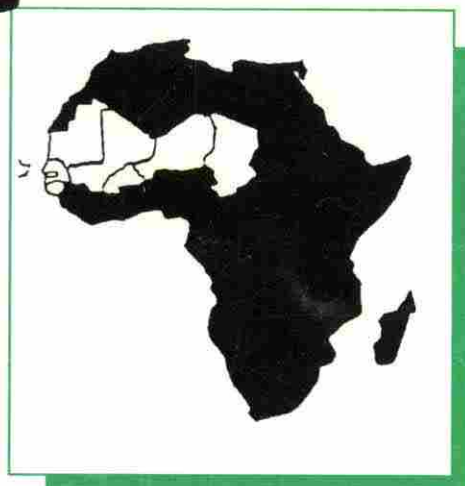


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Co-operation and Development



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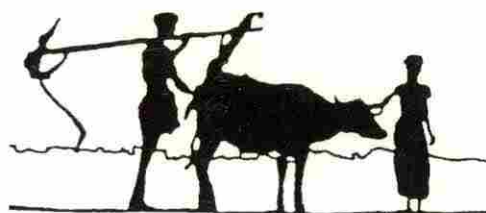
CILSS

Comité permanent Inter-Etats  
de Lutte contre la Sécheresse  
dans le Sahel

Permanent Inter-State Committee  
for Drought Control in the Sahel

Final Report of the  
**Ségou Regional Encounter**  
on  
Local Level Natural Resource Management  
May 21-25, 1989

**Towards a Concerted Approach :  
The Ségou Experience**



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This report is based on the work of all those who participated in the Ségou Regional Encounter.

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### ACRONYMS AND ABBREVIATIONS

ADRK	:	Association pour le Développement de la Région de Kaya
AFN	:	Association des Femmes du Niger
AVLP	:	Association Vive le Paysan
BMZ	:	West German Ministry for Economic Cooperation Bundesministerium für Wirtschaftliche Zusammenarbeit
CCCE	:	Caisse Centrale de la Coopération Economique
CCRPA	:	Centre Régional de Promotion Agro-pastorale
CEAO	:	Communauté Economique de l'Afrique de l'Ouest West African Economic Community
CEC	:	Commission of the European Communities
CESAO	:	Centre d'Etudes Economiques et Sociales de l'Afrique de l'Ouest
CIDA	:	Canadian International Development Agency
CIEPAC	:	Centre International pour l'Education Permanente et l'Aménagement Concerté
CILSS	:	Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel Permanent Inter-State Committee for Drought Control in the Sahel
CND	:	Conseil National de Développement
COPEC	:	Coopérative d'Epargne et de Crédit
DC	:	Desertification Control
ENDA	:	Environment, Agricultural Development
FAC	:	Fonds d'Aide et de Coopération
FAO	:	Food and Agriculture Organization of the United Nations
FEER	:	Fonds de l'Eau et de l'Equipement Rural

FDR/FEER	:	Fonds de Développement Rural/Fonds de l'Eau et de l'Equipement Rural
FIDA	:	Fonds International de Développement Agricole
FONGS	:	Fédération des Organisations Non-Gouvernementales au Sénégal
FRG	:	Federal Republic of Germany
GTZ	:	Deutsche Gesellschaft für Technische Zusammenarbeit
MV	:	Groupement Mutuel Villageois
INADES	:	Institut Africain pour le Développement Economique et Social
IRD	:	Integrated Rural Development
IUCN	:	International Union for the Conservation of Nature
ODEM	:	Opération de l'Elevage de la Région de Mopti (Mali)
ODR	:	Opération de Développement Rural
ORD	:	Organisme Régional de Développement
PA/CILSS	:	West German/CILSS Program
PSB	:	Programme Sahel Burkinabé
PSTP/HIMO	:	Programme de Soutien de Travaux Publics/Haute Intensité de Main-d'Oeuvre
RO	:	Rural Organization
SOCASY	:	Société Coopérative Agricole de Sya
SWC	:	Soil and Water Conservation
UCL	:	Union Locale Régionale des Coopératives
UNC	:	Union Nationale des Coopératives
UNSO	:	United Nations Sudano-Sahelian Office
URC	:	Union Régionale des Coopératives
USAID	:	United States Agency for International Development
USRC	:	Union Sous-Régionale des Coopératives

## CHAPTER I - INTRODUCTION

Since 1973, the development efforts made by Sahelian countries have been largely undermined by persistent drought, ecological deterioration and a high population growth rate.

Despite the considerable aid given by the international community and the efforts made by the member countries of the CILSS to re-establish the economic and ecological balance, food and agricultural production remain low and the state of the environment continues to deteriorate.

The lessons learned from experience between 1977 and 1982 revealed the need to revise the drought control and development strategy implemented by the CILSS/Club du Sahel. This same need was expressed by the Sahelian Heads of State at Niamey in 1984. The new strategy, based on an overall consensus between national policies, is directed at three main issues:

- man,
- the economy,
- ecology and space.

The most important point in the revised strategy is rural development in which the two main long-term objectives are:

- food self-sufficiency,
- the ecological balance between man and his environment.

The new strategy was launched in 1984 at the Desertification Seminar held at Nouakchott, under the aegis of the Executive Secretariat of the CILSS and the Secretariat of the Club du Sahel. The desertification control strategy defined by the Regional Seminar of Nouakchott was a direct application of the revised strategy. As such, it marked the end of the sectoral approach and may be considered as a major turning point.

The Nouakchott strategy applied the global approach. It recommended involving the different communities in the preparation, execution and follow-up of any projects undertaken to improve their situation and to meet their specific needs.

At the same time, the Secretariats of the CILSS and the Club produced "The Sahel Facing the Future", a futures study on all the countries of the Sahel, which analyzes the past and present context of the Sahel and raises a number of questions on the trends liable to affect this context in the future.

"The Sahel Facing the Future" takes into account virtually all the parameters of the equation of economic and social development in the Sahel. The study attempts to define the conditions under which development would be possible on the basis of current trends in the sub-region, which is, at this moment in time, dependent upon

outside sources for food, finance and cultural input. This scenario is unacceptable for the Sahel.

A buoyant non-governmental sector, in which each Sahelian plays a part, is the essential basis for a better future. Rural organizations will play a key role in this. The idea whereby strong local organization is necessary for overall agricultural development is now widely recognized in intellectual circles and is gaining credence with rural development experts in the field.

