

Nile Basin Water Resources

Project GCP/RAF/286/ITA
Food and Agriculture Organisation, United Nations



Cape Town Transboundary Water Policy Workshop

Cape Town 14 – 19 July 1997

Workshop Report

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2 Introduction

This report is on the Transboundary Water Policy Workshop held in Pretoria and Cape Town, South Africa from 14 to 19 July 1997 as part of the Food and Agriculture Organisation (FAO) of the United Nations Project GCP/RAF/286/ITA – Nile Basin Water Resources. The workshop was a capacity building exercise and formed part of the work plan as approved at the 3rd Project Steering Committee meeting of the project held in Addis Ababa in March 1997. The workshop was designed to contribute to achieving Objectives 1 and 2 of the Project. These are (as agreed at the 2nd Project Steering Committee meeting 11-12 July 1997), as follows:

1. “To facilitate the adoption of adequate, well harmonised national water policies in the participating Nile Basin States;”
2. “Institutional strengthening and training in legal, organisational and technical issues related to integrated river basin management and the allocation of transboundary water resources.”

The conference was arranged and organised by Len Abrams of Water Policy Africa under contract to the FAO.

2.1 Acknowledgements

The workshop was only possible through the many contributions of a variety of persons and organisations. These are gratefully acknowledged below:-

- The delegates and their governments from Uganda, Tanzania, Kenya, Sudan, Ethiopia, D R Congo and Burundi without whom there would have been no workshop.
- The Minister of Water Affairs and Forestry of South Africa, Prof. Kader Asmal for his support and for opening the Workshop.
- The FAO Head Quarters in Rome, particularly Bo Appelgren, Stefano Burchi, Pal Hajas and Karin Knigge.
- The Project Office in Entebbe, particularly the OIC of the Project, Mike Andjelic for logistic and general support.
- The Resource persons – Prof. Al Utton, Dr. Peter Millington, Dr Carolyn Palmer and Rolfe Eberhard - for their wisdom, knowledge and input.
- Graca and Nigel Ward of Framework Conferences for all the behind-the-scenes work.

2.2 Report objectives

The objective of this report is to describe the event and to capture the main outcomes and observations. It is not intended to contain all of the details of the workshop sessions.

The event was a capacity building event and the product is hence the learning of each delegate, not a report or a set of findings. The event is therefore best evaluated in terms of the insights gained by the participants and what they learned. It was partly for this reason that country delegations were asked to prepare brief observations and recommendations at the end of the event.

It was generally concluded that the event was a success and that it exceeded the expectations of the delegates and the resource persons.

3 Workshop

3.1 Objective of the Capacity Building Workshop

The overall objective of capacity building should be to build lasting skills, experience and abilities in government and other institutions through which countries become self-sufficient and less dependent on outside resources. The objectives of capacity building should be both to increase skills and abilities as well as to change the power relationships amongst peoples.

In terms of the Project Programme, the objective of the Cape Town Capacity Building Workshop was to expose delegates to a variety of issues related to transboundary policy development, including international water law, river basin management, natural resource economics, the environment and the process of water sector policy development. It was important to do this in a manner which ensured maximum participation, and in an environment where participants would not be constrained by existing positions and perspectives.

In order to facilitate greater flexibility and participation, a detailed scenario of a fictitious international river basin was prepared. The scenario contained similarities to the Nile Basin but was designed to be sufficiently different to enable participants to enter into discussions without being constrained by the realities of the specific countries which they represented.

The scenario is attached as Appendix 4.

3.2 Delegations

Seven country delegations attended the workshop. These were as follows, listed in reverse alphabetic order: Uganda, Tanzania, Sudan, Kenya, Ethiopia and the Democratic Republic of Congo. Each delegation comprised four delegates except Burundi which was made up of three delegates. Rwanda, which is a signatory to the project, did not send a delegation.

The delegations were made up, in the main, of senior government officials representing the water sector, the legal fraternity, and Foreign Affairs. A full list of delegates, their designations and their contact information is included in Appendix 1.

3.3 Resource persons

Resource persons in international water law, river basin management, natural resource economics, the environment (particularly riverine and aquatic ecology) and water sector policy development

participated in the workshop and provided input to the deliberations. A senior water law specialist from the FAO also attended and contributed substantially to the workshop. The persons were as follows:

- Senior Food and Agriculture Organisation Representative:

Stefano Burchi, Rome, Italy. Senior Legal Officer, FAO.

- International Water Law:

Prof. Albert E. Utton, New Mexico, United States of America. Director of the U.S. – Mexico International Transboundary Resources Centre and Professor of Law at the University of New Mexico.

- River Basin Management:

Dr Peter Millington, New South Wales, Australia. Managing Director, Peter Millington and Associates, past Deputy President, Murray-Darling Basin Commission and past Director General, New South Wales Department of Water Resources.

- Natural Resource Economics:

Rolfe Eberhard, Cape Province, South Africa. Palmer Development Group, Cape Town. Extensive experience in Southern African water economics, currently reading for a PhD at London University.

- The Environment:

Dr Carolyn G. Palmer, Eastern Cape, South Africa. Senior Researcher, Institute for Water Research, Rhodes University, South Africa and member of the National Water Advisory Council to the Minister of Water Affairs and Forestry.

- Water Sector Policy Development:

Len Abrams, Johannesburg, South Africa. Director, Water Policy Africa. Former Special Advisor to the Minister of Water Affairs and Forestry, South Africa.

3.4 Format and programme

The programme and daily schedule of the workshop is attached as Appendix 2.

3.4.1 Day 1 – Pretoria

The first day of the workshop was held in the auditorium of the Central Computer Services Centre, Centurion, Pretoria. The delegates were welcomed by the senior representative of the United Nations, Mr Stefano Burchi of the FAO, and the background to the workshop was given by the organiser, Mr Len Abrams of Water Policy Africa. Thereafter, Prof. Kader Asmal, Minister of Water Affairs and Forestry of the South African Government, officially welcomed delegates on behalf of the government and opened the workshop. A copy of the Minister's Speech is attached as Appendix 3.

The opening was followed by input from four speakers from different backgrounds. The objective was to provide delegates with an insight into how various issues are addressed in Southern Africa. The speakers were as follows –

- *Janet Love*, Chairperson, Parliamentary Portfolio Committee, South African national government, spoke on “Legislating for good neighborliness”.
- *Peter van Niekerk*, Chief Director, Planning, Department of Water Affairs and Forestry, spoke on “Transboundary water issues in Southern Africa”.
- *Trevor Fowler*, Speaker to Gauteng Provincial Parliament and Board Member of TCTA, addressed the workshop on “The Lesotho Highlands Water Scheme”
- *Saliem Fakir*, Land and Agriculture Policy Centre, presented a paper on “Civil Society in Policy Development”.

After lunch the delegates and resource persons reconvened. Introductions were made and each delegate was asked to share their expectations of the workshop.

3.4.2 Days 2 to 5 – Cape Town

The work each day followed the programme as set out in Appendix 2. The general format was a presentation on the particular theme for a session, discussion in plenary and then work in smaller groups based on the scenario countries.

