Implications of Customary Laws for Implementing Integrated Water Resources Management

Inception report

April 2004

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1 EXECUTIVE SUMMARY

The current water reforms in most southern African countries focus on the use of statutory legal systems to regulate the use of water resources. However, these countries have pluralistic legal systems - land and water resources are regulated by different pieces of legislation and institutions, including statutory law, customary laws of different ethnic groups and Islamic law. Especially in poor rural areas, diverse customary laws are often more important than statutory law and are relied upon in developing access to natural resources and resolving management conflicts. Neglect of customary laws may cause IWRM implementation to fail, or will have negative consequences for individuals and groups who were better served by customary-based systems – especially the poor.

This report describes the inception phase activities carried out between October 2003 and March 2004 for the collaborative research project 'Implications of Customary Laws for Implementing Integrated Water Resources Management'. This project aims to facilitate the formulation of better policies and guidelines for implementing IWRM in countries with plural legal systems, through case-study analysis of local water rights; development of 'legal pluralism' water management guidelines and raising awareness through advocacy and training on the role of customary laws and norms in Tanzania, South Africa and Zimbabwe.

Inception phase activities have included the undertaking of preliminary fieldwork in Tanzania and presentation of the findings at the at 4th Waternet/WARFSA symposium in Gaborone, in October 2003; agreement of subcontracts between the partner institutions and consultations with institutions and individuals dealing with water reforms and IWRM in the study region. Other activities have included preparations for convening of an African Water Laws workshop to be held between 26-28 January 2005, where research results will be discussed; and the design of the project website (www.nri.org/waterlaw.) Two inception workshops were held (see 3.1.2) and an initial review of relevant literature was done (3.2).

The project has been approved and strongly supported by government and appropriate organisations in the study region and beyond. In Tanzania, the project will work closely with Rufiji and Pangani Basin Water Offices; while in South Africa links have already been established with the Department of Water Affairs and Forestry, in particular, with the DFID Water and Forestry Support Programme's Water Resources Component. In Zimbabwe the research will be carried out by locally-based researchers, who have the necessary connections to sources of data and information. Links have also been established with members of the Research Network on *Custom and Conflict in Land and* Water, based in Copenhagen; Newcastle University's water scarcity project in Zambia and South Africa (www.waterscarcity.org), the RIPARWIN project in the Upper Ruaha, Rufiji basin, by Sokoine University of Agriculture, IWMI and the University of East Anglia (www.swmrg.suanet.ac.tz/Riparwin.htm), as well as with the International Network for Capacity Building in IWRM, (CapNet).

2 GOAL, PURPOSE AND OUTPUTS OF THE PROJECT

During the inception phase the research partners reviewed relevant literature and sought to establish a common conceptual/analytical framework. They also reviewed the original project log-frame in order to ensure that the monitoring indicators that are **s**pecific, **m**easurable, **a**ction-**o**riented, **r**elevant and **t**ime bound (SMART). These activities resulted in the following modifications to the Goal, Purpose and Outputs of the project:

Goal
In the original proposal, the goal of the project was stated as:

Better policies and guidelines in use for implementing IWRM that strengthen poor men's and women's water rights in southern African countries with plural legal systems.

During the inception phase the project goal was modified to be:

Significant improvements made to the lives and livelihoods of poor men, women and children in Southern Africa.

Purpose
In the original proposal the purpose of the project was stated as:

Enhanced capacity to address the challenges to implement IWRM in southern African countries with plural legal systems, based upon a rigorous understanding of case-studies affecting poor people, and institutional constraints.

During the inception phase the purpose was modified to be:

More sustainable and equitable water management policy and practice established in southern African countries.

Outputs
As discussed later in this report the original outputs described in the proposal have been more clearly specified. Originally the outputs were:

1. Documentation of local water conflicts, and the complementarities/ tensions between statutory and customary systems in addressing conflicts.
2. Guidelines on implementing IWRM under plural legal systems
3. Increased awareness of river basin managers and IWRM policy makers on the implications of plural legal systems for IWRM, and empowered communities whose voices and own customary arrangements are better understood.

These are now modified to be:

1. New knowledge derived on local water rights, and the complementarities and contradictions between statutory and customary systems in addressing equity and access issues, development and management of water resources, with particular focus on poor people's livelihoods
2. Guidelines – 'good practice' knowledge resource – developed for taking account of customary laws in the delivery of more effective and equitable IWRM under plural legal systems in Southern Africa

3. Awareness - capacity and practice of river basin managers and IWRM policy makers in taking account of plural legal systems for IWRM significantly improved, communities' voices heard and their customary arrangements better understood.

As well as refining the project log-frame and planning activities, particular issues that were to be addressed during the inception phase were:

- regional workshop to be held involving researchers and practitioners from across the southern African region with interests in plural legal systems and IWRM-based water reforms
- final study sites to be identified in Tanzania, South Africa and a third case-study country identified
- additional local collaborators to be sub-contracted in South Africa and the third country, based upon contributions to the workshop, commitment, and skills.
- links strengthened with other research groups.

The modified research outputs are summarised below:

Project title	Implications of Customary Laws for Implementing IWRM
Project start date & duration	1/10/2003; 24 months
Version number (For DFID Office use only)	

Activities, tasks and milestones	Financial Year 1 (2003/04)						Year 2 (2004/05)												Year 3 (2005/06)					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Output 1:																								
1.1 Inception meeting																								
1.2 Development of analytical framework																								
1.3 Selection of fieldwork sites																								
1.4 Target institution interviews																								
1.5 Case-studies																								
1.6 Analysis/ synthesis of case studies																								
1.7 Peer review																								
Output 2: Guidelines																								
2.1 Guidelines - design																								
2.2 Guidelines - developed																								
2.3 Guidelines - testing and modification																								
2.4 Guidelines - publication																								
Output 3: Increased awareness																								
3.1 Engagement in policy dialogues																								
3.2 Organisation of AWL workshop																								
3.3. Curriculum development																								
3.4 Training workshop held																								
3.5 Establishment of alliances/ links																								
3.6 Website management																								
Key milestones																								
Inception report						x																		
Target institution interviews report									x															
Case study reports														x										
WARFSA papers												x												
Combined case study synthesis																x								
Africa Water Law workshop papers																x								
Guideline																				x				
Training course held																					x			
Report of AWL workshop																	x							
Progress reports												x						x						
Final report																								x

3 INITIAL FINDINGS AND ACTIVITIES

3.1 Activities to date

Inception phase activities have included

- preliminary fieldwork in Tanzania and preparation and presentation of a case study paper,
- inception workshops in February and April 2004,
- consultations with relevant institutions and individuals dealing with water reforms and IWRM,
- preparations for convening of the African Water Law workshop to be held in January 2005, where research results will be discussed, and
- review of relevant literature.

These activities have contributed to further development of the analytical framework, prioritisation of key research issues, and initiating or developing necessary partnerships.

3.1.1 Preliminary fieldwork

Preliminary fieldwork was undertaken in Pangani and Rufiji basins in Tanzania, and a case study paper titled 'Implications of customary norms and laws for implementing IWRM: Findings from Pangani and Rufiji basins, Tanzania' was presented at the 4th Waternet/WARFSA symposium in Gaborone in October 2003 (see Annex 1). The paper was well received at the symposium, and it is due to be published in the forthcoming issue of *Physics and Chemistry of the Earth.*

3.1.2 Inception workshops

Two inception workshops were held in February and April 2004. The first inception workshop took place in Dar es Salaam between 10-12 February 2004, and it had the following objectives:

- to establish a common understanding of the 'plural legal system' issues in implementing integrated water resources management in Southern Africa to facilitate the development of an agreed conceptual/ analytical framework.
- to agree on changes to the project proposal and budget; the selection of the 3rd country; project process and interaction with target stakeholders; detailed work plans with individual tasks.

The workshop was opened by the Director of the Institute of Resource Assessment, Professor Raphael Mwalyosi, and the following researchers from the partner institutions were in attendance:

- John Butterworth (NRI)
- Mike Morris (NRI)
- Ibrahim Juma (Faculty of Law, UDSM)
- Hildergarda Kiwasila (IRA, UDSM)
- Faustin P. Maganga (IRA, UDSM)

Unfortunately, due to a last minute family emergency, a key member of the research team, Barbara van Koppen could not attend the Dar es Salaam meeting. Apart from the research team, the following individuals were invited and participated in the deliberations:

- Palamagamba Kabudi (Faculty of Law, UDSM & Consultant, Water Law Reform Team)
- Ndalahwa Madulu, (IRA, UDSM)
- Claudious Chikozho (PhD student, CASS, University of Zimbabwe)
- Charles Sokile (PhD student, University of Dar es Salaam).

The workshop included the following presentations:

- Presentation on *'New water law for Tanzania'* by P. Kabudi
- Presentation from RIPARWIN Project by Charles Sokile
- Presentation on '*Implications of Customary Norms and Laws for Implementing IWRM: Findings from Pangani and Rufiji Basins, Tanzania'* by Ibrahim Juma
- Presentation on *'Water conflicts in Mkomazi'* by Hildegarda Kiwasila
- Presentation from Zimbabwe by Claudious Chikozo
- Presentation on 'the Project: Objectives, Process and Planned Activities' by Faustin Maganga & John Butterworth
- Presentation on 'the Project: Key Conceptual Issues' by Faustin Maganga & John Butterworth

The workshop also discussed how to consolidate the project's conceptual framework and the target stakeholders. Participants engaged in detailed planning of activities based upon revision of project proposal and budget including focus catchments, international workshop the forthcoming WARFSA/Waternet symposium.

The second workshop was held in Chatham (UK) between 1-6 April, and the following team members attended:

- Barbara van Koppen (IWMI)
- Hildergarda Kiwasila (IRA, UDSM)
- Ibrahim Juma (Faculty of Law, UDSM
- Faustin Maganga (IRA, UDSM)
- Mike Morris (NRI)
- John Butterworth (NRI)

The workshop had the following objectives:

- to further develop the conceptual framework, review the log-frame and work plan, budget etc and to produce a draft inception report
- to develop team linkages
- to discuss project brochure and website
- to advance preparations for convening of an African Water Laws workshop to be held between 26-28 January 2005, where project findings will be discussed.

During the workshop team members also had the opportunity to review discussions and decisions from the Dar-es-Salaam workshop, hear a report from the seminar on 'Land and Water Reform In Africa: Law, Politics and Policies' and discuss an IWMI Working Paper on 'Formal Water Rights in Tanzania: Deepening a Dichotomy?'. Team members also discussed the project's analytical framework as well as practical arrangements for the case studies in Tanzania, South Africa and Zimbabwe. Team members used most of their time at the workshop in Chatham to finalise this Inception Report.

3.1.2 Consultations with relevant institutions and individuals

During the inception phase a number of consultations were held with relevant institutions and individuals dealing with water reforms and IWRM. These included:

- discussions with Basin Water Officers and other relevant officials in Pangani and Rufiji basins in Tanzania,
- preparation and presentation of a case study paper from Tanzania 'Implications of customary norms and laws for implementing IWRM: Findings from Pangani and Rufiji basins, Tanzania' at 4th Waternet/WARFSA symposium in Gaborone in October 2003.

- discussions with consultants writing new water law in Tanzania,
- coordination with Department of Water Affairs and Forestry in South Africa, in particular with the DFID Water and Forestry Support Programme Water Resources Component.
- participation and presentation of a paper titled 'Water Reform Policies in Africa' at the seminar on "Land and Water Reform in Africa: Law, Politics and Policies", Rungsted Kyst, Denmark, 19-20 February 2004. The paper will be published together with a few others which were presented at the seminar. In this seminar Faustin Maganga was able to establish links with members of the Research Network on *Custom and Conflict in Land and Water Management in Africa*, as well as other researchers, including another recipient of the KaR funds, Julie Trottier, who leads the New Castle University's project in Zambia and South Africa (www.waterscarcity.org).
- meeting with International Network for Capacity Building in IWRM, Cap-Net (Paul Taylor), Delft, The Netherlands. CapNet acknowledged that this project is filling useful gap, and promised to explore how ways of collaboration in order to use the project's findings for capacity building.

3.1.3 Other activities

Other activities have included the design of a project website: (www.nri.org/waterlaw)

3.2 Knowledge review

This section contains a review of grey and published literature on the implications of customary laws for water management. In short, this project seeks to address the following three key issues:

- the role of customary laws in managing water resources: this is prompted by the concern that insufficient consideration to customary laws being given by new management regimes based upon the IWRM paradigm,
- the potential of the IWRM paradigm to impact negatively upon vulnerable groups which rely on customary-based systems to regulate their use of water resources and to manage water-relates conflicts, and
- the potential of the efficacy of locally defined customary rights and local mechanisms for adjudication and water administration.

The research team has undertaken an initial review of relevant literature on *rural poverty, legal pluralism, gender and equity in water development,* and, *customary laws* (see below). Also, the literature review sought to establish the extent to which the FAO Legislative Study on Customary Law in Africa[1] has incorporated aspects of IWRM.

Preliminary fieldwork in Tanzania[2] indicates that there are enormous challenges facing the implementation of IWRM. These include the expansiveness of River Basins, and the limited number of officials to implement the mainstream laws. The fact that water laws do not give exhaustive coverage over all areas in Tanzania, and the complex and diverse inter-play between customary and statutory systems are issues which are discussed further in the paper included at Annex 1.

3.2.1 Conceptualising Pro-poor and Gender-Equitable Water Use and Management

Rural Poverty

The present study focuses on the rural poor - women, men and children, and the potential role of water use and management as a tool for the reduction of rural poverty. In particular, the study examines the potential role of customary water management arrangements in pro-poor integrated

[1] Ramazzotti, Marco, 1996. Readings in African Customary Water Law. FAO Legislative Study 58. Development Law Service, Legal Office, Rome

[2] Maganga, F., *et al* , 2003. Implications of Customary Norms and Laws for Implementing IWRM: Findings from Pangani and Rufiji Basins, Tanzania. Paper Presented and the WARSFA/Waternet Symposium, Gaborone, October 2003.

water resources legislation and institutions at community level and water policies and legislative frameworks that recognize such roles most optimally. The starting point for this study is the linkage between water, poverty, and poverty alleviation, as identified in the literature of the last couple of years.

Poverty reduction and alleviation is the overarching aim of the governments in Tanzania, South Africa, and Zimbabwe, the three Southern African countries covered by this research. Poverty is predominantly a rural phenomenon in these countries, compounded in the latter two by the concentration poor people in the former homelands and former communal areas. The mainstays of most poor people's livelihoods in these rural areas are cropping and cattle rearing, both highly water-dependent activities. Migratory off-farm employment to the urban nodes, often more by men, adds to family incomes and provides capital for investments, but also drains the household labour force from further agricultural intensification. While livestock keeping has generally remained a male-dominated livelihood opportunity, women tend to play a more important role in cropping. Women provide most of the farm labour and play an important role in farm decision-making in Southern Africa. However, women often lack sufficient control over land and water, agricultural inputs, technologies, training, and markets linkages to fully achieve their potential productive capacity (Schreiner and Van Koppen 2003)[3].

