

Sharing Temporary Flood Waters in Southern Africa

Combating Desertification in SADC through Sustainable Management of Natural Resources in Ephemeral River Basins

(ERB-SADC: Ephemeral River Basins in SADC)

Proposal Concept

by

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for

NORAD

1. Introduction

Namibia's success in addressing issues of desertification from grass-roots communities to the level of policy making has gained attention in the Southern African Development Community (SADC) and the world at large. The innovative and practical approach taken by Namibia's Programme to Combat Desertification (Napcod) led to gathering of pertinent baseline data, monitoring, formulation of policies on sustainable development and training and strengthening of institutions at community level to make informed decisions. Experiences gained from the approach used by Namibia's Programme to Combat Desertification (Napcod) are not only applicable to combating desertification, but have further implications as well. Effective grassroots community mobilisation and organisation, empowerment of local communities as well as integrated planning and resource management leading to sustainable development are all results of this approach.

Napcod is a national action programme (NAP) in the mould of the United Nations Convention to Combat Desertification (UNCCD). It has received regional recognition for its innovative and practical approach to addressing land degradation. Recently, the SADC-DRFN Desertification Interact (SDDI) project has also initiated regional training in aspects relating to desertification and to gathering, exchange and synthesis of case studies relating to desertification in the sub-region. The Kalahari-Namibia project, initiated by SADC-ELMS and focused on the Nossob-Molopo catchment encompassing Botswana, Namibia and South Africa, uses the Napcod approach. All these activities contribute toward but fall short of the Regional Action Plan (RAP) envisaged in the Annex I of the UNCCD and in particular Article 13 d and e. These particular sections of the Regional Implementation Annex for Africa call for:

- (a) promotion of exchange of information and appropriate techniques, technical know-how and relevant experience; promotion of scientific and technological cooperation particularly in the fields of climatology, meteorology, hydrology, water resource development and alternative energy sources; coordination of sub-regional and regional research activities; and identification of regional priorities for research and development;
- (b) co-ordination of networks for systematic observation and assessment and information exchange, as well as their integration into world wide networks

This concept proposal seeks to pursue these objectives through two main avenues. These are: providing a baseline for assessing the potential of community driven development as represented by the Forum for Integrated Resources Management (FIRM), supported by Napcod, and using this model in establishing a framework for implementation of basin-wide water resources management forums as established in the Environmental Learning and Action in the Kuiseb (ELAK) project. The target beneficiaries of this proposal are the ephemeral river catchments in SADC, including catchments such as the Nossob and Limpopo, which are shared among countries. Funding is therefore sought for (1) an overview and assessment of the potential for application of the FIRM approach in implementing integrated basin management in a selected number of major basins drained by ephemeral watercourses in SADC and for (2) establishing a framework for implementation of the FIRM approach in ephemeral river basins in the SADC countries.

2. Background

The active participation of local communities in shaping their own development agenda is key to effective and sustainable management of natural resources. Service delivery by governmental institutions, international and local service organisations, non-governmental organisations (NGOs) and donors will be more efficient and effective if channelled through an organised local forum according to identified needs. A forum constituted by all parties involved and/or interested in the resources will further facilitate integrated planning and management of both natural and financial resources in the community. The philosophy expounded above forms the basis for current programmes being implemented under the auspices of Napcod in various pilot sites. Napcod has gained significant experience in participatory approaches to gathering baseline data and information. This has been done in conjunction with traditional environmental knowledge augmented by ongoing local level monitoring contributing to decision-making on natural resource management. Measurable, practical and tangible progress has been made towards defining, measuring and monitoring biophysical environmental indicators of ecosystem and rangeland conditions combined with socio-economic conditions as they affect rural livelihoods and desertification. As the wealth of data, information and understanding accumulates, the community and its developmental partners become more empowered to make informed decisions and choose appropriate management options.