At the beginning of the workshop, delegates were provided with name labels which were colour coded. There were four country groups in the scenario which were divided in such a way that no group had more than one person from the same Nile country. The objective was to ensure the following :

- a) People from different countries would gain the opportunity to meet and work with professional colleagues from other countries in order to build relationships and mutual trust.
- b) When delegates were placed in positions relative to the basin which were different from their home countries, a better understanding of the problems of other countries would be gained.

The workshop was intensive in that the sessions began at 08h30 in the morning and continued, with tea and lunch breaks, on to 17h00 to 17h30 in the afternoon. Full attendance of all delegates was attained at all sessions throughout the week. The work was completed on Friday afternoon with each country preparing a brief report.

3.5 Review group

At the beginning of the workshop it was put to the delegations that the review of the progress of the workshop should be done by a group comprising the FAO Representative, the delegation leaders from each country and the Consultant. This was agreed and the Review Group, as it became known, met on several occasions through the week. This provided useful guidance to the workshop and engendered a sense of ownership and control amongst the participants.

Several issues arose during the discussions of the Review Group which were not directly related to the content of the workshop but rather to the problems of the Nile Basin as a whole and the need for co-ordination between the FAO Project GCP/RAF/286/ITA and other activities and projects in the Basin, such as project “D3”.

3.6 Scenario

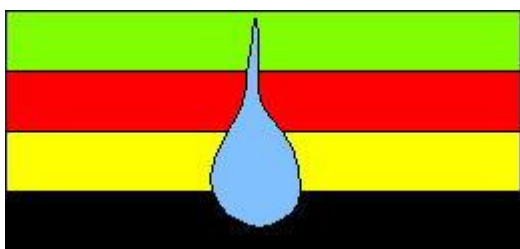
The scenario created for the workshop is attached as Appendix 4. It comprises a basin with five countries, and approximately mirrors some of the characteristics of the Nile Basin. There are two

major tributaries to the main river, there are countries which are wholly within the basin, there are arid and temperate areas, there are up-stream and down-stream countries.

The delegates were divided into four groups representing four countries out of the five. One of the fictitious countries was “absent” from the simulated discussions and negotiations.

The first exercise was for each group to design a flag for their country which had to have some reference to the river. The symbolism of each flag was explained to the plenary. Although this initially appeared to be a trivial exercise, it was designed to enable the groups to get to know each other and to study their fictitious country. The exercise was very successful and the flags and their symbolism were referred to throughout the rest of the workshop.

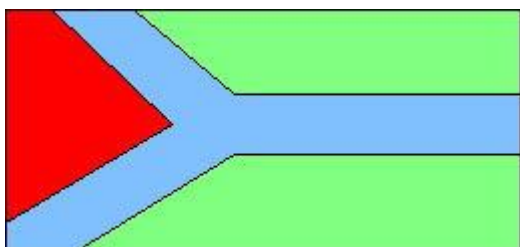
The flags developed were as follows:-



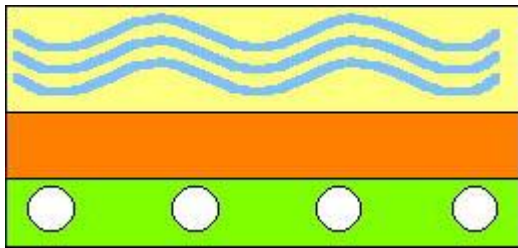
Democratic Republic of Bengis



Bitra



Democratic Republic of Netto



Tangis

The symbols, shapes and colours of the flags were all explained. They reflected the history of the countries, the central role of the river Bengis, the resources of the countries and the desire to live in harmony and prosperity.

After the input from the resource persons, plenary discussions were generally held before the groups met in the scenario countries.

3.7 Inputs and group work

3.7.1 Policy.

The policy input was given by Len Abrams. The importance and nature of policy were covered, together with the processes of policy development in the water sector. Discussion followed the presentation.

3.7.2 Environment

The presentation made by Carolyn Palmer introduced the main issues of concern in terms of determining the needs of the environment, humans and human activity as part of the environment, the inter-dependence of development and the environment, and the consequences of decisions. Also discussed were the various tools for establishing in-stream flow requirements (IFR). The session was well received and brought a new awareness of the issues and their complexity to the delegates.

3.7.3 Economics

Rolfe Eberhard ably introduced and expanded on a very complex and extensive topic - that of natural resource economics relating to international water. Several points were made regarding such issues as the cost, the price and the value of water. The linkages between natural resource economics and development were highlighted. As with the discussion on the environment, it was clear that there was insufficient time available to discuss all of the pertinent issues. Each of these topics could have been the subject of a week-long workshop.

3.7.4 Water demand

Following the presentation on the economics of transboundary water, the delegates divided into the scenario country groups to discuss the water needs for their countries in the light of development plans. When the groups met it was clear that there were greater demands than there were resources. Some of the delegations indicated openness to discussions but others were not prepared change their demands. Much of the information presented by the countries was disputed indicating the need for adequate and acceptable information.

3.7.5 River Basin Management

Peter Millington explained the main functions and criteria for river basin management functions and institutions related to the practical experiences of the Murray Darling basin in Australia and the Mekong River in south-east Asia. The conditions which led to agreements being reached and institutions being established were discussed. These included both the need to develop trust between the parties and the consequences of pressing social, economic and political issues which demanded that win-win solutions be found. It was clear that there are numerous possible avenues available for developing adequate institutional arrangements for the joint management of resources.

3.7.6 International Water Law

Professor Al Utton made what could have been a very dry and difficult topic very interesting. He discussed international water law in the context of the relationships between Mexico and the United States. The main input was on the recently adopted United Nations Convention on the Law on the Non-Navigational uses of International Water Courses. The convention was explained and discussed. The concepts of equitable sharing and significant harm were highlighted, as was Article 6 which sets out criteria for the establishment of reasonable use.

3.7.7 Equitable sharing

After the input of the resource persons, the groups were set the task of reassessing their perceptions of their water needs, giving justifications in terms of Article 6 of the UN Convention. This was set in the context of expressing development needs. Each country was given the task of motivating their positions and then debating them with the other countries. This was done in a re-arranged seating pattern designed to imitate a negotiating forum. Only one person was permitted to make input or negotiate with other countries. Each negotiator had a support team made up of the other delegates in their group.

This was a very fruitful exercise. The groups based their claims of a wide variety of factors including the hydrology of the catchment, climatic elements, economic factors, social requirements, population development, development requirements, environmental factors, agricultural potential, relative positions in the catchment, historical factors and other issues.

The positions of the countries were worked out in isolation from each other. The demands were substantially higher than the first round and, as the discussions progressed, the positions became increasingly intransigent. It was clear that most countries had built substantial bargaining margins into their figures.

The countries were then requested to try to reach agreement, without which they would not be eligible for foreign finance. The resource persons then withdrew and the delegates continued to meet in plenary as the scenario countries. The deliberations were lengthy and lively with most people participating in a constructive and wide ranging debate.

3.7.8 Negotiating sharing and development benefits

On return to the plenary session the report back was chaired by one of the negotiators who reported that the discussions had been very fruitful.

It had been decided [in the context of the simulation] that after a period of discussion amongst the technical experts, the senior political decision makers had been brought into the negotiations. The political forum met after the technical experts had reached a deadlock.

