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Natural Resource Conflicts in South-West Ethiopia:
State, Communities, and the Role of the National Conservation Strategy in the Search for Sustainable Development

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1. Conflict and Natural Resources

Conflict resolution is usually approached through the study of the people involved. These may be ethnic or socio-economic groups, or the state and its organisations. While this paper recognises the importance of the actors in conflict situations, it suggests that greater attention should be given to the objects of conflicts, in this case the natural resources of south-west Ethiopia. This paper explores how competition for the forest and agricultural resources has developed, identifies the present and potential conflicts, and outlines the interests of the various actors involved. It is suggested that by analyzing the nature of the region's resources, the pressures upon them, and the range of possible resource management interventions, competition and conflicts can be minimised and resolved.

The link between natural resource management and conflict is strong. Shortages of natural resources lead to competition which may result in conflict. In addition, fighting and insecurity may prevent appropriate management of natural resources and reduce their production, thereby worsening shortages and intensifying competition and conflict. Conversely, changes in the management of natural resources may increase the supply of benefits which people seek and so reduce competition, while economic diversification or policy changes may reduce demand for particular resources and so reduce competition and the potential for conflict.

While the natural resources are the initial point from which the conflicts are studied in this paper, the characteristics, goals and dynamics of the various human groups and organisations involved are also investigated in order to understand the competition for, and conflicts over, these natural resources. Hence the emphasis upon natural resources has to be complimented by a social science perspective.

In south-west Ethiopia seven different types of natural resource conflicts can be identified in terms of the actors involved. These are:

a) inter-group conflicts between different peoples or ethnic groups,
b) intra-group conflicts between different socio-economic groups within an ethnic group,
c) conflicts between the state and people,
d) intra-government conflicts between different groups and organisations within government,
e) inter-regional and international conflicts between the southwest and other regions within and outside Ethiopia,
f) global conflicts in terms of the shared benefits from this region for all of mankind, especially in terms of biodiversity, and
g) temporal conflicts which involve the interests of present and future generations.

In order to address these conflicts, a holistic view is needed of the circumstances in which people live and use natural resources. These circumstances are affected by a range of socio-economic and political considerations (see Figure 2) which affect the supply of, and demand for, natural resources, and also the alternative ways in which human needs can be met. In addition, because of the linkages within natural resource systems and between them and economic, social and political systems, coordinated and integrated action is required (Hutchinson 1991). This raises questions of the administration and organisation of conflict prevention and resolution.

The National Conservation Strategy (NCS) process, with its regional elements, is one such holistic approach and organisational framework which can help resolve conflicts over natural resources. This paper explores the potential of the NCS process, in operation in Ethiopia since 1989, for resolving natural resource conflicts in south-west Ethiopia.

2. The Natural Resources of South-West Ethiopia

South-west of Ethiopia is physically diverse with extensive plateaus at over 2,000m amsl and plains, bordering the Sudan, which are at only 800m amsl. Rainfall varies from 2,400mm in the highlands to less than 1000mm in the lowlands, while the vegetation grades with rainfall from tropical montane rainforest to savanna grasslands. The two major ecological zones are separated by a heavily dissected escarpment and valleys with savanna woodland.

The focus in this paper is the forested highlands (Figure 1) which, by Ethiopian standards, are extremely rich in terms of natural resources. The area can be seen as one of the last resource frontiers in the country which is being used with increased intensity as the population grows and deforestation occurs.

The keys to this resource wealth are the high and reliable rainfall and the forest cover. The forest, by protecting the soil from erosion, has helped the red clay loams of this area develop to over two metres in depth. The soil and rainfall

resources give the south-west highlands a very considerable agricultural potential for a wide range of crops, including coffee, while the reliability of crop yields is high unlike in some other parts of the country.

Because of the environmental conditions, the south-west highlands have a strong comparative advantage in timber production. They contain approximately half of the country's remaining high forests which produce quality timber for furniture and the like. Timber consumption of this sort is estimated to be around 50% above the level of sustainable production, and so careful use of the south-west forests is important in helping to meet this need from domestic resources (ONCCP 1990).

