

FUNDING ■ MONITORING ■ ASSESSING ■ UPDATING

CHAPTER 5





## I INTRODUCTION

The Integrated Plan for Chad's Water Development and Management responds to two guiding principles defined by the United Nations (Commission on Sustainable Development, sixth session) in 1998, which encompass strategic approaches to the development and integrated and sustainable management of water resources. These guiding principles were restated and refined by the international water experts meetings (Harare - January 1998, organised by UNDESA; Paris - March 1998, organised by France; The Hague - March 2000, organised by the Netherlands; Bonn - December 2001, organised by Germany). The priority placed on the water sector was also restated in the declaration on the Millennium Development Goals (MDG) by the heads of State and Government during their meeting at UN Headquarters in 2000. Finally, the World Summit on Sustainable Development held in Johannesburg in September 2002 confirmed the role of water as the **key to sustainable development**.

In order to reach the universal goals of the Millennium Declaration concerning access to drinking water and the integration of the principles of sustainable development in national policies, States were notably requested to achieve the quantified goals by 2015 and **draw up integrated plans for the management and rational use of water resources by 2005**.

In adopting the SDEA in June 2003, Chad broke new ground in the Subsaharan Africa region. It is now the Chadian government's responsibility to organise itself accordingly and the international community's responsibility to take action, in addition to internal financial efforts, so as to ensure that the goals that have been set jointly are achieved in full and that they will have long-term impacts.

The first, immediate stage will therefore focus on **organisation** and **fund mobilisation**. In parallel, accompanying measures to **monitor, assess** and **update** the SDEA will be set up immediately and initially cover a three-year period.

The First Integrated plan for Chad's Water Development and Management was aimed at implementing a short-term action plan, as part of an integrated approach with long-term objectives. However, in practice, both the funding possibilities and the pace of implementation are changing as a result of external factors which are difficult to predict. Therefore, the "SDEA process" must be capable of adapting constantly to change. For this reason, operation implementation must be accompanied by **large-scale institutional and organisational strengthening of the ministry of water** and a mechanism that can be accessed by both the supervising administration and all the other "main groups of stakeholders" in the sector.

The organisational strengthening of the public service responsible for water, at both central and regional level, must take place gradually, on the basis of diagnosis studies and internal debates, as stipulated in the SDEA and its action plan. As long as there are insufficient well-trained managers (the current number being insufficient to meet needs), it will be difficult to contemplate operational reform. Therefore, priority will be placed on **training new technical and administrative managers** who will become operational after three or four years. There are great needs in the areas of programming, contract management, works supervision, financial control, legal aspects, etc. During the first few years of SDEA implementation, starting in 2003, support from international experts and consultants for works execution and supervision will therefore remain inevitable if the proportion of the Chadian population with access to water is to be increased significantly.

As of 2003, with support from the UNDP and UNDESA, special efforts will be made to capitalise on the skills acquired by the managers who participated in drawing up the SDEA by setting up a unit for planning and monitoring the implementation and impacts of the SDEA at the current Directorate of Hydraulic Affairs (DHA) level. A training plan will also be prepared, with support from MAE-SCAC, in order to build the capacities of the DHA and DREM (Directorate of Water Resources and Meteorology) managers, mainly to ensure that a first class of future managers and technicians can be sent to the regional schools for the start of the 2004 academic year if possible. The injection of new funds from oil exploitation should contribute to funding this training and action, which are essential for the sustainable management of the water sector in Chad.

As regards the monitoring mechanism, based on a national and intersectoral network of focal points and on the future regional directorates of water, their purpose will be to:

- monitor physical implementation of the SDEA short-term action plan;
- monitor the impact of implementation;
- monitor the consistency of the work with the methodologies;
- monitor fund mobilisation, notably ensuring that sufficient funds are allocated to accompanying measures in each area of external assistance contributing to the water sector in Chad;
- monitor assessment of the overall impacts of the SDEA in comparison with the expected performance;
- update the SDEA regularly.