The forum agreed on several principles. These were:

1. Existing usage of water should be respected as these quantities were within reasonable limits.
2. The in-stream flow requirements of the river required to maintain the environment should be preserved. "Don't milk the cow without feeding it."
3. An investment study should be undertaken to identify projects to develop the water resources which were available to the mutual and optimal benefit of the whole basin.

Part of the finance available for investment should be used to pay for the services of a consultant. The consultant should be selected by the countries so that they have confidence and trust in the results of the study and so that the exercise can be a learning experience for the countries. The countries should play an integral part in the study to ensure ownership of the results. The study team must evaluate the optimum benefit of use of the water of the Bengis river within a maximum of 1 year. A hierarchy of projects should be developed.

The present negotiations should be recorded in a set of agreed minutes which will form the basis of the cooperative agreement regarding the study process. A joint technical team from all of the countries will work out the study details. The outcome of the study should be as follows:

- to establish the most beneficial use of the remaining available water resources in the basin,
- to clearly identify the benefits to all parties from the proposed developments,
- to prepare proposals on how to share the benefits of the developments equitably,
- to prepare proposals for follow-up action including any related issues identified during the course of the study.

It was noted that the downstream country, Tangis, required a far more comprehensive study taking several years to complete. This was not accepted by the other countries.

Once the study was complete agreement would need to be reached on how the identified projects should be developed and how each country should be involved in the development process, project costs would need to be calculated. This process would lead to the signing of a protocol which in turn would allow for the investment finances to be released. This whole process should not take more than one year.

The following conditions were agreed upon:

1. The in-stream flow requirements would be protected and preserved from the outset.
2. During the period of the study no new development should be undertaken or, if new developments are initiated the water utilization would not be considered as part of the present usage.
3. All countries reserve their positions and final agreements will have to be addressed through each country's normal procedures.
4. No country is bound to accept the investment report.

After the workshop participants had given their report, members of the resource team made the following comments.

Peter Millington - the solutions appeared to be a good way forward. Note should be taken that downstream effects of proposed developments can be modelled. The study should include a proper modelling study, even if this meant that the overall period of the study might have to be extended. At

least, the predictive capability of the model should be ready by the end of the study period to provide a tool for political decision making. Modelling is critical for confidence, particularly for downstream countries. Also during the study phase the data and information requirements must be attended to which includes the need for monitoring and the need to develop monitoring tools. The institutional arrangements and capacity must also be addressed to ensure that the developments are properly managed.

Stefano Burchi - the shift from the engagement of technical experts to senior political involvement was noted with interest. Also of interest was the reluctance to start with a formal treaty but to move in that direction later in the process. It was important to first make the ground rules consisting of agreed principles and conditions and then move to more formal agreements. It was noted that no institution such as a joint commission had been proposed during the study phase. This may have been deemed as unnecessary because of the high level of political involvement.

Al Utton - the results of the negotiations were excellent and very interesting. The need for more information before investment decisions could be made was clearly recognized.

4 Observations and recommendations

These reports are included as they were written by delegates with minimal textural changes in the interests of clarity.

4.1 Uganda

COMMENTS ON THE WORKSHOP.

- 1) Deeper appreciation of environmental and economic concepts/ principles and their application in determination of equitable utilization of shared resources.
- 2) Better understanding of the legal principles and the driving force for co-operation in various examples given.
- 3) Through the simulation negotiation:
 - i. difficulty of application and reaching consensus on equitable utilization based on allocations and need for emphasis on the sharing of benefits.
 - ii. need for confidence building, trust, and faithfulness, sharing of information and for follow-up contributions and review of the agreements.
 - iii. appreciation of the concerns of other parties, and especially position of upstream / downstream countries.
 - iv. need to move away from equitable utilization of the resources to sharing of benefits through joint projects: development of tools for sharing of benefits.
 - v. necessity to have reliable data for informed decisions.

RECOMMENDATIONS.

- 1) Regional Workshop, on negotiation skills, brought forward.
- 2) Elaboration of tools for determination of equitable benefits, environmental and economic impacts and distribution of such to the countries.

- 3) Application of the process within the national context during the development of transboundary policies.
- 4) Visits to typical basins for experts.
- 5) List not complete, addresses needed for future communication

4.2 Tanzania

Comments on the value of the workshop:

1. According to the objectives of this workshop, in the formulation of Trans-boundary Water Policy, the following values/achievements have been attached:-
 - (a) The initial mistrust and non-confidence among the member states is gradually giving/paving the way for mutual trust and confidence.
 - (b) The hypothetical /simulation exercises carried out during the Workshop have exposed the participants to the real issues to be addressed in trans-boundary. Water Resources Management, in line with the U.N. Convention.
 - (c) Apart from sharing the resource or benefits from joint projects, the Riparian countries have recognized the need for sharing responsibilities to sustain the environment in the whole basin.
 - (d) The importance of continuous data/information collection and sharing among the riparian countries has been acknowledged.

2. Recommendation for future process:

- (a) Member states should own the process leading to equitable allocation of the resource. This means that the Resource people should act as facilitators.
- (b) The National Workshops should be held as soon as possible, so as to get more input from stakeholders. In this regard FAO is requested to allocate/ make available more funds to facilitate more stakeholder participation (i.e. wide coverage)
- (c) The planned Negotiation skills Workshop ought to be carried earlier in order to consolidate the experience gained during this Workshop.
- (d) The time allocated to the Workshop was inadequate.
- (e) The workshop papers / materials should be distributed to the participants at least one week in advance to enable participants to read them before the Workshop process.

4.3 Sudan

COMMENTS AND RECOMMENDATIONS ON THE WORKSHOP.

- 1) Using a hypothetical basin has encouraged all participants to address the real concerns of upstream and downstream countries without any constraints.
- 2) The exercise has brought up new dimensions to the surface, particularly the economic and environmental concerns.

- 3) Using assumptions regarding the figures has under lined the importance of acquisition and review of data. A presentation on data acquisition and review would have contributed positively and we believe that is why the negotiating teams were not able to take decisions immediately.
- 4) It is useful to conduct similar capacity building workshops at country – level rather than working on discussing issue papers for policy development, since it is premature to prepare such issues papers within the framework proposed for such workshops.
- 5) Linkage with Project D3 is very important since D3 would mainly be discussing legal and institutional issues and data acquisition & review. These Capacity Building Workshop deliberations would contribute to the work of Project D3.
- 6) All presentations were very useful since they have exposed the country delegations to experiences in other party of the world and to internationally accepted practices.
- 7) Bringing representatives from seven of the Nile basin countries together is in itself useful and contributes positively towards better understanding and confidence building required for future joint activities.
- 8) Building capacities in negotiations should also be targeted to Senior Government Officials.
- 9) It is important to engage politicians in the process through regular reporting of activities and exposure to world – wide experiences. A methodology for feed-back should be considered in this connection.
- 10) We feel it is a good idea to devote more time to Workshops at country level in order to have in-depth presentations and discussions.
- 11) It is important to encourage all basin countries to attend similar Workshops.
- 12) To produce the presentation and hand out in a report to be made available for all participants.
- 13) It is premature to engage in the formulation of trans–boundary policy options and such endeavor should be under taken after the completion of the stage of capacity building.

