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SOUTHERN AFRICA WATER INFORMATION NETWORK - SAWINET (WWW.SAWINET.ORG)

A Case Study on sharing of Integrated Water Resources Management (IWRM) information and experience in Southern Africa

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ABSTRACT: The Southern African Water Information Network (SAWINET) is a web- based source (www.sawinet.org) of IWRM information specifically designed to meet the IWRM information needs of the southern African water sector. It is a demand-driven network that currently focuses on legislation and policies, water sector reform, catchment management issues, prevention of conflict over water use. Since this network is demand driven after a stakeholder analysis they was a great demand for information on Gender Mainstreaming in IWRM and the network is looking at collecting information on this.

The stakeholders themselves contribute information on the network, anyone with information to share can directly input from where ever they are. This is made possible by the Interactive Knowledge Network (IKON) software that SAWINET runs on. Information inputted by the stakeholders is validated by Focal Points through peer and expert reviews done in liaison with the submitter. Focal points are the ones who have the authority to finally place documents on the public domain, and not the submitters of documents.

Despite the low level of access to the Internet in Southern Africa, SAWINET is a valuable mechanism of accessing IWRM information and experience in Southern Africa. It is a one-stop centre that reduces the frustrations of searching for water information on the web.

INTRODUCTION

GWP and the Establishment of SAWINET

The Global Water Partnership (GWP) was established in 1996 with the aim of supporting countries in the sustainable management of their water resources. GWP focuses on the operationalisation of Integrated Water Resources Management (IWRM). To effectively perform its task, GWP works through regions, one of which is southern Africa.

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GWP-Southern Africa is a unique network that brings together governmental, educational, private and civil groups across various sectors in Southern Africa to support the achievement of the Regional Vision for Water, Life and the Environment in the 21st Century. The Partners bring to the network expertise, experience, information and commitment to help improve the region's water resources situation. The mission of GWP-SA is to promote collaboration, and sustainable utilisation and management of water resources in southern Africa.

- To achieve its mission in the Region, the Partnership has the following objectives
- To strengthen existing and develop new mechanisms for sharing information and experience
- To clearly establish, apply and disseminate the principles of IWRM
- To facilitate access to managed databases of guidelines, best practice and research, and case studies on IWRM from around the world
- To increase active participation in the partnership, cross-sectoral and across countries with an emphasis on the youth
- To identify IWRM gaps and constraints, and support each other and other stakeholders to meet critical needs within the available human and financial resources

The establishment of the Southern Africa Water Information Network (SAWINET) is an activity that addresses the first objective. The need for a platform to facilitate the exchange of IWRM information and to increase awareness of IWRM issues has always been expressed since the establishment of GWP. Consequently, GWP established an Associated Programme called Global Water Information Network (GLOBWINET)² to address this need. GWP, through its Associated Programmes, aims at providing services on the ground to assist solving problems encountered by the stakeholders in water resources management these programmes help countries and regions to implement actions towards integrated water resources management.

The Southern African region was favoured as a pilot region for GLOBWINET. The region had already expressed the need for sharing and exchanging IWRM information and experiences during a GWP meeting in 1996. Consequently, a regional network called Southern Africa Water Information Network (SAWINET)³ was set up following an inception workshop held in July 1999. Emphasis was also put on selecting and validating data to be published on the network to ensure that quality and relevant data is disseminated.

Goals and Objectives of SAWINET

The goal of SAWINET is to create a high level of IWRM awareness of the Dublin/Rio principles on IWRM through information networking, for the purposes of improving water resources management in Southern Africa. To achieve this goal, SAWINET has the following objectives:

² www.globwinet.org

³ www.sawinet.org

- To improve popular awareness and understanding of IWRM among key stakeholders in the region.
- To facilitate the exchange and sharing of quality and relevant IWRM information and experiences within southern Africa and with the international community.
- To establish and maintain a resourceful network for collating and circulating experience on IWRM issues in Southern Africa.
- To increase accessibility of IWRM information by various stakeholders in Southern Africa.

