This study was achieved with the financial contribution of the European Union’s Environment in Development Countries Budget Line (B7-6200). The authors are solely responsible for opinions expressed in this document, and they do not necessarily reflect those of the European Union.
Sustainable Wetland Management in Illubabor Zone, South-west Ethiopia

Project B7-6200/96-05/VIII/ENV

Report for Objective 6
(Report 9 of 9)

on

Policy Issues in Sustainable Wetland Management

by

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### Glossary

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<th>Definition</th>
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<tr>
<td>AAU</td>
<td>Addis Ababa University</td>
</tr>
<tr>
<td>Birr</td>
<td>The Ethiopian monetary unit</td>
</tr>
<tr>
<td>Cheffe</td>
<td>The Oromiffa name given to Cyperus latifolius, a tall, broad sedge which is abundant in the wetlands of Illubabor</td>
</tr>
<tr>
<td>CIP</td>
<td>Coffee Improvement Project</td>
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<tr>
<td>CSA</td>
<td>Central Statistics Authority</td>
</tr>
<tr>
<td>CSE</td>
<td>Conservation Strategy of Ethiopia</td>
</tr>
<tr>
<td>Dejazmach</td>
<td>A politico-military title meaning ‘commander of the gate’</td>
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<tr>
<td>Derg</td>
<td>The government of Ethiopia between 1974 and 1991 in which power was initially shared by a military committee and later centralised into the hands of President Mengistu Haile Mariam</td>
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<tr>
<td>EECMY</td>
<td>Ethiopian Evangelical Church Mekane Yesus</td>
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<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EMA</td>
<td>Ethiopian Mapping Authority</td>
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<td>EPA</td>
<td>Environmental Protection Authority</td>
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<td>EU</td>
<td>European Union</td>
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<td>EUE</td>
<td>Emergencies Unit for Ethiopia</td>
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<td>EWRP</td>
<td>Ethiopian Wetlands Research Programme</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation of the United Nations</td>
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<tr>
<td>FDRE</td>
<td>Federal Democratic Republic of Ethiopia</td>
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<tr>
<td>GIS</td>
<td>Geographical Information System</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<td>GWT</td>
<td>Groundwater Table</td>
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<tr>
<td>IK</td>
<td>Indigenous Knowledge</td>
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<tr>
<td>IKS</td>
<td>Indigenous Knowledge System</td>
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<tr>
<td>ITK</td>
<td>Indigenous Technical Knowledge</td>
</tr>
<tr>
<td>IUCN</td>
<td>International Union for Conservation of Nature and Natural Resources</td>
</tr>
<tr>
<td>Kebele</td>
<td>A co-operative urban neighbourhood association which constitute the basic unit of government</td>
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<tr>
<td>MFM</td>
<td>Menschen für Menschen</td>
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<tr>
<td>MoA</td>
<td>Ministry of Agriculture</td>
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<tr>
<td>MoTCD</td>
<td>Ministry of Tea and Coffee Development</td>
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<tr>
<td>MoWME</td>
<td>Ministry of Water, Minerals and Energy</td>
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<tr>
<td>NDPC</td>
<td>Natural Disaster Prevention Committee</td>
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<tr>
<td>NGO</td>
<td>Non Governmental Organisation</td>
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<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
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<tr>
<td>RELC</td>
<td>Regional Research and Extension Linkage Committee</td>
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<tr>
<td>RRA</td>
<td>Rapid Rural Appraisal</td>
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<tr>
<td>SCRIP</td>
<td>Soil Conservation Research Project</td>
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<tr>
<td>Tef</td>
<td>(Eragrostis tef) A cereal indigenous to Ethiopia, which is used in the making of the traditional unleavened bread <em>injera</em></td>
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<tr>
<td>Tukuls</td>
<td>Amharic name for locally built huts</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>Wereda</td>
<td>The district level of government administration</td>
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PBN 1: The role and importance of wetlands in Ethiopia, by A.P. Wood  
PBN 2: Dynamics of wetland management, by P.G. Abbot & Afework Hailu  
PBN 3: Sustainable wetland management, by P.G. Abbot & Afework Hailu  
PBN 4: Wetlands and food security in south-west Ethiopia, by P.G. Abbot & Afework Hailu
PBN 5 : Wetlands, policies and environmental assessment, by A.P. Wood
PBN 6 : Indigenous wetland knowledge – the basis for sustainable use, by A.B. Dixon
PBN 7 : Supporting sustainable wetland management – institutions, extension and sharing local knowledge, by A.P. Wood, P.G. Abbot and Afework Hailu
1.0 Introduction

1.1 Context
Increased attention has been given to the nature of development policies during the last two decades. While in some cases this concern has been specifically focused on the need to provide an appropriate macro level policy framework for approaching development - such as economic liberalisation or participation, attention to policy development has also brought neglected areas to the forefront of development concern, such as gender. However, policy development is a complex process and new policies should not just be developed on the whim of politicians or donors without due consideration for their wider implications. In order for successful policies to be developed they have to be based on information, its analysis and interpretation. Regrettably, too often this has not been the case, with policies driven by political or other goals and with inadequate information about their dynamic impacts beyond the immediate goal. In such cases the results may be disastrous with environmental degradation, economic impoverishment and political collapse or conflict the outcome. It is in this context that the work of the Ethiopian Wetlands Research Programme should be seen as it is trying to contribute basic field data towards the development of appropriate policies for wetlands. The project believes that these policies should ensure the sustainable utilisation of the wetlands for future generations and the maintenance of their hydrological functioning.

The results of this research project, reported in the other eight volumes, show that a considerable body of knowledge has been accumulated as a result of three years of research. This is the first formal and structured collection of knowledge about the wetlands in the highlands of south-west Ethiopia and probably Ethiopia as a whole, with the exception of the Rift Valley Lakes. As such it is pioneering research and the knowledge which is being produced needs careful analysis and interpretation in order to feed into policy formulation. However, it must also be recognised that this is only one small contribution to our knowledge base about the wetlands of Ethiopia, and there are many more different types of wetlands in the same and in different agro-ecological zones about which more information is needed to inform policies. Nonetheless, this first data begins to provide a basis for understanding the environmental functioning of one type of wetland and its human use and so provides some initial guidance for their sustainable management and for appropriate policies to support this.

1.2 Aims of the report
The aim of this report is to address Objective 6 in the Project Proposal which seeks “to contribute to the development of national and regional policies in Ethiopia which impact upon wetland use” and to “achieve the preparation and use of material relating to wetland policy issues.”