Smallholder agricultural growth is not only a strategy for affecting income poverty reduction and alleviation, but also has the potential to fuel national economic growth in general, by its forward and backward linkages, exports for foreign currency, and national food security upon which other economic sectors can build. With the massive opening up of roads and marketing facilities and increasing needs for cash income, even among the poorest, there is hardly any agriculture left purely for subsistence. Nowadays, even the smallest peasant seeks to respond to price developments and market opportunities.

Water Deprivation and Poverty

Water deprivation is intrinsic to poverty. The other side of the same coin is that improved water development and management is a key contributor to poverty alleviation. Water affects multiple dimensions of well being especially in rural areas where livelihoods depend most directly upon natural water availability. In particular, water development, use, and management determine levels of income in cash and kind throughout the year, health, and drudgery of fetching water. Low service levels of domestic water supply are widely seen as a feature of poverty by itself. Poor women's disproportionate daily burden to fetch water for even minimal uses for family welfare is one of the most pressing gender issues today. In spite of intensive efforts by the governments of all three countries, a considerable proportion of rural households still lack access to safe and near water supplies.

Poor women and men often also lack the assets to capture water for improved productive water uses, through cropping, livestock, and water-dependent small-scale activities and businesses, such as brick-making, food and drinks processing. In particular, irrigation allows more intensive irrigated cropping of higher-yielding varieties during a longer period of the year, including the hungry season. Nevertheless, especially in Tanzania, extensive and profitable farmer-managed irrigation as well as wetland cultivation has been undertaken by rural communities, often without any state support, for family, local, and international consumption or sale. Where state support was provided to smallholder or government irrigation schemes, they may have flourished well, but most schemes

[3] Schreiner, Barbara, and Barbara van Koppen. 2003. Policy and Law for addressing poverty, race, and gender in the water sector: the Case of South Africa. Water Policy. Volume 5, Issue 5.

appear unable to cope with the effects of the recent withdrawal of state subsidies under 'irrigation management transfer' and privatisation (Shah et al. 2002). [4]

In contrast, water has been well developed for large-scale enterprises, both by governments and the private sector, such as large-scale commercial farms and plantations, privatised former state farms, hydropower, and mining. Large-scale water development offers some employment to wage labourers, but generally speaking the profits are channelled to the urban and export economy, and not much of the benefits of such large-scale water-dependent enterprises trickle down to the rural poor. Large-scale water development can also have indirect, negative impacts on the poor. In some basins in South Africa and Zimbabwe, large-scale water development through dams, irrigation schemes, and water supply for mining has virtually exhausted the physical water resources available throughout the year. In these 'closed' basins, water can only be developed for the current have-nots, if it is taken from the 'haves' – the water reforms of these countries foresee such redistribution of physically scarce water. In other basins in South Africa and Zimbabwe, and in most of Tanzania, water resources are still abundant, but rainfall is mainly concentrated in the wet seasons and often highly variable and unpredictable within and between the years. Much water is flowing into the sea and unused. Yet, during the months of the dry season, water scarcity prevails. More storage of surface water or groundwater would allow tapping these resources, but the financial, technical, and institutional resources to do so are scarce (economic water scarcity).

Pro-poor and gender-equitable water development, use and management
In examining the role of plural legislative frameworks for water use and management, this study will focus on the following aspects of water development, use and management by rural communities that, in our view, directly and positively affect poor women and men's livelihoods. For the various aspects, scales, boundaries, interdependencies between scales and overlapping boundaries, of water users 'inside and outside' are to be specified.

- *Water use for multiple needs by multiple users* (domestic, livestock, homestead gardening, field irrigation schemes, brick making, small crafts, beer-brewing, restaurants). Communities use water to satisfy multiple domestic, and productive water needs, and tap from multiple sources (Moriarty, Butterworth, and Van Koppen 2004)[5]. This study adopts a similarly integrated approach, mirroring local reality (even if not planned by intervening agencies). With decreasing poverty, households tend to 'climb a water services ladder', evolving from minimal access to water, barely allowing for basic health requirements, to access to more water for small-scale income generation. The study also entails a gender analysis of the division of labour and cash contributions and benefits among women and men for domestic water supply, and similarly for water-dependent productive activities.

- *Water development*
  Construction/ownership, operation and maintenance of storage, abstraction, and conveyance infrastructure accessible to the poor for various purposes, e.g. (small) storage structures, irrigation schemes, appropriate technologies to which poor women and men have access, affordable and/or state supported by state investments.

[4] Shah, Tushaar, Barbara van Koppen, Doug J. Merrey, Marna de Lange, and Madar Samad. 2002. Institutional alternatives in African smallholder irrigation: Lessons from international experience with irrigation management transfer. Research Report 60. Colombo, Sri Lanka: IWMI.

[5] Moriarty, Patrick, John Butterworth, and Barbara van Koppen (eds). 2003. Beyond Domestic. Case studies on poverty and productive uses of water at the household level. IRC Technical Papers Series 41. Delft: IRC, NRI,and IWMI.

- *Regulatory frameworks within schemes and between schemes (insiders and outsiders; upstream-downstream or groundwater depletion)*
  - water quantity issues: rights prioritising protecting domestic water uses and also small-scale productive uses; obligations within the reach of the poor; conflict resolution through effective and forums in which the poor and women have a voice.
  - water quality issues, pollution, disease: pollution prevention of surface and groundwater, especially for those who drink from these sources

- *Extreme events*: droughts, floods. Droughts and floods tend to hit the poorest hardest. The issue here is whether coping strategies by communities and government mitigate negative impacts for the poor?

- *Uncertainties associated wit seasonality:* Customary law tends to be more flexible, open to re-negotiation, etc. in the face of uncertainties.

- *Nested governance structures* in which water development and management are embedded. Governance structures, including representation and delegation at more aggregate levels, may encompass (1) more or less autonomous water user groups (2) chieftaincies and their hierarchies, (3) governmental and parastatal water agencies, and (4) local administrative and other relevant government departments. 'Governance' includes aspects such as: composition of institutions (inclusion of the poor, women); accountability; rule setting and monitoring (e.g. peer control), enforcement (subsidiarity principle) and conflict resolution; (adversary – reconciliatory); etc. An important aspect of governance is financing and cost recovery. A clear distinction needs to be made between cost-recovery for infrastructure construction, operation and maintenance, and cost-recovery for the functioning of the various water management, decision-making and implementing bodies from local to national level.

In sum, rural water development and management for multiple purposes targeting poor women and men has the potential to significantly contribute to poverty alleviation and agricultural and economic growth, while promoting health and reducing women's unpaid domestic chores. This recognition is the basis for the present study, which seeks to identify which legislative frameworks are most effective in reaching that goal.

3.2.2 Research justification and aim: the importance of customary water law for rural poverty alleviation and agricultural growth

It is still largely ignored that these rural small-scale water uses by the poor are primarily governed by customary normative frameworks and organisations, and only partially influenced by governmental and other external legislative frameworks. Although customary arrangements can play a more important role in poverty alleviation and gender equity, statutory law in Tanzania, South Africa, and Zimbabwe fails to mention customary law. The IWRM reforms, as interpreted in the three countries, equally fail to draw attention to existing well-working customary arrangements, in spite of the various global statements that increasingly recognize the importance and legitimacy of customary arrangements (e.g. Bonn International Conference on Freshwater 2001; UN statements). Poverty Reduction Strategy Papers equally fail to mention the potential empowerment of the poor by recognizing customary law.

While there is no doubt about the fundamental role played by property rights in shaping how people manage natural resources, the literature on legal pluralism has cautioned against static definitions of property rights. As it was noted by Meinzen-Dick and Pradhan (2001)[6], policymakers are often

[6] Meinzen-Dick, R. and R. Pradhan (2001). Implications of Legal Pluralism for Natural Resource Management, *IDS Bulletin*, 32, 4: 10 – 17.

influenced by approaches to property rights which regard these rights as unitary and fixed, rather than diverse and changing. This is the case in countries like Tanzania, where the government, prompted by increasing pressure on land and water resources, has been busy trying to establish formal legal systems, fixing property regimes and formalising informal arrangements through institutions such as River Basin Boards. In spite of governments' over-reliance on statutory arrangements for water resource management, a number of studies have highlighted the different roles played by both 'formal' and 'informal' institutions in water management (e.g. Boesen et al 1999)[7]. The inter-play between formal and informal institutions in NRM is also well captured by Meinzen-Dick and Pradhan (2001), and Derman and Hellum (2003)[8], who have written about the implications of legal pluralism for natural resource management.

The merit of legal pluralism as an approach is that it forces us to look at the empirical reality because, apart from state law, other normative orders observed by people, can only be understood through empirical analysis. Such orders or institutions cannot be understood from an evolutionary or functionalist point of view, but should be understood as processes beginning with movement and interaction. By looking at rights over resources and conflicts as processes of negotiation we can analyse what is taking place in terms of its effects – from the perspective of negotiated law, which allows us to understand the dynamic nature of unwritten rules and norms through which such rights for the majority of rural people are regulated.

It is important to be aware that that it is possible to distinguish four different ways of conceptualising customary law, as noted in Boesen *et al* (1999):

- customary laws of specific ethnic groups;
- customary law which is applied in courts;
- customary law which is applied by traditional authorities (e.g. chiefs, headmen); and
- living customary law, that is, customs and practices of the people presently, and the principles underlying these practices.

The latter conceptualisation is the one informing the present project. In Tanzania, customary arrangements for water development, use, and management have been studied and documented in-depth (see Maganga and Juma 2000[9]; Boesen *et al* 1999*)* Also for Zimbabwe, studies highlighted the importance of equitable customary arrangements in the communal areas (Derham and Hellum 2003).

Customary principles of conflict resolution in land tenure may well exist for water as well. Ben Cousins (1996)[10] has written on how the traditional courts or tribunals in Africa had an objective of reconciling the disputants and maintaining peace rather than punishing the wrong doer. Sokile found similar arrangements among small irrigators in the Upper Ruaha catchment in Tanzania (Sokile and Van Koppen 2003[11]).

[7] Boesen, J; Maganga, F. And R. Odgaard (1999). Norms, Organizations and Actual Practices in Relation to Land and Water Management in Ruaha River Basin, Tanzania, in T. Granfelt (ed) Managing the Globalized Environment, London, Intermediate Technology Publications.
[8] Derman, B. and A. Hellum (2002). Neither Tragedy nor Enclosure: Are There Inherent Human Rights in Water Management in Zimbabwe's Communal Lands? *European Journal of Development Research* 14, 2: 31 – 50.
[9] Maganga, F. and I. Juma (2000). From Customary to Statutory Systems: Changes in Land and Water Management in Irrigated Areas of Tanzania – A Study of Local Resource Management in Usangu Plains. Research Report Submitted to ENRECA.
[10] Cousins, B. 1996. Conflict Management for Multiple Resource Users in Pastoralist and Agro-Pastoralist Contexts. *IDS Bulletin* 27, 3: 41-53.
[11] Sokile, Charles, and Barbara van Koppen.2003. Local Water Rights and Local Water User Entities: the Unsung Heroines to Water Resource Management in Tanzania. Paper presented at the 4th WARFSA/WaterNet Symposium, 15-17 October 2003. Gaborone, Botswana

On the other hand, customary principles, especially in patrilineal ethnic groups, may also be negative, e.g. by relegating women to the status of a minor. Another issue is that individuals who seek to establish individual irrigation enterprises without harming anybody else may also be hampered rather than encouraged by customary arrangements. As de Soto (2000)[12] argues for most developing countries, asset building for wealth creation requires forms of security and standardization in human interactions that are typically absent in the localized forms of customary law.

While the importance of customary arrangements for land tenure in Sub-Saharan Africa is beyond any debate, its relative invisibility in water management can partly be explained by a somewhat stronger government presence in water development than for land. Especially in the case of state-subsidized domestic water supply, connections with local government structures may be strong. State-subsidized irrigation development usually has loser ties with local government, but stronger ties with the line agencies. In the case of fully farmer-managed forms of water use and management, statutory law will also influence customary arrangements to a certain degree. In practice, these synergies between customary normative frameworks and statutory frameworks lead to what we call 'living water laws', practices which are steered by a mix of sets of norms.

In sum, customary arrangements exist and govern water development, use, and management of the majority of the rural population, including the poor. These arrangements have generally shown to be effective, but are still fully ignored in formal legislation. In order to fill this gap, the present study aims to identify the factors in the plural legislative frameworks that either promote or inhibit customary law-based water development, use, and management by poor women and men. The hypotheses are:

- Customary water development and management arrangements are more pro-poor, gender equitable and cost-effective than current statutory law and current interpretations of IWRM, although there are some exceptions with regard to gender and age equity
- With feasible, small modifications in the statutory and IWRM legislative frameworks, the merits of customary law for rural poverty alleviation and more gender equity could be significantly better tapped.

The case studies in each country will cover national-level governmental policy and legislative frameworks, the historical perspective, and its contemporary IWRM framework and implementation. For the study of the plural legislative frameworks governing water development, use, and management at community level, field research will be done on the setting of the selected communities, multiple uses and livelihoods impacts, living water management arrangements as influenced by customary and statutory laws, and potential changes in the statutory frameworks that would foster poor women's and men's access to water.

The knowledge review highlighted the following insights on each of the above issues, but also the remaining gaps in knowledge, which will be further refined and detailed in the course of the literature and field studies in each country.

3.2.3 The place of customary law in formal water policy and law: a historical dichotomy

Territorial and Institutional Segregation

The remarkable lack of formal attention for customary frameworks governing small-scale water development, use, and management by poor women and men, raises the first question of the present research, which is: what are the reasons for the current absence of any reference to customary law in statutory laws? This also allows for identifying the scope for realistic changes.

[12] de Soto, Hernando 2000. The Mystery of Capital – Why Capitalism Triumphs in the West and Fails Everywhere Else. London, Black Swan Books and Transworld Publishers.

An explanation for this void lies in the political economy of Southern Africa, in particular in its colonial history and formal state formation. In many areas, including Tanzania, South Africa, and Zimbabwe, colonialist rule of the many ethnic groups and their chieftaincies was indirect and enforced through institutional segregation (Mamdani 1996)[13]. In South Africa and Zimbabwe, this institutional segregation was accompanied by a territorial segregation between white areas and black areas (since the 1970s 'homelands' in South Africa; 'communal areas' in Zimbabwe). Institutional and territorial segregation entailed a dichotomy between the economic, political and legal constellation of, on the one hand, the new urban areas and the white settler-controlled rural areas and on the other hand the African rural areas. In the former areas, the European settlers ruled directly, among others, by establishing a formal state apparatus protecting their interests. In rural areas, however, they ruled indirectly by vesting state powers in allies under the chiefs, who obtained autocratic control over 'their' tribal subjects through nested governance structures down to the headmen. The direct power of chieftaincies as custodians of the community's resources, in particular land, was also consolidated by the colonial regimes, which, thus, exercised indirect rule. In the present study, the terminology of 'customary law' refers to the legacy of this indirect rule in rural areas and its evolvement after independence.