The **five types of monitoring measure** listed above will be continuous, while an overall **assessment** of the results and impacts of the SDEA is to be carried out every two years (late 2005 and late 2007). Lastly, the basic data (water office data bases for detailed programming of rural DWS, and GIS/SDEA data bases for the planning and integrated management of all the resources and their uses) will have to be **updated** regularly, with the SDEA reference document being updated roughly every five years (2008, 2013 and 2018).

## 2 FUND MOBILISATION

### 2.1 Internal fund mobilisation

In Chad, internal funds consist of contributions from users and the State (excluding external aid).

#### 2.1.1 The users' contribution

It was demonstrated in chapter 3 that village households can, and generally do take responsibility for the cost of servicing or maintaining drinking water supply equipment. In urban and semi-urban areas, with equipment geared to the different contexts, it has been verified that the end user enjoying a modern service can, in theory, afford the real-cost tariff of the public drinking water service, as intended in the water policy. As a minimum, this tariff must cover all operating charges and costs of renewing equipment with a service life of less than twenty years. The tariffs in urban areas with connections (concessionary area) will have to be gradually increased. This increase is justified on grounds of equity and the need to invest in extensions in periurban areas currently without water supplies. For all other costs (first installation of equipment, sanitation, water resource monitoring and management, etc.), additional funds (State subsidies and international aid) must be mobilised in Chad for many years to come.

As regards pastoral water supply, stock-rearers can generally afford the cost. As far as agricultural water supply is concerned, the cost can be afforded by private initiatives, but not for large irrigation schemes, which generally have very high costs. Farmers often have great difficulty affording the cost of other irrigation schemes, which vary widely in terms of efficiency and profitability.

Monitoring of the price of each "water service level" based on a suitable mechanism (watchdog, for example) and across the entire country would appear to be very useful for implementing the principle of equity, which is written into the SDEA water policy and the Water Code.

### 2.1.2 The State's public investments (excluding external aid)

When the SDEA was completed (late 2002), the distribution of public revenues from oil exploitation had not yet been drawn up. According to the macroeconomic framework of the SNRP (Poverty Reduction Strategy Paper), the State will receive an average of FCFA 118 billion/year during the forthcoming period of the SDEA (2003-2015), of which FCFA 65 billion are to be devoted to priority spending, which could be broken down as follows:

- FCFA 45.5 billion for operation, and
- FCFA 19.5 billion for additional physical investment, of which about FCFA 3 billion could go to the water sector.

These budgets show clearly that the public investments planned for the water sector fall far short of the total funding needs of the SDEA, an estimated FCFA 23 billion/year for the balanced scenario, including all subsectors. International aid therefore remains essential in order to confirm the first physical investments and to ensure that the accompanying measures are on the appropriate scale.

The additional public investments resulting from oil exploitation should logically be allocated to the priority sectors which are insufficiently covered by international aid, notably rural and urban sanitation. There is real potential here for creating jobs and small local companies.

Part of the additional operating budget should be allocated to the water sector, to support the rapid decentralisation of its administration and sustainably strengthen human resources in all areas (public, private and associations). These are prerequisites if the SDEA goals are to be reached.

## 2.2 External fund mobilisation

As explained above, a major effort is required and expected on the part of international aid over the next twenty years, in addition to internal fund mobilisation.

As soon as the State adopts the final SDEA document, it will be published with support from the UNDP and UNDESA and officially submitted by the Government of the Republic of Chad to the bilateral and multilateral donor community.

A round table of donors interested in the national water sector in Chad will then be organised in order to collect their expressions of interest in the SDEA short- and medium-term action plan. It should be noted that this plan clearly takes account of the basic framework of all the current and planned actions and calculates the total resources to be mobilised to implement the strategies defined in the SDEA, on the basis of priorities. Each task obviously is yet to be defined in detail in close consultation with the MEE and the CTIE.