SAWINET Programme Outputs and Related Activities:

Output 1: Relevant and appropriate information on IWRM collected and shared with other stakeholders in an effort to educate and increase IWRM awareness level in the region.

Various stakeholders contribute material that is published on SAWINET. A quality check system has been established through the use of Focal Points. National Focal points are responsible for all material originating within a country. The SAWINET Officer is the Regional Focal Point, who has access to material from all countries in the region. The Focal Point basically does the quality check through methods such as peer and expert review. Focal Points are only those who uphold IWRM principles and have access to the Internet. The first batch of National Focal Points will be trained in July 2001. These will then be expected to train other Focal Points in-country. The SAWINET Officer has the task of working with national focal points to identify new Focal Points. Identification of Focal Points is a continuous activity.

Output 2: A fully functional database that will be used in "decision support" by integrating knowledge from different sources to ensure that decision making is based on adequate IWRM knowledge and experience foundation.

This entails involving stakeholders to contribute information on lessons learnt both from successful and failed experiences in their countries. An awareness drive will be carried out in the whole region to encourage stakeholders to contribute and, to be aware of SAWINET as a useful source of information for decision making.

Output 3: Functional and effective mechanisms for sharing information in place both through the SAWINET web site and other means.

Currently, this output is for future plans on making SAWINET an effective network. Activities to achieve this include establishing a feedback facility whereby stakeholders could indicate through the web what further new information they require on a given topic from another source. There will also be related electronic discussion forums through which more ideas could be obtained on what topics to cover. SAWINET also recognizes that there are several stakeholders who do not have access to the web. Other means such as newsletters and paper series could be used to publish information from the SAWINET web site.

Output 4: Concrete and transparent ways of selecting and validating IWRM information to meet the needs of users.

In addition to the Focal Point system mentioned under Output 1, Focal Points and stakeholders will continue to suggest ways of how they want information validated

SAWINET CONTENT AND TARGET AUDIENCES

SAWINET Content

During the inception workshop participants identified a number of areas and these included a water professionals database, laws and regulations, policies and strategies, groundwater and catchment management, public-private sector participation, water markets, regional and institutional frameworks, cross boundary agreements, and capacity building information. The workshop prioritized these areas of need, and identified the three areas SAWINET would initially focus on.

Water policy and legislation: This is a key issue in the region in view that almost all countries in the region are reviewing their water laws and policies. Areas include

- Policies and laws in southern Africa that IWRM sensitive, an example of an IWRM friendly law is from South Africa and these papers are put on the site so that other countries can be aware of what other countries on ground
- Strategies for water conservation and demand management examples drawn from the region.

Issues on regulation and advocacy- all water users should have access to existing legislation, the details will include informing people on the following:

- Different tariff structures and ways of comparing them
- Defining water requirements are defined
- Enforcement of legislation by water authorities

Catchment and groundwater management: southern Africa is endowed with river systems in - country and cross-border shared river basins. Different information is required e.g.

- How to organise water management at the catchment level
- Management of shared river courses and river basins- including lessons learnt.
- How to mitigate upstream/downstream conflicts
- Groundwater issues with technical information and approaches

Water Sector Reform and Institutional development

Information in this area is on demand because of the reforms that are taking place in the regions water sector. Awareness is to be raised at various levels:

- National level: information is required on the institutional frameworks in the water management sector, with descriptive information covering their roles and strategies
- Regional level information is also required on institutional frameworks, including plans, agreements and protocols in the Southern Africa region. Content should include information on which bodies should be approached for the different activities on IWRM issues and how to approach them. Contributions on cross boundary framework should identify gaps and potential conflicts in the region.