4.4 Kenya

OBSERVATIONS ON THE WORKSHOP:

- 1) The simulation exercise approach was very useful. It stimulated discussion on the practical approaches towards:
 - the development of a national and transboundary water policy
 - the application of economic analysis and principles to the management schemes for shared water resources.
 - the application of article 6 of the UN Convention.
- 2) The simulation exercise approach enabled participants to assume the position of parties other than themselves in their real life situation.
- 3) The simulation exercise approaches increased inter personal rapport amongst participants through the random grouping method.

- 4) The simulation exercise approach brought up some of the very issues likely to crop up in real situations and provided insights on how to deal with them.

Problem: Limited time period.

RECOMMENDATIONS:

Future Workshop exercises should focus on:

- Methods or techniques for sensitizing and enlisting political support.
- A whole basin approach without regard to political boundaries. Upon completion of the exercise, the boundaries would be brought up. Such an approach would help show the constraints brought by boundaries and help people think on a basin –wide mode.
- Possibilities of climatic and geological changes leading to hydrological re-arrangements, change in rainfall patterns, change in river courses and more generations of water downstream.
- Water resources should be linked to other resources when discussing allocations and possible compensation in the case of quota trade-offs. This approach would assist when comprehending social and economic disparities between riparian states during negotiations for allocation.

4.5 Ethiopia

COMMENT:

Over all, the Workshop, the documents and the subjects have been excellent.

- 1) The simulation exercise was so appropriate on how to improve understanding, to come closer and communicate. It has been the best tool to remove barriers amongst negotiating countries. It also helps to understand each others' positions which is very important for negotiating solutions.
- 2) The lectures have also been excellent. The legal, economic and environmental aspects were described appropriately and adequately.
- 3) How to ensure community participation in formulating policy could also have been discussed in more detail.

RECOMMENDATION

- Language issue, French translation.
- Targeting broader and also higher decisions makers.
- More discussions among the delegates.

4.6 D R Congo (Translation)

Introduction

The Congolese delegation thanks first of all the Government of Italy and FAO for enabling the countries represented here to meet with a view to harmonizing their viewpoints on the management of shared water resources. The rational management of such resource will enable each of us to pass an important bequest down to future generations.

With specific regard to the Workshop:

- (a) At the organizational level, given that the French language is one of the means of communication and that, out of a total population of approximately 250 million of Nile Basin inhabitants, at least 60 million speak French, future events of this kind must take this into account especially if they are of a capacity-building nature;
- (b) At the substantive level, the chronology of the topics selected has been good as it has reflected all aspects, such as the ecologic and environmental aspects, the political and institutional aspects and the legal aspects. However in future, particularly in view of certain developments, account must be taken of the actual level of the delegations consisting of senior officials with vast experience (*translator's note*: this passage is obscure also in the original French version).

Recommendations for the future

- (a) The national capacity-building transboundary policy workshop to be organized for the Congo must be preceded by consultations with the Chief Consultant (*translator's note*: probably the reference is to the Chief Technical Adviser of the project) with a view to assessing the requirements of such event, in the light of what has already been done for the anglophone countries and as mandated by the Addis Ababa meeting.
- (b) The national workshop will have to take into account the expertise available locally so as to weave its recommendations into the realities of managing these resources.
- (c) We encourage the convening of these workshops at national and regional level, to enable the future negotiators to obtain the instruments which will result in a better harmonization of viewpoints. This will let a framework for co-operation emerge which is acceptable to all and capable of achieving this result.
- (d) In the framework of capacity building, and given the fact that the francophone countries are a minority in this group, we request that project seek a small additional budget to enable the francophone nationals to obtain in-depth training in the English language.
- (e) The regional project must incorporate the members of the Steering Committee in all decision making and in the actual evolution of the project (*translator's note*: this passage is obscure also in the French original), with a view to a better harmonization of viewpoints on the actual progress of the project.

Finally, the delegation thanks the authorities of the host country for the hospitality provided both in Johannesburg and in Cape Town.

4.7 Burundi (Translation)

The delegation of Burundi congratulates the organizers on the efforts made to ensure the success of this Workshop.

It has appreciated the presentations made, aimed at (a) harmonizing the views of the delegations on the issue of water sharing, (b) conveying the concern of the countries with regard to the assessment of available water resources in view of the long-term planning of their use; (c) showing how the different parameters at play in the assessment of the water needs can be integrated; (d) showing the difficulties which can arise in the course of negotiating water sharing arrangements and the approaches to conducting such negotiations.

The delegation of Burundi is aware of the fact that it could have benefitted more from the Workshop if certain conditions, notably the provision of simultaneous interpretation into French of the

presentations, which were made in English, had been met. This has been the most serious impediment to the active participation of the delegation in the Workshop.

Recommendations

- (1) Simultaneous interpretation should be made available in future.
- (2) The organization of the national workshops should be expedited.
- (3) Further serious consideration should be given to the need to establish a regional institution mandated to foster the process of co-operation begun by the Nile basin countries.

The delegation of Burundi takes this opportunity to once again thank the organizers for the attention it has received from them. It also wishes to take this opportunity to thank the Minister of Water Affairs and Forestry and, through him, the Government of the Republic of South Africa, for the reception and the hospitality received since its arrival in the RSA.

5 Conclusions

5.1 Scenario / Simulation methodology

Although the use of simulation methodology was adopted with some reservations, it was clearly very useful and has introduced a powerful tool to senior government officials involved in the transboundary deliberations in the Nile basin.

It was clear during the course of the simulation exercise that the model used could be improved upon although it was deliberately left undefined in some regards in order not to present too rigid a scenario. The involvement of a full team of expert resource persons was a key factor in the success of the exercise. The observations and recommendations of the team will be used to further develop and improve the scenario and the simulation exercise.

It was clear that the main objectives of using this methodology were achieved. These were:

1. The provision of an environment which enabled all participants to actively engage in a process free from the constraints which they would have had if they were engaging as representatives of their actual home countries.
2. It forced people to view issues from the perspective of riparian countries in different positions within the catchment relative to their home countries.
3. It created and fostered relationships and the building of understanding and trust between people from different countries within the Nile basin.
4. It required participants to apply the inputs made by the resource persons in the various fields of policy, the environment, water resource economics, catchment management and international water law. This helped greatly in reinforcing the learning process.

5.2 Observations

The objectives of the workshop were achieved and exceeded. This was primarily due to the way in which the participants fully entered into the spirit of the workshop and due to the excellent inputs from the resource persons. A greater understanding of the importance and nature of policy in transboundary water matters was gained by the delegates.

A number of the delegates were members of the "Panel of Experts" of the D3 Nile project. Concern was expressed from the first day of the workshop to the last about the potential overlap of the FAO Project 286 with the D3 project. The content and programme of the D3 project was explained by Dr. M.A.O. El Mufti of Sudan who is a member of the Panel of Experts. This is attached as Appendix 5. It was agreed that further workshops similar to the Cape Town event would contribute to and strengthen the D3 exercise.

It would appear that there has been little real concentration on the issues of relationships and the development of mutual understanding and trust between the role players of the different countries of the Nile basin. Most of the effort seems to have been concentrated in the technical fields and in the establishment of basin management institutions which have, thus far, not borne a great deal of fruit. A recurring comment during the workshop was the need to expose the most senior levels of government and senior politicians to exercises similar to the experience of the Cape Town workshop. This is both to develop relationships and trust between the parties as well as to increase the political will to find a win-win solution. Greater emphasis needs to be placed on creating the conditions in which co-operation will be possible, into which the information gathered through a process such as the D3 project can be fed. Without a level of trust between the parties, no matter how much information is gathered, solutions will be unlikely.

