision making (transboundary, national, regional and local level)
- Integrating different groups of stakeholders in the water sector and the related non-water sectors (public and private actors and civil society), analysing conflicting issues and taking into account different water users' interests
- Setting up and improving continuous processes to agree upon objectives and measures for sustainable water management
- Looking at scenarios of water use considering economic, social and environmental impacts
- Integrating water resource protection into policies and programmes
- Integrating aspects such as definition of objectives and indicators, flexibility and evaluation into IWRM processes

As a result, IWRM processes predominantly need to be understood as a facilitation of social processes of communication and consultation. Such consultation processes contribute to identify compromises between conflicting interests of water users.

The definition of IWRM together with the Dublin principles provide guidance for water resource planning, management, monitoring and evaluation. In practice, however, IWRM needs to be implemented by individuals, institutions and projects by way of a *"pragmatic but principled"* approach (World Bank Water Resources Strategy Paper, 2003) that aims at incremental adaptation of practical work at their own level to this guidance. Such an *"adapted"* IWRM methodology is used by GIZ.

As mentioned above, IWRM is a process with ambitious overarching goals. All stakeholders will have to be aware that such processes will be:

- Highly complex – adaptation to changing framework conditions is needed;
- Highly interactive – a common understanding of problems and goals beyond water sector boundaries is needed;
- Highly political – mediation of interests is needed while embedding IWRM in overarching national and regional planning processes.

The political nature of the IWRM process demands a clear political leadership. The leading ministry/agency will have to possess of sufficient power, ownership and also sanctioning mechanisms across sub-sector programmes in order to guarantee the continuity of the IWRM process and achievement of targets.

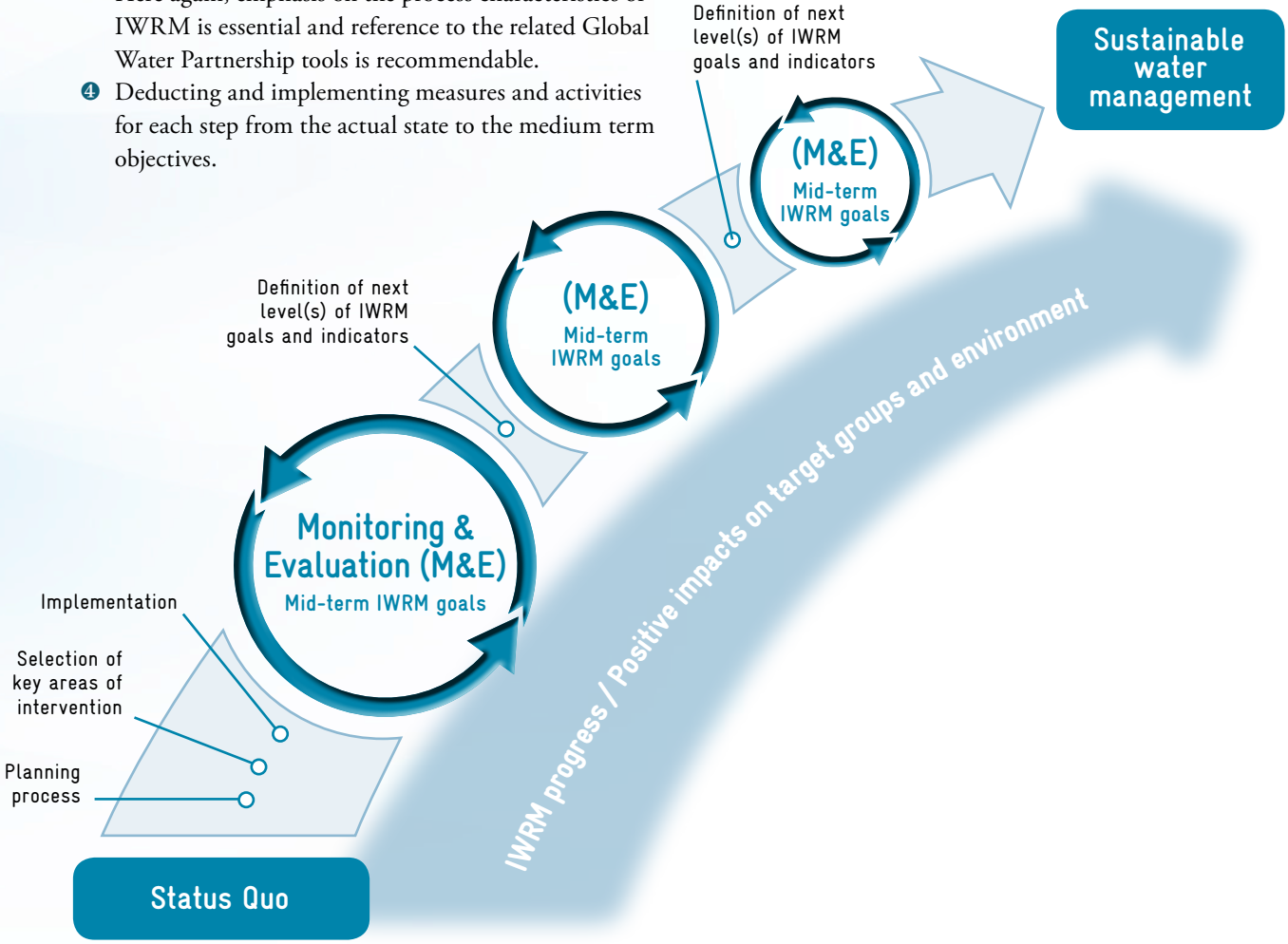
The requirements of IWRM processes for planning, monitoring and evaluation are very ambitious given the actual conditions and scarce process management capacities available in most developing countries. Therefore, here again, *"pragmatic and principled"* procedures have to be followed.