In addressing this question this report records the findings of research undertaken during the project into the interactions between policies and wetlands in Ethiopia specifically and more broadly about policy development in East Africa (Wood, 1998a, 1999a). The research sought to identify and understand:

- the ways in which policies can influence sustainable wetland use,
- the types of policies which have been important for wetlands,
- the formulation processes for policies which are relevant to wetlands,
- the ways policies may need to be adjusted to ensure the sustainable contribution of wetlands to development, and
- the methods by which policy development may be achieved.
1.3 Methods
The work reported in this volume is based on a variety of research methods, but is mostly of a qualitative nature, focusing on literature, policy documents, and interviews. Initially a major search of the local and international literature on agricultural development and natural resource management was made and a database of materials relevant to the project’s interests, including policy issues was established (Hawkins, 1998). Both prior to, and subsequent to, this work, discussions were held by this researcher with a wide range of people in government departments from the federal through to the wereda level, with staff of non-governmental organisations, and with farmers in Illubabor. The breadth of the information used in this paper has been widened through the indirect access to field information which has been obtained from the other researchers in the EWRP team. Further comparative analysis of the Ethiopian situation has been achieved through interviews with IUCN staff working in wetland projects and wetland policy development process in other countries (Howard, Bakema and Yilma Abebe, pers. comm.). The whole question of wetland policy formulation has also been considered in relation to other environmental policy formulation processes in Ethiopia (e.g. Wood, 1993).

2.0 Policy influences on wetlands: a conceptual framework

2.1 Levels of policy formulation
While policy is often interpreted as being a course of action adopted by a government, it must be recognised that policy can be formulated at many other levels, both lower and higher (Figure 1, Column 1). Experience from this project shows that communities or groups of people with similar interests (interest groups) develop policies about wetlands for which they are responsible and that local by-laws and rules below the Wereda level exist and are important for the management of wetlands. Conversely policies resulting from international negotiations may also affect wetlands through demands for agricultural development to increased exports or as a result of biodiversity or nature agreements, such as the Ramsar Convention. Another level and type of policy actor which can be important is non-governmental organisations (NGOs) as they may have a specific interest in wetlands and may develop their own policies. These may in fact be highly influential because of the resources which NGOs can apply to implement their policies.

2.2 Policy Impacts
Besides the levels at which policies are formulated, consideration must be given to the ways in which policies interact with wetlands (Figure 1, Columns 2 & 3). While there may be some policies which are specifically designed to address wetland issues, particularly at the local level such as by-laws, many national level policies impact only indirectly upon wetlands. For instance, food security or cash crop production policies will affect land use and can easily have “knock-on” effects and impact upon wetlands. Indeed general economic development policies, where they are successful, often impact upon rural wetlands in several ways with the accumulation of wealth in the form of cattle and the grazing pressures upon wetlands or the loss of interest in the use of reeds for roofing (see Figure 1).
The question of direct and indirect impacts of policies upon wetlands raises the issue of the time perspective within which policies impact upon wetlands. The more indirect the policy influence is the more delayed the impact may be, although that is not to say that all policies with direct impacts achieve results within a short period of time. Further, one policy may have some immediate effects but also other longer-term impacts which may, or may not, always follow on. For instance, changes in land use and drainage in a wetland, as a result of new crop varieties, may affect soils and hydrology with immediate effects but there may also be longer-term impacts, especially on soil structure which may be difficult to reverse, and could in turn affect the hydrology. Conversely changes in wetland land use could impact upon household welfare, but this is unlikely to be evenly spread across the community, and could lead to socio-economic differentiation as some people benefit from wetlands cumulatively while others do not (Wood, 2000b).

The final dimension to policy impact is the extent to which they are superficial or significant, especially their degree of reversibility. This discussion obviously requires knowledge of specific environmental and socio-economic processes, and it is a very important aspect of the impact which policies have. Some soil processes are certainly difficult to reverse, while socio-economic differentiation tends to be cumulative so that differences increase over time. On the other hand some impacts may be reversible if specific conditions are created such as the control of grazing which appears to permit the recovery of swamp vegetation and the improvement in soil structure (see Objective 4 Report).

2.3 Applying the framework
Using this analytical framework to study the literature concerning wetlands in the developing world, it is clear that to date most of the attention has been given, in the rather small amount of wetland policy research so far, to the indirect impact of government policies. Studies in Nigeria and Sierra Leone, although on different topics and scales, suggest that governments in those countries have tended to pursue agricultural production goals without paying sufficient attention to the way in which these policies will impact upon wetlands and the communities who use them (Hollis et al, 1993; Dries, 1991). In Sierra Leone, government policy has also failed to pay attention to the expertise and local knowledge which farmers have developed through decades of wetland use. This has resulted in serious ecological and economic
problems which have undermined rice production in the wetlands. Little has been written to
date about locally developed policies for wetland management, although in other parts of the
natural resources literature, such as that for tropical forests, there is now considerable
information about local management rules and institutions. (Goldman, 1998).

3.0 Ethiopian government policies impacting upon wetlands

3.1 An overview
The research undertaken in this project has found that there is little attention given
specifically to wetlands in their own right in Ethiopian government policies and legislation. In
this respect Ethiopia is like many other countries where wetlands are, what Chambers (1991)
calls, a “micro-environment unobserved”. In other words they are small ecological niches
which to date have not attracted much attention from policy makers. Policies are developed
for the major ecological areas and their resources, such as forests, arable land, and pastures,
but not for the smaller ones which are seen as less important. It is only at lower levels, mainly
the community, that there is evidence of policies specifically designed for wetlands. Such
local level initiatives seem to be increasingly common as pressure on resources increases.
This has led to by-laws being developed, for instance to protect wetlands for reed production
or for cultivation rather than allowing open access for cattle grazing. Similarly some NGOs
have identified wetlands as key resources and they have developed policies to support
communities using them as an alternative to forest clearance (Wood, 1996b).

On the other hand, from the various sources used in this research, it is clear that wetlands have
often been affected indirectly by a range of government policies in this country (Table 1). In
many of these cases this appears to be by chance. Such unexpected impacts are typical in
many parts of the world (Beck, 1994, Mitsch, 1994) and show how important it is to have
sensitive policy formulation processes which include appropriate environmental impact
assessment procedures (see Section 5.2 for further discussion).