With democratic independence (1961 in Tanzania; 1980 in Zimbabwe; and 1994 in South Africa), the democratically elected new governments generally built upon the formal central state and its apparatus. In rural areas, state-backed rule of the agrarian population by chieftaincies continued, although now in co-existence with newly established local governments related to the ruling political parties. After almost half a century, Tanzania's focus on rural development, starting with villagisation (*ujamaa*), led to one of Africa's most functional local governance structures ruling land, domestic water supply, and other spheres of life; the role of local governance structures in small-scale water development, uses, and management will be further studied. The traditional authority of chiefs still continues to some degree, but is mostly integrated in the local government structures. At the other end are the ex-homelands of South Africa, where ten year of democratic independence still leave many questions open about the relationships between the recent democratically elected local government and the tribal authorities, whose past as the 'puppets of the apartheid regime' is still contested. These weaknesses in local-level governance in the ex-homelands contribute to the very weak representation of the poor in higher level Catchment Management Agencies. In Zimbabwe, the district councils have further evolved, although their role in the new catchment councils seems very limited.

Dichotomous Water Legislation

The history of statutory and customary water legislation in Tanzania, South Africa, and Zimbabwe is to be seen against this historical background and current consequences of institutional and territorial dichotomy between the 'modern' urban and industrializing spheres and rural spheres. In each country, the project will examine and briefly document the roots and purposes of statutory water law and its reference to customary laws, or not, since the early 20th century. The general pattern seems that during the early colonization era the new water laws protected and organized agricultural water development and conflict management among the European settler farmers, plantation owners, and miners. Soon after setting the new 'state' boundaries, the European settlers vested the custody of all water of the 'their' new territory in the colonial governors in a highly authoritarian and centralistic manner. A formal water right or permit, a certificate to be obtained through registration, was *de facto*, and often even *de jure*, only accessible to Europeans. After independence, none of the three states basically altered this central authority over the nation's water resources, including the requirement to register water use before it would be recognized as legal

[13] Mamdani, Mahmood, 1996. Citizen and Subject – Contemporary Africa and the Legacy of Late Colonialism. London, James Currey.

water use – except for small-scale productive uses. The new states all spent considerable efforts in improving small-scale domestic water uses, typically through the new local government.

The legal status of small-scale productive uses was only clear for the few smaller or bigger smallholder irrigation schemes, or the later state farms till the 1990s, which were built with the technical and financial support from government and donors. In contrast, the status of farmer-managed river abstractions, irrigation, wetlands use, water harvesting, and livestock ponds, managed under customary arrangements, but often certainly market-oriented, was ignored. Throughout history, customary water use and management arrangements for small-scale productive uses by the African inhabitants obtained a secondary legal status, if recognized at all. Rural communities' own initiatives and infrastructure for domestic water use, *charco* dams for cattle, river abstractions, wetland use, rainwater harvesting, flood and drought protection and coping strategies, are not on the statutory legal map.

3.1.4 Current interpretations of IWRM and water reforms

In the 1990s, all three countries engaged in radical reform of formal water legislation and water management institutions, in which the new global notions of (and funding for) IWRM played an important role. Through literature review and interviews with key policy makers and implementers from the water departments, the study will highlight (a) the features of the reforms, including mandate, instruments, financial and human resources available, institutional sustainability, etc. (b) the likely intended and unintended impacts on the rural poor of these formal arrangements, (c) the reference to customary laws in these new formal legislative frameworks, if any, and, lastly, (d) the views of key policy makers and implementers about this void, their level of knowledge about customary arrangements, and the constraints they would face if they wanted to better build upon customary arrangements. The interviews with the key policy makers and implementers of IWRM will also allow the project to assess possible learning needs to be addressed in the learning module, and changes in policy makers and implementers' views as a (partial) result of ongoing policy dialogue during the course of this project.

The first general assessment of the water reforms in Tanzania, South Africa, and Zimbabwe suggest (but the study has to confirm and further detail) that the reforms are grafted upon formal law and institutions, reinforcing the above-mentioned dichotomy between the 'modern' urban-based sectors and the rural sectors. In all countries, the water reforms consist of the following key elements:

- The introduction of nation-wide registration for water rights (Tanzania); permits (Zimbabwe) or licenses (South Africa), in Tanzania also as blanket measure for the smallest productive water uses. In South Africa and Zimbabwe exemptions are made for small-scale productive uses (Schedule One or Primary Rights) which do not need registration to be lawful. In Zimbabwe the exemption of Primary Rights also entails the right of priority allocation. However, both definitions use fuzzy and often outdated concepts of 'use for subsistence only'. For all countries the logistic implications of such registration are daunting, if not completely unrealistic
- Related to these water rights, the introduction of a volume-based 'water user pays' principle for all those with water rights. Water fees (Tanzania), water management charges (SA) or catchment council charges (Zimbabwe) constitute a form of taxation to finance water management functions to be implemented by new basin-level decision-making bodies.
- The formation of new basin-level and sub-basin level decision-making bodies, with increasing water user participation, to whom the state would further delegate water management.
- The reduction of government's role in newly developing water, in the expectation that private initiatives would take over such role, if needed at all. The shift from a water development to a water regulation agenda for government is rationalized by the (usually questionable) assumption that water scarcity is a matter of physical rather than economic water scarcity.
- In spite of a better integration of surface and groundwater and quality and quantity issues, the continuation of the sectoral separation of the domestic water sector from productive water use.

- Agriculture is generally seen as both an excessive water consumer and a low-value use of water. This is not compared to the proportion of (poor) people depending upon agriculture and the role of agriculture as engine of growth.
- While poverty alleviation is mentioned as a goal at the abstract level, there is no operationalisation of this intention.
- Probably, partly related to the marginal place for agriculture, no reference at all to customary water law.

There are a few important differences between the three countries. The main driver of water reform in Tanzania is the Ministry of Water and Livestock Development, which amended the water law in 1994, by introducing payment for registration and volume-based economic water fees depending upon the sector of use. In the second half of the 1990s the River Basin Management project, funded with a loan from the World Bank, not only implemented the new legislation on a pilot basis in the Rufiji and Pangani basins, but also steered the formulation of the National Water Policy of 2002, and, currently, the revision of the 1974 law. The researchers in the present project are already engaged in active policy dialogue with these key stakeholders, tapping the opportunity to feed the most updated insights into the ongoing process of law revision. Some initial studies of the field-level impacts of the new legislative framework in the Upper Ruaha basin also feed into the present project. They are undertaken by the University of Dar-es-Salaam, Sokoine University of Agriculture, the International Water Management Institute (IWMI), and the University of East Anglia and co-funded by DFID and IWMI.

In Zimbabwe, the droughts of the early 1990s were the main driver for the promulgation of the Water Act of 1998. Redress of inequities from the past is another goal. Catchment councils have already been established in Zimbabwe, with far-reaching powers to issue permits and keep part of the fees collected at catchment level, while remitting the remainder to the Zimbabwe Water Authority (ZINWA). This Authority was established in 1996. The lessons that can be learnt from this progress in implementation of water reform are the main reason to include Zimbabwe in this study. It seems, though, that the ending of commercial farmers' financial contributions to the catchment councils seriously hamper their functioning and that the new land occupants contribute considerably less. The question is whether and how these new government-led arrangements and functioning catchment management councils affect the rural poor in communal areas, and which legislative frameworks would serve the rural poor best.

In South Africa, the new National Water Act of 1998 was not only influenced by the global debates on IWRM, but even more the result of the new dispensation (1994) and constitution (1996) of the first democratically elected government, which triggered legal reforms throughout government (Schreiner and Van Koppen 2003). Redressing inequities from the past is an overarching aim. While important improvements have been achieved in domestic water supply, the implementation of the many new components of the National Water Act for water resources management encounters many legacies from the same past, especially in the ex-homelands. This is the case, for example, for the establishment of inclusive Catchment Management Agencies (Van Koppen et al. 2002[14]) and for the transformation of the former white-dominated Irrigation Boards into inclusive Water User Associations. Since 2002, the Department of Water Affairs and Forestry, supported by DFID, engaged in implementing one of the key legal tools to redress inequities from the past: the water allocation reform program (WARP). The Act includes the provision of Compulsory Licensing for highly water-stressed areas, through which water can be taken from the 'haves' and given to the 'have-nots' without governmental compensation, if this is to redress unfair allocations in the past. In areas designated for WARP all water use is to be registered and verified in order to reallocate

[14] Schreiner, Barbara, and Barbara van Koppen. 2003. Policy and Law for addressing poverty, race, and gender in the water sector: the Case of South Africa. Water Policy. Volume 5, Issue 5.

water and establish whether 'lawful existing water use' is taken away from someone or not. Then, it needs to be established whether that water use was lawful, or not, according to the Water Act of 1956, which, by default, was taken as reference point when promulgating the new law. However, the implementation of the 1956 Act in the homelands was much weaker than in the white areas, so this criterion alone would render the playing fields again profoundly unequal. The present researchwill study past and customary water law in the ex-homelands and will inform policy makers and legislators how the Water Allocation Reform Program can effectively promote pro-poor water development, use, and management in the ex-homelands, in particularly in the Olifants Basin, the second basin where WARP will be implemented.

3.3 How findings will contribute to poverty elimination and improved livelihoods

A number of points on how the research findings will contribute to poverty elimination and improved livelihoods are mentioned in 3.2.2 above. In short, it is argued that customary resource rights tend to be more widely utilized by the poor, who constitute about 90% of water resource users in the study areas. A better understanding of customary law and policy-relevant recommendations on how to strengthen and build upon customary rights will tend to safeguard poor people's rights to water. This is what this project sets out to do - a study of multiple uses of water for both domestic and productive uses is in the interest of poor women and men who typically use multiple water sources for the variety of their diversified livelihoods.

3.4 Data availability, sources and accuracy

It is expected that data for this project will be obtained from four main sources.

- Literature review
- Archival searches
- Fieldwork
- Training and Dissemination Workshops

In the preliminary study in Tanzania, (Maganga *et al* 2003), it was possible to document cases of conflicts that result from competition for water between different water users; within and between families and between ethnic/livelihood groups. The study was also able describe and analyse the social, ethnic and gender characteristics of the groups involved in conflicts over water resources, and the researchers were able to conduct some key informant interviews with litigants representing different social, ethnic as well as gender backgrounds. The researchers were able to undertake the following activities:

- collect data on customary arrangements for the management of water-related conflicts collected through: (i) archival research (ii) library research, including the analysis of secondary sources, unpublished studies and official documents,
- conduct key informant interviews, including the basin board water officers and their technical staff, and
- undertake an analysis of transcripts of cases, both in village offices, Ward Tribunals and Magistrates' Courts, which highlight the tension between customary rights and statutory rights.

The experience gained from the preliminary fieldwork shows that the methodology proposed in the original proposal is feasible. Also, the experience enabled the researchers to develop a checklist for comparative data collection in all the study sites (see Annex 2) that will be further developed.

4. PROJECT PLANNING

As introduced in Section 2 the project design has been updated using the log-frame as a guiding tool. The wording of the original project purpose and outputs has been tightened, and the purpose and goal have been adjusted to reflect better the intended logic of the project. An updated log-frame is included at Annex 3 and supported by the updated work plan in Annex 4. Previously, the purpose and goal were set at too low a level and overlapped with the outputs (the earlier purpose was very similar to output 3). Further changes have been made at the activity level, particularly the commitment to develop, deliver and embed (within regional institutions) training on 'legal pluralism and IWRM' that is targeted at IWRM implementers.

Elements of the project methodology have already been introduced but are summarised here. A key issue discussed in refinement of the project design has been recognition that excellent legal anthropological research often fails to impact upon practice because 'IWRM implementers' (generally with technical backgrounds) are rarely provided with information in forms they can understand or readily utilise. In response the project methodology encompasses:

- three case studies (from two river basins in Tanzania and one each in South Africa and Zimbabwe) using a common analytical framework that will be documented in an accessible style
- presentation and feedback on case studies at the 5th WaterNet/WARFSA symposium to be held in Namibia in November 2004 and the African Water Laws workshop to be held between 26-28 January 2005
- development of a guideline that can be used to identify how an IWRM practitioner can build upon customary law, and use it to find solutions to water management problems
- translation of case studies and other literature into accessible training materials, with delivery and embedding (i.e. will include training of trainers and planning for sustainability) of a training course in 'legal pluralism and IWRM' for IWRM implementers in southern Africa
- advocacy targeting policy-makers on the needs to leave and foster space for customary law in the implementation of IWRM.

4.2 Proposed Adjustments to Project

The following key changes to the project are proposed:

- During the inception phase it was decided to postpone the originally planned regional workshop for the inception phase, replacing it with a wider international workshop held later in January/ February 2005 on "African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa" (see Annex 5). This workshop will be co-organised with IWMI, IFPRI and other partners.
- Zimbabwe was selected as the third case-study country, and the basis for selection is considered in the knowledge review in Section 3 especially the advanced IWRM reforms.
- Mike Morris, Jim Latham and Claudious Chikozho to be added to the research team (Annex 6). Mike Morris will support inputs to be provided by NRI in addition to John Butterworth. Jim Latham and Claudious Chikozho will undertake the case study in Zimbabwe, coordinated by Barbara van Koppen. Contractual arrangements are currently being finalised. The Zimbabwe team will be asked to collaborate or coordinate with other experts working in Zimbabwe on related issues (especially Peter van der Zaag, Bill Derman, and Anne Hellum who have recently published related research)
- Research outputs were modified along with general upgrading of the log-frame (see Sections 2 and 4).
- A training course is included as a specific activity to be coordinated by NRI but involving all partners.

The original timing of the project was to start in July 2003 and to complete in June 2005. Since, due to time required to arrange contracts and mobilise the research team the work only effectivelt commenced in October 2003, it is proposed that the project milestones and end date are pushed back by 3 months i.e inception report to March 2004 (instead of December 2003) and the project to be completed by September 2005(see Annex 4 for further revised milestones).

5. MONITORING, EVALUATION AND UPTAKE STRATEGY

5.1 Review Monitoring Arrangements

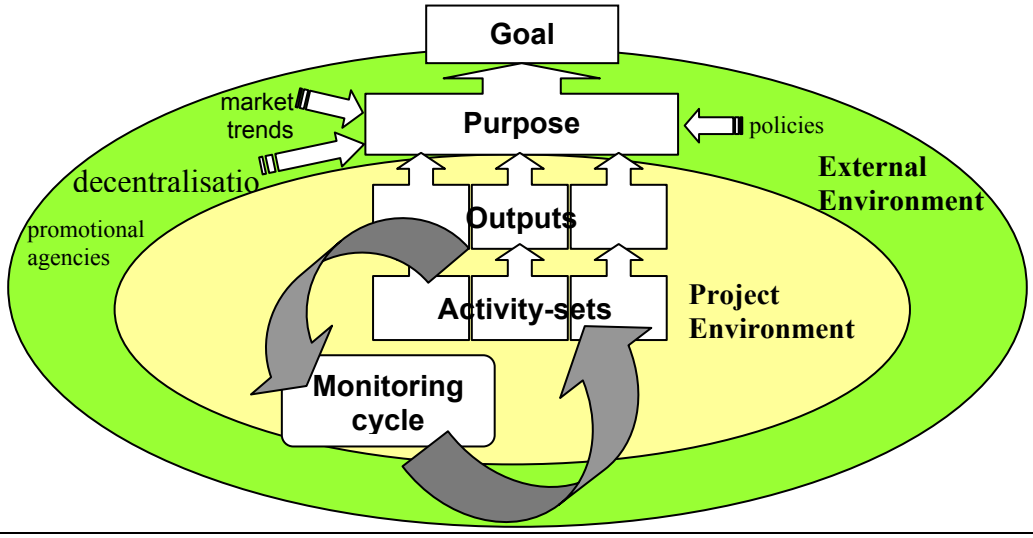
The project researchers discussed the original project log-frame, and deliberated on the links between the project objectives, activities and performance monitoring and reached the agreement on the following points:

- Log-frame 'activities' are the activity sets deployed to realise outputs. Implementation can be monitored against the project plan and realisation of project outputs.
- The project purpose is beyond the timeframe of the project, beyond its control, and is subject to multiple other influences.