Within the forests are found important forest products, such as wild coffee, spices and honey, and also wildlife. The diversity of plants in the forests shows the extent of the genetic resources in this region. These have been of considerable importance over the last two decades with the successful identification of coffee genotypes which are resistant to coffee berry disease.

The current economic importance of the south-west highlands is a result of its coffee production which accounts for between around 40-45% of the country's total. Most of this coffee is produced by smallholders, although there are a small number of plantations which were run as state farms during the Mengistu regime. With coffee accounting for approximately 60% of the country's exports the south-west highlands have an economic significance well beyond the 2.1% of the population which they support and the 1.8% of the national territory which they cover.

Further important aspects of the resource base of this region are its rivers. Ethiopia's second and third largest rivers in terms of flow, the Omo and the Baro, rise the forests of the south-west, as does the Didessa a major tributary of the Blue Nile. Although irrigation along these three rivers is little developed at present, (the contribution of the Baro and Didessa being mainly to irrigation development in the Sudan), their valleys contain approximately 50% of Ethiopia's total potentially irrigable areas (Zawdie Abate 1990). In addition there is a considerable potential for hydro-electric power development.

Despite these considerable resources the region's development potential is fragile. This is the result of a number of interconnected factors, most notably the way in which the agricultural potential can only be realised through forest clearance. This in turn affects the use of other resources and could threaten agriculture itself because these highlands have the highest erosion risk in the country due to the dissected terrain and heavy rainfall.

Connected to soil erosion, there are risks from siltation and altered hydrological regimes as deforestation occurs. These would affect both the hydro-electric power generation and the use of the rivers for irrigation. In addition, if deforestation becomes extensive, as it appears is occurring, and no protected areas are created, there will also be considerable loss of genetic resources.

Consequently great care is needed in the development of the region. This must ensure that appropriate farming systems are developed which will protect the

region's resources, most notably its soil, and ensure that degradation does not occur on the scale seen in the northern highlands. Some form of integrated land use planning must also be undertaken to ensure that the necessary pattern of land use is achieved which will best meet the needs of the various interest groups concerned about this region and provide long-term ecological stability.

3. Ethnic diversity

Ethnically the south-west highlands, especially in Kefa and to the south in Gemu Gofa, are a shatter belt of diverse ethnic groups. They include Omotic people who practise hoe cultivation and plough cultivating Oromos who settled in this region during the 17th century. The dissected valleys and the lowlands are inhabited by a variety of Omotic and Sudanic hunter gatherers, cultivators and agro-pastoralists. This jigsaw of peoples has rarely been static, altering in response to changes in the needs of the different groups and their military power (Sutcliffe 1992).

In addition to the ethnic groups whose home territories are in this region, in-migration during the last one hundred years has brought in several small groups, mostly Amharas from the northern highlands and Gurages from just to the east of the southwest highlands. Much of this in-migration has been associated with land alienation and coffee development (see Section 4 below), these in-migrant groups being concentrated primarily in the "coffee" towns and the more accessible rural areas (Wood 1983).

The ethnic diversity of the area creates a potential for conflict as these groups have different interests in the resource base, possess different skills with which to use it, and claim rights over different resources and areas. Reconciling these different interests makes the achievement of sustainable resource use more difficult.

However, ethnic identity may also be an asset in developing improved natural resource management where people face a competitive situation and consequently take pride in their resource base and want to ensure it is used well. This attitude may be enhanced by restoring to local communities rights to natural resources and control over their management.

4. Internal Colonialism and Exploitation of the South-West Forests

For many centuries the south-west highlands of Ethiopia have been an important source of trade goods including gold, coffee, civet musk, honey, and spices (Abir 1968). This diversity of products has made the south-west an attractive area which northern states have sought to control first indirectly through trade and subsequently directly through conquest.

The south-west was incorporated by conquest into the Shoan dominated Ethiopian Empire in the 1880s. The severity of the conquest, along with the rinderpest outbreak, which affected those groups using draught power, primarily the Oromo, led to a major disruption in food production and severe loss of life, with the region's population possibly halved (Perham 1969). This allowed a resurgence of the forests onto formerly cleared and farmed land so that much of the forest seen in first half of 20th century was secondary growth which had developed since the late 19th century (Tewolde Berham 1990).