While a number of direct and indirect impacts can be identified, it should not be thought that
the policies identified below always have these impacts and that the impacts are uniform. For
a start, policy implementation is variable, while the way in which policies interact with locally
varying situations means that sometimes one impact will occur but in other situations it may
not. Hence the nature of policy implementation and the local circumstances are very
important. This point is also relevant in reverse as when policies are being designed to address
wetland issues it should not be thought that single policies are appropriate for use across the
whole of the country, or that they will have similar impacts on all wetlands. Local adjustment
of policies is always necessary and many policies are best developed at the local level, rather
than by central government.
Table 1 - Policies and their impacts upon highland wetlands in Ethiopia, 1950-2000.

<table>
<thead>
<tr>
<th>Levels of policy and nature of impacts</th>
<th>Policy examples</th>
<th>Specific impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Policies with direct impacts</td>
<td>Conservation Strategy of Ethiopia</td>
<td>Protection of wetlands for hydrological functioning</td>
</tr>
<tr>
<td></td>
<td>Water Resources Policy</td>
<td>Protection of wetlands for buffering capacity against pollution and waste</td>
</tr>
<tr>
<td>National Policies with indirect impacts</td>
<td>Agricultural research (new crop varieties)</td>
<td>Shorter maturing varieties make wetland cultivation more successful and encourages drainage</td>
</tr>
<tr>
<td></td>
<td>Wildlife protection</td>
<td>Increased predator numbers leads to abandonment of wetlands</td>
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<tr>
<td></td>
<td>Population relocation and resettlement</td>
<td>Increased demands for reeds and for cultivation land</td>
</tr>
<tr>
<td></td>
<td>Coffee expansion</td>
<td>Relocation of cultivation from uplands to wetlands</td>
</tr>
<tr>
<td></td>
<td>Land tenure - insecurity</td>
<td>Accumulation of cattle and increased use of wetlands for grazing</td>
</tr>
<tr>
<td></td>
<td>- security</td>
<td>more frequent use of wetlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>less frequent use of wetlands</td>
</tr>
<tr>
<td>National / Regional Policies with indirect impacts</td>
<td>Food security goals of landlords and through present wetland task force</td>
<td>Increased cultivation of wetlands</td>
</tr>
<tr>
<td>Community Policies with direct impacts</td>
<td>Abba Laga / Wetland Agricultural Management Committee system</td>
<td>Control over management of wetland and co-ordination of land use</td>
</tr>
<tr>
<td></td>
<td>Allocation of wetlands for specific uses - reed production and grazing</td>
<td>Protection of wetlands from other uses</td>
</tr>
<tr>
<td>NGO Policies with direct impacts</td>
<td>Wetland development for agriculture</td>
<td>Drainage and development of wetlands</td>
</tr>
<tr>
<td>NGO Policies with indirect impacts</td>
<td>Spring protection</td>
<td>May also involve preventing drainage to maintain spring flow</td>
</tr>
<tr>
<td></td>
<td>Catchment rehabilitation</td>
<td>May help retain water for wetland recharge</td>
</tr>
</tbody>
</table>
3.2 National policies directly addressing wetlands

This research has shown that there are no national policies which address wetlands in their own right. Ethiopia is not a signatory of the Ramsar Convention and until recently it has avoided becoming involved in discussions about this international convention, with its obligation to designate a wetland site for protection. Reportedly, this is in part due to a belief in government circles that the Ramsar Convention is driven primarily by a northern interest group concerned with the international migration of wildfowl and other birds. Instead, Ethiopia is more concerned with being involved in the Biodiversity Convention which it sees as able to cover all natural resources and less influenced by external interest groups.

However, there is a growing awareness of wetlands, especially their contributions to the hydrological system, and for these reasons wetlands are mentioned in two national policy statements, the Conservation Strategy of Ethiopia (CSE) (E.G. 1997a) and the Water Resources Policy (1998).

The Conservation Strategy of Ethiopia in its second volume on specific resources gives attention to wetlands in the chapter on water resources. There it states that there is a need to “recognise that natural ecosystems, particularly wetlands and upstream forests, are fundamental in regulating water quality and to integrate their rehabilitation and protection in the conservation, development and management of water resources” (E.G. 1997a, paragraph 191 q). However, there is no further discussion of wetlands in this major policy document and there are no guiding principle developed and elaborated in the subsequent parts of the strategy, nor in the related Environmental Policy of Ethiopia (E.G. 1997b).

The slightly more recent Water Resources Policy recognises further contributions by wetlands and points out the need “to insure the protection of wetlands and the sustainable use of (their) biodiversity and to promote their assimilative and buffering capacity against pollution and waste” (E.G. 1998, Chapter 4, Section 4.1/26).

It is clear that both these documents take a rather narrow “functionalist” view of wetlands which they see as very much contributors to the well-being of the hydrological system, either as regulators of water quality or for their assimilative capacity against pollution. They do not see wetlands as valuable in their own right, nor do the wider range of functions and benefits which they can provide beyond water storage and treatment. (The CSE is probably more important for wetland management because of its call for strategic environmental impact assessment which will look at the wider environmental impacts of government policies - see Section 5 below).

3.3 National policies with indirect impacts upon wetlands

3.3.1 National development policy and resource rich regions

The history of Ethiopia over the last three centuries has involved an increased integration of the resource rich south-west highlands into the national and international economy. Specific policies to this effect have been employed by all of the regimes during the last 120 years, with the conquest under Emperor Menelik, the development of coffee farming under Haile Selassie and the further development of the road network to facilitate agricultural development and resettlement under the Derg.

For all of the regimes the natural resource wealth of the south-west has been an important consideration, both in terms of its contribution to national economic development and for the way in which specific problems could be addressed through the distribution and utilisation of
resources in this region. Resource rich regions are a key consideration for Ethiopian regimes as they offer one of the few ways in which revenue can be increased and the regime’s ability to stimulate development assisted. The resource development policies which are applied in this region need to be seen within a national development context of resource mobilisation, and even an international context relating to Ethiopia’s balance of payments and its relations with donors. Hence, the drive for food security through the development of resources within the south-west should be seen in the context of the drought and famine in the north, but also within the context of the attitude of the international community towards continued famine relief supplies to Ethiopia and the changing world market availability of relief grain and declining international funding of the World Food Programme.

This resource mobilisation perspective has tended to focus primarily on the coffee and timber resources of the south-west, although the agricultural potential for cropping has also been a consideration, both in terms of resettlement and also in terms of increased crop production for domestic urban consumption and export. Within this context, wetlands have generally been ignored or regarded as a hazard or problem. However, the regional study of the Baro-Akobo Basin does identify the supportive role which wetlands play in conjunction with the high rainfall for hydro-power development (TAMS-ULG, 1996).