The timing of the respective projects needs to be integrated. This was also a recurring comment during the Cape Town workshop.

A problem which faced a number of participants was that of language. The delegates from Francophone Africa were disadvantaged in the process because of a lack of translation facilities. This needs to be addressed in similar future events.

Many delegates were of the opinion that the three rounds of country level workshops proposed in the Project Steering Committee meetings in Addis Ababa in March 1997 were premature at this stage. There were concerns, having been introduced to the complexities of the environmental question, water economics, catchment management and international water law, that the resources to draft issue papers and policy within each country was very limited at this time. Proposals were made to adapt the project programme which are explained in detail below.

The other elements of the policy programme of the project were endorsed and encouraged. These are the senior Ministerial level River Basin Study Tour and the negotiation skills workshop.

The involvement of Egypt in similar simulation exercises was regarded as critically important by a number of delegates from most countries including Ethiopia and Sudan. The unthreatening environment produced by the simulation exercise provides an excellent opportunity to build relationships and trust.

5.3 Adaptation of programme

In the light of the success of the Cape Town workshop and the comments of the delegates, it is proposed that the policy development programme of Project GCP/RAF/286/ITA be amended. It is suggested that a similar exercise, based on the simulation of a fictitious international river basin, be held on a sub-basin level in three different venues in the Nile basin. The same team of resource persons should be involved but the delegates should be drawn from a wider group of stakeholders and decision-makers from the Nile countries. It was suggested strongly that wherever possible, senior political persons should be exposed to the event.

The objectives of the changed programme would remain largely the same as the objectives of the current programme i.e. the development of transboundary water policy. It is considered that the change would be more effective in working towards the required policy developments at this time, given the resources of the various countries, and that important added advantages would be gained,

including the development of broader understanding of the issues at stake, the building of relationships and greater synergy with other projects such as D3.

It is proposed that three similar workshops be held in Kigali, Nairobi, and Addis Ababa early in 1998. This is the earliest that the resource persons could all be available. It is felt that the same team should be used because they have already been involved in the Cape Town exercise. The Kigali workshop would be for the Francophone Nile countries and would require complete translation facilities. The Nairobi workshop would include Uganda, Tanzania and Kenya. The Addis Ababa workshop would include Ethiopia and Sudan, and possibly Egypt, depending on the many complex factors involved.

Altering the programme would involve a review of the present contractual arrangements with Water Policy Africa which would substantially reduce the present contract, although it would increase the overall cost of the policy development element of the project slightly.

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6 Appendix 1 – Full Participants' List

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1. Mr. Etienne Kayengeyenge, Directeur General de l'Amenagement du territoire et de l'Environnement
2. Mr. Damien Nindorera, Conseiller Juridique a l'Institut National de l'Environnement pour la Conservation de la Nature (INECN)
3. Mr. Evariste Sinarinzi, Directeur de l'Hydrometeorologie a l'Institut Geographique du Burundi (IGEBU)- Panel of Experts, D3

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1. Dr. Mohamed Ahmed Hagos, Chief Engineer
2. Mr Wosenu Asfaw, Head, Abey River Basin Master Plan Studies Project
3. Mr. Russom G/Egzabeher, Head Tekaz River Basin Master Plan Studies Project
4. Ms. Elizabeth Beyene, National Coordinator, Project GCP/RAF/286/ITA

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1. Mr. P.N. Machiri, Director of Water Development
2. Mr. M. K. Migwi, Senior Deputy Director of Water Development, Water Resources Management, NC Porject GCP/RAF/286/ITA
3. Mr. T. W. Kibaki, Deputy Director of Water Development, Design and Technical Planning (also member of the Panel of Experts for Kenya, D3 project)
4. Mr. Caroli Omondi Ochola, Senior State Counsel and a member of the Panel of Experts (POE) for Kenya.

SUDAN:

1. Engineer Abu El Gasim El Amil, Director General, Directorate of Planning representing Ministry of Irrigation and Water Resources.
2. Dr. Ahmed Mohamed Ahmed Omer El Mufti, Solicitor-General, Ministry of Justice, Member of Panel of Experts - Project D-3.
3. Engineer Gaffar Mahgoub Mohamed, Minister's Adviser for Irrigation Water Corporation Affairs, Ministry of Irrigation and Water Resources.
4. Engineer Mohamed Bahar El Din Abdalla, National Coordinator, GCP/RAF/286/ITA - Sudan.

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3. Mr. L.Tibaruha, Director, Legal Advisory Services, Ministry of Justice

4. Mr. Arthur Kawfero, Economist Africa Department, Ministry of Foreign Affairs

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3. Mr. Upumbu Okitowoma, Expert, International Hydrological Programme, Minister of Environment,
4. Mrs. Mbombo Mwakwilay Mangangi, Legal Advisor, Min of Environment. POE Member

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 Mr Len Abrams, Water Policy Africa, South Africa

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This address list was compiled from a hand-written address list circulated at the workshop. Due to i es some problems experienced reading the addresses, there may be errors in the list for which apologies are made.

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7 Appendix 2 – Workshop Programme and Schedule

DAY ONE Monday 14 July 1997

08h30	Leave for CCS Centre Centurion, Pretoria by coach	
09h00	Arrive CCS Centre, Registration	
09h30	Welcome to Workshop	<i>Stefano Burchi, FAO</i>
	Workshop background and objectives	<i>Len Abrams, Water Policy Africa</i>
10h30	Opening address	<i>Prof. Kader Asmal, Minister of Water Affairs and Forestry</i>
11h00	Tea	
11h15	Legislating for good neighborliness	<i>Janet Love, Chairperson, Parliamentary Portfolio Committee</i>
11h30	Transboundary water issues in Southern Africa	<i>Peter van Niekerk, Chief Director: Planning DWAF</i>
11h45	The Lesotho Highlands Water Scheme	<i>Trevor Fowler, Speaker to Gauteng Provincial Parliament and Board Member of TCTA</i>
12h00	Civil Society in Policy Development	<i>Saliem Fakir, Land and Agriculture Policy Centre</i>
12h15	Discussion	
12h30	Lunch	
13h30	Workshop arrangements Introduction of FAO representatives Introduction of Country Delegations Introduction of Resource Persons	<i>Len Abrams, Water Policy Africa</i>
15h00	End proceedings - travel to Johannesburg International Airport for trip to Cape Town	

Cape Town 15-19 July 1997		
Day 2 Tuesday 15 July	Themes: 1. Policy and policy making. 2. Environmental issues in international river basins.	<i>Ritz Protea Hotel, Sea Point Cape Town</i>
Day 3 Wednesday 15 July	Themes: 3. The economics of water in international rivers. 4. River basin organisations.	<i>Ritz Protea Hotel, Sea Point Cape Town</i>
Day 4 Thursday 17 July	Themes: 5. International water law. 6. Transboundary water policy development – preparation of simulated water utilisation requirements	<i>Ritz Protea Hotel, Sea Point Cape Town</i>
Day 5 Friday 18 July	Themes: 6. Negotiation of equitable shares and development optimisation. 7. Review of workshop and preparation of country reports.	<i>Ritz Protea Hotel, Sea Point Cape Town</i>
Day 6 Saturday 19 July	- Tours of Cape Town and Robben Island (Preparation of final report / documentation) 8. 16h00 - Wrap up and closure	<i>Ritz Protea Hotel, Sea Point Cape Town</i>
Day 7 Sunday 20 July	Return to Johannesburg for international flights	

