Developing a Framework for Stakeholder Consultation in the Umbeluzi River Basin

Project report

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Cover photo: Water users in Boane (courtesy CDFF)
List of abbreviations

ARA-Sul  Southern Mozambique Water Authority
CDE  Centre for Development and Environment, University of Bern, Switzerland
CDFF  Centro de Documentação e Formação Fotográfica, Maputo
DNA  National Water Directorate
ESAPP  Eastern and Southern Africa Partnership Programme
IWRM  Integrated Water Resources Management
JWC  Joint Water Commission, the main cooperative instrument between the Kingdom of Swaziland and the Republic of Mozambique on the URBI
JURBS  Joint Umbeluzi River Basin Study
PDM  Programme Development Manager
RAS  Republic of South Africa
SADC  Southern African Development Community
SDC  Swiss Agency for Development and Cooperation
TT  Task Team of the URBI, the executive body of the JWC
URBI  Umbeluzi River Basin Initiative
WDM  Water Demand Management
WRB  Water Resources Branch, Swaziland
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Summary

A Framework for a Consultation Process

Transboundary cooperation and sustainable water management is urgently needed in the up-stream/down-stream situation of the Umbeluzi River Basin between the Kingdom of Swaziland and the Republic of Mozambique. Thus, the Joint Water Commission (JWC) of the two riparian countries initiated the Umbeluzi River Basin Initiative (URBI) with the objective to develop a joint management plan of the river basin. In response to the request by SADC as well as SDC, a collaboration within CDE’s Eastern and Southern Africa Partnership Programme ESAPP was agreed upon. The project’s general objective is to provide conceptual and methodological support in the design of a consultative process with the aim to assure the participation of all water users within the river basin.

In 2004, the ESAPP team prepared a Draft Framework for the stakeholder consultation process in exchanges with ESAPP Coordinators and representatives of SADC, DNA and SDC. Conceptual and methodological elements have been revised in the field mission in February 2005.

As a component in the development of a joint management plan for the Umbeluzi basin, the ESAPP team proposes a **Framework for the Consultation Process**, that is based on an intense exchange among the URBI partners and a for strong operational unit interlinking the ongoing Decision-making Process ('internal procedure') and the Communication and Awareness Creation Process ('external procedure') with a wider public through a Technical/analytical Process (see Figure 1: Framework for the Consultation Process).

In addition, the ESAPP team draw the conclusion that a pre-consultative process is necessary, as negotiations between the riparian states are progressing slowly, and the prerequisites necessary for the development and the implementation of a consultation process are not in place. In particular, as the MoU between SADC and Swaziland concerning the implementation of the capacity building and stakeholder consultation component of the URBI has not been signed yet, the Task Team (TT) and the selected Project Development Manager (PDM) do not have a clear mandate to implement this SDC-funded component.

With the aim to establish a strong institutional platform capable of conducting and integrating the consultation process into the URBI, the ESAAP team proposes to especially address the following elements:

- Balanced **ownership and declared common interest** among the two countries is a necessity. A clarification of the procedures, expected benefits and the role of each country – especially Swaziland – would substantially enhance the planning process.
The institutions involved can be strengthened by formulating **adequate mandates** for all functions, **clear terms of reference**, recognised **leadership** and **target-oriented process planning**. It might make sense for the partners involved to revise the URBI implementation strategy.

**External facilitation** to maintain momentum and bridge possible impasses in the process may be supportive too, as one person (the PDM) alone is probably overloaded with carrying through the full consultation process.

Measures to **improve communication** and to **build confidence** among the main institutional actors are crucial. The consultation process can add to build mutual understanding by discussing water issues with a broader public and by adopting a **regional development approach** with specific reference to poverty reduction and sustainability.

These elements allow for preparing the ground and making the consultation process a fruitful component of the Umbeluzi regional management planning.
1 Background of the ESAPP project

1.1 SADC and the Umbeluzi River Basin Initiative URBI

In its Southern Africa Regional Programme, one of the major SDC targets is Natural Resources Management (NRM), with emphasis on shared water courses across borders. In this context, SDC has entered into a partnership agreement with the Southern African Development Community (SADC) to support common efforts towards economic development and political stabilisation in the region.

Transboundary cooperation and sustainable water management is urgently required in the up-stream/down-stream situation of the Umbeluzi River Basin between the Kingdom of Swaziland and the Republic of Mozambique. Thus, the Joint Water Commission (JWC) of the two riparian countries initiated the Umbeluzi River Basin Initiative (URBI) with the main objective of developing a joint management plan of the river basin.

The URBI has a ‘pilot character’, (1) for SADC in regard of strengthening a multi-level/multi-stakeholder approach in river basin development, and (2) for SDC in regard of similar initiatives and its collaboration with SADC.

SDC support within the URBI is intended to (1) strengthen the management capacities of the JWC as a co-operative instrument in the Umbeluzi Basin, and (2) to support the consultation of stakeholders in the river basin, in combination with the Joint Umbeluzi River Basin Study (JURBS) launched by the JWC. This ‘Management & Consultation Process and Capacity Building’ component of the URBI is seen as a prerequisite for the development of a comprehensive and concerted regional management plan.

Having identified the need for support in the intended ‘Management & Consultation Process and Capacity Building’, the URBI partners approached CDE. In response to the request by SADC as well as SDC, a collaboration agreement with the Eastern and Southern Africa Partnership Programme ESAPP has been approved by the ESAPP Programme Committee in May 2004: ‘Development of a Conceptual Framework on Integrated Transboundary River Basin Management Planning (Umbeluzi River Basin, Mozambique and Swaziland)’.

1.2 Project Goals and approach

The project’s general objective is to provide conceptual and methodological support in the design of a consultative process with the aim to assure the participation of all water users within the river basin.

With SADC as the requesting agency, and the JWC as the lead agency, an interdisciplinary ESAPP team – Frank Haupt, rural engineer, and Cordula Ott, social anthropologist – has been mandated to develop a Framework for the Consultation Process. The Framework should
include a methodology and steps for interlinking an on-going negotiation/decision-making process with a broader communication and awareness creation process. It enables implementers to consult stakeholders prior to decision-making and intends to be supportive to the development of a Water Management Plan that adequately integrates the needs and perceptions of different water users on all levels of both riparian countries.

The work has been organised in two phases:

- In 2004, the formulation of the ESAPP project and the conceptualisation of a consultation process together with the requesting and implementing partners.

- In February 2005, a field mission to Swaziland and Mozambique, for further development and detailed design of the consultation process jointly with the local and regional partners.
2 Water Issues at stake

2.1 Water issues and the consultation process

The Umbeluzi River Basin represents a typical case of an in-balanced and threatened ecological and socio-economic development context. A first insight into the water uses of the Umbeluzi basin presents all the ingredients that indicate a high pressure on water resources, and emphasises the need for cooperative action in the management of the water resources for a sustainable regional development. Whereas single features alone may be problematic enough, their inter-linkages add new dimensions to the problem. A clear understanding of resource base, its use and the socio-economic driving forces (potential for conflicts over water) is crucial in order to tackle basin development issues.