The conquest of the region marked the start of a period of intense internal colonialism (Gadaa Melba 1988; Dixon and Heffernan 1991; Drakakis-Smith and Williams 1983). During this time the region's people were politically marginalised. The conquest was followed by land alienation and the introduction of tenancy and new taxes which considerably reduced the welfare of the local population. Much of the settled land was given to northern landlords while the unsettled forest was taken as state land to be used in a feudal manner to reward those who served the state. Cultivating communities in the south-west had their mobility restricted as with formalised land ownership rotational fallow was restricted to the settled land on which landowners paid tax (Wood 1985).

In order to increase its revenue, the feudal state encouraged the expansion of coffee production and redirected this trade away from the Sudan to Addis Ababa. This was facilitated by the expansion of the all-weather road network in the region, especially after 1960. Coffee and other resources of the south-west have become increasingly important for central government as the resource base in the north has been degraded and as the government has sought to expand its revenue base. Hence measures to control and develop these resources have grown, with state marketing of coffee from the 1960s and more specific resource exploitation measures under the Mengistu regime such as state farms, settlement schemes and the licensing of timber extraction.

5. Conflicts Over Resource Use

Given the favourable resource base of the south-west highlands, there are a variety of possible land use development scenarios. These range from forest preservation to total clearance for agricultural production. In addition, there are different ways in which natural resources can be managed under specific land use scenarios which will give different benefits in the short and long term. Pricing, taxation and economic diversification measures will also affect the size and distribution of benefits from the resource base to different groups.

The groups which have interests in the resources of the south-west include not only the local communities and indigenous ethnic groups, but also central government, non-local ethnic groups who have moved into this region, the new regional governments of Oromia and Kefa, communities outside the region who depend on some of the region's resources such as irrigation water, and the wider

world community for whom the genetic resources could be valuable. In addition, within these groups there will be sub-groups with specific interests and different skill endowments, while the interests of future generations should also be recognised.

Between any pair or more of these interest groups there is the potential for conflict with respect to the natural resources (see Section 1). The nature of these conflicts, and their resolution, can affect the extent to which sustainable use of the resource base in this region is achieved. Some aspects of the most important conflicts are outlined below.

a) Central Government and Rural Communities

The Mengistu regime exploited the rural population in many ways. In some cases its actions created pressures upon the users of natural resources which led to non-sustainable uses of the resource base.

The south-west was identified by the Mengistu regime as a surplus producing area and quotas were imposed upon each community for crop and coffee sales at fixed prices to state marketing organisations. The size of individual coffee holdings was severely restricted and coffee farmers were forced to develop cooperatives for coffee processing and in some cases production. These measures reduced the income of farmers and effectively syphoned off resources to the state. Farmers also suffered from insecure access to land created by the uncertain "possessory rights" which were given them by land reform. In addition the state directly used the resources of the south-west highlands through the development of state farmers and the licensing of timber extraction.

The economic pressures and conflicts of interest which the state's actions and policies led to included:

1) Forest clearance for agriculture in order to meet the increased demands of the state, with extension rather than intensification of cultivated land occurring and no investment in erosion protection measures because of the insecurity of access to land.

2) Expansion of plough cultivation to replace hoe cultivation in order to cope with both the need for larger areas to be under cultivation and the reduced labour available due to the loss of migrant labour which was banned by the regime.

3) State farms for coffee and for tea, where there was considerable waste of felled timber and some disruption of local agriculture where land was alienated from local communities. Poor land management by state farm officials also led to serious soil erosion on those lands affecting their long term productive potential.