The above points and the links between objectives, activities and monitoring are summarised in Box 1 below:

Box 1. Project objectives, activities and performance monitoring

The project logframe presents goal, purpose and outputs as a set of nested objectives. Logframe 'activities' are the activity sets deployed to realise outputs. Implementation or the activity sets can be monitored against the project plan and realisation of the respective outputs. The project purpose is beyond the timeframe of the project, beyond therefore its control, and subject to multiple other influences (e.g. policies, processes, trends, shocks).



Process monitoring arrangements and indicators (Section 3.4.3 of the original application) will be used to ensure that progress in undertaking the strategic activity sets associated with the respective output objectives is according to plan, or should there be unforeseen shortcomings in these activities (or risks that cannot be mitigated, arise) that an alternative plan is instigated and lessons learnt. The milestones and objectively verified indicators – OVIs – provide a measurable means by which the progress of the activities against the outputs, and the outputs against the purpose, respectively, can be monitored (see the log frame).

The following arrangements have been put in place to collect the information necessary to monitor progress:

List indicators (those identified in the log frame)	Who is responsible and how will the information be used in making decisions?	Timing for collection
Purpose indicators: Plural legal systems recognised in government policies and practice of water resources management institutions in southern Africa by end 2006	IRA will take responsibility for the Tanzanian case studies, while IWMI will be responsible for South Africa and Zimbabwe. NRI will be responsible for peer reviewing. IRA will have overall responsibility for the progress reports. The awareness and impact of these research outputs will be evaluated after publication.	Continuous
Output indicators: Comparative case studies from x communities in 4 river basins in Tanzania, S. Africa and Zimbabwe produced by Jan 2005 and analysis (differentiated by wealth, class, gender, ethnicity and other relevant variables) of interaction between formal and informal water allocation systems.	The case studies will be fully documented in 3 case study reports (one for each country), 3 papers for WARFSA conference, and the International Workshop on African Water Laws. IRA will be responsible for the Tanzanian case study, while IWMI will be responsible for South African and the Zimbabwean case studies. NRI will be responsible for peer reviewing.	September 2004 and January 2005
Guidelines developed for taking account of customary laws in the delivery of more effective and equitable IWRM under plural legal systems in Southern Africa.	Guidelines report inclusive of user friendly tools developed. IWMI will have the overall responsibility for the development of guidelines supported by IRA and NRI	June 2005
Regional training course for awareness and capacity building of river basin managers and IWRM policy makers to take better account of plural legal systems in IWRM held involving approx. 30 people from at least 3 countries and 4 river basins with participation of some case study communities.	IRA/IWMI, will be responsible for target institutional interviews to gauge awareness, constraints and needs of practitioners. NRI (in collaboration with IWMI and IRA) will organize the training.	June 2005
Targeted water resource managers (minimum of 30	Each participating organization will be responsible for advocacy, introducing target	Continuous

professionals) in at least 3 countries and four river basins aware of approaches to better address customary laws and norms in IWRM.	managers to the project website, involving them in policy briefs and assessment of awareness through questionnaire and other feedback.	
Presentations and representations for advocacy purposes to influence key policy and legal advisors and where possible to include the voices of case study communities.	Each participating organization will be responsible for advocacy, introducing target managers to the project website, involving them in policy briefs and assessment of awareness through questionnaire and other feedback.	Continuous

The Team Members discussed how to manage the research process effectively and efficiently, and came up with the following decisions regarding communication between each other:

- to set up yahoo group and yahoo messenger
- to have regular monthly online meetings
- to share all internal information amongst all team members
- to devise a mechanism for dealing with delays, etc.
- to set up a project process diary (including all e-mail notes) as one means of monitoring process, identifying strengths, weaknesses and gaps, etc. and provide for on-going lesson learning.

5.2 Dissemination Strategy

The research project process is already involving 'early' comprehensive consultation with stakeholders in IWRM and in Water Law. A two way communication strategy of consultation reporting back field experiences and collecting feedback from them will be an important active integral project process so that the project output will be inclusive of local realities, opinions and needs.

The outcome of the research project will result in a body of knowledge about the implications of legal pluralism for water resource management, and better understanding of conflict management in multi-ethnic settings and the interaction between formal and informal conflict management institutions. This knowledge will be embodied in a number of forms and disseminated widely to policy makers, line agents in the field such project officers as well as to academics. Practical guidelines on IWRM will be produced for administrative staff involved in water resources management, civil society and the wider research/education community. Dissemination will be through:

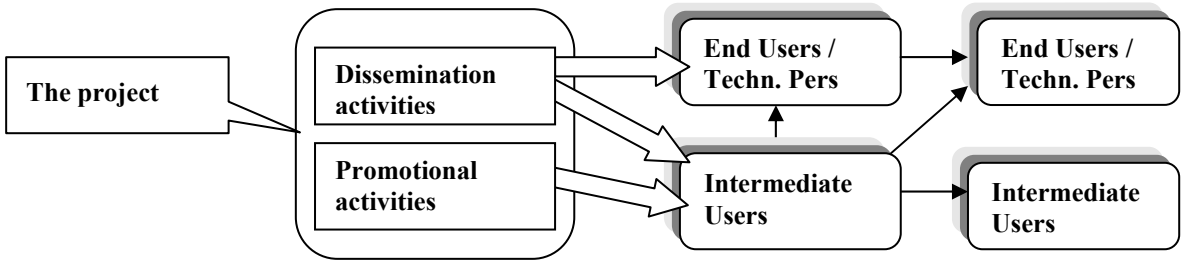
- Regular research reports on consultation meeting's reports posted and disseminated through the project Website and e-mail lists (target institution interviews report, combined case study synthesis, progress reports etc.).
- Reports on special activities e.g. training course report, proceedings of seminar presentations held during the research process.
- Policy briefings, also through IWMI's *Africa Policy Briefs.*
- Conference presentations, especially the *WARFSA/Waternet November 2004; African Water Law Workshop February 2005.*
- Presentations during feed-back workshops in relevant study sites and communities areas.
- Papers and discussions with related research groups such as the 'Water Law and indigenous Right' programme based at Wageningen University in the Netherlands, The Gender and Land Resource Task Force in Tanzania, CAP-NET.

- User friendly research briefing for dissemination to the general public, policy makers and practitioners through radio programme, print media, television, seminars and feed-back workshops meetings.
- Academic papers for appropriate Local and International Professional Journals such as *World Development and Water Resources Research*; *The European Journal of Development Research* etc and Local University Water and legal related Journals.

5.3 Uptake Strategy

The project's uptake strategy will involve both dissemination and promotion activities. As it is illustrated in Figure 1 below, both are strategic activities, but they differ in the sense that, whereas dissemination relates to activities undertaken by the project, promotion relates to encouraging others to develop and disseminate the project's findings. Promotion aims to ensure that intermediate stakeholders will continue to use the research findings to develop additional products (e.g. manuals) and processes (e.g. policies), and extend these developments to end-users (i.e. technical personnel, students, policy stakeholders) and further intermediaries, after the project has finished. It ensures the persistence of the new knowledge revealed by the project and is about sustainability and scaling up to ensure maximum impact.

Figure 1. Project dissemination and promotional linkages



In a nutshell, the project's uptake strategy can be summarised as follows:

- The project plan includes early identification through stakeholder analysis and comprehensive consultation and engagement with IWRM stakeholders, of their respective training needs and information channels. This will specifically facilitate dissemination activities and their tailoring to meet the needs of target organisations and key players.
- Guidelines and user friendly tools on IWRM under legal pluralism generated by this project will be based on case studies on water rights, local water management and conflict resolutions, and take account of constraints and need analyses of key managers, policy makers and those developing and or amending water laws.
- Community members will be deployed in training sessions with technical managers to present and demonstrate – 'voice' – the arguments for (and against) an inclusive approach to water rights, water resource development and management.

ANNEX 1: COPY OF PAPER 'IMPLICATIONS OF CUSTOMARY NORMS AND LAWS FOR IMPLEMENTING IWRM: FINDINGS FROM PANGANI AND RUFIJI BASINS, TANZANIA'

Implications of customary norms and laws for implementing IWRM: Findings from Pangani and Rufiji basins, Tanzania

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Abstract

This paper presents the preliminary findings of a study whose objective is to facilitate the formulation of better policies and guidelines for implementing IWRM through case study of local water conflicts. It is observed that, although the current water reforms in the country focus on the use of statutory legal systems to regulate the use of water resources, the country operates under a plural legal system. Apart from the statutory laws, diverse customary systems are relied upon in resolving water-related conflicts, and, neglect of these norms and laws may have negative consequences for the majority of the villagers who rely on them. The paper presents some of the water-related conflicts in the study areas and the views of government authorities and river basin managers regarding customary norms and laws for water resource management. Also, the paper describes how different types of conflicts over water resources are handled through customary, administrative and legal channels.

Introduction

Water resources management in Tanzania is currently under reform. Prompted by increasing pressure on water resources, the government has been trying to establish formal legal systems, fixing property regimes and formalising informal arrangements related to the use of this resource. It is hope by the government that these measures will provide for efficient and transparent institutional frameworks for the management of water resources. Hence, the government has established Basin Water Boards (BWBs) and Basin Water Offices (BWOs) in order to manage water utilisation by different users, i.e. to allocate water rights; legalise, grant, modify and control water abstractions; protect the existing water rights and take to court defaulters of the Water Utilisation (Control and Regulation) Act, 1974. In spite of the government's over-reliance on statutory arrangements for water management, a number of studies have highlighted the interplay between formal and informal institutions, and the implications of legal pluralism for natural resource management (Boesen *et al* 1999; Meinzen-Dick and Pradhan (2001); and Derman and Hellum (2002). These studies have emphasised the co-existence and interaction between multiple legal orders such as state, customary, and religious laws. Tanzania has a pluralistic legal system and hence land and water resources are regulated by different pieces of legislation and institutions, including statutory law, customary laws of the 120-plus ethnic groups, Islamic law, etc. Whenever there is scarcity and competition, though, the authorities pretend that the only prevailing law is state law.

This paper presents the preliminary findings of investigations carried out in Pangani and Rufiji basins, the first areas where the government established BWBs. The paper contrasts the statutory principles of water management with the customary systems of utilising water resources in the study area; then presents some of the local conflicts over water resources, before concluding with a discussion of how the different conflicts are handled in the different legal channels. The bulk of the data presented in this paper was collected in Rufiji basin, where the first phase of the research concentrated, although some findings from Pangani basin are also reported. Phase two of the research will concentrate in Pangani basin.

Statutory water management in Tanzania

There are several sources of legal regimes which exist concurrently in Tanzania, and which inter-play and affect the utilisation and management of water resources, including:

- Written laws, consisting of the Constitution, laws made by the Legislative Council before independence (known as Ordinances) and laws made by the post-independence parliament (known as Acts of Parliament). Under these written laws there are hundreds of subsidiary legislation for various purposes;
- Received Laws from England. This body of law is used to fill-in any gaps existing in the written laws of Tanzania. This source of law opens an avenue for the incorporation of English laws and principles into laws of Tanzania by filling any gap existing in the body of written laws; and
- African Customary Laws and Islamic Law: this covers a broader terrain than what is contained in court precedents.

Below is an overview of some of the laws that have been used to regulate Tanzania's rivers, streams and internal lakes.

(i) Water Ordinance, 1948

This law was enacted during the height of the Indirect Rule system of governance in Tanganyika, and it vested entire property over water to the Governor of Tanganyika in trust for His Majesty as Administering Authority for Tanganyika. The law recognised the rights of native Africans to divert, obstruct, abstract or use water in accordance with their native law and custom: this recognition was unilaterally stopped in 1974 by the Water Utilisation (Control and Regulation) Act, 1974. In other words, the 1948 Water Ordinance recognised the continued operation of traditional customary uses and access to controlled waters.

(ii) Water Ordinance, 1959

This legislation was enacted to define the ownership of and the rights to the use of water, to provide for grants of Water Rights and easements and to amend the Mining Ordinance, the Land Registration Ordinance and the Registration of Documents Ordinance. It was based on the established conception that, "All water in the territory is vested in the Governor."[15]. The law stated categorically that its provisions were also applicable and binding on government departments and water authorities appointed under the Waterworks Ordinance, Cap. 281.16 This provision, which was binding on government departments, constituted a break from the past legislative practice. For the first time government departments abstracting waters from controlled sources were brought under the regulative regime of the law. The rights of native Africans to abstract, obstruct, divert and use water recognised under Water Ordinance, 1948 were now required to notify the Water Registrar. Section 14 required every person having any existing right to use water (other than Water Rights registered under Water Ordinance, 1948) to notify the Water Registrar of such a right. Strictly speaking, native Africans were also supposed to register their rights.

(iii) Waterworks Ordinance, Cap. 281, 1963

This law permits constructions of water supply works for supply to towns, minor settlements and villages. It mostly regulates the supply of water for domestic use, and it also has provisions designed to prevent pollution of water.

(iv) Water Utilisation (Control and Regulation) Act, 1974, with amendments in 1981, 1989

This legislation declares that all property over belongs to the Republic, and it establishes "controlled" waters access to which requires Water Rights. The law regulates access and pollution by those abstracting water directly from controlled waters. Under this law, the prominent Water Right holders include: large-scale farmers; those irrigating their lands; hydroelectric Power Stations; Industries; Mining concerns. Persons abstracting water for domestic use, without building water works are not regulated by this law.

(v) Urban Water Supply Act, 1981 as amended.

This law establishes the Dar es Salaam Water and Sewerage Authority (DAWASA). DAWASA holds a Water Right under Water Utilisation (Control and Regulation) Act, 1974 as Amended in 1981. DAWASA is responsible for supplying water in Dar es Salaam and Coast Region; DAWASA is also responsible for drainage of water and sewage matters. The co-ordination of organs dealing with water pollution is further complicated by existence of a number of laws like Local Government (District Authorities) Act, 1982, Public Health Sewerage and Drainage) Ordinance, Cap. 336 all dealing with (various aspects of pollution).

(vi) Public Health (Sewerage and Drainage) Ordinance, Cap 336, 1995

This law is concerned primarily with releasing waste water/effluent and quality of effluents flowing from homes, industries, factories, and businesses and also with drainage in urban areas. This law is not applicable to pollution at water sources. Local government authorities (acting as Sewerage Authorities) are expected to regulate waste and

[15] Section 6 of Ordinance No. 3 of 1959.