Such is the context in which the CILSS/Club decided to bring together the three main actors of rural development, i.e., rural communities, Sahelian States and donors, through their representatives (rural organizations, decision-makers and specialists from the Sahel and the international community).

The two Secretariats started preparations for the Regional Encounter of Ségou in 1987. The accent was placed upon the innovative character of this meeting which, for the first time, called for the participation of rural organizations and recognized their importance in the emergence of a strong non-governmental sector.

Three main facts emerged from the different studies made on development initiatives at the village and area level between 1986 and 1988 by various cooperation and development organizations, including the CILSS and the Club du Sahel:

- the Sahel has a number of techniques to conserve, recover and improve the productive potential of individual and collective land;
- the internal and autonomous organization of population groups is a necessity if these techniques are to be used efficiently;
- these techniques cannot generate sustainable development unless they are part of a broader objective to bring about radical changes in the production systems. If this is to be achieved, technical, material and institutional assistance must be obtained from the various donors and services which, at the same time, must strive to increase the autonomy, initiative and capabilities of village and area rural organizations.

In view of these facts, and taking into consideration the efforts made by both Sahelian governments and public and private donor agencies to bring about sustainable development in the Sahel, the CILSS and the Club du Sahel chose as their central theme for the Regional Encounter:

## LOCAL LEVEL NATURAL RESOURCES MANAGEMENT IN THE SAHEL

This theme refers to the "ecological crisis" brought about by the combined factors of steadily increasing demographic growth and long years of drought. The issue, which highlights the dilemma between "development" and "environment", was a negligible concern until as recently as 1984, but it must now take priority. In view of the relentless march of the desert, it would be totally untenable today to seek to increase agricultural production at all costs with little or no concern for the environment.

This crisis originally appeared with the alarming desertification of the northern regions of the Sahel. The situation has since worsened and concern is now felt for West Africa as a whole. The widespread demographic growth and the considerable pressure brought to bear on the more humid regions of the South by migrating communities, make it vital to consider the problem of the management of natural resources as a major concern for the whole of the sub-region.

The Regional Encounter of Ségou sought primarily to apply the lessons above in a new approach to development in the Sahel. An effort was made to encourage dialogue between the different partners in order to make optimum use of the ideas and capabilities of rural communities in the definition and application of development policies.

This main objective, based on the participation of rural communities, will make it necessary to:

- define initiatives to promote sustainable development, aimed more at "satisfying the requests made by the Sahelian communities rather than making offers that do not necessarily correspond to their requirements" (1).
- define and offer rural organizations the wherewithal to take their place as the full partners of official Sahelian organizations and of the various donors who support them.
- define proposals for decentralization to be submitted to State services and outside donors, both public and private, aimed at giving rural organizations greater power over their lives and their resources.

With a view to obtaining these objectives therefore, the CILSS and the Club du Sahel, during their preparations for the Encounter from June 1987 onwards, placed particular emphasis on

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(1) See report of the Donors' Advisory Group meeting, Bern, Dec. 1987



experiments carried out to increase and/or maintain agro-sylvo-pastoral production.

To enable a frank and open dialogue between the three partners, preliminary meetings were organized with the representatives of organizations from the different countries concerned. These meetings selected a number of delegates, alive to the issues at stake in the Encounter and how it could further their objectives. The main challenge lay not so much in encouraging the physical presence of the delegates at the meeting but in ensuring that they were able to participate fully, to describe their own experiences and to understand the arguments and proposals put forward by other development partners. The main objective was that they should put forward their viewpoints and be heard.

This was a difficult exercise as each partner had his own working methods.

For five days, Ségou set the scene for a frank and open "three-way dialogue". The 140 participants, who came from a wide variety of backgrounds, sat down together to analyze the successes and failures of the different development projects. Although, as might naturally be expected, there was a certain amount of disagreement on some points, each partner was made aware of the possibilities and limits of the "partnership".

The results of these impassioned and enthralling discussions are set out in the "Ségou Landmarks for Future Action".

The objective was not to lay down recommendations, which can tend to take a restrictive turn, but rather to encourage an awareness (if indeed such encouragement was necessary) of the fact that none of the three partners can implement a sustainable development policy alone.

The "Spirit of Ségou" calls upon each and every individual to reflect upon how he can best use these "landmarks" in land improvement, projects or policies. The fact that the three-way dialogue took place is a success in itself and this success must now be consolidated in the field through development initiatives and also through ongoing discussions to improve the procedures currently applied.

We hope that in time the participation of the different communities will become a reality rather than just a phrase. A great deal of time and patience will be required but we are convinced that it will happen. Then, and only then, will the true "Victory of the Spirit of Ségou" be won.

MAY THE WIND BLOW FAIR FOR THE SPIRIT OF SEGOU!

Jean-H. Guilmette  
Director of the Club du Sahel

Mahamane Brah  
Executive Secretary of the CILSS

## **CHAPTER II - RESULTS OF WORKING SESSIONS**

### **NOTE**

The limited time available was not always sufficient to do true justice to the rich and varied content of the working sessions in the reports. However, out of respect for the results of these discussions, it was decided to include the group reports and summaries in their entirety, despite a number of repetitions and rather lengthy passages in the text.

## II.1 REPORTS ON WORKING GROUP DISCUSSIONS

### II.1.1. WORKING GROUP ONE (2) Topic: Participation of rural populations

The authors of this report would like to point out that the group's conclusions were based on the experiences of the five participants from rural areas, two of whom were representatives of recently established organizations. The working group's conclusions are thus perhaps not widely applicable. Extremely poor representation of donors also made the group's task difficult.

#### A. DESCRIPTION OF ORGANIZATIONS

Rural organizations are created above all to fulfill the needs of local communities.

The rural population groups decide to form organizations for many reasons:

- To fulfill immediate needs caused by the drought (digging of wells, construction of small dams, setting up village grain storage bins to hold grain for the pre-harvest gap, supplies of staple goods).
- To produce and market goods collectively. Proceeds from these sales are then used for community needs (schools, convalescent homes, village pharmacies) or are divided amongst participants.
- Training and literacy.
- Better management of proceeds from the collective work of young people, by organizing the young. This organization should help stem the rural exodus.
- Creation of nurseries for growing fruit and nut trees.