External initiatives towards resource mobilisation should be viewed critically as they have not always been successful or without their negative impacts. The conquest in the 19th century had considerable negative impacts upon the farming system, especially with the loss of access to cattle and the reduction in other labour as a result of the fighting and subsequent slaving. Similarly some of the major resource development measures under the Derg caused much environmental damage, as in the case of the Bebeka coffee plantation and some of the mechanised resettlement schemes.

3.3.2 Agricultural research and extension policies
The evolution of agriculture in the south-west highlands has influenced wetland cultivation in a number of ways. One crucial influence appears to be the introduction and popularisation of maize cultivation, especially the introduction of improved varieties during the 1960s as a result of contacts with the international agricultural research system, and especially work being undertaken in Kenya. McCann (1995) argues that the introduction of shorter maturing varieties encouraged farmers to make greater use of bottomlands as the maize could mature and be harvested from these areas before they are inundated. This has probably meant that a greater variety of wetlands can now be used including ones which are more difficult to keep drained.

It is clear that in the south-west highlands there has been a growing preference for maize as the starch staple in recent decades / centuries. This is a trend which is common in most parts of Africa being driven in part by food preference, but also by better storage characteristics of flint maize varieties, the less critical weeding needs of this crop and its lower crop guarding requirements compared to sorghum. However, it is also important to note that the modern, improved maize varieties are not so suitable for long term storage as the traditional flint varieties and that the increased cultivation of these in general may affect food security. If as a result farmers have had a longer “hungry season” preceding their main harvest because of increased weevil damage to their stored crop, this may be one factor encouraging use of the wetlands for green maize production to fill the food gap.

The role of wetlands in the farming system must be seen over a longer period. It appears that the “traditional” farming system in this area, before the expansion of coffee production occurred,
was diverse, probably being dominated by sorghum, with root crops (taro, yam and the Oromo potatoe) and some cultivation of ensete. The precise details of the farming system are less important than the fact that this combination of crops provided a relatively secure all-year round supply of food. (In particular, it is notably that red sorghum is relatively easy to store with little damage caused to the seedheads by weevils which are one of the main post-harvest pests.) In addition the availability of taro and other root crops will have helped provide sources of starch over a considerable part of the year, as the storage of these crops in the ground as standing crops is possible. Hence, as maize and coffee production grew, food insecurity increased in terms of domestic production and increased the food gap and hungry season, especially once non-flint varieties of maize were used.

3.3.3. Food security
The earliest reports of government encouragement of wetlands drainage go back to the early 20th century when the Governor of the region advised the predominantly “northern” landlords to direct their tenant farmers to cultivate wetlands. This was reportedly to improve food security following a period of hunger, the causes of which are not recorded. This government advice appears to have been taken up in one of the communities surveyed where a Muslim religious leader is reported to have suggested drainage practices which, after four or five years of trial and error, were perfected and have been used successfully for some 70 years to cultivate annually almost the whole of one particular wetland. In other communities wetland use was more recent and intermittent.

Another major government initiative encouraging wetland development for food security followed the 1984 famine. In 1985 the government enunciated a policy which required all regions of the country to develop measures which would improve their food self sufficiency. Even areas, such as western Illubabor, which could afford to import grain by responding to its environmental comparative advantage in coffee production, were not excluded from the policy and efforts to achieve food self-sufficiency in this traditionally food deficit area were pursued. While the main emphasis in this nation-wide policy was on micro-irrigation, in the well-watered south-west highlands this was not appropriate (Kloos, 1991). Hence the Ministry of Coffee and Tea Development (MCTD) in western Illubabor, along with the Ministry of Agriculture in the east of the zone, began to encourage community drainage of wetlands for food security. The Rural Agricultural Development Department of the MOA also began to consider developing its own programmes for draining some of the larger wetlands for agriculture. Hence by 1986 a set of extension messages concerning the use of wetlands for agriculture had been developed to meet the responsibilities of MCTD and MOA for improved food security.

The present government continues to express concern for regional food self-sufficiency. The current emphasis upon increased fertiliser use and improved seeds continues to encourage the expansion of arable land and neglects the comparative advantage of other types of forest and forest fringe production (Yihenew Zewdie Lemma, pers. comm.) While there was less explicit emphasis upon wetland use in the Agriculture Bureau’s extension message in the mid 1990s, in 1999 and 2000 this was again stressed following the poor harvest in the north of the country and some local problems with food security (EUE, 1999). The zonal administration established an inter-agency Task Force to encourage wetland drainage and by the end of this project in April 2000 wetland cultivation was reported to have reached a new peak. In addition, the zonal Department of Water Resources, Minerals and Energy continues to plan the drainage of some of the larger wetlands in the area.
3.3.4 Commercialisation policies and market opportunities
Wetland agriculture has been stimulated to some degree by market forces which have affected the resource rich south-west highlands in a number of ways. In particular market-oriented wetland agriculture is linked to road improvements which included the building of a gravel road from Jimma to Bedele in eastern Illubabor during the 1960s, a tar road from Bedele to Metu in the early 1970s, and gravel roads west to Gambela and south from Gore during the late 1970s / 1980s. These communication developments have facilitated the marketing of produce from wetlands along these roads, while indirectly they have encouraged an increased dependence upon purchased food by both urban and rural dwellers involved in the commercial economy.

One of the major responses to the increased availability of cash in this area through coffee development, has been the increased demand for green maize. This crop, which traditionally used to be grown purely for domestic consumption, is now a major item of trade, both for urban dwellers and for rural households. In addition, there has been an increased market for vegetables in the towns as more cosmopolitan food habits have entered the area. Potatoes and carrots are two of the most important vegetables grown in the wetlands and a major market exists for these crops, especially in the pre-Easter fasting period. While the green maize is grown during the traditional period of wetland use, January to June, the cultivation of vegetables has extended this period of wetland use which now starts in October. Hence double cropping is quite common with potatoes or carrots grown for the first three to four months up to January, followed by maize.

3.3.5 Coffee production
Coffee, being the major source of foreign exchange in Ethiopia, has always been of major concern to the national government, whatever its political perspective. Under the last three regimes wetlands have featured in discussions about how coffee development could be facilitated because relocating some cereal cultivation to the wetlands has been seen as a way to release land on the interfluves for coffee production.