Taking this into consideration, the methodology for planning and monitoring IWRM processes favoured by GIZ with its focus on capacity development comprises the following steps:

1. Analysis and description of the actual water management situation in a particular country or basin, by referring to the IWRM definition.
2. Explicit formulation of a vision for sustainable water management, i.e. description of clear objectives that will be realized, including milestones and key indicators.
3. Initiating participatory processes that result in the formulation of medium term objectives and key indicators. Here again, emphasis on the process characteristics of IWRM is essential and reference to the related Global Water Partnership tools is recommendable.
4. Deducting and implementing measures and activities for each step from the actual state to the medium term objectives.
5. Selecting appropriate monitoring and evaluation approaches, including the formulation and tracking of key indicators.

These steps will have to be repeated over time in order to realise an IWRM process and to approach the overarching goals of IWRM. In developing countries, this is expected to be a long-term process. The following graph symbolises the stepwise approach of GIZ's understanding of the IWRM process:






GIZ services:

Based on the IWRM concept, GIZ offers the following services to its partners:

Reform of the water sector: GIZ offers advice on implementing effective water policies, creating a suitable statutory framework, developing institutional capacity, and establishing regulatory bodies and decentralised institutions.

Sustainable water supply and sanitation: GIZ promotes safe, affordable and high-quality water supply and sanitation systems, helps to build capacities among water sector enterprises and establishes self-governance structures with a focus on access for the poor.

Transboundary water management: GIZ strengthens regional cooperation and integration by supporting the development of river basin organisations, network building and conflict prevention.

Watershed management: GIZ coordinates activities and development measures at watershed level so that water resources can be managed in a socially, economically and ecologically sustainable manner.

Water for food and livelihoods: GIZ strengthens efficient water use for agricultural production with a special emphasis on the livelihoods of the poor. For efficient water use, adapted and improved governance structures in the agricultural and irrigation sector are crucial.

Within these key areas, GIZ concentrates on capacity development of human resources, organisations and social framework conditions.

In addition, GIZ has long-term experience in areas such as participatory and transparent planning processes and stakeholder dialogues, conflict management including consensus building, institutionalising training of water professionals, data and information management, cooperation with the private sector, and sustainability assessments. Commonly, GIZ uses a multi-level approach to reach the targets set with the partner countries.

GIZ also supports international dialogues and initiatives on water management.

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