3. FIRM

A key component of Napcod's pilot projects is involvement of local communities and all relevant organisations and groupings at community level in the process of development. The core result of such projects is that communities seize the initiative, own the process of identifying their developmental needs and solicit requisite material and financial assistance from relevant service organisations. Through a Forum for Integrated Resources Management (FIRM) approach, the community is able to convene a gathering of all parties active in the community to form a development partnership. In such a forum the development priorities of a community may be identified and help is solicited accordingly based on a mutually agreed development agenda. The entire process becomes community driven as the community takes the lead in identifying its own needs, planing the activities and means to address them and inviting service organisations to assist with planning and financing of the identified activities. The FIRM also allows the community to monitor, evaluate and adjust activities together with the service organisations. Through this, an enabling environment promoting action at local community level ensures cooperation amongst development partners based on a mutually agreed framework as well as implementation of activities within an integrated and coherent development strategy based on community needs and requirements. Development is then implemented with full participation of

communities and non-governmental organisations with a special emphasis on and including women.

Recent trends in institutional and legislative reforms of the water sector worldwide place a strong emphasis on integrated water resource management (IWRM) at a river basin scale. This applies to internal and trans-boundary river basins. River basin management has traditionally been assumed to apply to perennial rivers, but in dry semi-arid Southern Africa, ephemeral rivers and their associated hydro-geological basins constitute major sources of water supply to various communities and settlements. River basin management involves the active participation of all stakeholders within and associated with the defined basin area in decisions concerning water and other resource allocations, use and management. The FIRM approach has proved successful in bringing together a diverse spectrum of interest groups and stakeholders to chart a common development vision. The Environmental Learning and Action in the Kuiseb (ELAK) is a project looking at implementing river basin management in the ephemeral Kuiseb River in western Namibia. Using the FIRM approach, this project has achieved success in establishing a broad-based stakeholder forum and basin committee. ELAK has facilitated gathering of extensive data and information as well as environmental assessments through the FIRM approach. This project proposal is based on the assumption that it should be possible to replicate the success of FIRM and ELAK in establishing river basin management fora elsewhere in SADC.

4. Relevance

This proposal is motivated by the recognised need for an integrated approach to natural resource management, combating of desertification and addressing poverty related issues. It is further recognised that this should be done through active participatory involvement of grassroots communities in the identification and implementation of solutions. These notions encapsulate the outlook and objectives of the United Nations Convention to Combat Desertification (UNCCD). The UNCCD has instituted Thematic Programme Networks (TPNs) in the context of the Regional Action Programme (RAP) to combat desertification in Africa. However, implementation of various activities is yet to be undertaken as the TPN's seek to establish institutionalised operational arrangements and funding. The first Thematic Programme Network (TPN 1) with the SADC Water Sector Coordination Unit as the Institutional Focal Point is tasked with *Integrated Management of International River, Lake and Hydro-geological basins*. Amongst its priority activities is the setting up of integrated information systems, and creation of a database on the thematic area for use by interested parties implementing the RAP. Moreover, TPN 1 is to facilitate and co-ordinate exchange of information, experiences and local know-how among existing institutions involved in water resources management and implementation of the UNCCD process in Africa. To support this objective the DRFN proposes to use its information centre housed at Gobabeb for storage of all information and a database to be accessed by all. This approach supports the designation of the DRFN at Gobabeb as the SADC centre for research, training and networking on behalf of the UNCCD. The SDDI project of DRFN, through its SADC network, would also contribute to information exchange envisaged by this project.

Such information storage and handling will serve the aspiration of TPN4 and TPN6 of facilitating the flow and sharing of information, experiences and knowledge, capacity building and coordination of activities related to ecological monitoring, natural resources mapping and remote sensing. Gobabeb is linked to other networks including the DRFN through their web site thus offering additional possibilities for information exchange, networking and regional linkages.

The FIRM approach strongly promotes local level capacity building and encourages exchange of information on appropriate methodologies, technical expertise and relevant experience in sustainable agricultural farming systems through regular exchange visits. This is concomitant with aims and goals of UNCCD as spelled out for TPN6.

This project also addresses the SADC Water Sector's projects relating to promotion of stakeholder participation in water resource management, awareness building for decision makers and support to the implementation of the SADC Protocol in ephemeral systems.