The earliest initiative of this sort occurred during the 1950s when one of the governors in Illubabor began encouraging the planting of coffee bushes in order to increase production. This marked a major change in coffee production in this area as prior to that date the main emphasis had been on the collection of wild coffee in the forest. The areas identified for coffee planting were the semi-cleared forest surrounding the existing farmland and settlements. These areas would normally be brought into cultivation in response to population growth and declining yields on the existing fields. In order to compensate for the loss of this land from cropping, landlords were encouraged to direct their tenant farmers to the wetlands in order to provide alternative land for cultivation.

This belief that wetland cultivation would facilitate coffee production was again used by the Ministry of Coffee and Tea Development (MCTD) during the Derg regime. From the early 1980s this Ministry took over, from the Ministry of Agriculture, all agricultural support services in areas where tea or coffee were grown and a series of policies were introduced to try to expand coffee production within the existing areas of settlement. One of these was to increase the use of wetlands and to slow the conversion for cropping of interfluve land with potential for coffee cultivation. This policy was applied throughout Illubabor according to former staff of MCTD, although adoption of wetland drainage appears to have varied with the degree of other support for coffee development which was available from the Coffee Improvement Project and the local constraints upon wetland use.

While specific policies concerning coffee production have encouraged wetland use, problems
with coffee production and over-reliance upon the income from coffee may also have impacted upon wetland cultivation. The Coffee Berry Disease (CBD), which affected south-west Ethiopia in the late 1960s and 1970s, seriously reduced the income of households who had relied on coffee sales or income from coffee picking. Many of these household were effectively subsistence producers in terms of their cereal cropping and relied upon the coffee income in order to purchase food for several months of the year. The impact of CBD, in terms of reducing coffee yields and the demand for coffee pickers, was so serious that in some years it was reported that people were starving because they had no income from coffee and had debts from the previous season which meant that they could not obtain further loans. In this situation, and especially in the first year in which this occurred, such households needed to increase their food production as quickly as possible once they realised in October through to January that their coffee income would be reduced. Rather than having to wait until the main harvest in October / November, cultivation of wetlands with a harvest from June onwards was essential.

3.3.6. Recent policy initiatives
Since the change of government in 1991 new policies have begun to impact upon wetland utilisation. The belief among farmers that land redistribution has been abolished and that access to land is on the basis of past allocations rather than current usufruct has reduced the practice of farmers undertaking cultivation in order to retain their rights to specific areas of land. In many cases it appears that wetland have been left fallow because they are the most difficult to cultivate, although in some cases they have been rented out to landless or land-short households on the basis of share-cropping arrangements which now appear to be acceptable again. Abandonment of some wetland fields has led to a more patchy utilisation of these areas. This has made co-ordinated drainage and guarding of crops more difficult, further undermining the viability of using these areas. Guarding problems have also become particularly serious as a result of new legislation banning the hunting of wild animals, including pigs, porcupines and vervet monkeys which are major pests in the wetland fields.

3.4 Past national policies with indirect impacts on wetlands
3.4.1 Agricultural pricing and marketing policies under the Derg
There are two ways in which the agricultural marketing policies of the Derg affected maize cultivation and indirectly wetland use during the 1980s after the establishment of the state Agricultural Marketing Corporation (AMC) and the increased intervention by the state in crop marketing. The first of these was through the impact upon free market food prices which quadrupled from 1975 to 1990 (McCann, 1995). This led to a shift into cereals and away from coffee where prices were held down by state marketing mechanisms. As a result farmers needed to replace their cash income from coffee by a cash income from food crops and this meant increasing their areas under cereal cultivation. Maize was a preferred crop for this in the south-west, in part because of its suitability, but also because of the lower labour demands of this crop. The second way in which AMC policies encouraged maize cultivation was because this crop was for some time outside AMC’s list of controlled crops for which communities had to meet quota requirements. This preference for maize as a source of cash income, combined with commercialisation trends (even though they were retarded under the Derg) encouraged the cultivation of wetlands to some degree.

3.4.2. Resettlement policy under the Derg
The drought of 1984 in the north of Ethiopia had another impact upon the wetlands of Illubabor through the resettlement of famine victims. Within the highlands of Illubabor some 60,000 persons were resettled mainly from Wollo, an influx equivalent to 6% of the previous population of Illubabor. Unlike in the lowland areas, where settlement schemes were established with
mechanised farming, the famine victims resettled in the highlands were integrated into the existing communities. This integrated resettlement appears to have led to the use of wetlands for three reasons. First, many of the settlers who were unfamiliar with the environment in Illubabor, found it difficult to store maize in the damp conditions where it suffered from both mould and weevil damage. This meant that by May or June they had run out of food and needed a second harvest in order to keep themselves supplied with food until the main harvest in October / November. While the local people eat a range of root crops as well as maize, the settlers, being unfamiliar with the root crops, prefer to grow a second cereal crop and so appear to have taken up wetland cultivation as a way of meeting their food needs.

The second reason why settlers used the wetlands, appears to relate to their position as new arrivals into established communities. In this situation the power to allocate land was with the Peasant Association (PA) which was controlled by the indigenous population. Although the PA was under-pressure to ensure that the settlers survived, they were not required to give over their best land to them. Instead they ensured that the land which they valued most highly, the semi-cleared forest land nearest to their settlements, were reserved for themselves and that less highly valued land, both in the forest and the swamps, was given to the settlers. This policy was pursued with official approval as the government wanted to reduce the risks of conflict between the settlers and the local community.

The third reason for wetland cultivation by the settlers may relate to their search for cash income from the sale of both green maize and vegetables. Unlike most of the resident population, the settlers did not have income from coffee production or coffee picking and did not have rights to collect wild coffee or spices in the forests. Hence wetland cultivation of marketable produce was one of the few ways they could earn cash. (It should be noted that since the change of government in 1991 a considerable proportion of the resettled famine victims have returned north from Illubabor, although there do remain some major settler communities.)

3.4.3 Socio-economic policies and wetland uses in the past

Wetland use has been influenced by a number of socio-economic policies introduced by different regimes. The impact of Menelik’s conquest upon the use of slaves and servile labour in the south-west is thought to have been considerable as the slaves were taken north and sold on the market which existed at that time in the Red Sea basin. What impact this had upon agriculture in general and wetland use in particular is not known, although McCann suggests that slave labour had been important in the process of forest clearance which occurred during the 19th century and that the loss of slave labour was one factor in allowing the resurgence of the forest. There is no evidence concerning the use of slaves in the development of wetlands (although this has been critical in some areas - such a Barotseland in Zambia, (Gluckman, 1968) but the loss of servile labour may well have led to the end of the more labour intensive forms of cultivation, which might have included wetlands.