Among the important water issues can be mentioned:

- Unbalanced up-stream/down-stream water use, with highest water abstraction for agricultural use in Swaziland
- Relatively small basin (5500 skm), but important for agricultural production, with high irrigation water demand for agro-industrial production (sugar cane, citrus)
- Drinking water supply for the capitals Mbabane and Maputo, with a high increase foreseen in the demand of Maputo
- Smallholder irrigation schemes
- Inadequate drinking water supply for rural areas
- Access to water for irrigation (depending on land rights)
- Storage regulation by three big dams, more hydraulic infrastructure development foreseen in Swazi development schemes
- Rising number of flood and drought incidences with increasingly devastating consequences
- Sensitive ecosystems’ water requirements, e.g. for estuarine waters
- Widespread poverty and high prevalence of HIV/AIDS common in both countries

Given that in the very near future the growing demand will exceed the Umbeluzi water resources, the JURBS has confirmed that problems cannot be solved by redistributing the available water resources. The solution lies in a broader approach turning water management
beneficial to both countries and fostering the development of the whole region in the wider economic context of Southern Africa.

Negotiations thus should address a broad range of issues. Some aspects can already be identified, more may come up during a consultation process:

- The agreement signed between Mozambique and Swaziland does not include clauses concerning water quality, ecological requirements, information and dispute resolution and needs to be revised.

- Linking the decision-makers with their constituency is of high importance. For example, whereas national level treaties define the let-through of the Umbeluzi river from Swaziland to Mozambique, it is the local level that is mostly affected, as the let-through is limiting the use of the local water users. Lowest level interest cannot be delegated to national or international levels only. This requires a clear understanding and awareness of the inter-linkages of the levels, especially of effects of decision-making, and a clear understanding of who are the interested and affected stakeholders.

- The availability of resources and margins of negotiation need to be assessed. The agreed run-off from Swaziland to Mozambique has to be variable (minimum, variable within a year, between years, in times of flood and drought, etc.). As water scarcity is limiting the use, the negotiation base is limited too. A learning process makes aware that stakes (resources) cannot be allocated without undermining sustainability goals. Selfish interests must be taken back in favour of a broader sustainability orientation.

- Scarcity of water and increasing conflicts bring in an economic dimension. What is the most profitable use of water, considering full cost/benefits assessment? What makes most sense under a regional approach?

### 2.2 Specific aspects of water management in Swaziland

Governmental responsibility lies with the Water Resource Branch (WRB) in Mbabane.

The National Development Strategy (1999)\(^1\) aims to expand smallholder irrigation within a national irrigation development plan, encouraging farmers to utilise the available water catchments, to plan and build small to medium-size dams to provide a reliable source of water for small-scale irrigation, livestock, fisheries and domestic use; to optimise available land, human and financial resources to promote irrigated agriculture. It also promotes efficient and sustainable land and water resources management.

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\(^{1}\) In: IUCN Study: Water Demand Management Programme for southern Africa, Phase II, April 2002
Land can be state-owned, held in trust by the King for the Swazi people; plots for subsistence farming are allocated to the applicant residents by the Chiefs. Title Deed Land properties for private farming can also be bought; these are typically used for ranching, forestry or estate production of crops such as sugar cane and citrus. There is an approximate fifty-fifty proportion of both types.

In the upper catchment of the Umbeluzi river (Highveld), subsistence production on small farms with 2-3 ha prevails. Productivity of this rain fed agriculture is limited by the general climatic conditions, not by water shortage. In the Lowveld, groundwater is the main source for household consumption. As in the Highveld, small, and generally poor farmers produce on a subsistence level and for petty trade in local markets. There is a potential for higher productivity and better livelihoods if diverse production and access to markets is supported by regional planning.

In the Lowveld, sugar cane production began in 1940; today, three big sugar estates with international shareholders constitute the backbone of the country’s economy. Sugar cane is (still) by far the largest water consumer in the catchment area. Sugar cane production is not competitive in the (subsidised) international market and the estates are trying to cut production costs by increasing productivity (and retrenching employees).

Taking advantage of the estates’ irrigation schemes, small farmers have shifted from rainfed mixed farming to irrigated sugar cane recently, hence profiting from the direct contract with the sugar mills to obtain bank credits, which make them in turn more vulnerable and exposed to the fluctuation of international market prices. In times of water shortage (as in the last five years), the Water Resources Department can impose restrictions on water use; water allocation is controlled, and irrigation becomes expensive. There seems to be room for improved water efficiency, and investments in decentralised small water dams for small farmers could contribute greatly to poverty reduction, if duly accompanied by extension services.

North of the Umbeluzi River, the irrigated fields (a large part of the total sugar cane area) get water from the Sand River dam, diverted from the Incomati River, whereas on the southern side the Mnjoli Dam guarantees for irrigation water. According to the estates’ representatives, they not only monitor water intake and outlet, but also water quality, in compliance with a local health risk and environmental certificate. Still, data do not appear to be readily available. In any event, the presence of benthic algae and floating aquatic alien weeds indicates an excess of nitrates and phosphates. Nitrates and persistent organic substances would be of primary interest, given that the river supplies millions of people with drinking water. Herbicides and pesticides are difficult to measure, and the ecological impact has not been studied in this area. In accordance with local targets for land and water conservation, sub-surface drip irrigation has been introduced on rather huge surfaces. This has reduced water consumption considerably and has made it possible to promote the aforementioned small-scale irrigation.

In general, erosion is a big problem in the Umbeluzi valley, causing loss of fertile soils and siltation of the irrigation infrastructure.
2.3 Specific aspects of water management in Mozambique

As for Swaziland, a large number of studies and reports exist dealing with land and water availability, use and conservation, and population activities.

Extending at great length through the Libombo Mountains, the Umbeluzi valley is thinly populated and the river exhibits almost natural, regenerating conditions. It appears that the main pollutants at the Maputo water intake have their origin in the small Mozambican towns, not in the cane-producing areas of Swaziland. Yet the quality of surface water in the Umbeluzi river is presently appropriate for domestic, agricultural or industrial purposes.

Smallholder subsistence farming prevails, as in Swaziland, though with a high level of food insecurity. Access to water in rural areas is crucial. The groundwater capacity in the Umbeluzi Basin is limited and only suitable for household consumption. Aguas de Moçambique is the major water supplier in the region; with presently 60 to 70 % water losses, the urgent need to rehabilitate the system is recognised, and intensive efforts are being made.