Capacity building information is required to inform users and other interested parties on:

- Training courses available, including cost, length and funding options
- Tertiary institutions that provide training e.g. CAPNET and WaterNet
- Training course that should be provided via the network
- Forthcoming workshops, conferences and other initiatives

Institutional development information focus also on these areas:

- Decentralisation efforts
- How best to setup an institution
- Information on consultants
- All institutional development projects

Prevention of conflict over water use (Water Conflict Management)

- Conflict identification and management
- Access rights and obligations over shared water course systems
- Participation and communications as conflict management tools
- Prevention of conflict between/ amongst water users
 - Upstream and downstream

- Freshwater and wastewater
- Coordination of land management strategies
- Creating regulatory instruments based on the user-pays and polluter pays principles

Targeted groups

SAWINET is an innovative IWRM network in that it aims to provide users with quality and well evaluated information compiled from documents, expert's advice and comparative assessments of IWRM practices. As mentioned earlier all information will be on electronic media as well as other conventional means of communication (CD's, newsletters, faxes etc). The network is targeted at providing specific information to certain groups of people. Table 1 shows targeted users, the type of information they are likely to be interested in and the use of the network for the particular group. Table 2 shows contributors that will be providing SAWINET with information.

Table 1: SAWINET Users

<i>TARGETED USERS</i>	<i>INFORMATION REQUIRED(BY USERS)</i>	<i>USE OF NETWORK</i>
DECISION MAKERS AT THE NATIONAL POLICY LEVEL	ADVOCACY (INFORMATION ON LAW AND LEGISLATION)	MINIMAL
NGOs, RESEARCHERS, PRIVATE SECTOR AND LAW FORMULATORS	DOCUMENTS, SUMMARY, DEBATE AND DISCUSSION FORUMS (GENERALLY ON ALL CONTENT)	SIGNIFICANT (THESE WILL BE THE MAIN USERS AND CONTRIBUTORS OF THIS NETWORK)
WATER MANAGERS (SUPPLIERS AND IMPLEMENTERS)	AWARENESS OF THE IMPACT OF POLICIES, TOOLS AND GUIDELINES	POTENTIALLY SIGNIFICANT
SPECIALIST WATER CONSUMERS (NON-DOMESTIC WATER USERS)	PRICING INFORMATION, HOW TO CARRY OUT ADVOCACY, Q&A SERVICE	POTENTIALLY SIGNIFICANT
INSTITUTIONS	CAPACITY BUILDING INFORMATION, USE OF THE EXPERT DATABASE	SIGNIFICANT
PUBLIC/COMMUNITY	GENERAL INFORMATION, EXTENSION PRODUCTS	SMALL

HOW SAWINET OPERATES

System Software

GLOBWINET runs with Interactive Knowledge Network (IKON) software, which allows users to interact on the Internet. SAWINET also runs on the same software.

How to submit information

The SAWINET site has been designed in such a way that any individual user can log in and enter information, which is verified by a Focal Point who then loads it on the web. To submit information just follow these easy steps:

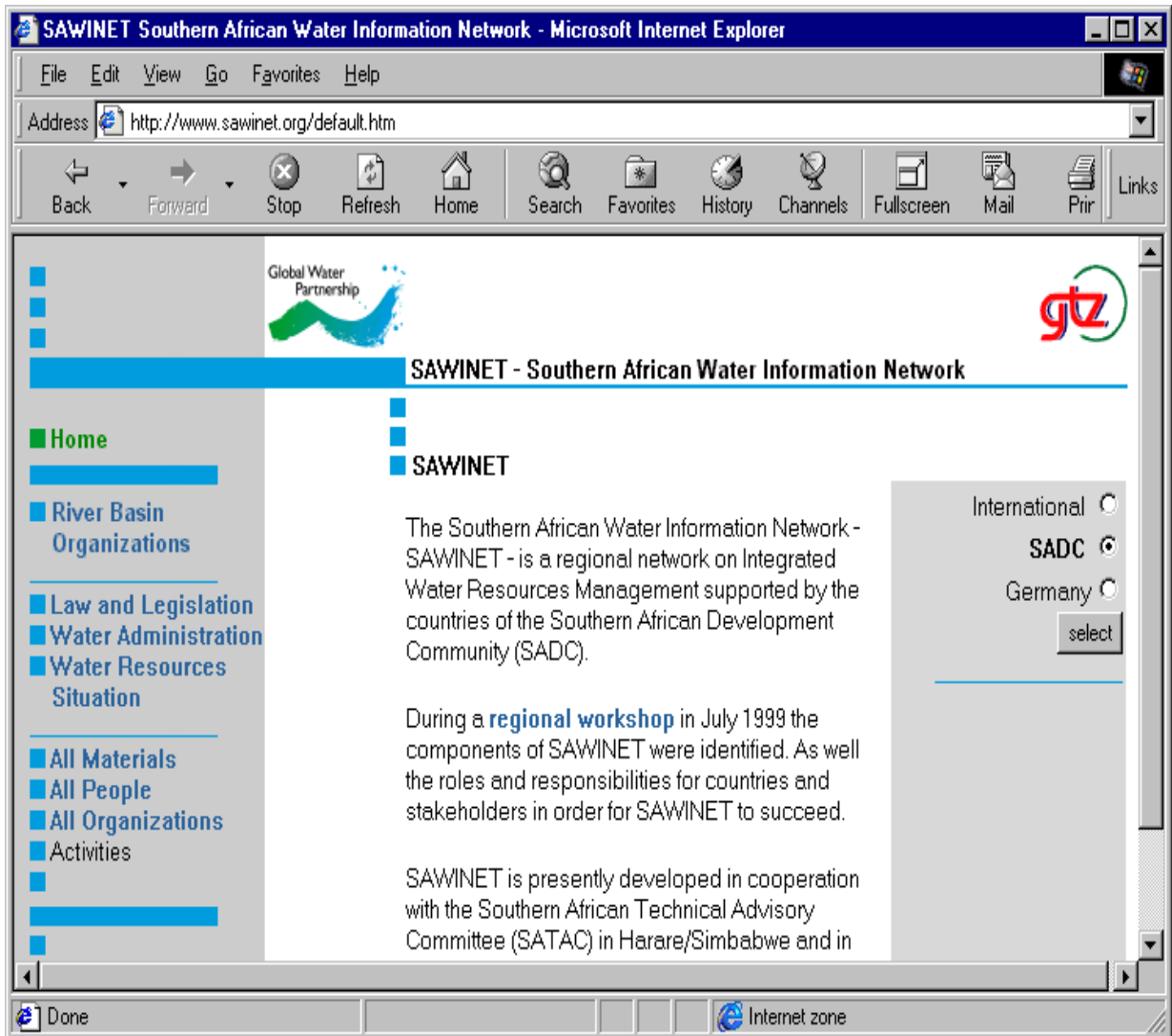


Figure 1. SAWNET Home Page

On the SAWINET home page (<http://www.sawinet.org>) shown in figure 1, select and open the "All Materials" link. This takes you to a page with 4 options at the top: People, Organisations, Materials, Personal Interact Page. Select personal interact page.

On the Personal Interact Page shown in figure 2, fill out the online registration form on the lower half of the screen (Step 1 of 2). You can choose your own password up to six characters. A Personal Identity Number (PIN) is assigned to you automatically. Step 2 of the registration process involves registering your organisation. Enter all the requested information then submit the registration form. After registration another page opens for you with an option for entering data. Enter all the requested information then submit. After that you will hear from your Focal Point.