In the examples put forth, the initiative to form an organization came either from the local populations themselves, or from the government or an NGO. However the organizations actually began to operate only when they had received aid for a specific project.

In Mali, the setting up of Tons is defined by law and is linked to the village's level of organization and development. In

- 
- (2) Members of the Group Secretariat:  
 President: Mr. Moussa Bathily Bâ (Institut du Sahel)  
 Rapporteurs: Mr. N'Doasngar Gaingar (Chad)  
 Mrs. Germaine Diene (Senegal)

Niger the village women are systematically organized as part of the women's group "Union des Femmes du Niger"

There can be only one Ton per village in Mali. In Chad the number of members in one group is limited, and thus several organizations are often created in the same village.

#### B. STRUCTURE AND MANAGEMENT OF RURAL ORGANIZATIONS

Most rural groups have similar structures: there is a general assembly, a board of directors, and a secretariat.

Rural organizations' funds come from members' fees (that vary greatly) or from the sale of goods produced by the group. In some instances these funds are kept by the treasurer; in other cases they are deposited with a bank.

In some countries the absence of a specific official text recognizing village organizations make it difficult for these groups to open a bank account.

Most of the organizations stress good management. Generally speaking, each activity has its own accounting. A management committee oversees all activities at frequent regular meetings of the secretariat or the assembly of delegates.

In some cases individuals work separately within a structure created by the group. For example, in the nursery set up by the women of Tillabery in Niger, each woman pays a membership fee and keeps for herself the proceeds of her sales.

In general, management is strict to avoid any misappropriation of funds or the piling up of unpaid bills.

In addition to their own funds, the rural organizations receive grants in cash and in goods, often for the creation of grain banks or the purchase of farm machinery.

Rural organizations (ROs) can also serve as intermediaries in the granting of loans. The ROs carefully distinguish between the loans for which they are responsible, which they divide amongst members of the organization, and which they are ready to reimburse if necessary, and the loans granted to farmers by other organizations, for which they are not consulted, and whose reimbursement they cannot guarantee.

On the whole, the ROs are anxious to make each of their activities profitable. However if one of these activities is useful but not profitable it can be paid for out of the other activities.

### C. HOW RURAL ORGANIZATIONS OPERATE

Communication within the rural organizations is often informal and takes place during daily contacts between elected officials and members. Once problems have been identified in this manner, solutions are sought collectively in the General Assembly.

In most villages, not all people belong to the organization. These non-members have access to certain services, sometimes at a price higher than that granted members. Most organizations would like to have the largest possible number of members, and attempt to persuade non-members to join.

However in some cases organizations are ready to lose membership in order to put into action measures they deem sufficiently important (example: savings in some Senegalese organizations).

### D. RELATIONS BETWEEN RURAL ORGANIZATIONS

Visits and exchanges of information take place regularly between organizations. Some rural organizations also join with others for joint purchases, and trade takes place between ROs in different areas.

In some villages two or more organizations are working towards the same goal and are in fact in competition. This phenomenon is usually the result of rivalries within the village or between outside agents.

### E. LAND TENURE DIFFICULTIES

Land is generally attributed by villages to organizations with no difficulty, as distribution is based on tradition. When traditional authorities and rural organizations do not agree, the ROs bring their cases to the attention of administrative authorities.

### F. RELATIONS BETWEEN RURAL ORGANIZATIONS AND GOVERNMENT

At the present time the rural organizations work with the local administrative services. These services provide technical and organizational assistance, and also have a certain amount of control over the development of the ROs.

Rural populations and the government agree that the ROs should have better technical control over their development in the future. However administrative representatives are more reluctant to grant the organizations financial autonomy and the right to make their own decisions.

While the ROs hope to continue constructive links with the government, they would like to be given more autonomy since "the work we do is actually for the country, and in fact we are the country". The rural organizations would like to have better internal control over their own development since "you can't put two tobaccos in one pipe".

Although all partners agree on the need to decentralize, details of such a decentralization have not been worked out.

There is also a lack of communication on the government's part. Before drawing up global plans, local agents visit villages to evaluate needs and note requests. Yet once the plan is established, villagers receive no feedback. They thus have the impression that nothing has been done. This situation is harmful for all concerned.

#### G. RELATIONS WITH FINANCIAL ORGANIZATIONS

Working group participants lamented the fact that very different equipment prices and credit conditions often exist in the same village. This situation can destabilize systems that worked well previously.

Farmers are requesting access to cheaper and longer-term loans. They would also like repayment dates and amounts to be more clearly explained.

The rural organizations hope to establish direct links with aid organizations, but governments point out that global planning is needed for better distribution of investments in space and over time.

Projects must be better organized. Often the sums put forth for projects are very different from projected costs (whether these amounts be higher or lower than the actual projected costs).

#### **II.1.2. WORKING GROUP TWO (3)**

#### **Topic: Participation of rural populations**

How can the rural organizations be helped in developing their power, their means, and their operations?

- 
- (3) Members of the Group Secretariat:  
 President: Mr. Jacinto Santos  
 Rapporteurs: Mrs. Assa Soumare (Mali)  
 Mr. Eugène Ilboudo (Burkina Faso)



Before entering into the topic of participation of rural populations in development, the group discussed three points concerning rural organizations:

- autonomy
- leadership
- development.

#### A. AUTONOMY OF RURAL ORGANIZATIONS

Experience in various countries has shown that autonomy has many facets, notably:

- Management of activities and development projects by the rural organizations themselves.
- Self-financing (through mobilization of local resources and the organizations' own surpluses).
- Organization: rural communities must foster capable and active organizations (rural movements from grass roots on up).
- Independent decision-making (on local and institutional levels). Rural organizations should be allowed to participate in decision-making that involves them.
  - . Coordination of efforts by all concerned and on all levels.
  - . Negotiations and partnerships.
  - . A contractual approach that will make it possible for rural organizations to manage the resources allocated to them.
  - . Idea of authority (what right will ROs have to set up projects not provided for in global planning, and what right will they have to use resources for such projects?)
  - . Decentralization of decision-making (make rural organizations a part of the planning process).

A few examples:

##### A.1. Mauritania

- Agricultural cooperatives backed by the SONADER
- Boundaries of villages along the river.



## A.2. Guinea-Bissau

- Association of Kouboucar fruit growers in the southern region of Tombali.

## B. LEADERSHIP FROM WITHIN THE RURAL ORGANIZATION

Leadership provided from within the RO itself requires training, information, and activities to make people aware of its importance.