Although connected to the piped network, many poor people in rural areas still use river water for domestic water supply, together with fishermen, cattle breeders, and private farmers. The river is also used for bathing and washing (humans as well as laundry and cars). In addition, there is a considerable potential for agricultural land suitable for irrigation, which cannot be developed for lack of water.

Maputo city and industry are main consumers of the Umbeluzi waters with dramatically increasing water demand. This is the very reason why negotiations are necessary. The Umbeluzi water resources are already used to the limit – and used inefficiently.
3 The institutional setting for the URBI and the consultation process

3.1 Starting-point for the consultation process and the ESAPP contribution

Within the URBI, the JWC Task Team (TT) is in charge of implementing the consultative process. It plays a key role as facilitators in a bottom-up process and is the main and direct partner of the ESAPP team. ESAPP has been requested SADC to contribute to the consultation process.

As a main step of the project, a field mission was scheduled at a strategic point in time within the ongoing process. Main objectives of the mission were to participate in the presentation of the final report of the Joint Umbeluzi River Basin Study (JURBS) and to further develop and operationalise the proposed Framework for a stakeholder consultation process, together with the TT and with the Programme Development Manager (PDM) in particular (for Field Mission TORs, the detailed mission program and the people met, see Annex 2). The JURBS presentation workshop took place on 21 February 2005. This was at the same time an excellent opportunity to get a visual impression of the Umbeluzi basin and to meet key stakeholders, during the workshop as well as in the field.

The ESAPP team found the institutional setting of the URBI (and the intended consultation process within it), as well as the institutional context in each country, destabilised by recent changes in the institutional framework. This does not favour a longer-lasting process based on mutual understanding.

Recent organisational changes include:

- Reorganisation of SADC, whereby the decentralised sectoral responsibility of member countries is concentrated in the new SADC Secretariat in Gabarone, Botswana.
- Changes in the government of Mozambique after the elections, with newly appointed Ministers bringing institutional insecurity. In Swaziland, the new Water Policy creates new institutions with new staff and an unsettled power structures.
- SDC is progressively extending its country programme into a Southern African Regional Programme, starting 2005; so far, there has been no bilateral cooperation with Swaziland. The donor working group on water is still in place (core group: Holland, SDC, WB WSP, UNICEF, EU, AfDB).

During the field visit, the institutional setting for the consultation process and recipient for the ESAPP contribution to the consultation process was not found in place. In particular, the MoU between SADC and Swaziland concerning the implementation of the capacity building and stakeholder consultation component of the URBI (initially to be started in April 2004) has not
been signed yet. Hence the selected PDM does not actually have a mandate to implement this SDC-funded component. In the absence of a legitimate and collaborating counterpart, the ESAPP team itself further developed the Framework for the Consultation Process.

The co-operative instrument between the riparian states is the JWC. The JWC has adopted a step-by-step approach to joint water management plan for the Umbeluzi Basin:

1. In 2002, the Joint Umbeluzi River Basin Study JURBS was launched with the objective of providing a base for sustainable development and for re-negotiation of the agreement between Mozambique and Swaziland.

2. The study was to be accompanied by a consultative process involving the main stakeholders in a participatory process.

SDC got involved after the launch of the JURBS, as countries expressed the need for support in linking the technical study with the consultation process. Since the JURBS has been implemented through Mozambique, SDC considered appropriate to implement its capacity building support through Swaziland; yet a Mozambican national, a staff member of DNA residing in Maputo, was selected as PDM.

Although the ESAPP team had only brief insight – and surely does not know enough about exchanges, discussions and activities among the URBI partners – it got the impression that up to now there has been no equally shared ownership of the consultation process. The ESAPP visit would have been a moment of opportunity for the Swazi representatives to take the initiative. However, he did not show interest in meeting with the ESAPP team. There seems to be a basic misunderstanding – and perhaps mistrust – in regard to implementation of the capacity building component as a whole.

3.2 Main actors in the URBI

SADC, the JWC, its TT, and the JWC PDM are the main operational bodies in the implementation of URBI; SDC has a stake as a donor agency (see Annex 4). The Republic of South Africa (RAS) appears somehow in the role of the big brother, generously offering to share its own experience in joint river basin management (5% of the Umbeluzi catchment is on South African territory). As perceived by the ESAPP team, the major institutional elements affecting the implementation process are the following:

_Southern African Development Community SADC_

Within its regional mandate, SADC has a catalysing role with regard to development issues in Southern Africa. SADC is an SDC partner in the implementation of its Regional Strategic Action Plan (RSAP). At present, SADC has low institutional and operational capacity. It is basically a coordinating body that could play a role as a facilitator but cannot put pressure on the sovereign member countries.
**Joint Water Commission JWC**

In 1999 Mozambique and Swaziland agreed on the establishment of a Joint Water Commission, in terms similar to the ones established between Mozambique and South Africa, and Swaziland and South Africa. The detailed Terms of Reference for the JWC are given in the *Agreement on the Establishment and Functioning of the Joint Water Commission Concerning Water Resources of Common Interest Between the Government of the Kingdom of Swaziland and the Republic of Mozambique*, signed at Pigg’s Peak, Swaziland, on 30 July, 1999. Each party is represented in the Commission by a delegation of two or three members. The JWC is responsible for policy decisions and liaises with SADC-WD on the management sub-component of the study, and with NDF on the main study sub-component. It meets at least once a year but extraordinary meetings may be convened.

The JWC has ownership of the process by means of certain formal procedures, which is fundamental for future projects. Given the menacing water scarcity for Maputo as pointed out during the workshop, the JWC may opt to play a more dynamic role and thus require additional assistance in terms of strategic planning and communication.

**Task Team TT**

Basically, the TT represents the technical arm of the JWC and is composed of two representatives from each country. The host country holds the chair in the TT meetings. It seems quite obvious that the effectiveness of the TT depends on the degree of mutual understanding and commitment to the common goals. However, mandates, roles and responsibilities and how to relate to the JWC do not seem to be very clear.

**Programme Development Manager PDM**

The role of the PDM is outlined in the SDC credit proposal, yet there is room for interpretation with regard to the competence. The responsibility of the PDM is seen by the Mozambican TT members as purely acting on behalf and request of the TT, without assuming a facilitating or coordinating role. In our view, a Development Manager could act proactively, take initiative and make the process become dynamic.

Anyway, as long as the MoU between Swaziland and SADC is not signed, there is no PDM in charge, the JURBS Coordinator is in her words being a ‘selected but not appointed’ PDM.

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2 The ESAPP team could not obtain information on the composition or the mode of operation of the JWC.
4 A Framework for Stakeholder Consultation


According to the CDE approach and understanding the main challenge of a consultative process as outlined by the URBI actors lies in the adequate integration of all stakeholders in an on-going pragmatic learning and negotiation process (see also Annex 1).