4) Timber extraction licences were issued without adequate assessment and were poorly administered. This led to wasteful resource use with much damage of the remaining uncut trees and no replanting or control of subsequent land use to

ensure regrowth. Under the Mengistu regime licences were issued to state and private felling companies in order to maximise state revenue and minimise the country's need for timber imports which competed for foreign exchange with other imports, including military goods.

b) Local and Immigrant Groups

Conflicts of interests have existed between local and in-migrant groups since the conquest in the late 19th century and the subsequent political support for northern settlers. During the Mengistu regime, the formal resettlement programme led to the largest influx of people into the highlands of the region. Between 1984 and 1986 some 55,000 households (approximately 130,000 people) from Wollo, Tigray and north Shoa were resettled in highland Illubabor and Kefa. This was an integrated form of resettlement where the settlers were placed in or near to existing agricultural communities from whom they were expected to obtain support and advice, the state providing little assistance (Wood 1986).

Viewed from a national resource allocation perspective this could be seen as an improved matching of population to agricultural resources. However, when seen from the perspective of the indigenous population of the south-west, it appeared as just a continuation of northern appropriation of the region's land resources, but with a different class of people involved (Alemneh Dejene 1990).

As a result of this resettlement programme the rural population density increased in highland Illubabor by 7% while in Kefa it increased by 1%. Within the actual areas of settlement the increase was much greater. This led to increased pressures upon agricultural, forest and water resources in the areas of settlement, disrupting existing fallowing systems and the use of forest resources. Increased population pressure upon the resource base occurred so suddenly that indigenous communities found it difficult to adjust their resource use practices to both meet increased demands and to be sustainable.

In addition to the pressures upon the resource base, the ecological impacts of resettlement have also been questioned because the traditional northern farming systems practised by many of the settlers are thought to be unsuitable to the higher rainfall regime of the south-west highlands. It is feared that they will lead to rapid degradation and are unsustainable in the long term.

c) Inter-regional and International Conflicts

Developments in the south-west highlands could lead to conflicts with people living downstream who depend upon highland water resources. Deforestation and soil loss will impact upon the hydrological cycle, most notably in terms of quicker runoff and reduced moisture storage thereby creating higher peak flows and floods and lower minimum flows.

Potential for conflicts also exists between state agencies wishing to develop irrigated agriculture in the lowlands and those wishing to develop rainfed

agriculture in the highlands (see also "e" below). The scale of such conflicts could become international if the changes in the regimes of the Ethiopian rivers affect irrigation in the Sudan or the level of Lake Rudolph in Kenya.

d) Temporal Conflicts - Short Term Gains and Long Term Sustainability

Forest clearance for agricultural production can produce immediate income benefits for people and the state but can have long-term disbenefits for society as a whole unless managed carefully. In addition to the hydrological problems, forest clearance is likely to produce the following long-term impacts:

- loss of timber production and the income, employment and foreign exchange saving from this activity,

- loss of forest products and genetic resources with current and future potential uses,

- loss of forest dwelling communities with resource management skills, and indigenous technical knowledge about the uses of forest resources,

- loss of moisture input into south-west winds leading to reduced rainfall regularity further north,

- loss of moisture storage for the hydrological system,

- loss of carbon sink function to slow global warming and

- loss of soil and reduced agricultural production, unless conservation farming techniques are applied.

In addition to the interests of the state and the people of the south-west highlands, it is clear that people well outside the region will be affected by deforestation while some groups within the south-west will gain and others will lose.

e) Intra-government / Inter-ministerial Conflicts

The need for integrated resource development in the south-west highlands to balance the competing demands was not recognised during the Mengistu regime. Instead there was competitive and uncoordinated use of resources by the different ministries concerned, with each supporting conflicting development initiatives and giving different advice to farmers (Tesfaye Shoamena 1990).

In particular there was conflict between the Department of State Forest Development and the Water Resources Commission on the one hand, which both

favoured the long term existence of the forests, and the Ministry of Tea and Coffee Development and the Main Department of Peasant Production within the Ministry of Agriculture on the other hand, which both wanted to encourage agricultural development. In addition the department responsible for resettlement within the Ministry of Agriculture was also interested in the clearance of forested land in the south-west. In most of these cases the different ministries were interested in the more accessible areas where resource utilisation was easiest, hence the conflicts tended to focus on specific areas.