Notes:

1. Use will be made of a simulation exercise as the basis of the workshop sessions. Materials have been prepared by the resource persons which will enable participants to address the many factors relating to transboundary water policy issues through the simulation. These materials will be available at the beginning of the workshop.
2. Delegates will be met at Johannesburg international airport on arrival.
3. Accommodation has been arranged for all delegates in terms of the travel arrangements provided Water Policy Africa.
4. Transport for all transfers have been arranged in terms of the above programme.
5. Delegates are reminded that the weather in Cape Town during this time of year can be unpredictable. Delegates should ensure that they have adequate warm clothing.

8 Appendix 3 – Opening Speech, Minister of Water Affairs and Forestry, SA

9 Appendix 4 – Scenario, the Bengis River Basin

Simulation : Country Details

Introduction

This simulation was designed for use at the Cape Town workshop on Transboundary Policy Development held from 14 to 19 July 1997. The following important notes apply to the scenario:

1. This scenario is entirely fictitious, as are the countries it portrays. Some attempt has been made, however, to mirror the major issues which are facing the Nile Basin in order for the exercise to be useful.
2. The data are approximate and should be used as a guideline only. Where there is insufficient data this should be intelligently made up.
3. Two maps of the Bengis Basin should be read with the scenario profiles. These can be found on pages 7 and 8.

Regional overview

The area forms the part of the eastern coastal region of the continent. The main features of the region are the coastal plain which is arid and which stretches in a north – south direction. The average width of the plain is 900km with an MAP of 50mm. The coastal plain raises to a plateau with an average height above sea level of 800m. The plateau enjoys a temperate climate with a rainfall varying from about 450mm in the east to 800mm in the west. The “high country”, which is a range of hills and low mountains, stretches across the region in a west – east direction. This has a relatively high rainfall varying from 1200mm in the west to 600mm in the east. Whilst the precipitation in the high country is relatively reliable, the rainfall on the plateau is highly variable from year to year and from season to season. There are lengthy periods of drought and occasional flash flooding.

Country Overviews

South Yipoll

Name: South Yipoll

Population: 75 340 000

GNP: 150 bn \$

Annual per capita income : 2 000 \$

Present usage of Bengis River water : 0.0 billion m³ per year

Geographical profile: The country is the largest in the region. It has only a small part of its land mass within the catchment of River Bengis. This is an important part of the catchment, however, as it contains a large indigenous forested area.

Political profile : In 1928 the country had a military coup and the resulting military council began a period of political destabilisation of its neighbours Bengis, Netto, Bitra and Tangis, encouraging the establishment of similar military dictatorships in each country although these were little more than puppet regimes to South Yipoll. After a lengthy civil war which impoverished the country and necessitated the intervention of the United Nations, elections were held in 1987 and since then the country has been slowly recovering.

Economic profile : The liberation wars from 1935 to 1987 decimated the country's infrastructure and ruined its economy. However, since the elections, the country has adopted progressive economic policies which have been successful in creating sustained economic growth to the point that the country is now one of the richest in the region. It does not have a great deal of interest in the Bengis river basin because it occupies a remote and unpopulated hilly area which is densely forested. Recently foreign logging companies have been seeking concessions to fell large tracts of the forest which the government has approved despite opposition being raised by some environmentalist groups and other countries in the catchment.

Hydrological profile : South Yipoll does not depend greatly on the Bengis river basin and it forms only a small portion of the country's area. The country does, however, have a major international river basin – River Timkati – for which it is at present preparing a development plan.

The rainfall varies from 800 mm per annum in the west to 600mm in the east in the upper hill country but drops off sharply towards the plateau in the south.

Bengis

Name: Bengis Republic

Population: 42 000 000

GNP: 12.6 bn \$

Annual per capita income : 300 \$

Present usage of Bengis River water : 0.4 billion m³ per year

Geographical profile: The country is the 2nd largest in the region. Most of the country is situated on the plateau with the High Country in the northern extreme. The Bengis River flows from the upper catchment areas in the north to the central plateau. The dominating feature in the region is Lake Bengis.

The country is rich with natural resources. These include minerals, savannah plains and fertile valleys of both the Bengis River and its numerous tributaries.

Political profile: After a protracted period of instability during the 1930s, sponsored by South Yipoll, the country was ruled by a military junta which was a thinly disguised family dynasty for forty years. Although the country has great wealth, this was used almost exclusively for the benefit of the ruling family. In the early 1970s a resistance movement developed which was supported by a foreign super power. This movement was ultimately successful in 1978 in creating a revolution which, in effect, replaced one form of central command economy with another, although the second was not dominated by the military but by the New Revolutionary Council.

In 1991 the military again took power but on this occasion through a bloodless coup. The new military junta has established a number of National Committees which involve a variety of civilian representatives in the running of the country. Although the corruption of the previous two regimes has

been largely reformed, the present government is weighted down with bureaucracy and has been unable to achieve the renewal of the economy which it has promised.

There is a rebel movement in the east of the country which is fighting for partition and unification with Netto. It is suspected that Netto is assisting the rebels with logistics and supplies.

Economic profile : Although Bengis is rich with natural resources, these have remained largely unutilised and underdeveloped. What wealth has been created has been used for the self-enrichment of successive governments and the vast majority of the population has remained very poor. There is sufficient rainfall for un-irrigated subsistence agriculture in most parts of the country. Although there are a few large farms, mostly producing cash crops for export and owned almost exclusively by ex-patriots from the Super-Power, most of the agricultural activity is undertaken by peasant farmers on many small farms. During dry years the country generally has to rely on international food aid to avoid widespread crisis and famine.

There is a great deal of potential for hydro-electric generation and one hydro-power station was built during the 1980s with assistance from the foreign super power. Much of this power is sold to South Yipoll.

There are plans to build further hydro-power stations and to develop heavy industries and mining operations at several key points in the country. There is concern regarding the environmental impact of these developments, particularly regarding quality impacts on the waters of the Bengis River.

Hydrological profile : Most of the country's water comes from the high rainfall area in the upper hilly part of the country in the north, which has an average rainfall of 1200mm per annum. The rainfall for the remainder of the plateau averages 800mm per year.

Bengis does not utilise a great deal of its water resources. This is largely because of the relatively low level of development of the country as a whole. The average annual flow of the Bengis as it enters Lake Bengis is 48 billion m³ per year. The exit flow is 51 billion m³ per year. The flow at the border of the country is 52 billion m³ per year. The planned development of new industry and mining operations will use an estimated 38 billion m³ per year. In order to provide for these plans, several storage dams are proposed. These proposed water uses are, however, in excess of the amounts provided for in the existing water treaties between the countries of the Bengis basin. (See "International water treaties" below.)