5. Project goal

The overall goal of this proposed project is to contribute towards improved livelihoods of people dependent upon natural resources. By achieving this goal this project would contribute to long-term sustainable and equitable use of water, riparian forests and other woody vegetation and related resources in the ephemeral river basins of the SADC region. This directly contributes to the objective of combating desertification, defined by the UNCCD as "inclusive of activities, which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development". Combating desertification thus becomes a component of the overall sustainable development objectives of arid to dry sub-humid countries.

The project purpose is to enhance the management of water and other terrestrial natural resources in selected pilot ephemeral river basins of SADC in a sustainable, equitable and improved manner.

This project seeks to pursue its goal and purpose by producing an overview and an assessment of the potential for application of the FIRM approach in implementing integrated basin management in a selected number of major basins drained by ephemeral watercourses in SADC. This evaluation will involve the study of resources and stakeholders in selected ephemeral river basins in SADC. Secondly the project will assist in the implementation of this approach in selected ephemeral basins in the SADC region, based on previous experiences from the Namibian implementation and results from the assessments to be carried out by this project. The project will also seek to raise awareness about integrated approaches to sustainable and integrated use of natural resources.

Specific project objectives

- ⇒ Selected managers and users of natural resources in SADC countries are sensitised to the importance and potential roles of ephemeral rivers and integrated resource management in the sub-region.
- ⇒ Current biophysical and socio-economic status, uses and potential of ephemeral rivers in SADC investigated and documented.
- ⇒ Best Appropriate forums (basin management committees/Firm?) for integrated water and land management in selected pilot areas in SADC established.
- ⇒ Best practice and lesson learnt documented and made available for wider application.
- ⇒ Implementing capacity of the DRFN Water Desk is enhanced

6. Output

The long-term expected result from the envisaged process is to assist in the establishment of river basin committees in the ephemeral basins in the SADC countries. The mandate for these committees would be to preside over management and allocation of water resources and use of related natural resources in ephemeral rivers of Southern Africa with the means and resources to gather and interpret information on which to base decisions. Ultimately, this will lead to more integrated and participatory management of all natural resources and ecosystems in the catchments ensuring equitable and sustainable use by all sectors. Integrated management and

sustainable use of linked resources will ensure long-term sustainability and keep desertification in check.

The immediate outputs to emanate from this project are: 1) an established network amongst river basin managers in the SADC countries, 2) an appraisal report on the potential for successful application of the FIRM approach in ephemeral river basins of SADC accompanied by relevant maps, 3) a framework for implementation of this approach in ephemeral basins in the SADC region, and 4) increased awareness amongst relevant stakeholders. Documentation of river hydrological characteristics, vegetation types and distribution, usage patterns of natural resources, land tenure, communities and stakeholders will form part of the appraisal report.

Specific outputs:

- ⇒ Individual **reports** from workshops and consultations with stakeholders in the ephemeral river basins to establish the framework for elaboration of the FIRM approach
- ⇒ Preliminary inventory of existing information of relevance for improved planning and management of selected ephemeral catchment basins. One report per selected river basin will be produced, covering basic information about available resources e.g. location, size, natural resources endowment, settlement patterns, community structures and stakeholders.
- ⇒ A comprehensive database containing information identified during the inventories of the selected ephemeral basins to be housed at Gobabeb.
- ⇒ A project web-site serving as an information hub for the partners of the network and other interested parties
- ⇒ Case studies on best practice and lessons learnt in the implementation of the FIRM approach in participating countries.
- ⇒ A book on ephemeral rivers in the SADC region.

7. Approach

The project will be carried out in a number of selected major ephemeral river courses in southern Africa including the Nossob River, which is currently being studied in a separate project. The criteria for selecting the catchments of interest will primarily reflect three major aspects:

⇒ Ephemeral

All catchments to be selected will be ephemeral rivers that flow for a short period of time per year or after longer intervals

⇒ Trans-boundary Basins

Ephemeral rivers that transcend international borders and are shared by more than one country will take precedence, although they will not form the only targets

⇒ Area of catchment

This entails both spatial extent of the river basin to be studied and the size and diversity of interest groups, communities and stakeholders directly dependent on natural resources of the river or indirectly affected by use of such resources. Large basins with high diversity will take precedence.