[16] Section 3 of the Water Ordinance, 1959. Waterworks Ordinance created institutions responsible for Water Supplies to rural and urban areas.

effluents from industries that do not abstract their waters using Water Rights (i.e. industries which do not have Water Rights). Also, the local authorities are expected to ensure industries in urban areas have waste treatment plants.

Hence, currently, the Water Utilisation (Control and Regulation) Act, 1974[17] is the main piece of legislation in Tanzania regulating rivers, streams and internal lakes. This law has an elaborate system of controls, ranging from declaring all water to be the property of the Republic, to designation of waters as "National Waters" and "Regional Waters." The ability to declare certain rivers and watercourses to be "National Waters" or "Regional Waters" empowers the minister responsible for water development to regulate the use of water from any source as a national water supply[18]. In exercise of these powers, the minister has declared several rivers, e.g. Umba, Sigi, Ruvu and Pangani to be national waters, subject to the control of the Principal Water Officer and the Central Water Board[19]. All other sources of water not designated as "National Water" are regional water supplies, under the control of Basin Water Boards (BWBs), Basin Water Offices (BWOs) and Regional Water Engineers (RWEs)[20].

Integrated water resources management in study area

In Tanzania, IWRM is implemented through River Basin Management (RBM). The RBM concept has been defined as "the management of water systems as part of the broader natural environment and in relation to their socio-economic environment" (Mutayoba, 2002:4). This approach is not new in Tanzania, having started in the late 1950s and early 1960s, when the water resources in the Rufiji basin were extensively studied by FAO; also in 1961 the government undertook a study for integrated utilisation of the Ruvu basin (Mutayoba, 2002). According to URT (1981), the minister for water development "may, by order published in the Gazette, declare any area of land to be water basin in relation to any river. There shall be a Basin Board in respect of each declared basin". Under this amendment of the Water Act, in 1989 the Minister for Water gazetted nine river basins, i.e. (i) Pangani, (ii) Wami/Ruvu, (iii) Rufiji, (iv) Ruvuma and Southern Coast, (v) Lake Nyasa, (vi) Lake Rukwa, (vii) Lake Tanganyika (viii) Lake Victoria, and (ix) the Internal Drainage basins of Lakes Eyasi, Manyara and Bubu. So far, five Basin Water Offices and Boards have been created (Mutayoba, 2002: 7). These are: (a) Pangani Basin (since 1991); (b) Rufiji Basin (since 1993); (c) Lake Victoria Basin (since 2000); (d) Wami/Ruvu basin (since 2001); and (e) Lake Nyasa basin (since 2001)

Data for this study were obtained from two of the nine river basins, which Tanzania has defined for water resources administration, that is, Pangani and Rufiji basins (see Fig.1). As it was noted in Maganga *et al* (2002), the Pangani river basin has a total area of 42,200 km^2 (including 2,320 km^2 in Kenya). The basin carries waters from Mt. Kilimanjaro and the Northern Highlands into the Indian Ocean. It contains a big man-made lake called Nyumba ya Mungu, constructed for hydro-power generation. Since the 1930's hydro-power production in Tanzania had depended on the Pangani basin, although in recent years the country has developed other hydro-power sources, including the power stations of Kidatu, Mtera and Kihansi. Pangani basin is also within the Northern tourist area, which is one of the most visited areas in Tanzania, and contains the Arusha and Moshi industrial municipalities. A sizable area is also under traditional livestock keeping, which is also an important component in the overall water management in the basin.

The Rufiji basin covers an area of about 177,420 km2 (about 25% of the total land area of Tanzania), and drains the Southern Highlands into the Indian Ocean. The basin comprises four major rivers: The Great Ruaha, Kilombero, Luwengu and Rufiji. Within the basin, water scarcity is acute in the Great Ruaha basin, and this has resulted in very low water levels at Mtera Reservoir, the main regulatory structure on the Rufiji River (Baur et al 2000; URT 1995a). Since 1988, when the Mtera Dam was commissioned, water levels have been declining and have not recovered. Low water levels have had negative impacts on hydro-power generation, resulting in load shedding and rationing of electricity nationwide. According to URT (1995a), a number of factors caused low water levels at Mtera, including drought, increased upstream abstractions for irrigation, and poor operation of the Mtera reservoir.

During fieldwork concern was raised about how Basin Boards are constituted. The fear here is that outsiders, with no interests in water resources management may be appointed to the Basin Boards. Also, it seems like the capacity of the Rufiji Basin Water Office is overstretched. Apart from the Water Officer (hydrologist), the office has the following other employees: (a) a hydrologist, (b) a forester, (c) a social worker and (d) two technicians stationed at each of the Field Offices at Utete, Rujewa and Ifakara.

The small office is expected to perform many tasks. All pre-existing traditional water rights have been recorded and given new numbers. After this process, all those interests and rights, which were not registered, are regarded as illegal

[17] Act Number 42 of 1974.
[18] Section 9: Water Utilization (Control and Regulation) Act, 1974.
[19] Established by the Water Utilization (Declaration of National Water Supply Sources) Notice, 1975, Government Notice No. 242/1975 and the Water Utilization (Declaration of National Water Supply (Amendment) Notice 1978, Government Notice No. 59/ 1978.
[20] Amendment Act No. 10 of 1981 introduced the basin management and pollution control systems. This Act provides for the Central Water Board and Basin Water Boards to oversee administration of the legislation.

and owners liable to prosecution. Even former chiefs and sub-chiefs were given water rights under the new legal regime. Following the Arusha Declaration and nationalisations of the major means of production that followed, most Water Rights appearing after 1974 were owned by government ministries and departments, and public corporations. Proper and adequate preparations are needed before the government ministries and departments surrender their Water Rights. During its recent survey, Rufiji Basin Office discovered that 255 Water Rights had been abandoned over the years and most of these were issued to government ministries and departments. The majority of people in Rufiji Basin still abstract water from without any water right. The Great Ruaha has over 500 water rights. Many more abstractions are made outside water rights system. In a survey carried out two years ago, there were 568 abstractions throughout the Rufiji Basin that were made outside the Water Right system. This constituted 37% of total abstractions. Many of the abstractions take place in far off villages where the Basin Board has little access. The "offenders" are so many and could not conveniently be taken to court. The Rufiji Basin Office prefers to use its existing administrative structures to regularise illegal abstractions rather than going to court. What the Rufiji Basin Water Board does is to encourage the formation and constitution of water users' associations. These associations would then be encouraged to apply for Water Rights.

Conflicts over water resources in Pangani and Rufiji basins

According to a number of recent studies (e.g. Ngana, ed. 2002), water management in Pangani basin has to balance between following competing uses (i) on the slopes of Mt. Kilimanjaro and Mt. Meru there is water demand for coffee and banana cultivation; (ii) on the lowland large amounts of water are required in the paddy farms; (iii) around Arusha town water is required for flower cultivation (for export); (iv) further downstream, water is required in hydropower plants at Nyumba ya Mungu, Hale and Pangani Falls to generate electricity for various needs, including several industries in Arusha and Moshi towns. As a consequence of these competing needs, sectoral water demands are not being met, water levels in storage reservoirs are low, and competition for water between farmers and hydro-power generators and between groups of farmers has intensified. With respect to Rufiji basin, various water uses co-exist in the basin, including domestic and livestock water supply; irrigation (mainly in the Great Ruaha and Kilombero valleys); hydro-power generation; fishing and wildlife water supply; and transport.

After noting that the Rufiji basin is too vast, the basin board has initiated sub catchment-based water boards. These boards will assist the Basin Board in the management of water resources within the sub-catchment and also mediate conflicts taking place within the sub-catchment. Membership to sub-catchment boards will be conditioned upon having a Water Right. Prospects of creating sub-catchment boards have evolved out of the experience within the Rufiji Basin. At the moment, Water Utilisation (Control and Regulation) Act, 1974 does not provide for the establishment of sub-catchment basin boards. The Rufiji Basin Office has high hopes for these Boards. It is expected that they will assist the Basin Office at Iringa and Field Water Offices in the process of processing Water Rights.

Utilising water resources through customary arrangements

For the majority of the people in Pangani and Rufiji basins, access to land and water for irrigation is regulated according to customary norms and rules. As it was noted by Boesen *et al* (1999), it is imperative to remember that most of the customary law and norms are unwritten and flexible, implying that we are dealing with a very complex phenomenon. In this respect, Boesen *et al* (1999:121) point out that it is possible to conceptualise four different types of customary law, including the customary laws of specific ethnic groups; customary law which is applied in courts; customary law which is applied by traditional authorities (chiefs, headmen, etc) outside the state system; and living customary law, i.e. customs and practices of the people today and the principles underlying these practices.

In the two basins, irrigation is carried out by gravity, using simple unlined canals to divert water from their sources (normally rivers). In some cases simple dams are erected by barriers of boulders, and strengthened with branches and mud in order to control the water flow, but the technical efficiency of such simple technology has been found to be wanting, as noted by Adams *et al* (1994). Below are two examples of customary water management for irrigation from Pangani basin (Musa Mwijanga scheme) and Rufiji basin (Nyeregete scheme)

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The Musa Mwijanga irrigation scheme

Kilimanjaro region in the Pangani basin has a long tradition of gravity-fed irrigation canals (*mifongo)*, and, according to Tagseth (2002), some schemes were established during the 17th century. He observes that these canals are important elements in the cultural and technological heritage of the Chagga people, and for centuries they have continued to utilise a network of these canals for irrigation and other purposes. The Musa Mwijanga scheme, as reported in Maganga (1998), started about fifty years ago when a farmer named Musa Mwijanga started an irrigation canal, abstracting water from river Weruweru by means of a traditional weir. Soon other farmers joined in and extended the canal to a considerable length. There was no question of obtaining a "water right" as demanded by statutory law presently. Most of these furrows were originally built for domestic water supplies, but subsequently they were adapted for supplementary irrigation of coffee, bananas and vegetables.

According to informants, operation and maintenance of the scheme is supervised by an elder, *Mzee wa Mfereji*, who is assisted by one overseer for each of the three secondary furrows. The allocation of water between the furrows is based on long standing agreement. During the dry season there is considerable competition for water, and plots on the lower reaches of the supply system tend to suffer most when only limited water is available. Maintenance of a routine nature, particularly cleaning of the canals is carried out four times a year by the farmers – the main canal and secondary furrows are cleaned collectively, but at the tertiary and farm level cleaning is done individually. Approximately 600 families use the Musa Mwijanga scheme, irrigating a total of 600 ha. The scheme has been operating for more than 50 years without any noteworthy environmental problems, and good crops are still being obtained. As noted in Maganga (1998), apparently, the traditional system, with its multi-culture combination of trees, rice, vegetables, beans and groundnuts has combined well with naturally good soils to lead to sustainable resource management. The Pangani Basin Water Office is supposed to ensure that schemes such as Musa Mwijanga apply for, and pay for their water rights.

The Nyeregete irrigation scheme

On Usangu Plains there are many instances where villagers organise themselves under an informal association, *chama*, in order to construct an irrigation system. A good example of such a "traditional" irrigation systems is found in Nyeregete village canal, which started in 1964 when a small group of villagers organised themselves to dig a canal to irrigate their farms, in order to complement the erratic and un-reliable rains (Maganga, 1998). As they undertook the task of constructing the canal, no doubt the villagers were influenced by indigenous knowledge and customs related water use in the area. As noted in Odgaard and Maganga (1995), the Sangu, who are the dominant ethnic group have laws and customs guiding the use of water. Under traditional laws and customs the construction of irrigation canals and furrows was controlled by the chief, and, although a single individual could tap a stream for his purpose without first consulting the chief, the latter could prohibit the construction or use of any such canal or furrow. Once constructed, the canal or furrow was the exclusive property of the people who constructed it until they abandoned it, then, it reverts to the chief. Over time, this tribal law has undergone some changes, - chieftainship was abolished in Tanzania since the early 1960s.

In any case, the Nyeregete canal was constructed by referring to the customary system of obtaining irrigation water, where people organise themselves informally and construct a canal to divert water from Kiyoga river. Each member of the canal then constructed smaller furrows to tap water from the main canal to their fields. Canal groups like the one in Nyeregete are usually initiated by a few individuals - afterwards they grow into a larger Canal Committees, such as the one in Nyeregete, which, according to informants, has a membership of 300[21]and it covers a distance of about 20 miles. The Canal Committees and sub-committees (established for each sub-canal) oversee the allocation of water to members, as well as the maintenance of the canal. The Nyeregete Canal has to be cleaned every year during the months of August-December, and if a member abstains from the maintenance activities, he or she is liable to a fine.

There was a lot of resentment when the Rufiji Basin Water Office tried to assert its authority over water allocation in Nyeregete. According to regulations, all such canals are supposed to apply for water rights, to pay Tshs 30,000/= for the application form and the annual fee of Tshs 250,000/=. The villagers say that before the arrival of the Rufiji Basin Water Office technicians, they shift from their traditional canals to tail water flowing from the Mbarali NAFCO farms. When the villagers were prevailed upon to obtain their own water right, Mbarali NAFCO farms decided to block its tail waters from flowing to their village. When the system of Water Rights was imposed, conflicts over water have been increased, especially in a dry year like 2003. The Basin water Office has not been very helpful because it is more concerned with collection of rates rather than reconciling conflicts resulting from competition over waters. Conflicts come to the open when rains fail and canals run short of water. Nyeregete villagers claim that they had been reduced to begging for water, moving from one government office to the other complaining over water. Their Member of Parliament and their District Commissioner were informedof their predicament

Managing water conflicts

There are several avenues through which disputes over water may be resolved or referred to. The disputes can be styled as civil proceedings or criminal proceedings either in Ward Tribunals or Magistrates' Courts. Village government can be a complainant to a criminal or civil proceeding. The following examples save to illustrate how the different disputes are handled in the different channels:

(a) Simon Dangala vs Irrigation Manyenga "A" Irrigation Association

This case SD first uses customary arrangement to obtain water for irrigation. However, he switches to statutory arrangements of applying for Right of Occupancy, when he sees that he could take advantage of this system for personal benefit, even though he ends up creating conflict and tension within the community. In 1969 Simon Dangala in collaboration with 5 other villagers started the Manyenga irrigation canal. They invited other villagers to join in, and soon the canal had a membership of 36 villagers, most of them cultivating rice. As the membership grew, tensions

[21] Interview with village leadership, Nyeregete village, 4 June, 2003

started emerging among them, especially regarding maintenance of the canal, and competition over scarce water. All the other villagers who started the canal have since died. In 1997 SD (who actually lives in another village, Mawindi), applied for and got a 33-year Right of Occupancy for 59 acres of land on the upstream of the canal, creating tensions with villagers who depended on the canal downstream. SD did not have the ability to cultivate all the 59 acres, cultivating only about 4-5 acres, and renting the rest for between T. shs 15,000/= and T.shs 20,000/= per acre. The Rufiji Basin Water Board encouraged the villagers to form a Water Users Association in order to benefit from a World Bank-assisted Smallholder Irrigation Project. In 1998 the villagers applied for Water Right for their Association, but SD objected, since the canal passed through his land. He demanded a "compensation" of T. shs 150,000/= for his efforts in maintaining the canal since 1969, before he could allow the canal to pass through "his land".