The lack of coordination between Ministries is seen in various aspects of resource misuse. These include the poor use of forest and coffee resources by state farms which increased unnecessarily the area cleared in order to meet both timber and coffee production goals. With respect to agricultural development there was an almost complete neglect of the role of trees within the farming system as a means of achieving long term sustainable production and soil conservation. Where the need to control erosion was recognised, physical soil conservation was undertaken as a separate, "add-on" measure rather than being integrated into the development of the farming system.

f) Intra- and Inter-Group Conflicts

The expansion of agriculture and the consequent clearance of forest has for a long time created pressures upon specific groups in Illubabor and Kefa. In particular hunter-gatherer groups have had their territories reduced so that many of them are now restricted to the tsetse infested escarpment and valleys. This process has been accelerated by the expansion of the road network in the south-west and the way in which this has facilitated agricultural migration and expansion. In the last few years there have been increased pressures upon these groups from the south as a result of conflicts in southern Kefa and Gemu Gofa (Sutcliffe 1992).

Within communities of forest fringe cultivators the loss of forest land is both advantageous and disadvantageous. Positive results are the reduction in crop loss due to forest predators, while negative results come from the reduced availability of forest products such as honey, spices, timber, fuelwood and wild coffee. There are socio-economic implications from this loss of forest products as it is the poorer members of society who depend most upon the resources from the forests as a means of supplementing their incomes.

Overall the situation in the south-west highlands is one where a variety of pressures, of a demographic and economic nature, together with an unfavourable policy environment during the Mengistu regime, and a lack of coordination by resource-using government departments, threaten to degrade the region's resource base as unsustainable land uses are practised. The consequent shortages of some natural resources, most notably forest land and forest products, will lead to increased competition and the potential for conflict will increase.

6. Understanding Resource Conflicts and Their Causes

These existing and potential natural resource conflicts have a range of causes which must be fully understood before identifying possible solutions. However, in addressing such conflicts there is often a tendency to focus upon the immediate causal circumstances and look for technical or administrative solutions to these. In general, this is inadequate as it addresses only the symptoms and not the deep-seated causes. These include social, economic and political influences upon both the management of natural resource and the demands which are placed upon them (Blaikie 1988; Hutchinson 1991). Consequently, a major stage in resolving natural resource conflicts has to be the identification and analysis of the root causes of the conflicts, which will require considering the total circumstances which impinge upon the various users of natural resources.

These influences exist at several scales (Figure 2). They range from the physical characteristics of specific natural resources, through the labour resources and wealth of a household, to the norms and knowledge in a community which affect land management techniques. Beyond this, there are important policy influences from government, as well as political pressures within government, while the global economic situation will impinge upon governments and farmers through a number of factors such as international prices and aid flows. In many cases these influences upon natural resource pressures and conflicts are socio-economic, as well as political, and so the role of the social scientist in this analysis is essential.

The framework shown in Figure 2 may be applied to the natural resource conflicts in south-west Ethiopia, to confirm the extent and complexity of the causal processes. Two levels are briefly outlined for this purpose.

Household Level

Examples of natural resource conflicts may involve households or communities competing for the same resources or the present generation misusing the land at the expense of future generations. These situations may come about because people cannot meet their daily requirements from sustainable use of the resource base to which they have access given what they see as appropriate effort. Hence they want to gain more resources or overexploit the resources currently used in order to survive, rather than change their management practices. Their focus has to be upon immediate production rather than long-term sustainability, and poverty means that they have neither the time nor resources to invest in better land management.

The causes of this situation in south-west Ethiopia may be several. For instance, poverty has been worsened by the state's taxation, the decline in the international price for coffee, and the loss of labour through the banning of labour migration and recruitment for the military. State policies have also affected natural resource use, with insecurity of access to land and trees affecting

investment in more sustainable farming systems. Hence addressing the issues of competition and conflicts over resources between two communities by trying to demarcate rights will do nothing to address the underlying causes, while the dissemination of technical knowledge about more sustainable farming systems will have little impact until the conditions to encourage investment are created.