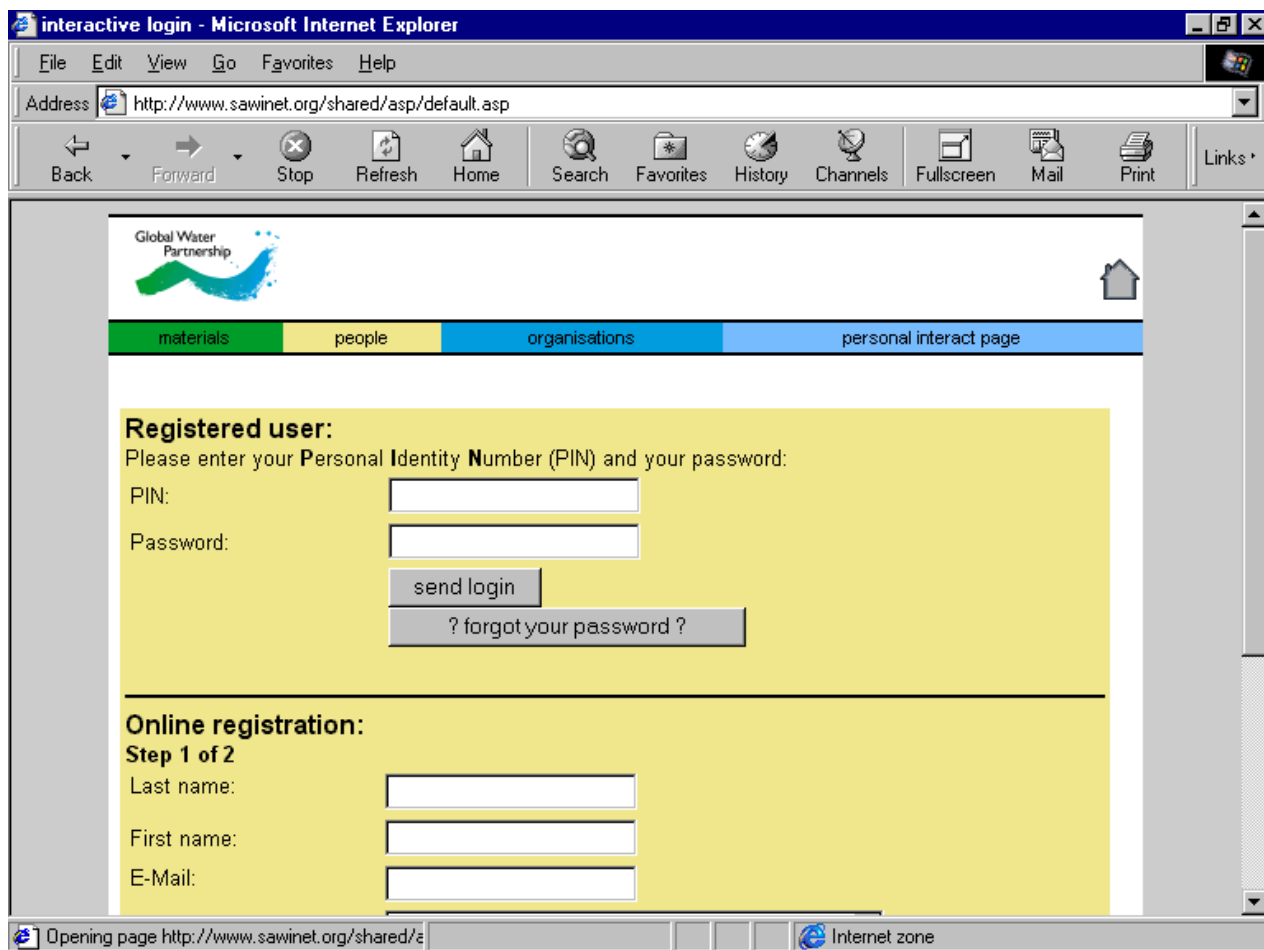


Figure 2. Personal Interact Page

The submitted information goes to a "waiting room," where only the Focal Points have access. The duty of the Focal Point is to facilitate quality control. Other peers, professionals and experts in liaison with the submitter will crosscheck articles. If there are suggested improvements, the submitter is advised accordingly. Once the paper is ready, the Focal Point posts it on the web to be accessed by all SAWINET users.

The same steps are followed whether submitting a new document or updating an old one.

SAWINET ADMINISTRATIVE AND MARKETING ISSUES

Roles of main players in SAWINET

SAWINET as an Associated Programme has to work with all regional players to be a viable programme. The following are some of the players and the roles that each plays or will play:

SAWP Secretariat: The Secretariat facilitates participation by GWP Partnership members and other regional stakeholders. It also hosts the SAWINET Manager. The Secretariat also helps in marketing SAWINET and helps in monitoring and evaluating SAWINET.

GTZ the SAWINET server is hosted by GTZ in Germany. GTZ also funds the programme, and will facilitate expansion of GLOBWINET by inviting other regions to form their networks.