In the context of its continuing support for implementation of the SDEA and its usual role of aid coordination, the UNDP has already proposed to foster and contribute to the funding of this international round table.

## 3 MONITORING OF SDEA IMPLEMENTATION

### 3.1 Indicator-based monitoring of SDEA implementation

The Directorate of Hydraulic Affairs, within the MEE, is responsible for monitoring the implementation of the SDEA (which covers the entire national water sector and not just access to drinking water<sup>1</sup>). This directorate will regularly (once a year) present a report on the monitoring of relevant indicators to the Intersectoral Technical Committee for Water (CTIE), extended to include donors in the national water sector. It will also collate opinions on the trends observed and the performance measured in terms of physical achievements and actual impacts of projects.

<sup>1</sup> Access to drinking water in rural and non-concessionary semi-urban areas is, in principle, programmed by a specific unit at the DH, backed up by the MAE-SCAC.

Monitoring indicators will be defined when implementation of the SDEA begins, on the basis of work already carried out in terms of monitoring the development goals set out in the Millennium Declaration, and of work in progress internationally on environmental accounting under the aegis of the UN. These indicators and their monitoring methods in the Chadian context will be examined beforehand in a methodological study. In particular, efforts will be made to measure a number of descriptors as accurately as possible (depending on the state of knowledge) and continuously (annually) in order to calculate these indicators. A few examples of physical achievement indicators are given below:

- actual permanent rate of access to drinking water in each administrative division in rural areas;
- actual permanent rate of access to drinking water in each administrative division in non-concessionary urban or semi-urban areas;
- actual permanent rate of access to drinking water in each administrative division in concessionary urban or semi-urban areas;
- actual rate of access to basic sanitation in each administrative division;
- level of physical implementation of the pastoral water supply action plan;
- level of physical implementation of the agricultural water supply action plan.

The basic data required will be collated regularly and inspected before being entered into a data base. The annual report will be published in a standard format in order to enable comparisons to be made from one year to the next and to detect any underlying variations in the indicators in relation to the initial objectives of the SDEA. For the first few years, this report will be published in the form of a prototype in order to collect the users' (administrators' and donors') opinions. Some of the more complex indicators will be tested on a smaller area before being published.

This report should enable the decision-makers to highlight the main trends after a few years, and to orientate effort or investments towards the domains or geographical areas that need them the most, in order to reach the objectives set by the SDEA without any major distortion.

Initially, light support will have to be given to the Directorate of Hydraulic Affairs (DH) to enable it to implement its role of monitoring and inspecting the water sector on a sound basis and independently. This support will mainly involve methodological and information technology aspects as well as training. This support for the DH is planned and included in the programme co-funded by the Chadian Government and the UNDP and implemented by UNDESA: "Water Governance and Local Development - GEDEL" (2003-2006).

### **3.2 Indicator-based monitoring of SDEA impacts**

The same principles will be adopted for monitoring and disseminating the qualitative impacts of the physical achievements of the SDEA, while striving to link them to the strategies adopted. As an indication, a non-exhaustive list of possible impact descriptors or indicators is given below:

- the tariff observed in each department for each quality of service level in terms of drinking water access, and the cost collection ratio;
- the extent to which an IEC accompanying programme targeting schoolchildren and women is included in the village and urban water supply and sanitation programmes;
- impacts on variations in water-borne diseases in accordance with progress made in improving access to drinking water, hygiene and basic sanitation;
- measurable impacts on food security, linked to implementation of the agricultural water supply action plan;
- measurable impacts on stock-rearers (including conflict reduction), linked to implementation of the pastoral water supply action plan;

- measurable impacts on the fight against poverty, linked to implementation of the SDEA;
- the impact of improving basic knowledge and disseminating information for each subsector.