Linking the existing structure, information and especially processes to a true learning process is a challenging task. Strong political commitment from the top, as well as from local government, must be aimed at for the successful preparation and implementation of a Management Plan. At the same time, experience shows that an active and full participation of weak stakeholders (smallholders, communities) in the processes concerning their own present and future is a condition for success. Effective communication among stakeholders – not merely information disseminated from the top – is essential to stakeholders’ participation in the preparation of a Management Plan and subsequent commitment in its implementation. Communication activities should engage key stakeholders, draw a realistic picture of water resource use and management, and ensure that stakeholders are up-to-date on Plan preparation and the ways they can contribute to it.

One conclusion of the ESAPP team is that before the consultation process can be initiated, the institutional base must be strengthened and consolidated – and misunderstandings must be cleared. This is actually a pre-consultative process or ‘consultation process planning’. Only a proper pre-consultative process allows for the establishment of an operational body capable for guiding the consultation process by interlinking the negotiation and decision-making line and the awareness creation line in exchange with a broader public. On this base a concrete action plan can be developed towards the overall goal of a Umbeluzi Basin Management Plan.

The ESAPP Framework for Stakeholder Consultation thus proposes (see figure 1):

a) a ‘Consultation process planning’ with ‘stakeholder assessment’ and the consolidation of ‘ownership, institutional capacity and mutual understanding’ as prerequisites,

b) a three-tier procedure, with the ‘Technical/analytical process’ between the ‘Decision-making process’ and the wider ‘Communication and awareness creation process’:

- The Decision-making process – the on-going ‘internal procedure’ – is supported by a sequence of knowledge sharing, mediation and negotiation workshops.

- The Communication and awareness creation process – the ‘external procedure’ with a broader public – accompanies the projects’ internal procedures by using a wide range of events (cinema, theatre, workshops, informal consultation, public exhibitions, roundtables, field visits with prominent opinion leaders or media events etc.)
The Technical/analytical process feeds relevant technical information into the consultation process for efficient operations. The technical or analytical level has a major role to play in the exchange of relevant information between the other two activity lines regarding the Management Plan.

Careful management of inter-linkages between the decision-making process and the public communication and awareness creation process is the essence of the envisioned consultation process. Its effectiveness depends on the quality of the relationship and exchange between these two processes. It is assumed that information exchange and awareness creation, joint events involving different stakeholder groups, and insight into stakeholders’ perceptions and strategies will support the development of common visions and processes and a management plan with broader political legitimacy and acceptance. Confidence-building and transparent decision-making will further support socio-political development. Immediate recommendations and priority actions identified as an outcome of the JURBS can also be included in the stakeholder dialogue and implemented as confidence-building opportunities.

**Figure 1 Framework for the Consultation Process**

### 4.2 Assessment of actors/stakeholders and their role in the consultation process

The need to fully integrate all stakeholders into the process is recognised by URBI actors, and the dissemination of the JURBS among a broad public is seen as an important element favouring a dynamic consultation process. Yet different concepts of stakeholder are used in the context of the URBI, and there are diverse perceptions of the consultation process. Where the SADC Protocol favours a broader view, the stakeholder dialogue so far has essentially consisted of an exchange between government agencies.
Two concepts of stakeholders are being used side by side. These must be differentiated, as they have different implications. In a ‘Stakeholder assessment’ (see Figure 1) distinctions must be made between (1) stakeholders in the negotiation/decision-making process (in reality ‘actors’ with different decision-making power), and (2) stakeholders in a broad sense, i.e. all formal and informal water users in the basin. Along the same lines, differentiation must be made between (1) the consultation process among the negotiator/decision-makers, and (2) the communication and awareness creation process with a wider public. It must be made clear what should and can be negotiated on what level, and which stakeholders have to be involved and how. This allows to identify the role and competence of the technical level staff.

Thus, in addition to clarifying roles and connected with it, the first thing to do is agree on who the relevant stakeholders are, what role they play in the envisaged consultation process, and what the implications are with regard to the design, realisation and expected outcomes of the process.

4.3 Components of the pre-consultative process

Assure balanced ownership based on a win-win-perspective

Balanced ownership and declared common interest must be assured among the two countries. It is necessary to clarify basic ideas and expected benefit of the consultation process, and the role of actors – especially the role Swaziland should play.

Given the urgency of a sound management plan, reflection on the starting points for the negotiation process will be helpful. It is important that the negotiation process be based on mutual trust and balanced ownership, i.e. both partners should have an equal interest and control over the process. For example, SADC being represented by a former DNA staff, he may not be neutral or not be perceived as such, thus contributing to what we identified as a lack of ownership on the Swazi side. As new people are in charge, there is a need – and also a chance – to create this common understanding of rationale, goals and responsibilities in the intended agreement. A meeting clarifying issues pertaining to the envisaged stakeholder consultation process would be beneficial in generating awareness of common interests on environmental and socio-political issues in the Umbeluzi basin.

Strengthening institutional performance

The institutions involved can be strengthened by formulating clear mandates for all functions, adequate terms of reference, leadership and target-oriented process planning. It might make sense for the parties involved to revise the URBI implementation strategy with external assistance. Important aspects are:
Recognised leadership and delegation of competence:
The PDM has an important role to play as a facilitator and “goal keeper” in the whole process. This requires a neutral, and very experienced and senior person, recognised and accepted by all parties. Preferably, such a person should not be connected in any way to one or the other party. As this position is meant to balance powers between the riparian countries, the importance of having the PDM located in Mbabane should not be underestimated.

More thinking is necessary on the functionality of JWM/TT/PDM organisational structure and control lines. The fact that individuals sometimes belong to several organisational and governmental units may create conflicts of interests or confusion of roles. It is a prerequisite for the process that the TT members of the two countries function as a team. Wherever they basically represent interests and positions of their respective country, transparent information flow and constructive cooperation are unlikely to happen. The ESAPP team proposes to revise the JWC hierarchical structure and implementation programme, with the assistance of an external facilitator to improve its operational strength.

• Target-oriented planning:

With the SDC credit expiring in March 2006, the actors in charge can still establish a one year work plan within the funding framework provided by SDC. The plan should be clear on roles, targets to be achieved, and resources involved. The institutions involved can perform more efficiently with a clear mandate, recognised leadership, and target-oriented process planning.
**External assistance in process facilitation**

External facilitation to maintain momentum and bridge possible impasses in the process may be supportive to the process dynamics. One person alone (PDM) is probably overcharged with the full thematic and organisational responsibility for the envisaged stakeholder consultation process. A facilitating body or person could offer good advice. A neutral and competent person or organisation would be able to provoke internal discussions and promote mutual understanding on integrated management of the Umbeluzi Basin. He/she/they must be able to organise roundtable discussions on specific issues, with strong roots in the field. A sound recruitment process for such a position is required. There might also be agencies or NGOs active in stakeholder consultation processes and environmental planning that could contribute with their experience.