- The type of leadership required depends on the type of action to be carried out (technical expertise).
- One aspect of leadership is the organization of outside resources and the group's own resources (recruit or support a government agent).
- Encouraging leadership requires a carefully planned approach (behavior of leaders, the organization's philosophy of intervention).
- Partnerships (aid contracts); the organization should be in charge of outside assistance (the technical expert).
- The three types of agents involved (rural organizations, governments, donors) should be fully aware of their responsibilities.
- Rural organizations should share their experiences (use of rural expertise).
- Villages should be considered legal entities where village land management is concerned.

Many laws apply to the national territory in general and the village lands in particular. Thus rural populations must be informed and educated so that they will be able to participate more actively in the local level management of natural resources and in defending their rights. Rural populations must themselves take the initiative to provide leadership for their organizations.

Example: Ucutoha (leadership from within the rural organization)

## C. DEVELOPMENT FROM WITHIN

The ability of a rural community to foster its own development depends primarily on the rural population's organization, its capacity to take on development activities, and its ability to mobilize local resources in support of these activities.

Debates and discussions in these three areas led to the following observations:

- Statutes and legal texts relating to rural organizations are often non-existent or inadequate. This lack of official definition often makes it difficult for the organizations to operate and to evolve;
- Procedures for approving organizations are slow;
- Rural organizations have difficulty attaining access to development factors, especially land, agricultural inputs, credit, equipment, and technical assistance;
- Leadership is poor because of lack of means, the small number of leaders, their methodology, and their level of understanding;
- Rural populations are poorly organized;
- Women participate little in the development of village lands because of socio-economic and cultural factors.

In addition to these observations, working group 2 proposed the following areas of orientation:

#### C.1. Rural populations

- Be aware of the need to organize rural populations in order to form an entity that will be taken into account.
- Also be aware of the need to encourage the participation of women in rural development.
- Work to set up adequate organizational structures.
- Mold rural populations' spirit of initiative and willingness to work into activities that will satisfy basic needs in the village.
- Mobilize potential resources (material resources, human resources) in view of future autonomous management of organizations. Autonomous management is a necessity for lasting development in the Sahel.
- Encourage and support women's participation in development.

#### C.2. Government

Given the scope of the problem, all resources related to management of village lands must be mobilized. The most important

of these resources is undoubtedly the people who live on these lands and use their resources. To mobilize human resources:

- Create conditions that will encourage rural populations to participate in lasting development in the Sahel.
- Take the administrative, legal, and financial steps needed to facilitate the organization of rural populations. Encourage their training, information, and access to land and means of production (credit, inputs, equipment, etc.).
- Define rules for the various partners' (government, rural populations, donors) participation in development.
- Provide more effective back-up for rural populations that are more aware of their own responsibilities.
- Make rural populations' efforts more worthwhile by organizing the market.

### C.3. Donors

- Support the efforts of Sahelian governments and the initiatives of rural populations to develop natural resources at the local level. To do so:
- Widen their development activities.
- Coordinate all donors' activities, and coordinate donors' projects and government efforts.
- Encourage and support women's participation in development.

### II.1.3. WORKING GROUP THREE (4)

**Topic: Conservation of the environment and its production potential**

**Goal:** To identify the conditions that will favor universal application of techniques for conserving and improving the productive potential of the land.

- 
- (4) Members of the Group Secretariat:  
 President: Mr. Jean Bado (PA-CILSS)  
 Rapporteurs: Mr. Mahamédi Doumbia (Mali)  
 Mrs. Anne Cau-Réocreux (France)

Starting from the postulate that the techniques are known and that all that is needed is to remove the obstacles to their dissemination, the group realized that:

- a) On the one hand some traditional techniques are little known or have not been thoroughly studied,
- b) On the other hand there is no appropriate technical solution to certain degradation problems.

#### A. THE KNOWN TECHNIQUES

The group reviewed various techniques, dividing them into mechanical soil and water conservation techniques and biological techniques. The problems of dune fixing and reconstituting soil fertility were examined in detail.

##### A.1. Mechanical SWC techniques

Crescents, bunds (low banks following the contour line and in some cases stone-covered), stone lines, filter dams, zay (holes).

In general, these techniques are fairly easy to master at the local level. All are designed to slow surface runoff, assist infiltration and concentrate water.

Some techniques are more readily adopted by villagers than others. Crescents and bunds had been created only as part of outside projects, and had not been maintained by the community after the end of the project.

Stone lines on the other hand were becoming widespread in Burkina Faso, even in individually held fields. Zay (holes) are traditionally used in Yatenga and in Mali (in the Djenn-Mopti region). Filter dams seem to be readily adopted, but require transport equipment since they use large quantities of stones.

The group wondered why there should be such differences. Stone lines do not concentrate runoff water and let water through. Bunds concentrate water upslope to the detriment of the farmers lower down (poorly adapted technique).

##### A.2. Biological techniques

- Reforestation: planting or natural regeneration,
- Beds of herbaceous plants or shrubs (Andropogon or Vetiver),
- Prohibition of grazing, tree fallowing,

- . Unsuitable tree species for the environment (lack of water especially),
- . Land tenure problems preventing long term investments,
- . Failure of government-run plantation schemes,
- . But successful dissemination of small tree nurseries (Niger and Mali) and reforestation of individual plots,
- . Villagers prefer fruit and nut trees.

### A.3. Reconstituting soil fertility

The techniques mentioned were fallowing, trees among the crops (Acacia albida), mulching, organic fertilizer (compost or manure), better use of mixed crop and livestock farming, soil improving plant species (legumes, Acacia albida).

For fertilizers:

- Problem not the same for rainfed crops in low rainfall areas as for irrigated crops, where chemical fertilizers are a possibility on major irrigation schemes.
- Manure and compost: quantities may not be sufficient to fertilize all the fields of the village.
- Chemical fertilizers: expensive and unsuitable for rainfed crops in unreliable climatic conditions (not economically viable).

Conclusion: as regards fertilizers, it cannot be said that there is a particular technique or techniques that need simply to be disseminated.

The review of techniques showed what a crucial part the NGOs have played in developing and disseminating said techniques.

### B. APPLYING THE TECHNIQUES

Practical application of any of these techniques very much depends on mobilization of the population and the availability of financial, technical and human resources.