### 3.3 Monitoring of methodological consistency

Consistency of the tasks carried out by internal stakeholders (public and private bodies and associations acting as partners providing outside assistance) in the integrated management of water resources in Chad should be ensured using the single reference document constituted by the SDEA. This document sets out the main principles of the country's water policy and the subsectoral strategies involved in implementation.

The Prime Minister's decree signed on 3/9/99 concerning the creation and organisation of a National Water Management Committee<sup>2</sup> stipulates that the technical mechanism for intersectoral consultation overseen by the Intersectoral Technical Committee for Water (CTIE) must regularly check methodological consistency, notably starting with the design of major water-related programmes.

<sup>2</sup> Decree 034/PM/MEE/99, instigated and prepared with support from project CHD/98/04.

A number of studies, guides and procedures have yet to be set up to make it easier to maintain consistency with the SDEA, to support implementation of the Water Code and its decrees of application. The new decrees of application of the Water Code and, undoubtedly, the update of this code, will smooth the gradual promulgation of these regulations at the appropriate time, once the approaches selected have been sufficiently tested on demonstration areas or projects.

In order to assist in preparing these studies, guides and procedures and in preparing the CTIE, it was deemed necessary to provide technical coordination at a methodological level, starting at an early stage of project and programme preparation, instigated by the Directorate of Hydraulic Affairs and with the participation of the donors.

With this in mind, the DH will set up its own internal SDEA strategic planning and monitoring unit. This unit will be trained in and based on international and national expertise. Its main support partner will be the UNDP-UNDESA project from 2003 to 2006, because of the continuity that the UNDP and UNDESA intend to contribute to SDEA monitoring and to the national water sector; considered by the Government and United Nations to be a priority in the fight against poverty. This complementary UNDP-UNDESA programme to accompany the SDEA, i.e., "Water Governance and Local Development" (GEDEL), the organisational and legal aspects of which are complemented by the MAE-SCAC "Water Policy" project, will coordinate the SDEA's accompanying measures. In this way, lessons from experience and proposals from major projects being carried out in the field with funding from the EC, AFD, KfW, GTZ, UNDP, UNICEF, etc. will be constantly used to the full.

Certain institutions such as universities, training centres and the organisations in the United Nations system, etc., may be called on to provide structure and resources in specific areas, and might propose methodological memos in this respect at this monitoring unit's request, in order to enhance the corresponding studies.

The DH will gradually formulate a methodological approach framework to be common to all the projects and, with support from the GEDEL project, will guarantee that the framework is consistent with the national water policy and the strategies adopted. This framework will be set out in method guides and procedures, which will be tested prior to obtaining national validation by the CTIE and approval from the CNGE.

This SDEA monitoring unit will also be able to issue recommendations, propose interventions or formulate accompanying projects, which will be submitted to the donors for approval in the framework of the accompanying measures funding mechanism described below.

### 3.4 Monitoring the mobilisation of funds

One of the main lessons of the SDEA is the importance of investing sufficiently in accompanying measures in order to provide a human, technical, technological, organisational, institutional and legal environment which is sufficient for the development and sustainable, integrated management of the national water sector as a whole (water resources, equipment and services).

In the past, the major hydraulic equipment programmes concentrated mainly on physical implementation, whereas the conditions under which the local populations became owners of the structures, built up their capacities and consequently took charge of maintenance and sustainability, sometimes fell short of expectations. In spite of financial efforts, this sometimes resulted in failures in some water-related subsectors (notably irrigation) whereas, in other subsectors, the initially-defined project objectives were not reached in full.

In order to overcome these difficulties, which are diagnosed in detail by the SDEA, and to implement appropriate solutions by following the SDEA strategies, an incentive-based flexible monitoring mechanism should be set up to ensure that the donors in the national water sector fully understand the need for accompanying measures in the framework of sustainable development and make sufficient financial commitments to enable these measures to be implemented.