INFLUENCES ON NATURAL RESOURCE MANAGEMENT DEMANDS FOR NATURAL RESOURCE AND RESOURCE CONFLICTS

PRESSURES AND CONFLICTS OVER NATURAL RESOURCES
Competing Demands of Households, Societies and the State

NATURAL RESOURCES
Demand for Resources and Products
Management Choices

HOUSEHOLD
Resources, Population Size,
Needs and Aspirations

AGRARIAN SOCIETY
Norms, Values, Rules, Technology,
Inter-group Attitudes, Land Tenure

NATURE OF THE STATE
Political Economy, Taxation, State Policies,
Structure and Co-ordination of
Government/Planning

INTERNATIONAL SITUATION
Economy and Political Relations,
Aid Flows, Prices, Political Trends
and Support

State Level

The attitudes and behaviour of the state have been central in creating pressures upon the natural resources of the southwest and conflicts over them. The Mengistu regime had a very narrow, production-orientated view of natural resources, emphasising the need to make fuller use of the country's resource base, while paying little attention to the pressures which resulted and the need for long-term sustainable resource use.

Government management of natural resources was also problematic. Although the number of institutions involved with natural resources was expanded under the Mengistu regime, the government failed to ensure that their activities were coordinated. Despite the state's interest in resource development, there was no analysis of the environmental impacts of policies, and so policies with conflicting environmental impacts were espoused.

The economic problems which the state faced during the 1980s, especially the low levels of aid, shortage of foreign exchange, and the budget demands to finance state activities and military spending, were reflected in the demands upon the south-west, and other relatively wealthy regions. These were increased by the diversity of the Ethiopian state, and particularly the degradation of the northern highlands, which made the south-west particularly valuable for the production of agricultural surpluses and the provision of resettlement sites.

The centralist, non-representative nature of the state under both the Imperial and Mengistu regimes, and the unwillingness of these regimes to recognise the rights of conquered southern peoples, prevented the development of a planning process which could cope with resource conflicts. This situation was worsened under the Mengistu regime by the development of central planning which, despite regional offices, reinforced the "top-down" approach.

7. Conflict Resolution and the Role of the National Conservation Strategy

The solutions to natural resource conflicts are not to be found in any single action at any one level of society. Rather, interventions are needed at a range of levels which address the various ways in which the problems have been caused.

While a range of actions are needed, there must be an overall process which will direct attention to these conflicts, analyze their causes and identify solutions. One process which has been stimulating such thinking since 1989 is the National Conservation Strategy (NCS) process. This seeks to integrate ecological considerations into the country's economic planning in the Ministry of Planning and Development (Gedion Asfaw 1992; Tewolde Berhan et al 1993). Although this process was begun before the fall of the Mengistu regime and the demise of central planning, it has involved a decentralised approach using the 30

administrative regions established in 1988 as the starting point for identifying natural resource issues in the development process.

The NCS process stresses the need for multi-sectoral analysis of natural resource problems in the country and recognises the interaction of resource management with socio-economic, administrative, technical, and policy factors, as well as environmental considerations. The NCS process works at both the national level and within the new regions, and it is hoped that the new regional government will apply some of this analysis in their planning process.

Some of the key issues which the NCS has identified as important for addressing environmental problems are particularly relevant to the problems of resource conflict in the south-west highlands. Three areas of analysis and action can be cited as examples of the role of the NCS process.

a) Region-Centre Relations and Control over Resources

The solution to the problem of central government demands upon the resources of the south-west must involve some form of political and economic decentralisation, with limits upon wealth extraction and a sharing of income between the region and the centre. Similar principles must be applied within the region so that the regional governments do not create new resource conflicts as a result of their own exploitation of communities and their resource bases. The present political decentralisation in Ethiopia provides a basis for such agreements and the development of more local control over the natural resource base. However, the economic importance of the south-west could create a predicament for central government. Consequently diversification of central government income will be important in reducing some of the economic demands which have been placed upon this region in the past.

The question of region-centre relations must also be explored in terms of policies. The pressures upon natural resource management in the south-west have come from insensitive policies which have encouraged unsustainable use of natural resources. It is clear that more thorough analysis of policies must be undertaken before they are implemented so that negative environmental consequences are avoided.