Universities may not be suited to fill the position of the facilitator role, but partnership between universities can be helpful in establishing links between the negotiation/decision-making line and the public process. Universities are at a comfortable distance to the more sensitive diplomatic levels; they can organise events, where negotiators get more insight into topical issues, and side-events with local stakeholders and negotiators’ meetings, and generate and disseminate information on ongoing discussions and issues. If the need arises, partnership activities with CDE/ESAPP can be envisaged.

**Building confidence and improving communication**

Measures to improve communication and to build confidence among the main institutional actors are crucial. The consultation process can be supportive to a regional management plan by discussing water issues with a broader public and by taking up a regional development approach with specific reference to poverty reduction and sustainability. Specific measures are:

- **Information dissemination:**
  The dissemination of the results and recommendations of the JURBS, and the on-going discussion, can be published in the local media (publications, video, exhibition etc.). However, a coordinated approach is crucial. Further steps within the consultation process should concentrate on awareness creation; thus, they should be basically intended to create bridges between formal and informal use, from organised to non-organised stakeholders.

- **Team building for JWC/TT members:**
  In addition and support to the joint consultation process planning, other team building events for the TT (or the JWC) can be organised. Given the growing attention to joint water agreements, experience is available that can be tapped for awareness raising and training, either at the operational and decision-making level or for sharing experience with a broader public. Visits to other river basin management schemes would make it possible to share experiences, avoid repetition of the same errors and, eventually, to accelerate the whole process. There are different examples of participatory river basin management in South Africa, Zimbabwe/Zambia, Mozambique/Zimbabwe or Tanzania/Malawi worth to be visited.
For example, JPRBS started three years ago in the Pungwe basin and encompasses 3 phases: (1) a monographic phase (status); (2) a scenario phase with stakeholder participation (ongoing; to be presented in April/May 05) (with stakeholders elaborating scenarios with lowest/normal/highest levels of development and water use); and (3) a strategy development phase. An implementation phase is under consideration. In both countries, river Basin Committees have been established by the water users. The process is under the supervision of ARA-Centro in Beira and of a very dedicated resident team leader.

4.4 Components of a stakeholder consultation process

The stakeholder consultation process of the watershed Management Plan integrates the following components:

Baseline data collection and stakeholder involvement

- Concerning the hydrological, technical, socio-economic and legal aspects, data collection is coming to an end with the termination of the JURBS. However, socio-political aspects, like ownership of the Planning process, stakeholder involvement and commitment, political acceptance and legal compliance have to be fostered and built in from the beginning of the watershed management planning exercise.

- A detailed stakeholder assessment is necessary in order to give guidance to the consultative process. Who are the stakeholders not included in the decision-making process? What are their interests? their values? their issues of concern, their resources? Information on power relations, social organisation and networks puts the programme in position to decide on the composition of the stakeholder groups participating in the planning and negotiation process, and to address different actors and stakeholder groups in a communication strategy.

- In case the baseline data collection leads to urgent measures, further consultation prior to implementation may not be possible. However, as soon as a stakeholder assessment is carried out and representative groups are identified, they should be adequately involved in the planning and support of these activities.

Communication and Confidence building

- Confidence building is an overriding theme in a consultative process. Transparency in all the activities and mutual respect and understanding are keys elements which must be continuously and consciously fostered. Equally, small-scale, immediate impact actions, addressing one or more of the raised issues, can be door-openers and contribute to confidence building. They can at the same time, monitor intervention mechanisms and foster partnerships and alliances across the borders. This crucial element of a consensus and ownership building process must be adequately addressed in terms of time and budget allocation.
Scarcity of shared resources raises conflicts. These cannot be avoided, but must be identified and transformed into non-violent interactions. Any intervention in a conflict situation should be accompanied by confidence building measures. These are necessary during the whole process and until a stable institutional setting guarantees full transparency and participation of the concerned over the management of the resources. Measures aiming at building confidence are required internally (among the working groups) as well as externally (towards the public). The latter need to be embedded in a comprehensive communication strategy, addressing all the concerned, and allowing for top-down and bottom-up information and feedback. This strategy can include the organisation of a sequence of events with broad media coverage and the involvement of key persons and political leaders. These will finally be the ones to negotiate the convention between the two neighbouring states, and must be therefore fully aware of the concerns of their constituency.

We presume that, although the final aim is the re-negotiation of the bilateral agreement, negotiations and adjustments will take place in a first phase among groups within country boundaries. However, it will be for the ease of further negotiations to organise common events across the state boundaries right from the start, with the ultimate aim to create a watershed community with a strong identity. Only under the holistic approach and with the interest of the whole watershed system in mind will the various interest groups conclude their negotiations with meaningful decisions and a realistic and practicable Plan.
Institution building and stakeholder empowerment

- Probably not all stakeholders – particularly not the less powerful – are organised in a way that allows them to design a legitimate representative. Some stakeholder groups or associations will need to be formed and institutionalised before they can raise their voice and take actively part in the negotiation process. There is a need to train and empower these groups so that they can be able to participate as equal partners, being aware of their rights and duties, as well as on the socio-economic and ecological consequences of political or physical interventions in the watershed.

Negotiation and mediation workshops and Management Plan formulation

- In parallel to the public awareness raising events, the core consultative process necessarily takes place during stakeholder workshops. Groups can be organised according to interests, natural or administrative boundaries or influence (e.g. at national, regional or local level). Adequate feedback and suck-back to and from their constituencies must be ensured.

- These workshops should integrate information, knowledge sharing and learning processes. The following are milestones on the consultation path:

  1. Discussion of the stakeholder assessment and endorsement of the representative stakeholder groups in the consultation exercise.

  2. Presentation of the baseline study to different stakeholders, in a way that they can understand and relate issues of concern to their respective livelihoods. Analysis of issues, problems and potentials as seen by the groups. Prioritisation of issues.

  3. Development of a vision on Umbeluzi basin development which is shared among all the stakeholder groups; based on this vision, develop appropriate IWRM strategies.

  4. Prioritise and negotiate measures to be taken and resources’ mobilisation for the transformation of the strategies into a politically accepted, technically and economically feasible and environmentally sound management Plan.

  5. The topics and discussions in the workshops shall continuously be shared with the wider public for debate in the ‘communication and awareness creation process’.

Discussion of water issues with a holistic view

The actors in charge of the consultative process must be aware of the necessity and the potential for encompassing questions of regional development, such as poverty reduction and socio-economic sustainability. No doubt, joint water governance is a challenge in a
transboundary setting, separated by national borders, different political and legal systems, different cultures, languages etc.; however, where there is a political will, technical problems can be solved.