Local participation is a key factor and depends on a number of conditions. A ten-point checklist:

- a) Local people's preference for short term considerations:
  - is forced on them by their precarious economic situation,

- is all the stronger when they find themselves up against the wall,
  - means preferring techniques that will give an immediate increase in yield or an additional product (e.g., fruit trees),
  - raises the question of pay (or compensation) for work; opinions were divided on this issue.
- b) The amount and complexity of the work involved in a scheme may or may not allow local people to master the process (depending on the labor force available).
  - c) Different types of schemes require different degrees and types of participation:
    - individual,
    - in the interests of the whole village collectively,
    - national or long term interest.
  - d) Participation must be voluntary; activities and funds must be managed by the local community. For this to happen, the local community must be involved at the conception stage and must be able to supervise the work of the technical services.
  - e) The role of the authorities and technical services must be redefined, but it remains an important one: technical support, training for local people; techniques and management.
  - f) Local communities must be given the logistical means to run their schemes (e.g., choice between truck and wheelbarrow or cart; question of recurrent charges and continuity of schemes).
  - g) Importance of consciousness raising and organization: the role of the State extension service as a catalyst, provided (a) the extension worker is based nearby (in the village), (b) there is an open approach (undirected discussions) and (c) advice is adapted to the situation (women not forgotten).
  - h) Competition with other activities (waged work in town, trade, social and political activities).
  - i) Question of putting decentralized funds at the disposal of village communities.
  - j) N.B.: not all schemes have to be carried out by organized groups: some can be undertaken by individuals.

## C. WAYS AND MEANS

The necessary resources are of three kinds: financial, technical and human.

### C.1. Financial resources

Funds from donors; the channels these pass through before reaching the village.

Question of local-based management of the development budget.

The credit problem:

- Access to credit for all, women included,
- Necessity of village level education in credit matters.

### C.2. Technical resources

#### C.2.1. Materials

- Imported or available locally? (e.g., plastic netting vs. millet straw)
- Economic cost by comparison with sale price (in the case of millet straw)
- Local availability of materials (e.g., distance involved in fetching stones).

#### C.2.2. Tools and transport

- Simple or sophisticated? (e.g., truck vs. wheelbarrow); one expensive or many cheap (one truck = 1,000 wheelbarrows).
- Donation or credit?
- One option is to subsidize equipment and encourage creation of a village fund for maintenance and replacement.

### C.3. Human resources

- Village organizations: in the ideal situation one already exists, but this is not always the case. They must be actively encouraged, but must not be set up for the sole purpose of utilizing funds. Individual motivation must also be used.



- The labor force available in the village: the emigration problem. The women, and the extra workload this imposes on them, must not be forgotten.
- Training for villagers and for the technical extension workers.
- The support of the technical services, starting from local demand.

#### D. THE NEED FOR A GLOBAL APPROACH

##### D.1. What is a global approach?

D.1.1. The global approach is a concerted approach based on a joint agreement between government and rural communities on the choice of multi-sectoral schemes to be undertaken in an area to ensure that economic and social development occur in a global context. The protection and conservation of the ecological balance of the area are the constant preoccupation of those concerned. Some members of the working group thought that this notion of a "global approach" was still essentially at the conceptual level.

D.1.2. The characteristic features of the global approach seem in all cases to be:

- Concerted effort: It is an approach in which all partners in the locality are listened to. It is important that the conception and detailed design of projects be gradually handed over to the users in the field, or at least for the latter to take an ever more active part at those stages. Some spoke of valuable farmer research developing in many cases.
- Organization: The different sections of the community need to organize if they are to become the partners of agencies from outside the area (communities from neighboring areas, government, donors).
- Protection and defense of village lands: This notion naturally presupposes the problem of effective ownership to be solved (land tenure problems), so that the community concerned can properly regulate utilization of its lands.
- Management and utilization of local natural resources: Given that project failures are almost always due to shortcomings in grass roots organization rather than technical shortcomings, grass roots organization must be encouraged. These organizations can then call in the appropriate research institutions and technical services



for technical problems that are beyond their capabilities.

- Integration: The global approach must take into account the need for the different activities undertaken in the area to complement each other so as to maintain a balance. Integration also implies specialization of different zones according to their potential, and the establishment of priorities for the utilization of these specialized zones.

D.1.3. Training, particularly for middle management in the civil service (for a specific response to problems raised) and for people in the local communities, seems to be a key feature of the global approach. Training and literacy coaching at village level is a great help in gradually changing mentalities.

D.1.4. Financial resources: various systems of rural credit and savings need to be tried, tested, and supported, to provide rural communities with strong enough guarantees for them to alter their pattern of land use towards a less predatory exploitation of natural resources.

D.1.5. Applied research: farmers' know-how should be verified by scientific and technical research, and other research should be undertaken in response to problems raised by rural communities in the matter of land development and natural resource management.

A flexible approach by the outside parties involved - Sahel governments and donors - is an important element in integrating farmers' preferences when deciding what form outside support should take.

The priorities defined by the local community should be taken more into account, as should the pace at which land development activities progress.

## D.2. The key points

### D.2.1. Women

Only too often, extension workers still address themselves essentially to men, even though women play a key part in SWC and often account for 70% or more of the labor force. In Noogo, Yatenga, the women are setting up stone lines in the family fields, in the hope that their menfolk will decide not to emigrate again. Traditionally, married women are allocated small plots by their husbands. These are often on less fertile ground and are now yielding less and less. Women's income from crops is thus declining.

The problem of women's access to land and to credit. Access to land is essential for women. There are no new revenue-producing activities. Land is increasingly being allocated to women's groups, but this is only a palliative (one or two hectares for 200 women). Without access to land, women will exploit the bush more (fuelwood, karité, etc.). The current trend on the Central Plateau of Burkina Faso is for the old men to allocate good quality land to the women's groups, for fear that the women too will begin to leave the village. Women need access to land and to training.

Lightening the burden of household tasks: New technologies and other ways of lightening women's tasks must be identified and brought into operation (mills, water pumps, bicycles, woodland nearer to the village).

Promoting activities that will generate an income for women: fattening sheep (and poultry), small-scale trade, processing of agricultural produce.

#### D.2.2. Organizing the rural community

The question is, where are the farmers' organizations? Often there are none, or else they are created in response to availability of money and the problem of finding an interlocutor for the donor.