The DRFN will play the central role in facilitating the assessment of the potential for, and providing information to catalyse the establishment and implementation of, the FIRM approach in formation of River Basin Management.

8. *Time Frame*

The project will be expected to span a period of 4 years

9. ANNEX A: LOGICAL FRAMEWORK

	Intervention Logic	Objectively verifiable indicators	Sources of verification	Assumptions
Overall goal	Livelihoods of people dependent upon water and related natural resources of ephemeral river basins of SADC are sustainably improved.	The asset base (natural, social, human, physical and financial) of people improved.	Assessment reports	
Project purpose	Water and related natural resources of certain selected pilot ephemeral river basins of SADC are managed in a sustainable, equitable and improved manner.	-A majority of decision-making groups in SADC ephemeral river basins have a strategic plan reflecting the common vision for sustainable natural resource management and are implementing work plans based on the common vision. -A majority of decision making groups in SADC ephemeral river basins are participating in evaluating and disseminating results of their initiatives -Improved decision-making and management practices are adopted by a majority of decision makers.	Ongoing analysis of decision maker response to climate variability. Records of individual decision maker and decision making groups.	Provided SADC region remains politically stable Natural resource management continues to be important within the SADC framework
Results ¹	1) Selected managers and users of natural resources in SADC countries are sensitised to the importance and potential roles of ephemeral rivers and integrated resource management in the sub-region.	MOU's signed with 3 governments and other key stakeholders to test integrated resource management in at least three SADC countries.	MOU documents	That natural resource managers and participating governments honour their commitments towards project implementation.
	2) The current biophysical and socio-	One base line report compiled,	Base line reports	

¹ Result 1 should be seen as the proposed phase 1 and should be done only in year 1. After 8 months since the start of the project, an evaluation can be done to serve as basis for decision-making by the NEP to continue with results 1-4 in the following 3 years. This is suggested to prevent a possible delay in available funding if distinctive phases are suggested.

economic status, uses and potential of ephemeral rivers in SADC investigated and documented	presenting an analysis of biophysical and socio-economic status, uses and potential of selected major ephemeral river courses in southern Africa Other documents prepared for sharing information on basin characteristics.	Documents for information sharing on biophysical and socio-economic factors.	
3) Appropriate forums (basin management committees/Firm?) for integrated water and land management in selected pilot areas in SADC established and functional	At least 3 Firms or BMCs established and functional	Minutes and workplans of firms.	
4) Best practice and lesson learnt documented and made available for wider application.	At least 3 case studies developed and made available	Case studies	
5) The implementation capacity of the DRFN Water Desk is further enhanced	-First four results are accomplished and purpose achieved -Project progress according to time schedules and budget	Monthly and annual reports and other documents reflecting the activities of the DRFN Water Desk. Mid term review	

10. ANNEX B: PLAN OF OPERATION AND BUDGET

No.	Results & Activities	Year				Resources (N\$)	Remarks
		1	2	3	4		
1.	Selected managers and users of natural resources in SADC countries are sensitised to the importance and potential roles of ephemeral rivers and integrated resource management in the sub-region						
1.1.	Establish contact and dialogue with relevant SADC partners (e.g. GWP, CWP, SADC coordinating sector, CSIR, WRC)	X				26 200	One air travel (15 000) to SADC countries for 2 weeks + accommodation (14x800=11200) and Per diem
1.2.	Conduct several workshop to establish common vision, develop common priorities, identify common gaps in data and information and agree on mutual work plans	X				780 000	1 regional workshop (300000), 4 national workshops (480000)
1.3.	Secure agreement through Memoranda of Understanding, establish commitments with and among SADC partners	X				-	Done at end of previous activities
1.4.	Initiate and supervise scoping study on the state of environment for selected river systems.	X				240 000	4 people for 8 weeks and 300/person/day = transport (20000xN\$3/km) + write-up and documentation of results (112800)
	Sub-Total Result 1					1 046 200	
2.	The current biophysical and socio-economic status, uses and potential of ephemeral rivers in SADC investigated and documented						
2.1.	Conduct desk studies in collaboration with identified partners		X			-	Materials will be collected through e-mail, land mail, and first visit in year 1.
2.2.	Develop study and survey methodologies to conduct fieldwork on socio-economic and biophysical parameters		X			-	Done by project staff. No additional costs involved.
2.3.	Conduct field work (biophysical and socio-economic)		X	X		190 800	4 people (3 project staff + one person per country) for 12 weeks and 300/person/day = transport (30000xN\$3 /km)