**Address WDM at regional level**

Swaziland has already made efforts in the sense of raising awareness and strengthening water demand management, although limited to national interests only. On the Mozambican side, where the greatest increase in demand is foreseen, the water saving campaign in Maputo points to the same direction. It would be worthwhile and beneficial to both countries, and it could in addition be a valuable contribution to raising mutual understanding and confidence, to discuss and introduce WDM measures at the basin or regional level.

**Endorsement of the Management Plan by all parties involved**

At the end of the consultation process there must be a consensus on and an approval of essential elements of the watershed Management Plan of all stakeholders involved.
5 Outlook

The ESAPP team has developed a Framework on Integrated Transboundary River Basin Management Planning for the Umbeluzi river basin shared by Swaziland and Mozambique.

The Framework’s basic conceptual and methodological ideas are outlined in earlier papers and modified in the present project report. The Framework can be put into operation as soon as an assigned body takes it up and incorporates it into the negotiation process between the countries.

However, the major finding within the ESAPP project is, that a pre-consultative process is a prerequisite for setting the consultation process into motion. Clarification of basic ideas and benefits expected from the stakeholder consultation process is necessary as well as the establishment of a strong team capable of leading the process. Only a sound pre-consultative process will allow for taking up the Framework as developed by the ESAPP project. It will allow for clarifying roles and responsibilities of URBI actors, and for developing a planning schedule within the given time and budget frame.

It came out very clearly from the JURBS report that in the very near future, major efforts will be necessary to explore additional water sources and/or to improve the efficiency of water use. This calls for urgent measures at the institutional and process levels. A pro-active role of URBI actors would be advisable in order to make the consultation process a fruitful component of the Umbeluzi regional management planning.

In case the idea of a full stakeholder consultation process within the URBI would be given up, the ESAPP team would still recommend activities on awareness creation on regional water issues and development.
Annex
Annex 1

CDE Concept on Sustainable Resource Management and Sustainable Development in the context of the UMBELUZI River Basin Initiative

- Multi-level/multi-stakeholder processes and social learning for sustainable resource use and sustainable development

The ultimate aim of development activities designed to foster sustainability is to improve conditions at the local level. Local governance of resources and social development is thus to be aspired, yet higher level frameworks must support lower levels self-regulatory potentials. Comprehensive measure are to be accountable down to the community and household level, and root in local resource users’ contexts and perceptions. This allows national and regional programs and institutions to play the crucial role of linking all levels of activity, and to serve as “advocates” for the interests of local resource users at higher levels.

<table>
<thead>
<tr>
<th>Level of action</th>
<th>Responsibility</th>
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<tr>
<td>International</td>
<td>International institutions and programs</td>
</tr>
<tr>
<td>Nation/state</td>
<td>National and provincial institutions and programs</td>
</tr>
<tr>
<td>District/Province</td>
<td>District level institutions and projects</td>
</tr>
<tr>
<td>Village/community</td>
<td></td>
</tr>
<tr>
<td>Household/farm</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2  Consistency of policies and strategies between socio-organisational levels: Need to foster negotiation power in a bottom-up process*

Main challenge thus is coherence of policies and strategies for sustainable resource management and sustainable development. This is increasingly faced by so-called multi-level and/or multi-stakeholder approaches aiming at joining stakeholders of all levels in a common learning process. Such multi-stakeholder processes MSP enhance transparency on levels and stakeholders, identify linkages, and facilitate stakeholders in a learning process oriented towards sustainable resource management. Stakeholders’ motivation for participation is located in the appreciation of a common dependency on an intact natural resource base.

Multi-level/multi-stakeholder approaches differ widely from approaches, where decision-making is done by central institutions. They take into account that in complex systems – as a development region surely represents – inter-linkages between levels and stakeholders as well as the impact of activities are hardly to assess. They focus on dependencies between levels and stakeholders and assume that uncertainties are minimised by contribution of many. They thus try to counter-balance a top-down approach by an approach in which decision-making on higher level is defined within a bottom-up process. Ideally, bottom-up processes and top-down frameworks are linked together, leading to appropriate institutional relationship, structures and strategies. It is important to agree on the roles and responsibilities of the different actors at an early stage.
Developing a conceptual framework for the UMBELUZI Multi-level/multi-stakeholder approach

For its support of the consultative process, CDE proposes to design, and continuously refine a ‘model’ or ‘conceptual framework’ that allows a step-by-step system analysis. A general idea on such a model is given below.

Discussion and reflection of such a model has proved to support a social learning process. Basically, the model is intended to create transparency and awareness on structure and inter-linkages of levels and stakeholders relevant for water issues. It unrolls a picture on status, trends, visions and options for development. It further allows for the joint identification of key institutions and activities as well as key access to negotiation and implementation. It must be emphasised that social learning is essential but not sufficient for co-management if not accompanied with an appropriate framework for action.

For the development of such a model, in a first step a preliminary stakeholder assessment has to be done, identifying relevant stakeholders and socio-economic levels in a vertical and horizontal manner. In addition, thematic issues have to be addressed and investigated in order to formulate guiding questions and hypotheses to focus on.

On the background of the model, discussions with the TT and the baseline study team will start in order to precise stakeholders and issues and develop a procedure for further work. In addition to the work process of broadening the data base, projects ideas and procedure are constantly shared with the public in an iteratively discourse and awareness creation process.

Figure 3 Intervention Levels and Activities in a Multi-level/multi-stakeholder Approach to Sustainable Land Management (Hurni 2003)
Annex 2

Field Mission Activities

Project E 703


TERMS OF REFERENCE of CDE consultants for the Field Visit Umbeluzi Basin

Duration: February 15 – 25, 2005

Duty station: Manzini (Swaziland) and Maputo (Mozambique)

Objective
As a centre of competence in sustainable land management and integrated regional development, CDE is providing backstopping services for SDC. It is within this scope that a project for the Umbeluzi River Basin Initiative was formulated under the umbrella of the ESAPP.

Its general objective is:

- Provide conceptual and methodological support to SADC as the requesting agency and its partners in the development and implementation of a consultative process with water users within the Umbeluzi river basin.

A Draft Concept Note, a Project Proposal, an Abridged Concept Note on ‘Stakeholder Consultation in the Umbeluzi River Basin Initiative’, and first exchanges with responsible staff of SADC and SDC have been prepared in advance. A field visit of an interdisciplinary CDE team – Frank Haupt and Cordula Ott – is launched in order to operationalise concepts and ideas developed so far.

In coordination with the requesting agency and its partners, and especially with Suzanne Saranga as Project Development Manager PDM mandated by the JWC, the consultants:

- Establish a framework for a consultation process to be held prior to the adoption of the Umbeluzi basin management plan.