There is conflicting evidence for the situation with respect to socio-economic policy influences upon wetland drainage under the Derg. On the one hand, there are suggestions that because of the increased demands by the Peasant Associations on the time of farmers for meetings and for communal activities, such as soil and water conservation and farming for militia families, they were under pressure to concentrate on crops and fields with low labour inputs. This would have favoured uplands over wetlands. In addition it has been suggested that the redistribution of coffee land gave farmers an additional source of income, which when combined with the removal of their payment to landlords, had a significant impact on the income of households and provided an easier way of obtaining food security than wetland cultivation, at least until coffee prices were
forced down by the state’s AMC. On the other hand, the redistribution of land following the land reform proclamation widened access to wetlands as households received portions of all the different types of land which were available in a Peasant Association. This combined with the fear of losing unused land during one of the redistribution processes is reported to have led to an increased, if rather superficial, use of wetlands. An additional encouragement to this cultivation was the necessary co-operation in drainage and crop guarding, which was seen at that time as a desirable form of communal work.

3.5 Community policies directly impacting upon wetlands

A number of instances have been encountered of active community management of wetlands. In such cases the communities have developed formal or informal policies concerning their management of these areas. These policies are based on experience over the generations which forms a body of local knowledge. This knowledge and perception of wetlands often differs very considerably from that held by government officials, both at the national level and locally, and by staff in NGOs.

In many parts of the south-west highlands, the primary use of wetlands is as a source of reeds for the thatching of huts. Other types of plants are also collected for medicinal purposes or craft use. Such “gathering” practices in wetlands appear initially to the outsider to be totally arbitrary. However, as enquiries proceed it is found that local arrangements often exist to control such collections and to protect the wetlands from overuse which would reduce the availability of these natural products. To date one of the most common rules encountered concerns local controls over who may collect reeds from a wetland and the quantities which they may collect. Similar controls over the use of wetlands for grazing appear to exist, these being applied to prevent both over-grazing and compaction of the soil.

Where wetland cultivation has occurred, farmers have built up a body of local knowledge which has been used to develop agreements about how to manage cultivation of these areas. In general farmers have a very accurate understanding of the hydrology of the wetlands and have developed a number of drainage and water retention practices for these areas. They recognise that over-drainage can occur and lead to the failure of green maize cultivation or the need for hand irrigation. Similarly farmers recognise that the cultivation of wetlands cannot be continual and that periods with the natural flooding regime are needed in order to overcome deterioration in soil fertility as well as soil compaction and “crusting” which occurs as a result of grazing.

In addition, communities recognise the value of wetland products, notably for thatching and grazing, and understand that if drainage and cultivation are developed too much there will be losses which counterbalance the benefits obtained from cultivation. Hence practices and rules have been developed to ensure the rotation of land use within wetlands or the protection of areas for reed production.

The ability to apply this knowledge exists through informal groupings of wetland users. They usually organise the drainage, water management and control of pests together. However, in some localities where pressures on wetlands have increased and led to shortages of some wetland products, the Peasant Association or Kebele have become involved in the formulation of formal regulations concerning wetland use. These local rules have been created to protect the swamps from further drainage in order to ensure the future supply of reeds for thatching and in order to maintain grazing land for use in the dry season.
3.6 NGO policies directly impacting upon wetlands
The major NGO working in Illubabor is Menschen für Menschen. This NGO was initially concerned with emergency relief measures in support of the integrated resettlement programme in the 1980s. By the end of that decade it wished to expand its activities beyond the primarily relief and social work in which it was involved and developed an eco-development programme. This was driven in large part by a concern to reduce the level of forest destruction and a wish to support the development of sustainable agriculture which would not require further forest clearance. The eco-development programme initially included a wetland development element drawing on the existing initiatives of the MCTD and MOA in this respect. The wetland development programme involved providing advice to farmers about how best to develop the wetland through drainage for agriculture. The NGO developed further the government concern with respect to the methods of drainage and the balance between the drained and undrained areas, the pattern of drains and their depth.

As interest in the wetland drainage grew and questions were raised, first from an MFM internal review (Kebede Tato, 1993), and then through the development of EWRP, MFM adjusted its policy, first emphasising the need for wetland rehabilitation, and more recently focusing on the use of wetlands for non-agricultural activities or only limited vegetable cultivation by women’s groups (Wood 1996).

3.7 Overview
This review makes it clear that there are a range of levels at which policies impact upon wetlands in Illubabor zone. Many of these confirm the earlier discussion that policies often impact indirectly, or by chance, upon wetlands. As a result it is vital that policy formulation processes do take wetlands into consideration and look at the potential linkages to them from policies developed for other reasons.

4.0 Wetland policy formulation process

4.1 The dynamics of policy formulation
In order for this project to produce material which is useful for policy development it is important that policy formulation processes are understood, as well as the range of policies which can impact upon wetlands. Policies are the result of complex interactions involving many actors and the stages in the process need to be understood (Wood, 1993). Policy is usually announced and sanctioned by the political leaders at the level at which it is developed, be that the government, the community or an organisation. However, these leaders may not be the only people developing policy and there are usually inputs from technical persons, members of the community, or other people in an organisation. The interaction between these different groups is highly variable and undertaken in different ways. Sometimes policy formulation is an open and democratic process, as in a village meeting, although there may be much negotiation and lobbying before hand and during the meeting. In other cases, and more frequently, policies are formulated in private with “think tanks” or “kitchen” cabinets being very influential, and it may not even be clear who are the people involved. This may make it especially difficult for interest groups and researchers to circulate their materials at the right level.

Policy formulation is subject to influences from a variety of factors - economic, political, social and environmental. These may operate at all levels in a society and can in turn impact across policy making at different levels. Global economic factors may influence national level
policies just as much as domestic political considerations. Similarly, community level policies may be subject to pressures from above, such as the regional government demands, and from pressures within the community itself and from individual households or groups of households. Hence it is important to recognise that there are complex chains of influence, from above and below (in terms of levels), which can influence the way in which policy is formulated. Research information needs to be fed into these chains of influence, as well as going directly to policy makers and their technical advisors.