2.4.	Analyse, interpret and document study and research results		X	X	X	-	Done in-house
2.5.	Establish an interactive and user friendly web-based database and a web-site for storage and access of data and information			X	X	-	Contribution by DRFN (90 000)
2.6.	Develop appropriate and relevant materials (reports, brochures, environmental notes)			X	X	150 000	Documentation and publishing.
2.7.	Publish peer review articles			X	X	50 000	Publication costs
2.8.	Compile, publish and make available a book on Ephemeral Rivers of SADC				X	400 000	In house printing costs, publishing costs, marketing costs
2.9.	Actively participate and contribute at relevant international forums on water and natural resources management		X	X	X	100 000	One overseas visit to an international symposium; attend WaterNet symposium annually in SADC
	Sub-Total Result 2					890 800	
3.	Appropriate forums (basin management committees/Firm) for integrated water and land management in selected pilot areas in SADC established and functional						
3.1.	Conduct initial workshops in selected pilot areas (countries) to form FIRMS. (Based on MoUs from Result 1.)		X			185 600	4 pilot areas in 4 countries. 4 project people for 1 week @ 300 per person per day (33 600), Local travel costs (4000x3)= 12000, 4 flights for 3 people=60000 + food and accommodation for workshop participants (20000x4)=80000
3.2.	Conduct workshops to elaborate integrated workplans and to do M&E&A at regular intervals.		X	X	X	1 751 400	12 workshops at local level for 4 countries for 3 years (48x10000x3=1440000), 4 visits from project staff per year for 3 years=15000x3x12=540000, Per diem 3people x10 days x3 years x300 per day=27000, 12 workshops x 4 peoplex2daysx3yearsx300/day =86400, local transport 12000kmx4 countries x 3/km=144000
3.3.	Conduct two regional workshops (SADC) workshops to share progress and experience.		X		X	600 000	In conjunction with WaterNet symposium each year
	Sub-Total Result 3					2 537 000	

4.	Best practice and lessons learnt documented and made available for wider application.						
4.1	Conduct case studies on best practice in participating countries.			X	X	252 000	4 pilot sites x 4 people x 10 days per site x 300=48000, Transport flights 3 people x 4 flights x 15000=180 000, local transport 1000 x 4 x 6=24000
4.2	Document and share case studies with interested parties in SADC and internationally			X	X	400 000	Editing, publishing costs (100000 per case study)
	Sub-Total Result 4					652 000	
5.	The implementation capacity of the DRFN Water Desk is further enhanced						
5.1.	Employ an adequate number of relevant staff in the DRFN's Water	X				4 028 000	Salaries: (Director- 360000, D/Director-420000, PC-1200000, 2 project assistants =1 728 000, Socio economist=320000, (DRFN provides data entry support = 48000, Director support=180000 and DD support=210000)
5.2.	Provide sufficient office space, equipments, tools and vehicles necessary for the project	X				1 005 000	1 vehicle @ 350000 per vehicle=350000 000 maintenance for 4 years=150000, equipment = 505000
5.3.	Enhance the competence of the relevant staff where required.	X	X	X	X	100 000	Training courses costs
	Sub-Total Result 5					5 133 000	
	Sub-Total All Results					9 212 800	
	10% Overheads					921 280	
	Project Total					10 134 080	

~~1 200 000~~
~~300~~
 4 (1 728 000)
 4