In order to achieve this goal, the Consultants especially:

- Participate in the Final presentation workshop of the Umbeluzi Baseline Study on 21 February 2005 in Maputo
- In the workshop, present the mission of CDE and ESAPP, and outline the backstopping mandate for SADC and the goals of the field visit
- Clarify the political and institutional setting, the roles and expectations of partners involved (DNA, SADC, JWC, PDM, SDC, Ministries, CDE etc.)
Developing a Framework for Stakeholder Consultation in the Umbeluzi River Basin

- Clarify the issue at stake
  - by assessing status, trends and conflicts in water supply and demand, against the background of stakeholders on different levels
  - by visiting the project site
  - by exchange with partners, experts and informants

- Identify entry points for stakeholder consultation on different levels
- Identify possible local partners as mediators in the consultation process, and media and public partners to be involved
- Propose appropriate procedure, necessary modifications in the institutional setting, and responsibilities of partners involved
- Reach a common understanding among partners on the issues at stake, the concept of stakeholder integration and the way forward

Based on the field activities, the consultants prepare a Draft Conceptual Framework as a planning instrument, with a detailed action plan, a budget and a proposal for a follow-up.

| Umbeluzi Mission Programme February 15 – 24, 2005 and people met |
|------------------------|-------------------|
| Date | Activities |
| **Tu 15 Feb** | Travel Zurich – Joh’burg – Manzini (departure 20:25 p.m.) |
| **We 16 Feb** | Travel: Arrival Manzini 11:00 a.m. (delayed)  
Field visit to the Pine valley (uppermost part of the Umbeluzi valley  
Meeting in Mbabane:  
Mr. Petros on deputising for Mr. Raphael Sangweni (Gov. of Swaziland Water Resources Branch/Swazi task team member of URBI)  
Field visit to Hawane Nature Reserve and Hawane Dam, drinking water for Mbabane.  
Travel Mbabane–Siteki (accommodation Mabuda Farm) |
| **Th 17 Feb** | Field visit to Umbeluzi valley Lowveld and sugar cane production area  
Meeting in Simunye Sugar Estates:  
Dr Leonard Ndlovu (Water Resources Manager/Royal Swaziland Sugar Corporation)  
Meeting in Mbuluzi Game Reserve:  
Jim Boyd (Agronomist Thabakula Sugar Estate/Manager Mbuluzi Game Reserve)  
Travel Mhlume–Manzini Airport  
Taxi to Goba Boarder; Chapa3 to Maputo (accommodation Hotel Terminus) |

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3 Semi-public mini-van

34
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
</table>
| Fr 18 Feb | **Meeting** at SDC: Nicolas Randin (Director Residente Adjuncto)  
**Meeting** at Helvetas: Luis Dinis  
**Meeting** Ricardo and Beatriz Rangel, Centro de Documentação e Formação Fotográfica  
**Event** at the French–Mozambican cultural centre: informal talks with Adrian Hadorn, Swiss Ambassador |
| Sa 19 Feb | **Field visit** to Boane area (Massaca) downstream Pequenos Libombos Dam  
**Informal talks** with:  
Guard of pump station of MOZAL (aluminium smelter)  
Mr. Braga (Manager at Ceramic de Umpala)  
Fishermen  
Agricultural employees (livestock watering)  
**Meeting** with Rikard Lidén, SWECO  
**Preparation** of Monday presentation |
| Su 20 Feb | **Field visit** to Boane, Pequenos Libombos Dam, Goba  
**Informal talks** with:  
Massaca small scale farmer  
Maputo resident, farm owner near Boane |
| Mo 21 Feb | **JURBS presentation workshop**: Participation and presentation of CDE, ESAPP and stakeholder consultation project  
Collection of material from consultant and informal talks with key stakeholders |
| Tu 22 Feb | **Visit** DINAGECA: Collection of physical and electronic maps  
**Meeting** with DNA/GRI: Suzana Saranga, TT member and selected PDM, Pedro Cambula, alternate TT member: JURB Management Plan stakeholder consultation planning  
**Meeting** with CEDESA: Rui Gonzales  
**Meeting** with SIDA Regional Water Resources: Gunilla Olund Wingqvist |
| We 23 Feb | **Visit** to the  
CDFF Centro de Documentação e Formação Fotográfica, Maputo  
**Meeting** with MASSALA, development consulting & research: Charlotte Allen, Vibe Johnsen (stakeholder consultation in Mozambique)  
**Debriefing** SDC: Nicolas Randin  
**Informal meeting** SDC: Derrick Owen Ikin |
| Th 24 Feb | **Debriefing** Hotel Rovuma:  
Pedro Cambula (JWC TT)  
Afternoon: departure Maputo – Joh’b urg – Zurich |

**Collection of physical and electronic maps**

DINAGECA / Mozambique:  
Cartas 1:250’000; No 93, 94, 98, 99 and 102
Annex 3

JURBS Workshop

ESAPP team Notes for the file

Objectives of the study

“… present to the Governments and the water management institutions of Mozambique and Swaziland a sound analysis of water resource potential and demands in the Mbuluzi River basin and associated institutional and legal conditions. This analysis should serve as a basis for negotiations on an agreement on joint water use and management of the water resources of the basin.”

Participation

About 45 so-called “key stakeholders” responded to an invitation from the DNA in the presentation of the final report of the study. The presence and active participation of important water users such as MOZAL (aluminium smelter) and Aguas de Moçambique (Maputo water supply company), as well as owners of private irrigation schemes, was positively noted. It is interesting that (with the MoU between Swaziland and SADC not yet being signed) the workshop was financed by funding from the JURBS – not through the SDC capacity building and stakeholder consultation component, as would seem to be logical. This may explain why only 6 participants came from Swaziland (3 from RSA and 6 others). It could also signal a lack of ownership on the Swazi side.

Study Presentation

The objective of the workshop was to present the results of the study and receive comments from clients and stakeholders. A summary was distributed, the full report totalling ca. 400 pages. With other issues (such as legal implications, socio-economic issues, etc.) already having been discussed during the inception workshop in May 2004, the consultants concentrated on

- Potential new storage dams
- Water balance analysis, present water demand, and demand in 2025
- Joint basin agreement
In simple terms, the conclusion of the study is that under average rainfall conditions, with the regulating infrastructure in place, present demand can be satisfied in both countries without major shortcomings. However, the expected growth in future water demand (by all users) exceeds future water availability. The development of new dams alone will improve the future water supply situation, but not to desired levels.