In 2001, SD filed a civil case before Rujewa Primary Court, alleging that Adriano and Ayubu had encroached and trespassed into his duly registered canal by building bricks (*Simon Dangala vs AdrianoTandika and Ayubu Kanyamala Civil Case 38 of 2001, Rujewa Primary Court*). The canal in question was registered in Dangala's name and given number RBWO 96. He traced his ownership to the canal to a 1997 letter from the Rufiji Basin Office. The letter urged him to pay for the Water Right before 1st June 1998, and on 14th October 1998 he was given the Water Right, stipulating terms and conditions for his use of water. The complainant claimed that after getting the water Right he built a canal in 1999 by engaging the services of paid casual labourers. On 19th October 2001 while returning from his farms he found the respondents constructing a canal to draw water from the source, through his farms SD denied that he was a member of the Irrigation Association of Manyenga "A". Adriano Tandika told the Primary Court that he farmed at Manyenga, although he was not a resident of the village. He only used the Manyenga "A" by virtue of being a member of the Irrigation Association of Manyenga "A", which he joined in 1997. He alleged that when he joined the canal membership, it was under the leadership of SD. The canal broke down in 1997, and Adriano joined in the canal repair, and he rose to the position of Assistant Secretary in the Irrigation Association. He further testified that, in 1998 misunderstandings arose when SD demanded and was given Tshs 150,000/= for his role in the founding of the canal. Adriano further contended that SD's Water Right was RBWO 96, whereas the canal they were building had 200 registered members, with a Water Right RBWO 102. The Primary Court, comprising of the Primary Court Magistrate and two Court Assessors visited the canal in dispute. The court found that SD had no claim over the registered canal RBWO 102, which the two respondents were building. In addition, the Primary Court noted that SD's Water Right (RBWO 96), had been revoked by the Rufiji Basin Water Office. SD lost his case and was ordered to pay the cost incurred by the two respondents. SD appealed to the District Court (*Simon Dangala vs Ayubu Kanyamala and Adrian Tandika*, Civil Appeal No. 2/ 2001). The District Court dismissed SD's appeal and noted that (a) The two respondents were given ownership of water registered as RBWO 102 as formal owners of Manyenga "A" Irrigators Association (b) Though it is true SD built the canal of Manyenga "A", he was compensated for the labour and costs he incurred.

(b) *Igurusi Primary Court, Criminal Case No. 41/2003: Semu Mwakibete (Complainant) versus John Mwigombe (Respondent)*

The Accused (Nyakyusa tribesman) was accused by the Complainant (a fellow Nyakyusa) of destroying his water canal and preventing water from flowing into his paddy field. Accused charged under section 326 (1) of the Penal Code (Chapter 16 of the Laws of Tanzania). The Accused denied the charge. Witnesses testified to the effect that the area was experiencing a low flow of irrigation water because of failing rains at the time, and that the Accuse went out at night to block the canal to enable water to flow into his own paddy field. The canal belongs to a local irrigators' group, and the Complainant was the leader of the group. The accused was not a member of the group. Section 326 (1) of the Penal Code provides that: "Any person who wilfully and unlawfully destroys or damages any property is guilty of an offence and is liable if no other punishment is provided, to imprisonment for seven years. Section 326 (3) provides for a possible life imprisonment: "if the property in question is a bank or wall of a river, canal, aqueduct, reservoir or inland water which appertains to a dock, reservoir or inland water, and the injury causes actual danger of inundation or damage to any land or building". The Accused was found guilty, and the Primary Court imposed a fine of Tshs 100,000/=, or 6 months imprisonment. The Accused paid the fine.

(c) Igurusi Primary Court, Criminal Case No. 35/2003: Ibrahim Kada (Complainant) versus 1. Philipo Kavuta and 22. John Makosano (Accused Persons)

The Complainant, a Tanzanian of Baluchstan origins, locally known as "Bulushi" tribesman owned a water Right for his private canal. The Accused Persons (Nyakyusa tribesmen) were accused of trespassing and destroying the canal for purposes of leading water to irrigate their farms. During the course of the criminal proceedings, the two parties requested to be allowed to settle their dispute out of court, and the complaint was withdrawn.

(d) Chimala Primary Court, Criminal Case No. 49/2003: Tambi Tony (Complainant) versus 1. Mandalu Kulwa 2. Sad Kashinje 3. Hamisi Mtanzania

The parties to this criminal case are all members of the Wasukuma tribe of Tanzania. The Accused were alleged to have dug an irrigation canal through the farm belonging to the Complainant. Judgement in this case is still pending, the witnesses for both parties having already testified.

(e) Igurusi Primary Court, Criminal Case No. 36/2003: Faro Mtafya (Complainant) versus Daudi Ngolele (Respondent)

This case illustrates conflicts over water in their more violent manifestation. The Accused person was charged under section 241 of the Penal Code, Chapter 16 of the laws of Tanzania. The section provides that: "Any person who commits an assault occasioning actual bodily harm is guilty of an offence, and is liable to imprisonment for five years. The parties in this case were involved in a fight, using machetes. It was alleged that the accused person went out at night to destroy a private canal in order to allow water into his farms. The Complainant was at the time armed with a machete, and a fight ensued. He parties asked the court to allow them to settle their dispute out of court, and their plea was granted – the criminal charge was dismissed.

(f) Chimala Primary Court, Criminal Case No. 9/2003: Anthony Kilando (Complainant) versus Shomary Chekeche

The Complainant is a Mkinga tribesman, while the Accused is a Mngindo. It was alleged that the Accused destroyed a canal taking water to the paddy fields of the Complainant. The Complainant, a leader of the Irrigation Canal Group in Usunula village within the Ward of Rujewa, complained that the Accused destroyed the canal in order to allow water into his farm. The Accused was set free after agreeing to pay a compensation of Tshs 50,000/=.

(g) Rujewa Primary Court, Criminal Case No. 296/2002: Women Economic Association (Ruchana Kiponda) – Complainant – versus Pemne Msavandezo

The incident occurred at Imalilo Songwe in the Ward of Ubaruku, Rujewa. Acting on behalf of of the Women's Association, the Complainant (a Msangu by tribe) alleged that the Accused (a Sukuma tribesman) built a canal through the women group's area, to his farm. The Accused was charged under Section 326 (1) of the Penal Code. The Accused was found guilty, and was ordered to pay the group a compensation amounting to Tshs 60,000/=, and was ordered to enter into an agreement with the group on how to utilise the waters of the canal he had constructed on the group's land.

(h) Rujewa Primary Court, Criminal Case No. 54/2003: Damani Mponzi (Complainant) versus Charles Mlambalafu

Charles Mlambalafu (a Mhehe tribesman), was accused by Damani Mponzi (a Msangu tribesman), of destroying a water canal leading to the Complainant's paddy fields. The Accused went into the Complainant's farm and blocked the water canal to enable irrigation water to go into his own paddy. The Complainant contended that this blockage cause water to stop flowing into his farm, leading to the destruction of his farm. In his defence, the Accused told the court that he did not block water from flowing into the Complainant's farm, but to direct some of the water into his own farm as well, because he was also entitled to some of the water. The Accused was ordered to pay a Tshs 45,000/= compensation to the Complainant, and a fine of Tshs 8,000/=

Conclusions

This paper has described statutory and customary systems of managing water resources in Tanzania, discussing some of the challenges of implementing IWRM whilst taking appropriate account of customary norms and laws, with Pangani and Rufiji river basins as case studies. The paper has shown how the current water reforms in Tanzania have focused on the use of statutory legal systems to regulate the use of water resources, in spite of the fact that Tanzania operates under a plural legal system. It has been noted that:

- The implementation of RBM in Pangani and Rufiji basins focuses on water rights, introduction of user fees, promotion of WUAs, and enforcement of statutory laws guiding water use. There is very little indication of consideration for people's water rights as provided by customary arrangements. Smallholder farmers in Rufiji basin view basin management suspiciously, and consider it as an effort to safeguard TANESCO's[22] interests in reserving sufficient water for hydropower.

- The Water Right system is not well defined, and it suffers from lack of implementation. The system is viewed by smallholders as a way of organising them for the purpose of making them pay water fees, which they do not believe in. Rather than trying to charge large numbers of smallholders for small quantities of the water they

[22] Tanzania Electric Company, the power generating company

use, it is suggested that the government should target the few high-volume users, who make considerable benefits from water (e.g. TANESCO).

- Organizing small-scale water users into Water Users Associations for the single purpose of making them pay their fees is economically unrealistic. The non-monetary costs of the water rights system include seriously antagonising and alienating citizens and voters and disrupting a customary water rights system that works well to allocate water in times of abundance and during the dry spells (see Van Koppen, 2002).

- Data on water conflicts and conflict resolution illustrate the interplay between customary and statutory systems of resource utilisation and conflict management at the local level.

In order to address the challenges of implementing IWRM while at the same time taking account of customary arrangements it is recommended to adopt an approach which includes people's water rights as provided by customary arrangements. This approach, which combines elements of RBM and customary arrangements at the local level is the only way to implement IWRM based on the second of the four Dublin principles – that water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels.

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ANNEX 2: CHECKLIST/ FRAMEWORK FOR CASE STUDIES

Country		Tanzania		South Africa etc
Catchment/ river basin		Rufiji	Pangani	Olifants etc
1.1 Water (land+) policy and legislative framework	Pre-colonial, colonial and post-colonial phases; IWRM phase; influencing factors e.g. globalisation, PRSP (Tools: literature, key informant interviews)			
1.2 Implementation of state-led IWRM	Principles/ characteristics, awareness, participation/ representation, Resources/ capacity for catchment management, Human resources, incentives, skills, budgets, corruption etc (Tools: literature, key informants interviews)		River basin office with 5 staff	
2.1 Nature of communities	Ethnic composition; Indigenous/ newcomers; Population trends; Rural/urban linkages; Livelihoods; Social capital; upstream/downstream location; climatic vulnerability; (especially levels of organisation within community) (Tools: Livelihood diagrams, asset surveys and resource mapping and inventories; seasonal calendars of asset availability and quality; social network and Venn diagrams).	Cultural melting pot		
2.2 Types of water use and users	Domestic/Agr/Industrial/Env etc, Access, Scale/ domain, level of organisation, communal/state/private ownership and service delivery, Technologies, Sources, Competition between users, water resources, infrastructure, demand/entitlements	Large-numbers of small-scale irrigators;		
2.3 'Living' practices for water management	By whom, for whom, water rights, Water allocation systems, domain, conflict avoidance and resolution systems, equity/efficiency/sustainability, coping with scarcity/ floods, pollution/ degradation			

Country		Tanzania		South Africa etc
Catchment/ river basin		Rufiji	Pangani	Olifants etc
3 Political dimensions??	Issues at IWRM implementation-living practice interface: Rights, water charges, taxation revenues, equity (poverty, gender…)			

CHECKLIST FOR DATA COLLECTION

1. NATURE OF COMMUNITIES

I. Village/Locality/etc

(a) When and how was the village established?
(b) Whether village/locality/community/etc is a traditional village/locality/community or was established later by colonial, independent governments?
(c) Territorial extent of village land
(d) Neighbouring villages and distances
(e) Who were the original inhabitants
(f) Assess the diversity of customary laws pertaining in the area
(g) Tribal/Community composition of the villagers
(h) Previous traditional governance- e.g. whether current leadership is drawn from amongst those who were traditional leaders of the past
(i) Current governance system: Whether the Village is under Village Government/Kitongoji/ Ward etc
(j) How the Village Govt or Ward or Kitongoji regulates (Land/Water and disputes over resources)

II. Population Changes And Migration:

(a) Rainfall pattern/environment/ climate and general availability of water
(b) Current population
(c) Impact of nearby or far off urban centre on village/community/locality
(d) Relationship (economic/ social/ trade) with downstream or upstream water user/land users
(e) Economic activities- predominant modes of production [pastoralists? Agriculture? Subsistence economy or cash crop and subsistence economy
(f) How has the population changed over time?
(g) Population growth
(h) In-migration - Who? From where? Why?
(i) Who out-migrates more: Men? Young Men? Boys? Women? Young Women? Girls?
(j) On balance which is greater: in or our migration?

Livelihoods:

(a) Main source of livelihoods for (men, women, old, young, local, strangers)
(b) How many (proportion) of people are farmers?
(c) How many do farming and other off-farm jobs?
(d) How many are into off-farm jobs only?
(e) How has this changed over time?
(f) What changes in livelihood patterns can be noticed?
(g) Are there new sources of livelihood?

2. TYPES OF WATER USE AND USERS

(a) Identify the main sources of water (identify streams, rivers, dry river valleys running with water during the rainy seasons)
(b) Identify sources (upstream) of these streams, rivers, dry river valleys and their down streams
(c) Domestic use? Agricultural use?
(d) Agriculture: rain-fed irrigation or irrigation by canal?

(e) Relationship between economic activities and availability of water/land
(f) Access to water: Water resources whether abundant or scarce?
(g) Identify and describe technologies on: traditional systems of irrigation; new innovations and technologies
(h) Who controls irrigation (community? Water Right holder? Water Committee? Traditional leaders? Clan? Family?)
(i) Construction of canals is by (community? Water Right holder? Water Committee? Traditional leaders? Clan? Family? Individuals?)
(j) Who is responsible for day to day/ general management of canals?
(k) Who is responsible for the protection of water quality and equitable access to water (any rules on protecting water sources, who designates specific areas for washing, watering of animals, drawing of drinking water & how is violation of these rules handled and where appropriate punished?)
(l) Who handles/manages/resolves matters pertaining to competitions over water resources (e.g. between and amongst local users? between and amongst pastoralists and agricultural communities? Between upstream and downstream users? Between and amongst commercial/large scale users and other users? between and amongst farms etc)
(m) How have water uses changed over the past 15 years?
(n) What is the general availability of water today?
(o) Was ownership (under traditional systems) established by digging a canal/or by proximity to a source?

3. WATER (AND LAND) POLICY AND LEGISLATIVE FRAMEWORK

(a) Narrate pre-colonial, colonial and post colonial water and land tenure systems
(b) Social, economic, political, cultural and legislative issues underpinning the pre-colonial, colonial and post colonial water and land tenure systems
(c) Impact of reforms on water and land tenure systems (Socialism in Tanzania, Economic Recovery Programmes, World Bank/IMF Economic liberalisation and user-pay principles; urbanisation, globalisation and encouragement of investments,)

4. LIVING PRACTICES FOR WATER MANAGEMENT

(a) How does the rules governing water abstractions, use or access vary with type of land? e.g. river valleys, closeness to road, permanent tree crops, good or poor soil?
(b) How do irrigating land owners adjacent to water sources relate with the far off irrigating land owners [Find the respective role of central government organs, courts, local governments, village elders, tribal leaders, traditional healers etc]
(c) What principles/rules (if any) govern water management and allocation procedures?
(d) What are the current thinking on obtaining access to water through Water Rights?
(e) Is this Right to water bestowed by the tribe/clan/family or by the community.
(f) Whether now (like in the past/or unlike as in the past) ownership is established by digging a canal/or by proximity to a source?
(g) How is ownership/accessibility to water lost now? How was it lost under the traditional system of the past?
(h) Is the ownership/accessibility to water lost through failure to use it, immediately or after some time? Does the person who acquired the right to water he right to dispose of it? Is something paid for the water or only for the improvements [e.g. building of irrigation canals] made to ensure water is accessed?
(i) Does water in question still belongs to the clan, or family or to individuals? Who in the family/clan actually controls?
(j) Can an individual pledge his/her access to water in exchange for credit or loan?