The relations between the regional government and communities are also important, particularly with respect to control over natural resources. It is increasingly clear that natural resources tend to be managed more sustainably when local communities and individual households have clear and secure control over their resources and can determine how they should be used. Secure access to natural resources is thus a prerequisite for investment by households and communities in land improvements. This will not only help ensure the sustainability of production, but in turn help reduce conflicts over resources.

b) Coordinated Resource Development and Land Use Zoning

A key lesson from analysis in the first phase of the NCS is that institutional conflicts and lack of coordination between ministries with natural resource interests have led to poor use of resources and conflicts. While recent government reorganisation may help address this problem, the solution will lie with effective coordination by the Planning Ministries in the new regions. Several of these have already shown concern over the natural resource base of their regions and it is likely that they will develop a more active role than the traditional budgetary coordination of the line ministries concerned with resources.

One way in which some of the conflicts between ministries may be addressed is through land use zoning. This could establish biodiversity reserves to maintain genetic resources, anthropological reserves to protect communities with particular local knowledge skills, as well as providing guidelines for natural resource ministries concerning the most appropriate land use in different parts of the region (Sutcliffe 1992). While some zoning of land uses can be helpful there are always problems of enforcement. This should only be undertaken around genetic, anthopological and forest reserves, and in these cases efforts should be made to ensure that there are benefits for the local communities. Elsewhere, land use zoning should not be enforced by government dictat but encouraged and negotiated through discussions supported by extension advice, land management demonstrations and policy and pricing measures (Wood 1991). Hence the government should create a favourable policy environment to encourage land uses which are appropriate and sustainable, leaving final responsibility for natural resources and their use in the hands of the community.

c) Appropriate Extension, Farming Systems Development, and Diversification

There is a pressing need to develop more intensive and sustainable resource use at the household and community level in order to accommodate population growth with the minimum of competition for resources and consequent potential for conflict (Wood 1990). Such conservation farming tends to involve increased labour inputs and so is economically unattractive until all other alternatives have been exhausted (Boserup 1965). The challenge is to identify combinations of crops and land use which match farmers' resources and meet their needs, as well as increasing output in order to compensate for the increased labour demands. These should be sought through farmer participatory research which builds upon farmers existing knowledge of natural resources and their use, as well as identifying where externally generated innovations may be helpful (Chambers 1989; Hudson et al. 1993).

In addition, economic diversification can help reduce the demands of communities on the natural resource base. Increased processing of agricultural produce, diversification of cropping into specialist high value products, such as

spices, which could be exported, could all increase the value of production in this region and slow the rate at which demands upon the natural resource base grow. This could help provide time for the development of macro and micro land use and farming systems which address the issues of competition for natural resources. Again as with land use zoning there is a need for the government to create an enabling environment, which will encourage these developments, rather than impose measures which it feels should be attractive to farmers.

8. CONCLUSIONS

In the reconstruction in Ethiopia, following the removal of the Mengistu regime, the natural resources of the south-west will be important. However, unless managed carefully their use could be unsustainable and lead to worse tensions both within the region and between the region and centre. Further degradation of the south-west's resource base will impoverish the region, the country, and the global community, as well as increase the potential for conflict.

Analysis of the influences upon natural resource management (Section 6) and the examples of the different measures which have a role to play in addressing the resource conflicts (Section 7) confirm the complexity of the situation in south-west Ethiopia. There is clearly a need to develop both a more participatory planning process and an holistic approach to natural resource management and conflict resolution. These developments, which are central aims of the National Conservation Strategy process, will require major changes in the approach of politicians and technical staff, with the development of more facilitatory and less commandist planning and an end to the narrow sectoral approaches to resource management.

In order to encourage these changes the first task is to build up awareness of the complexity of natural resource management problems and the value of a conflict resolution approach in addressing some of these. However, in building up the necessary political and technical support, care must be taken that a new bureaucratic approach to resource management does not develop. The integration of natural resource issues into Ethiopia's national and regional development planning requires a balance to be struck between planning, advising and enabling. It also requires that the process ensures that national as well as local, individual as well as community, and short-term as well as long-term goals are considered, so that conflicts over natural resource are minimised.

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