<table>
<thead>
<tr>
<th>Water demand</th>
<th>Mm3 per year</th>
<th>in % of MAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>At present:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swaziland</td>
<td>253</td>
<td>47</td>
</tr>
<tr>
<td>Mozambique</td>
<td>107</td>
<td>20</td>
</tr>
<tr>
<td>total</td>
<td>360</td>
<td>67</td>
</tr>
<tr>
<td>in 2025:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swaziland</td>
<td>334</td>
<td>62</td>
</tr>
<tr>
<td>Mozambique</td>
<td>261</td>
<td>49</td>
</tr>
<tr>
<td>total</td>
<td>596</td>
<td>111</td>
</tr>
<tr>
<td>Water available (natural mean annual runoff; MAR)</td>
<td>535</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes:
a) the figures include minimum in-stream and estuarine flow requirements
b) the figures for 2025 in Mozambique assume a 35 % reduction of losses in the urban water supply

The report concludes that

- Serious restrictions have to be imposed on the expansion of water demand; the consultants suggest limiting irrigation (in Swaziland). Restricting increases in industrial and agricultural uses will improve the level of supply, but will not solve the problem.
- The water supply situation will have to be addressed soon for Mbabane and Maputo
- A new source of supply for Maputo, other than from the Umbeluzi catchment, is necessary to improve the water supply situation (water transfer from another river basin, e.g. Inkomati) in the near future.
- Effective monitoring of water resources use and development is required

Thus no reduction of actual use is visible, yet the potential for industrial and irrigation growth is within the limits of more efficient use of water. A lead time of 4 to 6 years will be required before new water infrastructure can be put in place. There is an urgent need to undertake investigations to supplement the existing water resources to Mbabane and Ngwenya (from a dam at Mbuluzi Falls) and to the City of Maputo (from other sources than from the Umbeluzi river).

Concerning bilateral agreement, the recommendation is that total water use in the Umbeluzi River basin be limited to 404 M m3/y (76% of MAR) with an allocation of 2/3 for Swaziland and 1/3 for Mozambique, which as a matter of fact, is little different from the present situation.
Discussion

Among other things, the following issues have been taken up by the workshop participants and will necessarily be part of future discussions.

More efficient use of water
The JURBS study showed that present water demand can be satisfied with present infrastructure, with good reliability. Thus present water demand is a point of departure as well as a priority given to domestic water supply in both countries. This makes restrictions necessary for other competing users. On the other hand, efficiency of water use must be increased to meet future demand, and allocation carefully balanced, based on negotiated criteria for sustainable regional development among the different users and between the two countries. Incentives for appropriate technologies and for more efficient use of water (e.g. cleaner production) have become urgent. Water losses in Maputo are between 60 and 70% of the water supplied. As mentioned in the workshop, a 35% reduction of losses would already be quite ambitious. Moreover, the construction of new dams is usually more attractive to investors and donors than the rehabilitation of existing water supply systems. Hence there is no motivation to increase efficiency.

On models and scenarios
Participants expressed scepticism about figures, models and scenarios, as these can be used as political elements in negotiations. For Swaziland the JURBS scenarios looked ‘biased’, as they emphasise future water demand in Maputo. Even the need for controlled flooding of the Mozambican estuarine (necessary every 2 to 3 years, according to JURBS) contradicts the demands of local farmers –pitting environmental issues against the interests of people in the short term. Hence water scarcity and increasing conflicts will have economic consequences. And a sensitive and balanced approach in regard to stakeholders’ needs is appropriate. What should water primarily be used for? What is really possible and politically feasible in terms of a regional approach? The economic value of water will be the major argument in future negotiations; it should not be neglected.

On basin development and poverty:
Both countries strive for poverty reduction through more equitable water use and increased irrigation– each in their own country! Equitable use of limited resources requires a regional approach, and must be solved with a perspective that goes beyond administrative boundaries. Searching for alternatives to irrigated and rainfed rural production can only be done in the wider framework of the southern African context. In addition, discussions and plans for industrial development (such as the plans of the iron and steel industries) must be placed within an even wider socio-economic framework and linked to the global context.

Joint basin management of Umbeluzi, Maputo, Incomati
Participants briefly discussed the need for joint management of the adjacent transboundary rivers in the Maputo region (Umbeluzi, Maputo, Incomati). More thinking must go into combined analyses and distinct management of commonly used river catchments. Logically, for regional planning, the three transboundary rivers must be addressed together, based on a joint agreement under the guidance of one and the same JWC.
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<th>SUBJECT</th>
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<td>All</td>
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<td>9:00</td>
<td>Objectives of the workshop</td>
<td>R. Lidén SWECO</td>
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<td>- Socio–economy</td>
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<td>- Water demand</td>
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<td>- Legal &amp; institutional Aspects</td>
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<td>10:15</td>
<td>Coffee/Tea break</td>
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<td>10:45</td>
<td>Analysis of new storage dams</td>
<td>J. Rossouw SWECO</td>
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<td>11:15</td>
<td>Water balance analysis</td>
<td>A. Carmo Vaz / J. Rossouw SWECO</td>
</tr>
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<td>11:45</td>
<td>Basis for joint river basin agreement</td>
<td>A. Carmo Vaz SWECO</td>
</tr>
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<td>12:15</td>
<td>Stakeholder Participation</td>
<td>F. Haupt / C.Ott CDE/ESAPP</td>
</tr>
<tr>
<td>12:25</td>
<td>Discussion and recommendations</td>
<td>All</td>
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<td>13:00</td>
<td>Lunch</td>
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## Participants

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<tr>
<th>Name</th>
<th>Organization</th>
<th>Country</th>
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<tbody>
<tr>
<td>Olinda Sousa (Chair)</td>
<td>DNA</td>
<td>Moz</td>
</tr>
<tr>
<td>Micaela Alexandre</td>
<td>DNA/GRI</td>
<td>Moz</td>
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<td>Francisco Álvaro</td>
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<tr>
<td>Luis Loforte</td>
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Annex 4

Organisation Diagram Implementation of JURBS

Source: SDC: Project document on capacity building for the new SADC Water Division and support to the implementation of the Regional Strategic Action Plan on Integrated Water Resources Development and Management / Annex 1 / Component B – The Umbeluzi River Basin Initiative

1. Management arrangement of JURBS

The schematic representation of the management arrangement is given in the Figure 5. The abbreviations carry the following meaning:

- **JWC**: Joint Water Commission between the Governments of Swaziland and Mozambique
- **SADC-WD**: SADC Water Division
- **SDC**: Swiss Agency for Development and Cooperation
- **NDF**: Nordic Development Fund
- **JURBS**: Joint Umbeluzi Basin Study
- **M&CP and CB**: The Management & Consultation Process and Capacity Building

Subsequent activities for implementation to be supported by NDF and SDC

Figure 4  Project management arrangement (Component “B” of main Project Document)
2 Implementation strategy of JURBS

The implementation strategy for the project is shown schematically in Figure 6:

The Abbreviations carry the following meaning:

JWC Joint Water Commission between the Government of Swaziland and Mozambique

SADC-WSCU SADC Water Division

SDC Swiss Agency for Development and Cooperation

NDF Nordic Development Fund

TT JWC Task Team for the Umbeluzi Basin Study

PDM Programme Development Manager

Figure 5 Project Implementation Strategy (Component “B” of main Project Document)