Establishing local organizations is a long term task, and this is a problem for donors who expect tangible results in the short term. One should not expect spectacular results sooner than in five or ten years. Criteria need to be changed: the creation of local institutions is a precondition for village land and resource management.

Where they do exist, farmers' organizations would like:

- to be involved at the conception stage of action programs,
- to have control over the technical implementation of the programs,
- to manage the funds directly (funds from international aid or membership fees).

The Sahel governments must do all in their power to create farmers' organizations and ensure that they are capable of managing the projects they initiate. They must also be prepared to give rural communities the autonomy they need to manage their development budgets.

Multi-financing in the field can create problems: "More money than sense."

### D.2.3. Decentralization

There was general agreement that the role of the State needs to be redefined. As they gain strength, farmers' organizations are demanding autonomy to manage their funds and control the utilization of their land. However, this does not mean the State has no role to play. The State, and its decentralized technical services especially, ensure that activities continue in the post-project phase.

The role of the State is:

- at the national level, to have a global idea of national development, into which individual projects will fit;
- at the local level, to provide technical services for training and backup.

Question: are the donors prepared to give funds directly to the village communities? Except in the case of decentralized cooperation (twinning) and NGOs, this depends above all on the willingness of the governments.

### D.2.4. The land tenure problem

- The lack of written title deeds was felt to be a major problem. The ODEM herders' groups in Mali have rules governing access to grazing land, but they do not have exclusive rights or any defense against incursions by other herds.
- In crop growing areas, the land tenure problem arises in villages where many of the farmers are on borrowed land and cannot make improvements.
- People often do not know the legal land tenure situation.
- In many Sahelian countries, the land belongs to the State, although customary law continues to operate and to be obeyed by the population.

### D.2.5. Coordination

In some areas, there are several coexisting SWC projects, each with its own methods of operation. This often confuses local people and wastes money.

Should the initiative lie with donors or the government of the country?

- Donors should harmonize their operating methods to a minimum extent, and/or:
- Projects should fit in with a framework designed by the government. For example:
  - a) Each donor could be allocated a specific part of the country, according to the government's regional development plans;
  - b) Projects could be integrated projects, within which each donor would take charge of a specific sector.

#### II.1.4. WORKING GROUP FOUR (5)

**Topic: Conservation of the environment and its production potential**

Participants: 1. Representatives of rural organizations  
2. Representatives of Sahelian governments  
3. Donors

Foreword: The Ségou Encounter on village land management and desertification control provided a wealth of information in preparatory documents and other works. This opportunity to bring together representatives of rural organizations, governments, and donors has shown all the more clearly the need for the three partners to work together to find the best solutions to Sahelian problems.

#### A. DEFINITION OF THE "TERROIR" OR VILLAGE LAND

The concept of village land is difficult to define. In some cases, it is the land immediately around a village. This definition suits farmers, but herders prefer a wider definition when transhumance is prevalent. In this case, it would be more appropriate to refer to Sahelian or herders' land. Other equally important groups (fishermen, etc.) carry out their activities within a given area and were thus also included in discussions.

After much debate and many examples of types of land, the following definition was proposed:

In this document, the term "terroir" (translated here as "village lands" or, more broadly, "natural resources at the local level") encompasses all the natural resources (water, soil, land,

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vegetation, fauna) that members of a rural community (crop farmers, herders, crop farmers with herds, etc.) use and possibly manage for their well-being.

#### B. NATURAL RESOURCES AND BOUNDARIES OF VILLAGE LANDS

Throughout history the various users of village lands have taken the following ideas into account when considering its boundaries:

- The exact boundaries of farmers' fields are well known, even in instances where the farmers have become herders.
- Village land boundaries for herders are less precise, and are poorly understood by non-herders. The reasons for this problem are the large areas of land used by herders, the extension of farm lands after drought years, and above all the lack of consultation with herders concerning land management projects.
- Allocation to non-residents of legal rights to exploit natural resources (woodcutting, etc.) interferes with village communities' rights to use their lands.

Government attempts to define village land boundaries are not usually coupled with any real effort to help rural populations understand the need for such boundary definition. Communities fear taxation or restrictive legal measures and do not understand the possible future advantages of precisely defined village lands.

The village land's natural resources include: water holes and wells, rangelands, arable land, vegetation, and fauna to which the local population has a legitimate right.

Village lands are defined in terms of their users, and thus in terms of physical needs related to users' activities. Some zones are used primarily by sedentary crop farmers and others by largely sedentary crop farmers with herds. Still other zones used by herders can cover areas including many communities, or even stretch over several countries of the Sahel.

The growth of cities has led to the creation of new residential areas or villages, and this phenomenon sometimes affects village lands.

The use of natural resources within village lands depends on the consensus arrived at by all users.

C. INTRA-COMMUNITY, INTER-COMMUNITY, AND COMMUNITY-GOVERNMENT RELATIONS

Intra-community relations are those involving members of one community. Inter-community relations involve two different communities, and community-government relations refer to relations between rural communities and central government.

In rural areas there are:

1. Intra-community relations between:

- Farmers
- Farmers/herders
- Herders.

2. Inter-community relations between:

- Farmers
- Farmers/herders
- Herders.

3. Other specific groups (women, fishermen, hunters, etc.).

Rural community relations have positive and negative aspects, which have been magnified to some degree by the State and administrations. The donors, whose role it is to back rural communities, tend to stand on the sidelines and let the State take the initiative.

C.1. Intra-community relations

a) Crop farmers

Crop farmers usually live in villages or in groups of dwellings set up near their fields. They have always worked together to support persons working for the community (midwife, etc.) and to obtain equipment (plows, carts, etc.).

They have organized themselves in energetic village groups working to satisfy the needs of the community and are inspired by traditional values (creation of economic, socio-educational and cultural infrastructures).

Although there is a firm grounding for a climate of understanding among crop farmers, there are nonetheless some negative factors in their relations:

- the difficulty of defining boundaries between neighboring farmers' fields;



- problems connected land loans, the duration of such loans and the return of the land to the lender;
- overly intensive use of land, and reduction in the amount of time land is left to lie fallow.

b) Herders

Relations between herders within a community are mainly positive, with:

- mutual help in the event of natural disasters (contributions of animals to those who have lost most);
- collective creation and management of water holes, wells, etc.;
- calm relations in the shared use of ground and surface water, grazing land and rangelands.