Netto

Name:	Netto
Population:	12 000 000
GNP:	7.8 bn \$
Annual per capita income :	650 \$

Present usage of Bengis River water : 9.8 billion m³ per year

Geographical profile: The country is the smallest in the region. Netto is landlocked and is situated entirely within the catchment of River Bengis which flows from west to east. The country is situated on the plateau with its eastern border along the escarpment which drops sharply to the coastal plain. The country is in the transition zone from the temperate climate of the west to the arid climate of the east.

Most of the country is flat with undulating hills in the western regions. The country is covered predominantly with grassland suitable for pastoral activities.

Political profile : The political history of Netto closely mirrors that of its neighbours. After years of quiet harmony and development, the country was invaded by the military regimes of South Yipoll, Bengis and Tangis in 1941. Although there was little resistance to the process, there was a great deal of loss of life which has created a legacy of resentment and tension in the region. A puppet government to South Yipoll was established.

In July 1978 the country evicted the vassals of South Yipoll and appointed an interim government to prepare for democratic elections which were held, after a number of delays, in 1985. Since that time the country has returned to its former harmony and enjoyed consistent but slow economic growth.

There is some dispute regarding the western border of the country with neighbouring Bengis. The government of Netto is sympathetic towards the call of the rebels in the area who are advocating for certain traditional lands to be incorporated into Netto.

Economic profile : Whilst Netto is not a wealthy country, its relative stability has enabled its economy to grow steadily, if modestly, during the past few years. The main exports have been agricultural, predominantly beef. In recent years increasing foreign exchange has been earned through diamond mining in the centre of the country.

Lake Netto is a dam which was built in 1965, on the Bitra and Bitrin tributaries, largely for the generation of hydro electricity and to assist in regulating the flow of River Bengis. The dam was built largely at the insistence of Tangis during the previous military era and most of the electricity is sold to Tangis and Bitra.

There are plans to extend existing irrigation schemes in several places in the country.

Hydrological profile : The flow of the river Bengis, just below the junction with the Vitra tributary, is 61 billion m³ per year. The flow as the river leaves the country and flows into Tangis is 86 billion m³ per year. The average rainfall over the country is 700 mm per year. There is growing concern over the effects of logging in the South Yipoll forests. This is causing a great deal of silt to be washed into the rivers during the wet season.

Bitra

Name:	Bitra
Population:	28 000 000
GNP:	16.2 bn \$
Annual per capita income :	580 \$

Present usage of Bengis River water : 3.7 billion m³ per year

Geographical profile: Bitra occupies the southern portion of the Bengis River catchment. It is relatively flat and featureless. The Bitra River, which is a tributary of the Bengis, flows north towards Netto and is home to most of the country's small farmer population. The eastern border with Tangis runs along the Bitrin River (which is a seasonal river) where the remainder of the population resides, mainly as semi-nomadic cattle and goat farmers. The eastern part of the country is very dry and sparsely populated.

Political profile : Bitra escaped the worst of the military period of the region and the territorial objectives of South Yipoll during the first half of the century, largely through maintaining a low profile politically and economically. The country has, however, seen bitter rivalry between different factions. The tensions have mainly been as a result of land shortages. This has led to an unstable political environment where the balance of power has shifted often. The present one party state is ruled by a number of powerful persons from one of the warring factions.

Economic profile : Bitra is a poor country with a largely agrarian population. The west is not as poor as the east as a result of a larger natural resources base. The basis of the economy is agriculture.

There are plans to develop light industry and to open new areas of irrigation on the Bitra River in the north of the country.

Hydrological profile : The average rainfall varies widely from 700mm per year in the west to about 100 mm in the east. The rainfall is very variable and the country is subject to periodic droughts. There are plans to build a dam on the Bitra River to provide storage for bad years. Bitra would also like to build a dam on the Bitrin River. Tangis is opposed to both dams.

Tangis

Name:	Tangis
Population:	18 000 000
GNP:	16.66 bn \$
Annual per capita income :	870 \$

Present usage of Bengis River water : 43.0 billion m³ per year

Geographical profile: Tangis occupies the eastern portion of the Bengis River catchment. From the border in the west with Netto, the country side drops sharply from the escarpment to the arid coastal plain. The coastal plain is semi-desert covered for the most part by rocky outcrops and rugged stonelands. The Bengis River provides the main source of livelihood for the country with 98% of the population living along the banks of the river. This makes the county almost totally socially and economically dependent upon the river.

Political profile : Tangis was incorporated into the expansionist programmes of South Yipoll from an early stage with a military council taking over control of the country in 1931. The over-riding concern of the country, whether under military dictatorship or civilian democratic rule, has been the security of the flow of the River Bengis. Tangis took advantage of the political instability caused by South Yipoll to further its agenda of securing its future control of the Bengis basin. The country exchanged co-operation with South Yipoll for leverage in the Bengis Basin, particularly in Netto. It was through these arrangements that Tangis was able to promote the construction of Lake Netto Dam to both generate electricity and to balance the flow of the river to a degree. This period also enabled Tangis to engineer favourable treaties for the use of the Tangis waters.

The country had its first democratic elections in 1984 and adopted a new constitution in 1989.

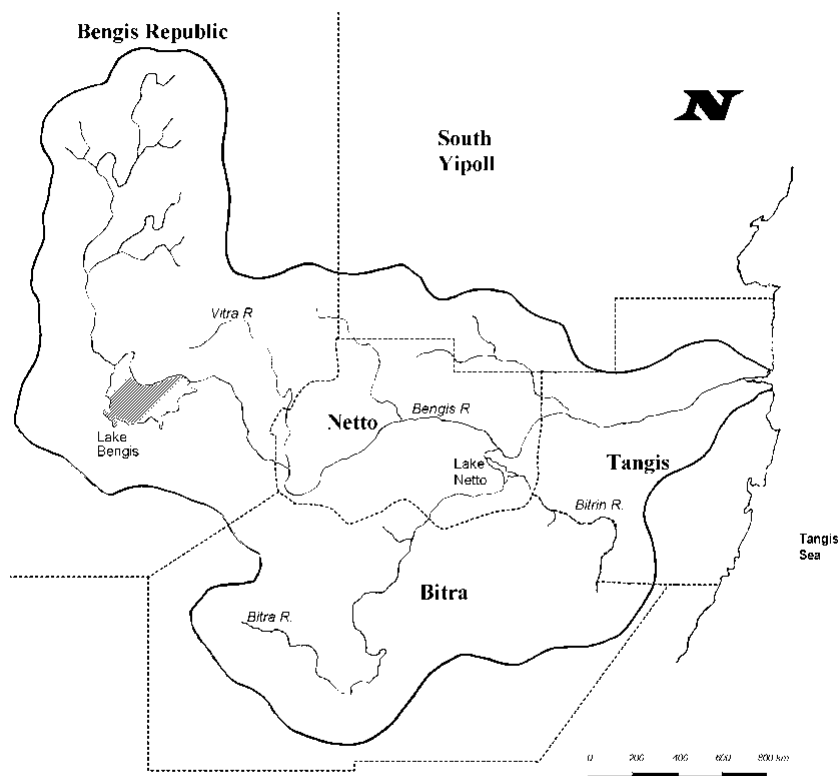
Economic profile : Tangis is a country of contrasts. Whilst most of the citizens are employed in agriculture along the banks of the Bengis and are largely poor, the country has a highly developed industrial base situated near the coast at the mouth of the river which is also dependant on the security of flow in the Bengis.