For this purpose, the intention is to propose that each donor should devote a percentage of the physical investments (between 5% and 10%) to setting up accompanying measures, which form an integral part of their own programmes or of the programmes they select from those included in the SDEA action plan, according to procedures to be defined in partnership.

One flexible formula could consist of a general framework agreement to be signed between the donors and the hydraulic affairs administration, and initiated by the French Ministry of Foreign Affairs, acting as the donors' leading agency for the national water sector in Chad. In association with an agreement of this type, an incentive-based mechanism for monitoring each party's contributions would be set up under the aegis of the DH in order to ensure that sufficient funding is actually made available to meet basic needs as they arise and to ensure smooth implementation of the SDEA.

### 3.5 Monitoring the impact of human activities on water resources

Stormwater, surface water and groundwater combine to form a single resource, through the water cycle. Human and economic activities have an impact on these resources, which are both limited and vulnerable to pollution, so it is vital to possess detailed knowledge of the resources and their uses. On the scale of a catchment basin and its sub-basins, impacts (abstraction and pollution) propagate from upstream to downstream. It is important to use a catchment basin-based approach for this monitoring. It is essential to use mapping tools to locate the influential areas (recharge, flooding, etc.), outfall points, abstraction points and measurement points, for both surface and groundwater. The more this operational approach is decentralised in the medium term (to the future hydraulic affairs regions), the more reliable and useful this exercise will become. An initial test will be carried out on a pilot sub-basin of the Mayo-Kebbi, involving all the stakeholders and partners concerned, working within a specific consultation mechanism.

In terms of general SDEA monitoring, a number of descriptors and indicators can be given for guidance purposes:

- rainfall for the year compared with the long-term average;
- discharge coefficients for the year;
- renewable water resource usage rate per homogeneous area;
- quality of water flowing into endoreic lakes;
- biological health of the main aquatic ecosystems;
- efficiency of water resource usage per subsector.

Specific studies will have to be carried out in order to define correctly the indicators which are relevant and useful to the country.

## 4 ASSESSING THE PERFORMANCE OF SDEA IMPLEMENTATION

To complement the quantitative monitoring of SDEA programmes, qualitative monitoring of its actual impacts, the sustainability of its programmes and the consistency of the work carried out by the various stakeholders and projects involved in the implementation of the SDEA action plan is essential in order to provide the decision-makers with complete information.

For this purpose, a mission will conduct an independent, multidisciplinary assessment of SDEA implementation every two years. The first mission will be conducted at the end of 2005 and the second, at the end of 2007.

## 5 UPDATING THE SDEA

A number of unavoidable factors and actions must be taken into account in updating the SDEA. These are:

- trends observed over five years by the three monitoring mechanisms described above;
- the two general assessments to be carried out at the end of 2005 and 2007;
- progress made in the regulatory area (Water Code decrees of application);
- results of the forthcoming census, which will be available in 2008;
- new basic data from the Water Office data bases;
- the new economic and social context;
- the new environmental context;
- the Government's development policy, and other policies, integrated plans or new subsector studies.

The SDEA will be updated on this basis during 2008, keeping the same intersectoral planning and consultation approach (CTIE-CNGE-HCNE) which has already been tried and tested. The UNDP has expressed an interest in funding this procedure, along with the other interested donors.

With the help of more detailed studies, this update should make it possible to fine-tune a number of rough estimates that had to be made for the first version of the SDEA. It should also be an opportunity, drawing on the lessons learned during the first five years of SDEA implementation, to update the remaining tasks required to reach the objectives that have been set for 2015 and 2020, and to channel efforts and funding more effectively into any subsectors or geographical areas that are lagging behind the others. Lastly, in keeping with the technical and administrative decentralisation process, notably with regard to the creation of regional directorates of water, this update will aim at making full use, across the country, of institutional achievements and progress made in terms of methodology and participatory planning, on the basis of "best practices" observed at regional and local level in the integrated, sustainable management of the national water sector in Chad.