It is also important to understand that policy formulation is a process (Figure 2) and that policies are rarely formulated at the point in time when a problem is first identified. Rather what happens is a complex procedure whereby an issue is raised onto the agenda for consideration (Step 1) through a process of lobbying, whether this is by farmers at the community level or by interest groups at the national level or key persons within an organisation. This can be quite a long process as issues are competing for the attention of the leaders who will sanction any consideration of policy development. Once an issue is on the agenda for consideration, it is usual that questions are asked about the situation and policy options (Step 2). At the national level this may involve the allocation of funds for research, whilst at the community level it may involve consultation processes. In both cases this second step is about getting information on which basis policy decisions can be made. Sometimes this may take only a matter of months, but in other cases it may take years, and an issue may fall off the agenda for consideration before the information necessary for policy making is available. The nature of the information obtained, and the beliefs about its validity, will affect the policy options which are identified and whether or not action is taken. There will then be a further lobbying process through which it is decided whether or not the issue can now enter the policy making arena and what various policy options are to be considered (Step 3). Only then will policy be formulated (Step 4) through the various public meetings or private mechanisms outlined earlier in this Section.

**Figure 2: The Process of Policy Making**

1. Getting issue on the agenda for policy devt.
2. Collecting data to achieve an understanding of the issue
3. Confirming the issue is appropriate for policy devt.
4. Policy formulation through review of the policy options
5. Policy declaration
6. Policy implementation
7. Feedback
8. Policy revision and reformulation

Even once policy is formulated, it may not be immediately made public and declared (Step 5). There may be considerations which affect its timing and mean that an opportune time or event is needed before the policy is made public. The key to policy success is implementation (Step 6). This, however, is not an easy process and in reality many stated policies are not implemented, or are reinterpreted during implementation and so change their nature and
emphasis. Hence policy formulation by itself is often unsatisfactory as implementation fails to achieve what the policy was designed to achieve. Finally, policy should not be static, but should be evolving and adjusting to the changing conditions and understanding of a situation. Hence feedback and policy reformulation complete the policy formulation cycle (Steps 7 and 8).

Analysis of the way in which soil conservation got onto the agenda for action and finally led to policy statements and action in Ethiopia shows many of these stages during the 1960s and 1970s (Wood, 1994). However, in addition it is important to recognise from that experience that it may be necessary for there to be some coincidence of both internal and external forces which eventually raise an issue onto the agenda for action and lead to the policy formulation stage. In the case of soil conservation in Ethiopia it was the coincidence of donor interests in stopping free food distributions with the governments search to find a way to get people to engage in communal works which led to soil conservation measures being formalised and supported by government policies.

4.2 East African experiences of policy formulation
Experience of wetland policy formulation in other parts of Eastern Africa in recent years show many of these points and provide guidance for the Ethiopian situation. In Uganda, the key initiative came with interest in wetlands from the highest political level, the President’s office. Here concern about the uncontrolled conversion of wetlands led initially to a ban on wetland drainage and conversion. This got the issue onto the agenda and led to a parallel policy formulation and research process. While the latter is still on-going, the former led to the production of a national wetland policy in 1998. Donor involvement through this period and beyond, in the form of support to the Uganda Wetlands Programme, has led to a variety of field activities which have helped improve understanding of the diverse wetland situation in the country. This has helped inform policy making and has facilitated the collection of feedback on policy ready for reformulation. However, there is as yet no major scientific research which integrates all the various aspects of wetland, even within one wetland type in the country, and there are some questions being raised about the extent to which the initial policy formulation was appropriate and sensitive to the diverse situations in the country. In addition, there are concerns about the institutional arrangement for wetland supervision in the country and further development in that area would appear to be necessary at some stage in the future.

Kenya and Tanzania are less well advanced in terms of policy formulation. However, their progress to date has raised a number of key issues which will almost certainly be faced in Ethiopia. In particular both these processes have started with technical groups identifying wetland issues and identifying what are the areas where particular attention is needed. These technical groups have had to address the problem of inter-agency coordination and also the issue of what scientific information is available with which to justify bringing wetlands to the policy makers and the political level. This was less of an issue in Uganda where wetlands account for 12% of the country, but it is a problem in the other countries where the small size of these wetlands, 1-4% of the country’s area, can cause politicians to dismiss their importance. This has led to interest in the way in which environmental economics and assessments of the value of wetlands can help in this matter.

4.3 Wetland policy formulation initiatives in Ethiopia
In Ethiopia, the wetland policy formulation process has only just begun and that is in an independent manner through the National Workshop on Wetland Awareness organised by
IUCN and the Ethiopian Wildlife and Natural History Society. Held in June 2000, that meeting of 40 government and NGO representatives identified key wetland issues and established a Core Group that is charged with getting wetland issues onto the policy agenda. However, this group has no resources and only limited information with which to argue for wetlands to be taken seriously.

A key contribution to this meeting were initiatives in the preceding months by this Project (EWRP) (see 5.1.2 below). Through its Policy Briefing Notes and the workshop to review these, many policy issues from the wetland experience in Illubabor were put into circulation at a high level and this helped to stimulate discussions both within the two workshops and outside. It is to be noted that in Ethiopia the policy formulation process is thus starting from a position where some research findings already exist and these have been analysed for initial policy relevant considerations.

5.0 Contributions from the EWRP project towards the policy process in Ethiopia

The analysis report here shows that in Ethiopia wetlands can suffer as a result of indirect impacts from a wide range of policies, and that there is a need for action to get wetlands onto the agenda for consideration for policy formulation in their own right. In this context, the EWRP considered how best the information which it was producing could contribute to both wetland policy formulation and the review of policies which impact upon wetlands. It was also considered in what format and manner this information should be disseminated.

5.1 Wetland policy formulation
5.1.1 Wetland awareness raising

Clearly one of the priorities with respect to wetlands in Ethiopia is to raise awareness about the importance of these areas and the need for careful management to ensure their sustainable use. This must be done amongst the policy makers at all levels, and amongst the technical people who can provide the research information for policy formulation. In addition, awareness must be raised amongst the public and farming community, so that there is pressure from these groups to ensure that wetlands are not forgotten.

The extensive dissemination activities of this research project are documented in the Report for Objective 5. Of particular note here in terms of awareness raising at government levels for policy debate are:

- the dissemination of information about project activities at national, regional and zonal levels through briefing meetings and the circulation of annual report,
- zonal workshops for government and NGO staff including the training of Dept of Agriculture experts in wetland issues,
- a national workshop on sustainable wetland management in south-west Ethiopia, and
- contributions to IUCN's national workshop on Raising Awareness of Wetlands.