The strategic position of the country and its main port give it considerable regional and international leverage.

Hydrological profile : The only hydrological feature of note in the country is the nearly 1000km of the Bengis River which flows into the Tangis Sea. There are deep aquifers of fossil water under laying some parts of the country but these are expensive to exploit. The average natural inflow of the Bengis and its tributaries into the west of the country is 94 billion m³ per year. Current utilisation stands at 43 billion m³ per year and planned utilisation will reach 72 billion m³ per year. The river is subject to recurrent low flow years in cycles of up to seven years when the flow can be as low as 47 billion m³ per year.


Bengis River agreements

The relations among the Bengis River Basin states are governed by the provisions of the 1997 United Nations Convention on the Non-Navigable uses of International Water Courses, which all of the all of the Bengis River Basin countries signed.

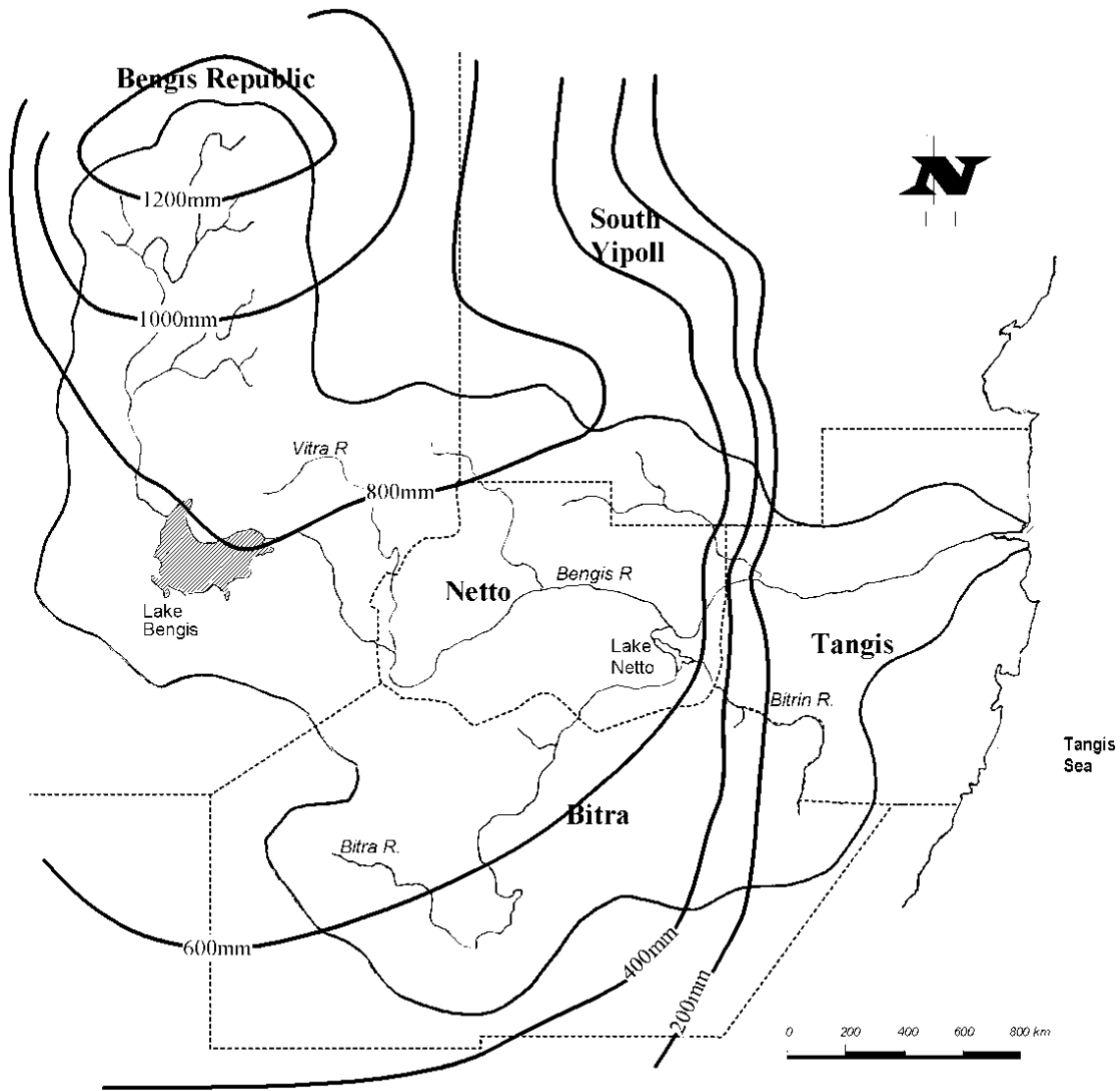


The Bengis River Basin

Nile Basin Water Resources
 Project GCP/RAF/286/ITA
 Food and Agriculture Organisation, United Nations
Cape Town Transboundary Policy Workshop

Water Policy Africa 

Map of Bengis River Basin



The Bengis River Basin
Mean Annual Precipitation (mm)

Nile Basin Water Resources
Project GCP/RAF/286/ITA
Food and Agriculture Organisation, United Nations
Cape Town Transboundary Policy Workshop

Water Policy Africa 

Map of Bengis River Basin with MAP

10 Appendix 5 - Outline of the D3 Project

Briefing about project D3 and its time-frame

by Dr. M.A.O. El Mufti of Sudan, Member, Panel of Experts.

Immediate Objective of D3

To obtain a regional cooperative framework acceptable to all Basin Countries in order to promote basin-wide co-operation in integrated water resources planning and management.

Main output of D3

Recommend an appropriate multidisciplinary framework for legal and institutional arrangements of water resources development of the Nile Basin, and

Recommends the processes, methodology and activities which will lead to the determination of equitable and legitimate rights of water use in each riparian country.

Main activities of D3 and their timeframe

A – Legal and Institutional Component (Study team 1):

Activity (1) : Review of existing international water law relative to shared water courses.

Activity (2) : Research and review of institutional arrangements (includes site visits and study tours to relevant river basin organisations)

Duration of (1) and (2) : 3 months from funding.

Activity (3) : Identification and definition of principles of international water law relevant to the Nile River Basin.

Activity (4) : Review and summary of the above activities and making proposals and draft implementation plan.

Duration of (3) and (4) : 3-4 months from the time of completion of activities (1) and (2).

B – Basin-wide data Component (Study team 2):

Activity (5) : Acquisition and review of water resources data.

Activity (6) : Acquisition and review of environmental data.

Activity (7) : Acquisition and review of economic and social data.

Activity (8) : Acquisition and review of data on future interests

Duration of activities (5) to (8) : 6 months from funding.

C – POE Framework Deliberations and analysis Components

Activity (9) : Preparation of a background paper on the alternative approaches, strategies, and methodologies.

Activity (10) : Workshop on the formulation of cooperative framework.

Activity (11) : Finalisation of the POE report to the Council of Ministers. (The end of the mandate of the POE.)

Duration of (9) to (11) : 8-10 months from the time of completion of activities (1) to (8).