Stakeholders: Stakeholders will help in contributing information and ideas to the network. The demand-driven nature of the network depends on the stakeholders indicating what they need, and contributing material.

Focal Points: The greatest responsibility is to lead in the validation process. They also assist in identifying potential sources of material in their respective countries. They are 18 focal points in the region who have been trained to maintain the database.

SADC WSCU: The WSCU was key to establishing the information network. It will have a monitoring and evaluation role. They will also contribute material and SAWINET will work on supporting SADC WSCU initiatives as a platform for exchanging information.

Marketing of SAWINET

The region has employed a SAWINET Officer to manage the affairs of SAWINET. The Officer will handle the marketing and this will be done through the following communication channels:

- Email messages
- E-groups
- GWP newsletters
- newsletters of GWP member organisations
- SAWINET site and other related web sites (e.g. GWP-SA - www.gwpsatac.org.zw)
- SAWINET brochure
- Presentations at conferences, workshops, etc

CONCLUSIONS

Some concerns on SAWINET

a) Internet Access in Southern Africa

In Africa, which has a population of 700 million, fewer than one million people had access to the Internet in 1988 and of this number 80% were in South Africa. Among the other 20% the ratio of people who have access to the Internet to those who do not is 1 to 5000, in United States or Europe the ratio is 1 to 6.⁴ This in a way is a hindrance in the dissemination of data if the World

⁴ Jensen M. "The Status of the Internet in Southern Africa" prepared for the IWRM Network Inception. Workshop (July 1999)

Wide Web will be the sole information disseminator; therefore other means of communicating IWRM issues have to be used to effectively disseminate data.

In view of this concern, SAWINET has as part of its future plans, disseminating information published on the SAWINET site through other means such as newsletters, IWRM series papers, etc.

b) Commitment issues

The success and continued existence of SAWINET depends on the commitment of the stakeholders to continue contributing new information, continue indicating their new information requirements to be addresses by SAWINET, and of course continue using the site. This will require a strong sense of ownership by the Southern African people so that they can live up to the commitment. This, in turn, entails an excellent awareness and marketing strategy by all players.

Focal Points use their organisational time and facilities to execute their SAWINET duties. It is hoped that all Focal Point institutions will maintain this commitment as their contribution to sustaining SAWINET.

Added Value of SAWINET

The mission of GWP-SA is to ***"promote collaboration, and sustainable utilisation and management of water resources in Southern Africa."*** As part of its programmes in the region, GWP-SA conducted a survey to establish IWRM needs in the region. One area of need was IWRM awareness. From the problem tree diagram⁵ in Annex 1, it can be seen that lack of popular IWRM awareness contributes to fragmented and uncoordinated management of water in the region. SAWINET is intended to contribute to addressing this problem.

GWP-SA programmes are designed to contribute to the achievement of the Southern African Vision for Water, Life and the Environment in the 21st Century, which is ***"Equitable and sustainable utilisation of water for social and environmental justice, regional integration and economic benefit for present and future generations"***. The Vision document also clearly articulates the need for IWRM information in the region. IWRM is still in its infancy in the region, hence the need for sharing information and experiences on IWRM issues through a network such as SAWINET.

In Southern Africa, IWRM issues have not been disseminated widely enough to benefit the region in the desired manner, mainly because the framework to generate and disseminate this knowledge had not been developed in this region. SAWINET is such a framework that will facilitate the wide dissemination of IWRM information.

A lot of information on water is available on the World Wide Web. It is quite voluminous at times making it difficult for information seekers to find what they need. SAWINET is a one-stop site for specific information on Southern Africa. The one-stop centre reduces the frustrations associated with searching for information on the web.

It has also been said "trying to get information from the web is like drinking from a firehose, you do not even know what the source of water is". SAWINET prides itself in that it has a system of

⁵ Adapted from the SAWP Programme Proposal Document (January 2001-December 2003)

ensuring that the information published on the site is reliable from verifiable and contact able sources. It's also quality information that is reviewed by both peers and experts.

SAWINET is going a long way in providing information in an effort to increase the awareness off water resources management.