Negative aspects are:

- the immediate surroundings of public watering points are overused, with strong competition for the poor grazing land and resulting disputes;
- the traditional appropriation of water holes by certain communities, preventing access by others, is a source of friction.

c) Crop farmers - Herders

Crop farmers and herders generally live on the same land or in neighboring areas, and their fates are linked. Their relationship has its positive aspects:

- Both can contribute through financial subscriptions or with their labor to establishing water holes for the benefit of the entire community.
- Herders and farmers can conclude "manure contracts", the herders providing organic manure for the fields against crop residues for their herds. The exchange may be free or may involve a symbolic gift of grain or milk. Any attempt to separate herding from crop farming is an obstacle to increased agricultural production; the importing of mineral fertilizers has quickly reached its limits (soils are becoming acid, etc.)

Whenever herders or farmers are aware of their responsibilities, habits damaging to the environment are minimized. The technical services and those responsible for environmental

protection should rely more on the rural organizations for setting up resource supervision and bush fire brigades.

Despite the advantages of integrating crop and livestock farming, there are some very regrettable misunderstandings between the two groups, which can be summarized as follows:

- Damage done by herds to farmers' fields mar relations between farmers and herders.
- Herders who find themselves in an agricultural area feel like outsiders, and in fact some communities set rangelands on fire to chase away herders.
- Farmers and herders often find themselves confronted with damage caused to fields and herds by wild animals. However they can do nothing about such wild animals until after damage has been done (texts on the killing of wildlife).
- Problems in relations between farming and herding communities are accentuated by governments' seeming tendency to favor farmers. Farmers are perhaps more readily assisted than herders, whose relationships and sociological reactions are not as well known. Likewise, donors have fairly strict criteria, and tend to favor farmers.

#### C.2. Inter-community relations

The same method was used to analyze inter-community terroir-management relations between farmers, herders, and farmers with herds.

Inter-community relations between these groups are similar to relations between the groups within the same community. Problems between the groups are accentuated, however, since there is less solidarity and only the intervention of the government can resolve conflicts.

Farmers and herders in various communities do seek out common links and exchanges, but their task is made difficult by the problems of land development such as dams and command areas.

Relations between different herders' communities are linked to the management of grazing land, water holes, etc.; if resources are adequate relations are good, but when resources are scarce, conflicts arise.

Relations between farming communities and herding communities are good in years when rainfall is adequate, but when resources



(water, grazing land, etc.) are scarce, competition for these resources can lead to highly regrettable conflicts.

### C.3. Other specific groups (women, fishermen, hunters)

The importance of relations between crop farmers and herders has caused the links between these two groups and other specific groups to go relatively unnoticed.

#### a) Women

Women make up over 50% of herding and farming populations, and are a very important factor in intra- and inter-community relations.

Women are involved in all phases of farm production, yet are not involved in land distribution and acquisition programs.

Women are not addressed by training programs, and institutions that provide loans have little confidence in women.

Women process and market products from both farming and herding.

The Ségou Encounter gave women a chance to express their opinions and point out the important role they play.

Examples of women's participation in reforestation, management of economic units, and training-literacy projects show that when women are taken into account, projects' success rates rise to over 50%.

#### b) Fishermen

Fishermen are dependent on freshwater resources, and the management of these resources concerns them, especially when developments bring pollution or threaten their existence.

A code of good conduct for the protection of freshwater resources, which are the sole livelihood of fishermen, should be adopted.

#### c) Hunters

Hunting is not a principal activity, but it brings in considerable income for some communities as well as taxes for governments.

Extensive agriculture and partially nomadic herding reduce hunting grounds.

Bush burning is detrimental to hunting, wildlife protection and herding.

Village land management policies should also be concerned with hunting.

#### C.4. Relations between village communities and central government

The rural organizations are aware that their development depends on their relations with central government, which remains, after all, the guarantor of social order within the nation's boundaries.

Support for the rural organizations is an expression of the government's more or less manifest willingness to recognize that they are essential as partners in development. The governments of the CILSS countries declare that national development is above all the business of producers.

The fact that farmers and herders have always managed to feed the population (despite the fact that the population has grown rapidly) shows that they have a certain know-how and they are ready to put their knowledge to use in improving production.

Rural organizations have been provided with both technical (leadership) and financial (subsidies and tax breaks) assistance to help them provide for community needs. Yet the assistance provided is far from sufficient.

While it is recognized that governments play an undeniable part in encouraging rural organizations, there still remain certain shortcomings:

- Information on the extent of rural organizations is not available.
- Laws on the promotion of rural organizations have not been adapted to changes caused by recent droughts or to schemes to improve living conditions (primary health care, education, etc.).
- The rural organizations and their representatives reflect Sahelian society, in which the majority of people are still illiterate. An educational scheme for all is clearly indispensable.
- Tax rates are set without taking into account the damage perpetrated by herders' animals. This situation frustrates herders who do not always understand the benefits of a taxation system.

- Agricultural prices are set without taking production costs into account, and farmers and herders are not included in price-setting decisions.
- The poor distribution of technical services creates disparities in development.
- Producers would have more incentive to cooperate in brush fire control and to stop over-exploitation of fuelwood resources, etc., if relations with environmental protection officers were improved.
- Despite its willingness to help, government cannot provide the immense resources needed to foster development and control desertification.
- The three partners (government, donors, and rural organizations) must work together.

#### D. TRENDS

The population of the Sahel has doubled since independence, and the majority of the population earns its livelihood from natural resources. Yet legislation governing the use of these natural resources has not changed with population growth. As a result the desert continues to spread. Legislation concerning natural resources must be reexamined, and at the same time users of these resources must change their habits.

##### D.1. Negative trends

Despite the severe droughts of the past two decades, crop farmers continue to extend their crop lands northward, so finding themselves in fierce competition with herders in a low rainfall belt. Clearing bush and laying bare new fields in this fragile belt creates new centers of desertification which may, for example, set the dunes in motion. Available grazing land is threatened by advancing sand as well as by the extension of cultivated land. Yet although livestock activities are of greater economic value than crop growing in this belt, it is generally the crop farmers who are protected by the authorities in the event of conflict.

Investment in livestock by some town dwellers after the recent droughts has also caused some environmental disturbance. For want of other investment outlets, many townsfolk have invested in herds which they have tended by other people. As they prefer to have the herds near the town, land around the towns is becoming overgrazed.