In addition at regional and national levels materials from the project will be circulated once permission is obtained from the European Union to do so. It is intended that all the final reports from this project will be available from 14 resource centres in the country including Addis Ababa University, the Environmental Protection Authority, the Oromia Regional State, Illubabor Zonal Agriculture Department and the European Union Delegation. In addition a
summary of the main findings will be produced in an attractive format. This will be circulated widely so that relevant government, NGO and community organisations can have easy access to the main findings and know from where to obtain further information. Through these dissemination processes a contribution is being made at the federal, regional and zonal levels to support the first and second stages in policy formulation, i.e. raising the issue of wetlands onto the agenda for consideration and providing some basic information which can be used for identifying the possible areas where further information is needed for policy development. (Further international dissemination will involve development of a website which has already been established and a cd rom version of this for dissemination in Ethiopia.)

However, keeping attention on wetlands for policy development should not come from a project. Instead it must be internalised through the creation of a group of people who are aware of the importance of this natural resource. This project (EWRP) has contributed to this through its involvement in the IUCN hosted national workshop on Raising Wetland Awareness. At the end of this meeting a Core Group of interested parties which will take forward the issue of wetlands was set up and this includes EWRP as one of the founding members. In fact the group has asked EWRP whether its research expertise can be available for the tasks of the Core Group and this has been agreed subject to time and funding being available.

The project has also helped stimulate interest in Illubabor amongst the rural communities through workshops, farmer to farmer visits for wetland training and the dissemination, through the Department of Agriculture, of extension material. In this way interest in sustainable wetland use has been encouraged and pressures for technical and policy support to achieve this goal will now come from the people for whom wetlands are important. In addition, it will encourage them to develop locally appropriate policies and by-laws with respect to wetlands and seek suitable policies from higher levels which will support the sustainable use of wetlands to help meet their needs.

This process of raising awareness may not be smooth, as it could reveal divergent perspectives between different groups of people about wetlands and their sustainable use in the future. Indeed policy formulation is often a case of resolving conflicts between different interest groups. From the EWRP work it is clear that there are some discrepancies between national and local goals with respect to wetlands. In particular, national food security goals place pressure upon wetland users to intensify their utilisation beyond the level at which their local knowledge tells them is sustainable. There are also conflicts between different groups within communities about whether wetlands should be allocated for one use or another. These disagreements make it clear that there needs to be greater recognition of the different interest groups as policies are developed which can impact upon wetlands, and that the perspectives and knowledge of the different groups need to be fully recognised. This makes it vital that appropriate local institutions exist which can manage conflicts over wetland use and ensure that all the different interest groups are equitably represented. (See Report 2 for Objective 3).

5.1.2 Specific contributions of EWRP to policy development
Prior to this Project (EWRP) there was little scientific information about wetlands in Ethiopia. Some work has been undertaken on the Rift Valley Lakes at different times, although this focuses more on the lakes than their adjoining wetlands. The only other information comes from the Important Bird Area Study by the Ethiopian Wildlife and Natural History Society. However, as the title suggests this focuses very much on the avi-fauna and the discussion of wetland is limited. Hence the results from the EWRP work represent the first attempt in
Ethiopia, (and in East Africa according to IUCN's wetland coordinator for the region), to achieve an integrated assessment of any group or type of wetland.

This scientific information has gone through an initial review process and lessons are reported in each paper concerning the way to achieve sustainable use of the wetland studied. In addition a series of seven Policy Briefing Papers (PBPs) have been prepared (see Appendix) which cover a range of issues from essential elements of wetlands (to raise awareness), dynamics of wetlands (to aid understanding of their complexity), to issues of food security and wetland management. These papers were presented at a National Workshop on Wetland Policy which was organised by EWRP and attended by 25 government and NGO officials from a wide range of agencies. The discussions of the Policy Briefing Papers at that meeting fed into the following National Workshop on Wetland Awareness and the papers are now being used by the Core Group on Wetlands to help raise awareness. The material from these papers is also being used in the Ethiopian Conservation Strategy Newsletter and so will be distributed across the whole country.

As a result of this work, and especially the good relations which the project has with government staff in Illubabor and in the Environmental Protection Authority, the materials from the project (PBPs, scientific reports and extension guidelines) provide a basis for the progress towards sustainable wetland use in Illubabor and policy development nationally.

5.2 National review of environmental impact of policies

One specific area where it is hoped the work from this particular project can make a contribution in the near future is in the review of federal government policies which the Conservation Strategy process has proposed. The recognition in the CSE of the need for strategic environmental assessment, or environmental impact assessment of policies, has led to the start of a process to review policies from an environmental perspective. Given that it is non-wetland policies which in Ethiopia appear to be the most important in terms of influencing wetlands, it is vital to raise awareness about these indirect impacts with those involved in this policy review process. This could be very important for helping ensure wetlands are given due consideration when major policy initiatives are made and existing policies reviewed.

6.0 Prospects for Ethiopian wetland policy development

The pressures which are now being brought to bear on wetlands as a result of population growth, economic development and food security needs mean that wetlands need urgent consideration in Ethiopia. Fortunately the time is ripe for getting wetlands onto the national agenda for consideration and for policy development as approval of the Conservation Strategy of Ethiopia has shown the clear commitment of the government to achieving sustainable use of the country’s natural resources. In addition, given the importance of different interest groups in wetland use debates, recent policies supporting decentralised and democratic approaches to development should provide a helpful context for ensuring the contribution of all wetland users to wetland policy development at a variety of levels.

Ethiopia is also in a favourable position compared to some other countries where wetlands are now being given attention as it already has some research being undertaken which can contribute to policy development. The recognition in this country of the importance of research as the basis for policy development is also encouraging and further research on
wetlands seems likely to be supported as these areas become recognised as important micro-
environments whose sustainable contribution to national well-being is needed.

It should be noted that international interest in wetlands is growing but also changing which
means that there should be more resources available for some types of work in this area. The
Ramsar Convention, which originally focused on the importance of wetlands for birdlife and
took a very conservationist, or preservationist, approach to wetlands, has recently taken two
important steps forward in recognising the wider importance of wetlands. First three years ago
it recognised the role of wetland in the functioning of the hydrological system and recognised
that wetlands must play a role in protecting fresh water which is now the world's scarcest
resource. Secondly this year in Costa Rica Ramsar focused on the role which people can play
in managing wetlands, although this remained primarily focused upon conservation areas. It
seems that eventually international interests may be heading towards an approach to wetlands which is relevant to Ethiopia: **wetlands for people by sustaining the use of wetlands for multiple purposes.**

The Ethiopian Wetland Research Programme has contributed towards this aspect of
Ethiopia's development through its research and the understanding of sustainable wetland
management which it has clarified. Hopefully, its research findings can also provide
contributions to the global debate beyond that already begun (Wood, et al 1998).

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Institute


Appendix 1: EWRP Policy Briefing Notes