Relationship between water and land Tenure

(a) What are the different types of land tenure systems – clan/family/individual, government, private, family, rent, share crop, sponsorship, etc? Which types are most common and why?
(b) How does the land tenure system vary with type of land? e.g. river valleys, closeness to road, permanent tree crops, good or poor soil?
(c) What principles/rules (if any) formal or informal rules regulating ABSTRACTION, ACCESS, USE of WATER? Who makes these RULES?
(d) Proportion of villagers with Water rights
(e) How water-related problems are resolved
(f) How water pollution is handled
(g) Governance organs which can be resorted to resolve water conflicts [e.g. Ward Tribunals, Village Government; Courts, etc]
(h) Fees/contributions that villagers/community currently pay to access water
(i) Any arrangements between villagers, families etc over water sharing
(j) Any principle drawn from water law that has been adopted to manage water resource of a village (written contracts, loans to repair traditional water canals etc.)

5. POLICY IMPLEMENTATION OF STATE-LED IWRM

(a) whether villagers/leadership are aware of (Water Law, Water Policy and new initiative to reform water laws;
(b) what matters were important to them and which should be included into the new laws?
(c) What water related matters should be decentralised to lower levels of governance (e.g. at village level; sub-catchment level; and catchment levels)
(d) What role should the village/community play under new law to: resolve conflicts; protect water sources, fair allocation of water.
(e) How should village's use of water be balanced to: requirements of down stream users? Water supply to urban areas, production of HEP?

6. POLITICAL DIMENSIONS

(a) Who should bear the cost of managing water resources (to build canals, protect the basin water, run the basin office etc)
(b) Water charges
(c) Water Tax?

ANNEX 3: REVISED PROJECT LOGFRAME

	Narrative summary	Measurable indicators	Means of verification (MoVs)	Important assumptions
Goal	Significant improvements made to the lives and livelihoods of poor men, women and children in Southern Africa.			
Purpose	More sustainable and equitable water management policy and practice established in southern African countries.	Plural legal systems recognised in government policies and practice of water resources management institutions in southern Africa by end 2006.	Government reports, donor evaluation/ progress reports, new laws.	Willingness of policymakers to address the challenges of implementing IWRM under plural legal systems.

Outputs	1. New knowledge derived on local water rights, and the complementarities and contradictions between statutory and customary systems in addressing equity and access issues, development and management of water resources, with particular focus on poor people's livelihoods	Comparative case studies from x communities in 4 river basins in Tanzania, South Africa and Zimbabwe by Jan 2005 and analysis (differentiated by wealth, class, gender, ethnicity and other relevant variables) of interactions between formal and informal water allocation systems.	3 case study reports (one for each country), 3 papers for WARFSA conference in Nov 2004, and other project documents.	Key informants and other stakeholders able and willing to share information and experiences with research team.
	2. Guidelines - 'good practice' knowledge resource – developed for taking account of customary laws in the delivery of more effective and equitable IWRM under plural legal systems in southern Africa	Practical approaches and tools that draw upon a synthesis of findings from case-studies (in 3 countries, 4 river basins, and x communities), regional/ international workshop and literature review, by Jun 2005.	Published guideline, and other project documents	
	3. Awareness - capacity and practice of river basin managers and IWRM policy makers in taking account of plural legal systems for IWRM significantly improved, communities' voices heard and their customary arrangements better understood.	Targeted water resources managers (minimum of 30 professionals) in at least three countries and four river basins aware of approaches to better address customary laws and norms in IWRM by June 2005	Evaluation of awareness and understanding of research outputs in southern African countries through analysis of web-site use and follow-up questionnaires and meetings (reported in progress reports)	People from case study communities and implementation stakeholders (river basin makers/ policy makers) able and willing to engage in responsive dialogue
		Presentations and representations (advocacy) to influence key policy advisors, and where possible including the voices of case-study communities, throughout project.	Progress reports	
		Regional training workshop delivered once by June 2005, with participation of some case-study communities, and embedded in curricula and programmes of at least one regional training institution	Training workshop report including evaluation, and progress reports.	

Activities	**Activities**	Milestones and Budget	
	1.1 Inception meeting	Inception report summarising activities 1.1 – 1.3 by Mar 2004.	
	1.2 Development of analytical framework	Methodology developed for case studies.	
	1.3 Selection of fieldwork sites in Tanzania, South Africa and Zimbabwe	Four river basins identified (two in Tanzania and one each in South Africa and Zimbabwe).	
	1.4 Target institution interviews	Report focused on institutional and individual constraints of IWRM implementers in utilising plural legal instruments by Jun 2004	
	1.5 Case-studies (including archival research, library research, focused fieldwork, policy and legal analysis, key informant interviews etc)	Reports documenting case-studies from each of 3 countries by Sep 2004.	
	1.6 Analysis and synthesis of case studies	Report including comparative analysis of case studies (based upon) analytical framework and paper for African Water Law workshop completed by Jan 2005.	
	1.7 Peer review	Case studies presented (with written papers) at WARFSA conference in Nov 2004 and feedback documented and incorporated in improved papers for African Water Law workshop in Jan 2005.	
	2.1 Guidelines – design	Consultations completed on content and format of guideline by Nov 2004.	
	2.2 Guidelines - development	Draft guideline developed by Feb 2005.	
	2.3 Guidelines - testing and modification	Final draft guideline developed by Mar 2005 incorporating feedback and lessons.	
	2.4 Guidelines - publication	Guideline published by Jun 2005.	
	3.1 Engagement in policy dialogues, and production of policy recommendations	In each country, key international and national level stakeholders engaged in presentations and discussions (ongoing and timing strongly influenced by external agendas), and recommendations summarised in policy brief(s).	
	3.2 Organisation of African Water Law workshop	Workshop co-organised, on African water law by February 2005, publication of proceedings and preliminary policy recommendations, and appropriate follow up.	
	3.2 Curriculum development, material development and planning for embedding/ sustainability of training course	Curriculum, support materials/ modules and delivery plans by Jun 2005 (targeted at students, implementers and policy-makers)	
	3.3 Training workshop/ course held	Report of training workshop/course involving key IWRM practitioners (and training of trainers) in southern Africa by Jul 2005	

	3.4 Establishment of alliances that will further project activities, including post-training mentoring and engagement in other projects, events and networks 3.5 Development and maintenance of website as key resource	Regular progress reports and updated website Continuous and timely dissemination of project findings through website. Regular evaluation of use and accessibility of information	Pre-conditions

ANNEX 4: UPDATED WORKPLAN AND RESPONSIBILITY MATRIX

Project title	Implications of Customary Laws for Implementing IWRM
Project start date & duration	1/10/2003; 24 months
Version number (For DFID Office use only)	

Activities, tasks and milestones	Financial Year 1 (2003/04)						Year 2 (2004/05)												Year 3 (2005/06)					
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Output 1:																								
1.1 Inception meeting																								
1.2 Development of analytical framework																								
1.3 Selection of fieldwork sites																								
1.4 Target institution interviews																								
1.5 Case-studies																								
1.6 Analysis/ synthesis of case studies																								
1.7 Peer review																								
Output 2: Guidelines																								
2.1 Guidelines - design																								
2.2 Guidelines - developed																								
2.3 Guidelines - testing and modification																								
2.4 Guidelines - publication																								
Output 3: Increased awareness																								
3.1 Engagement in policy dialogues																								
3.2 Organisation of AWL workshop																								
3.3. Curriculum development																								
3.4 Training workshop held																								
3.5 Establishment of alliances/ links																								
3.6 Website management																								
Key milestones																								
Inception report						x																		
Target institution interviews report									x															
Case study reports														x										
WARFSA papers												x												
Combined case study synthesis																x								
Africa Water Law workshop papers																x								
Guideline																				x				
Training course held																					x			
Report of AWL workshop																	x							
Progress reports												x						x						
Final report																								x

Project title	Implications of Customary Laws for Implementing IWRM				
Version number (for DFID office use only)					
Main activities	Responsibility for completion				
	Lead	Support 1	Support 2	Support 3	etc.
Output 1:					
1.1 Inception meeting	IRA	NRI	IWMI		
1.2 Development of analytical framework	IRA	IWMI	Zimbabwe team	NRI	
1.3 Selection of fieldwork sites	IRA	IWMI	Zimbabwe team		
1.4 Target institution interviews	IRA	IWMI	Zimbabwe team		
1.5 Case-studies	IRA	IWMI			
1.6 Analysis/ synthesis of case studies	IRA	IWMI	Zimbabwe team	NRI	
1.7 Peer review	NRI	IRA	IWMI	Zimbabwe team	
Output 2: Guidelines					
2.1 Guidelines - design	IWMI	IRA	NRI		
2.2 Guidelines - developed	IWMI	IRA	NRI		
2.3 Guidelines - testing and modication	IWMI	IRA	NRI		
2.4 Guidelines - publication	IWMI	IRA	NRI		
Output 3: Increased awareness					
3.1 Engagement in policy dialogues	IWMI	IRA	NRI		
3.2 Organisation of AWL workshop	IWMI	IRA	NRI		
3.3. Curriculum development	NRI	IRA	IWMI		
3.4 Training course held	NRI	IRA	IWMI		
3.5 Establishment of alliances/ links	IRA	IWMI	NRI		
3.6 Website	NRI	IRA	IWMI		
IRA with Faculty of Law at UDSM					

ANNEX 5: FIRST ANNOUNCEMENT FOR AFRICAN WATER LAWS WORKSHOP

Announcement and call for Papers

An international workshop on

African Water Laws:
Plural Legislative Frameworks for Rural Water Management in Africa

Convened by

International Water Management Institute (WMI); International Food Policy Research Institute (IFPRI); Natural Resources Institute (NRI); Faculty of Law and the Institute of Resources Assessment, University of Dar-es-Salaam, Tanzania; and the Global Water Partnership (GWP)

Sponsored by

IWMI, the UK Department for International Development, the Comprehensive Assessment - Agricultural Water Management, and the GWP

Venue: Gauteng, South Africa
Date: 26-28 January 2005.

In the past decade, many African governments have been engaging in far-reaching legislative, institutional and financial reforms in the water sector. These reforms have focused on 'Integrated Water Resources Management' and encompass changes to registration, water rights, water fees, and basin-level decision-making. However, these reforms have generally paid little attention to their impact on small-scale water development, use, and management in rural areas. Yet, the large majority of water users live in rural areas and depend heavily on access to rainfall, streams and ponds, groundwater, and wetlands for their health and income from cropping, watering livestock, and small enterprises. Legislation that would improve poor women's and men's access to water would significantly contribute to poverty reduction and agricultural growth. Potential for such water development exists in Africa because water resources are generally abundant, but highly variable and unpredictable within and over the years. The aim of the workshop 'African Water Laws: Plural Legislative Frameworks for Rural Water Development in Africa' is to explore the options for a more enabling legislative environment in rural areas.

Small-scale water development, use, and management in rural areas are governed by plural legislative frameworks. This fact has hardly been recognized as yet, and certainly less than for land use. Yet, water law follows a similar dichotomy as land law between the formal statutory law for 'modern' urban-based and industrializing and large-scale farming sectors for whom the recent water reforms seem best suited, and the African rural sectors, where implementation is much more challenging. Traditionally, this latter sector has relied upon customary laws and norms to manage access to water. Today, pro-poor water legislation and enforcement should also be based on the evolving more inclusive governance structures in rural Africa.

The workshop will also draw upon the lessons on (plural) water legislation that can be learnt from the vast body of legal scholarship and policies in Latin America and Asia.

The outputs of the workshop will include:

- comparison of ongoing national policy and legal reform in Africa, and their direct and indirect impacts on small-scale rural water development, use, and management
- case studies on the impact of statutory and customary arrangements on communities' water development, use, and management, in particular by poor women and men
- general and site-specific recommendations and guidelines for water management and legal pluralism that foster sustainable development for the poor in Africa, informed by experience in Asia and Latin America
- a peer-reviewed publication of papers presented.

Scholars, policy makers, implementers, and representatives from NGOs and rural networks are invited to submit papers for presentation. Abstracts of papers should be submitted before 31 June 2004. Acceptance or rejection will be communicated before 15 July 2004. Final drafts of the papers are expected before 15 October 2004. Results from the peer review will be communicated by 15 November 2004. Final papers are to be submitted before 3 January 2005.

Abstracts (300-400 words together with authors name(s), organization(s), address and e-mail) should be sent by **31 June 2004** to Barbara van Koppen (b.vankoppen@cgiar.org)

As well as presentation and reflection on papers, the workshop will be organised to facilitate discussion and dialogue between the participants.

The admission fee of the workshop is US$ 300, covering transport from and to the airport, lodging, and hard copies of papers and other materials. For a limited number of participants from developing countries, support is available for the admission fee and international flight costs. Please, indicate whether you apply for this option when submitting your abstract.

Organizing committee:
Dr. Barbara van Koppen, Principal Researcher, International Water Management Institute, Africa Regional Program (b.vankoppen@cgiar.org)
Dr. Ibrahim Juma, Dean, Faculty of Law, University of Dar-es-Salaam, Tanzania. (i_juma@uccmail.co.tz)
Dr. John Butterworth, Natural Resources Institute, University of Greenwich, UK (j.a.butterworth@gre.ac.uk)

For more information see www.nri.org/waterlaw/workshop.htm

ANNEX 6: CVS FOR MIKE MORRIS, JIM LATHAM & CLAUDIOUS CHIKOZHO

1. Personal Details

Family name	First name
MORRIS	Michael John

2. Degrees (include subject, class, university and date)

M.A. Rural Social Development (distinction), Agricultural Extension and Rural Development Department, University of Reading, 1996.

B.Sc. Hons. (2.1) Civil Engineering, University of London, 1970.

3. Posts Held (with dates)

Senior Scientist, April 1999 - present. Livelihoods and Institutions Group, Natural Resources Institute.

Independent Researcher and Facilitator, October 1996 - April 1999.

Facilitator, Trainer & Researcher, June - September 1995. FARM-Africa, Riemvasmaak Resettlement Project, Northern Cape Province, South Africa.

Country Representative (& programme initiator), March 1991 - April 1995. Voluntary Service Overseas (VSO), Namibia.

Programme Officer, March 1987 - May 1990**.** Voluntary Service Overseas (VSO), Sudan.

4. Duties and Responsibilities (for three most recent posts)

Senior Scientist, Natural Resources Institute: Responsible for short and long-term inputs associated with social and institutional development for research and consultancy projects:

- Design, planning and supervision of research project to assess the social impact of codes of practice in the Kenyan cut flower industry. Involves contact with multiple stakeholder constituencies, including the industry, government, CSOs, workers' representatives, donors and in-country research institutions (PASS/DFID).
- Social and institutional development adviser to project exploring the potential for the utilisation of diatomaceous earths in grain storage to benefit smallholders in Tanzania and Zimbabwe, displacing the currently used synthetic pesticides that are both expensive and hazardous to use (CPHP/DFID).
- Social development and livelihoods adviser for project seeking to promote cassava SME development in Ghana and Nigeria (INCO-DEV). PhD supervisor for Ghanaian colleague involved in this project.
- Social and institutional development adviser to project seeking to build on earlier studies in Ghana and elsewhere and widen access for smallholders in Northern Ghana to appropriate post-harvest pest management regimes (CPHP/DFID).
- Tanzania - Proposal development with the National Environment Management Council, the Vice-President's Office, Institute of Resource Assessment and other key stakeholders in biodiversity, to identify cost-effective options integrating local stakeholders' knowledge in the conservation and sustainable use of biodiversity.
- Uganda - Institutional adviser, supporting a coalition of researchers, NGOs, district authorities and farmers associations in promoting PM&E methodologies for rural development projects (DFID/NARO)
- Livelihoods and programme adviser to the International Network for Bamboo and Rattan (INBAR), both with respect to the establishment of pilot projects in Tanzania and Ghana and to their Livelihood Developments Programme.
- Institutional development, UK & Tanzanian contributions: Biodiversity conservation in rural development: Mainstreaming rural and agricultural development projects, World Bank & DFID funded study.
- Institutional development adviser and trainer for Ugandan NGOs engaged in variety of rural development initiatives. Funded by DFID Advisory and Support Services Contract.
- Social development adviser/project leader: Improvements in Legumes Storage (Ghana & Uganda), DFID funded Crop Post-Harvest Programme (CPHP) project led by NRI.

- Livelihoods adviser, Common Pool Resources in Semi-arid India: dynamics, management and livelihood contributions (DFID Natural Resources Systems Programme)
- Livelihoods adviser/project leader, Understanding Household Coping strategies in Semi-arid Tanzania, DFID funded NRSP project.
- Livelihoods adviser/team leader (NRI), Human and Social Capital's role in NRM in Tanzania, DFID funded NRSP project led by Sokoine University of Agriculture (SUA).
- Social and institutional promoter: Shaping and sharing values: NRI social audit.

Independent Researcher and Community Adviser, UK:
Pressure on and changes in the multiple use (grazing, conservation, recreation) of the New Forest commons suggested the need for new management arrangements. Played a key role in persuading the statutory authorities to adopt a more participatory approach in their deliberations about the future of New Forest, which subsequently included stakeholder seminars in November 1998 and June 1999. Promoted a people-centred approach introducing sustainable livelihood concepts to highlight social networks and cultural heritage issues, linkages between forest and urban communities, and key macro-level factors that drive change. Contributed to the Local Government Management Board's (now Improvement & Development Agency - IDEA) LA21 guidance notes on sustainability.

Facilitator, Trainer & Researcher, FARM-Africa, Riemvasmaak Resettlement Project, Northern Cape Province, South Africa.
Supervised and implemented relief initiatives, including work and training programmes, in response to initial resettlement predicament. Facilitated increased participation in the running of the community trust, and initiated capacity building measures within administrative, communication, fund raising and lobbying activities. Promoted dialogue and conflict resolution within the community and between them and other stakeholders - notably with the Augrabies Falls National Park. Developed understanding of community's existing asset base and livelihood strategies, and facilitated links with various national and provincial statutory bodies, NGOs and the private sector.

5. Recent Publications (maximum of 10, title and reference only)

Morris, M., Riwa W., Stathers, T., Kitandu L. (2003) Review Workshop. Report of a Workshop organised by the Plant Health Services and the Natural Resources Institute (UK) to facilitate the Crop Post Harvest Programme review, held on the 6th August 2003, at the IPM Project Compound, Shinyanga, Tanzania 45 pp. Natural Resources Institute, Chatham. CPHP Project R8179.

Stathers, T.E., Morris, M., Riwa, W., Mvumi, B.M., Kitandu, L. (2003) Small-scale farmer utilisation of diatomaceous earths during storage. Project website <www.nri.org/de/>. Natural Resources Institute, Chatham. CPHP Project R8179.

Mvumi, B.M., Morris, M., Stathers, T.E., Riwa, W. (2003) Partnership in research and development of diatomaceous earth technology for small-scale grain storage. Poster exhibited at Global Forum for Agricultural Research (GFAR) meeting, Dakar, Senegal, 22-24th May 2003. Natural Resources Institute, Chatham. CPHP Project R8179.

Morris, M. and B. Tran (2002), Improvements in the Storage and Marketing Quality of Legumes (Phase II), DFID Renewable Natural Resources Research Strategy Crop Post Harvest Programme, Final Technical Report R7442. Natural Resources Institute, Chatham.

Morris, M. (2002), Understanding Household Coping Strategies in Semi-arid Tanzania, DFID Renewable Natural Resources Research Strategy Natural Resources Systems Programme, Final Technical Report R7805, February 2002 . Natural Resources Institute, Chatham.

Lamboll, R., M. Morris and L. van Broekhoven (2002), Biodiversity Conservation in Tanzania: Experience, Examples and Issues, Chapter in Grimble, R. (ed.) (2002) Biodiversity Management in Rural Development, Natural Resources Institute, Chatham.

Morris, M., R. Lamboll, J. Butterworth, E. Mbiha and F. Maganga (2002), Livelihoods, poverty & natural resources in semi-arid Tanzania. Sokoine University of Agriculture, Morogoro, Tanzania. (This was also published by NRI as 'Understanding Household Coping Strategies in Semi-arid Tanzania: Annex 2. February 2002). Output from Natural Resources Systems Programme Project R7805.

Morris, M. and J. Butterworth (2002), Livelihoods, poverty and natural resources in semi-arid Tanzania. Project website < http://www.nri.org/SA-Tanzania-Livelihoods/> Output from Natural Resources Systems Programme Project R7805.

Morris, M., J. Butterworth, R. Lamboll, E. Lazaro, F. Maganga and N. Marsland (2001), Understanding

Household Coping Strategies in Semi-arid Tanzania: Annex 1. Household livelihood and coping strategies in semi-arid Tanzania: Synthesis of findings. Output from Natural Resources Systems Programme Project R7805. Natural Resources Institute, Chatham.

Adolph, B., Butterworth, J., Conroy, C., & Morris, M. 2001. Common pool resources in semi-arid India: problems and potentials. NRI report 2650. NRI, Chatham.

6. Countries of Work Experience (include length of time)

Namibia – 5 years (1990 - 1995)

Sudan – 3 years (1987 – 1990)

South Africa – 4 months plus repeat visits

Tanzania, Ghana, Kenya – on-going regular short term visits

India, Uganda – short term visits

7. Capacity and Experience Relevant to this Proposal

- More than two decades working in the fields of social and institutional development, governance and human rights, including experience of public, voluntary and private sectors
- Research and consultancy experience.
- Interagency working skills; good management and personnel skills; able to take initiative, lead or work within team.
- Capacity building to promote local influence and resource management.
- Sustainable livelihoods - social identity and differentiation, household and intra-household coping strategies for food security and income generation.
- Institutional aspects associated with governance, corporate social responsibility, water and natural resource management.
- Methodologies for community participation in research and development - planning, organisation, implementation and facilitation of participatory workshops.
- Biodiversity conservation and collective action management of natural resources.
- Broad experience of development and relief initiatives spanning Sub-Saharan Africa, Europe and India, working with and through state and civil society organisations.
- Programme development, project appraisal, feasibility studies, monitoring and evaluation.

1. Personal Details:

Family Name	First Names
LATHAM	Charles James Kingsley (Jim)

2. Degrees and qualifications:
2.1 Degrees:

M. A. Anthropology, Rhodes University, Grahamstown: 1987
D. Phil Candidate (for defence and presentation third quarter 2004)

2.2. Other Qualifications:

2.2.1 Civil Service Law Examination (Magistrate's entrance: Zimbabwe)
2.2.2 Shona Customary Law (Civil Service examination) (Zimbabwe)
2.2.3 University of Cape Town Graduate School of Business: "Managing Development and Conflict Resolution" 1990

3. Posts Held:

1996 – Research Associate; Centre for applied Social Science; UZ
1993-6 Independent Research and Rural Development Professional (Chairman and Director of EcoED Trust.)
1984-93 Rural Development Adviser; Chamber of Mines of South Africa.
1981-83 CEO Mazowe Rural District Council
1972- 81 District Officer; Research Officer; Training Officer; Ministry of Local Government and Rural Development.

4. Duties and Responsibilities (for three most recent posts)

1996 to date:
1.Graduate research work on D.Phil programme. Attached is executive summary. Main thesis seeks to show that at the local level, generally it is the indigenous/customary/traditional institutions that as are best suited to the management of natural resources. (Copy of executive summary attached)
2. Member of water research team, CASS. Longitudinal research programme supported by WARFSA and BASIS in the Manyame Catchment. Facilitated planning process on Lower Manyame Sub Catchment Council, 1998/2003
3. Associated empirical research at EcoEd Centre into appropriate methods of rural ecological sanitation (in association with Dr. Peter Morgan) as a holistic approach to combating pollution and disease on the one hand, and increasing soil fertility through composting and natural farming, on the other.

1993/96:Independent consultant, facilitator and researcher. Amongst others was contracted to:-

- Operation Hunger (RSA);
- Institute of natural Resources, University of Natal for Environmental Impact Assessment, Southern Mozambique
- Save the Children (UK) Zimbabwe (Small-scale mining operations: environmental scan with particular reference to children and disadvantaged people.)
- Msitwe River Board Mutorashanga Zimbabwe as facilitator,
- Conservation and Environmental Committee Zvimba Rural Council (assessment of small-scale mining operations on environment/ physical and social

1984/93. Rural Development Adviser to the Chamber of Mines, SA

Duties and responsibilities entailed identifying and monitoring projects funded by mining houses in rural areas of Southern Africa, from where SA mines draw labour – Lesotho, RSA, Swaziland, Botswana and Mozambique.

(During my tenure of employment in Government, I was the examiner for the Ministry for the Customary Law Examination for the period 1976-81. This was one of the qualifications required of district officers who sat as judicial officers in district customary courts and who reviewed the customary courts of chiefs and headmen.)

5. Publications:

"Local Level Management of Natural Resources: A Longitudinal Perspective." Paper presented at Wageningen Agricultural University; Netherlands. 1999

Matching The Biosphere With The Sociosphere: Towards An Understanding Of Local Level Adaptive Management. A Longitudinal Case Study In Guruve Communal Land, Zimbabwe. WaterNet/Warfsa Conference; Maputo. 2000.

Nyika Vanhu: The Land Is The People: An Examination Of Natural Resource Management In Zimbabwe. Afrika Studie Centrum; Leiden, Netherlands. 2002

Institutional Complexity and the Management of Water as a Common Pool Resource. Paper Delivered To Waternet/Warfsa Conference, Dar Es Salaam**.** 2002

Worldviews, Science And Common Property Governance: An Examination Of Natural Resource Management In Zimbabwe's Communal Lands: Victoria Falls, Zimbabwe: IASCP Biennial Conference. Published by IASCP, Indiana UP, 2002

Catchment Management: Zimbabwe And The New Water Act. A Review Of The "Reform" Process in The Manyame Catchment Paper presented to the Waternet/Warfsa Conference Cape Town 2001 and Published in Science And Technology Of The Earth, Elsevier Press, *2003*

1. Personal Details:

Family Name	First Names
Chikozho	Claudious

2. Degrees and qualifications:

D. Phil Candidate, UNESCO-IHE, Delft, The Netherlands, 2004
Title: Policy and Institutional Dimensions of Smallholder Systems Innovations in Integrated Watershed Management: Case studies from the Pangani River Basin of Tanzania and the Thukela River Basin of South Africa

Masters in Public Administration, University of Zimbabwe, 1997
Class: Merit Pass

BSc Honours Politics & Administration, University of Zimbabwe, 1994
Class: 2.1 (Upper Second)

Certificate in Conflict Prevention & Cooperation in International Water Resources - Nov. 2002, Centre for Conflict Resolution, Cape Town, South Africa

Certificate of Attendance on Participatory Rural Appraisal Methods & Techniques - Nov. 1998, Southern Alliance for Indigenous Resources, Harare, Zimbabwe

Certificate of Attendance on Regional Integration in Eastern and Southern Africa – June 1994, University of Zimbabwe

3. Posts Held:

i. [1997 - Present] Research Fellow**,** Centre for Applied Social Sciences, University of Zimbabwe(1998-2003) Part-time Lecturer: 'MSc Water Resources Engineering and Management' *"Community Participation module"* -Department of Civil Engineering, University of Zimbabwe

ii. (2001-2002) Part time lecturer: 'MSc Tropical Resource Ecology' - *"Community Based Natural Resources Management Module"* Department of Biological Sciences, University of Zimbabwe

iii. **(**1996) Teaching Assistant: 'Constitutional Law and Politics, Department of Politics and Administration, University of Zimbabwe.

iv. (July-August 1995) Research Assistant**,** Department of Politics and Administration, University of Zimbabwe
Main focus: Democratic Participation in the Zimbabwean Local Governance System

4. Duties and Responsibilities (for three most recent posts)

Project planning, implementation, monitoring and evaluation; Carrying out research on developments in the Zimbabwe water sector reform programme and on integrated water resources management in general; Participating in the planning and implementation of the HIV/AIDS community theatre for action programme; Participating in planning and implementation of the research agenda for the Leadership and Integrated Rural Development Programme; Training rural development animators; Analysing**;** monitoring; and evaluating USAID funded community-based natural resources management projects (CAMPFIRE); and Teaching MSc students

5. Publications:

i. Institutional Evolution Under Water Sector Reforms: Lessons from the Mazowe Catchment, Zimbabwe, Organization for Social Science Research in Eastern and Southern Africa (OSSREA) Addis Ababa, Ethiopia, November 2002

ii. Towards Community-Based Natural Resources Management in the Water Sector: An Analysis of Legislative Changes made under the South African and Zimbabwean

Water Sector Reforms, CASS/PLAAS, University of the Western Cape, 2001

iii. "Institutional Evolution in Water Resources Management: Lessons from the Zimbabwean Water Sector Reform Programme" in Contested Resources: Challenges to the Governance of Natural Resources in Southern Africa, Programme for Land and Agrarian Studies, University of the Western Cape, Cape Town, October 2000

iv. Public Enterprise Performance: Is Commercialisation the Panacea to Public Enterprise Performance Problems? - A Study of Dairibord Zimbabwe Ltd, MA Thesis, University of Zimbabwe, 1997

6. Countries of Work Experience

Zimbabwe – 7 Years

7. Capacity and experience relevant to this proposal

Over 6 years of experience in policy-related development issues, particularly in the areas of participatory development, integrated rural development, community-based natural resources management, HIV/Aids, globalization, leadership and governance. Strong skills in multi-disciplinary project planning, management and human resource development. Strong communication skills, local and international networking; teamwork skills; information dissemination, and advocacy skills.