With structural adjustment, cash crop production is greatly encouraged, even though the extension of the acreage given over to these crops runs counter to natural resource preservation. The techniques and inputs used in this expansion of cash crops (animal

powered cultivation, insecticides, herbicides) also run the risk of making soil and vegetation less productive.

Some developments, such as command areas, have added a new factor to local resource utilization. The newly irrigated land is frequently split up between the owners who have recently arrived in the area. This cuts off the former riverside pastures on which a number of grazing systems were based.

#### D.2. Positive trends

Some rural communities have organized themselves better to improve the use of their local resources (bush fire control brigades, for example). Some have had the benefit of outside leadership, others have acted on their own initiative. In both cases, these communities are highly motivated to confront the negative trends in their environment.

The governments have also changed some of their national land development policies (e.g., with desertification control plans). These new policies encourage the rural communities' attempts to organize.

Unfortunately the new policies are not easy to implement - there are contradictions between the new policies and older laws which have been slower to change.

Sedentary livestock farming is becoming an increasingly viable option, provided that:

- a) the herders' group can control access to its territory by non-members, and
- b) that transhumance is still possible:
  - . southward in the event of drought;
  - . northward when rainfall levels are good.

#### E. A GLOBAL APPROACH TO MANAGEMENT AND THE ROLES OF THE VARIOUS PARTICIPANTS

The group's highly instructive debates and several examples of sylvo-pastoral and agro-sylvo-pastoral projects by representatives of rural organizations, led to the following definition:

The global approach is a concerted approach in which the protection and conservation of the ecological balance remain the constant preoccupation of all concerned. It is based on agreement between central government and the rural community as to the multi-sectoral schemes to be undertaken in a given area for the

well-being of that area's population. In addition, the schemes undertaken should have the support of donors.

Some members of the group, however, thought that this notion of a "global approach" is still essentially conceptual. The characteristics of the global approach seem in all cases to be:

- Concerted action: All parties involved in village land management are listened to.
- Organization: The different sections of the community need to organize to:
  - . Become full partners of those involved from outside the area, i.e., communities in neighboring areas, government and donors.
  - . Protect and defend village lands: This naturally presupposes the problem of effective ownership of the land to be solved (the land tenure question).
  - . Manage village lands and resources.
- Integration
 

The global approach must take account of the need for different schemes to complement each other so as to maintain a balance in the area. Similarly, while specific areas may be put to specialized use according to their potential and priorities may be established for the use of the specialized areas, this too must be integrated.
- Training and education, particularly for middle management in the civil service and for people in the localities, is a crucial feature of the global approach. Training and literacy coaching for rural communities is a considerable help in gradually changing mentalities.

A flexible approach by the outside partners involved - the Sahel governments and donors - is a key element in the global approach.

The priorities defined by the local community should be taken more into account, as should the pace at which land development activities progress.

## II.1.5. WORKING GROUP FIVE (6)

Topic: A global approach to the transformation of farming systems

A. FACTORS FOR CHANGE IN PRODUCTION SYSTEMS

The group set out to analyze the different production systems as they have evolved historically, a production system being defined as a set of activities (crop farming, herding, forestry, fishing, hunting, crafts, etc.) which the rural community carries out to meet its various needs.

A.1. Historical changes in production systems

Before colonization, there was a subsistence economy, based mainly on shifting agriculture, which had developed over a long period. This system involves a collective form of local natural resource management and a disciplined family organization with a strong element of mutual help.

Population growth was slow, which meant that there was enough cultivable land available for farming to maintain a balance with the environment.

The introduction of cash crops (cotton and groundnuts) during the colonial period resulted in:

- the traditional power structures losing their responsibilities,
- the system of village land management becoming disorganized,
- introduction of a market economy.

These factors, in addition to population growth, contributed to the disruption of the socio-ecological balance. A system of surplus production was added to the subsistence production system, leading rural communities to draw on their natural resources by:

- extending the acreage under cultivation,
- clearing forest to meet increased fuelwood requirements.

The two systems coexisted until after the great droughts of the 1970s.

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                   Mr. Ibrahim Harouna (Niger)



The market economy was expanded in the post-colonial period. The key features of this period were important technical innovations, i.e.:

- large-scale land development schemes,
- animal-powered cultivation,
- fertilizers, pesticides, etc.

However, these innovations did not always take the realities of rural conditions into account. For example, the management and running of the pilot farms, cooperatives and State-owned development companies that were set up at this time were entirely out of the hands of the local communities.

With the droughts of the 1970s, the part played by the governments was basically to foster farmer organization under the guidance of governmental development structures. Village groups were set up, cooperatives were organized, and the prerogatives of these different farmers' organizations were defined.

The significant features as regards village land management were the emergence of a survival production system in areas that were densely populated and severely degraded, a surplus system in the cotton and groundnut growing areas, and the continued existence of the subsistence system in less heavily populated, less intensively-worked areas. Current conditions (pressure on resources, degradation, decreased production) make it absolutely necessary to invest in local level land management and protection. In any case, to continue in existence, all three systems need investment by the three partners concerned: governments, farmers' organizations and donors for:

- land law reform, with a view to soil restoration,
- industrial reforestation around the larger towns,
- creation of water holes and irrigated areas bordering rivers and lakes,
- rangeland development.

Changes in modes of production at local community level have led to the emergence of new needs, requiring a system of credit for the purchase of:

- farm equipment,
- inputs (fertilizers and pesticides),
- consumer goods.

Despite the urgent need for these investments, farmers often do not have access to the credit arrangements suited to their needs:

- rural credit systems have not developed widely,



- short term bank loans are available, but not long term loans for farmers who need flexible loans,
- the land is the farmers' main asset, but they do not own it and therefore cannot use it as a guarantee for bank loans.

However, the Sahel governments and the international community have made considerable efforts to supply these new needs. This has been reflected in sectoral projects, then in so-called integrated projects and direct intervention by NGOs in the field. However, it should be stressed that these schemes and projects take many different forms, adding to the confusion among local people at the receiving end.

Despite the efforts made, the basic drought-related development problems remain:

- food crisis,
- energy crisis,
- degradation of the main natural resources.

To confront this situation, new production systems and new forms of organization must be established, with the aid of national policies aimed at food self-sufficiency and at desertification control.

#### A.2. Obstacles to change in the production systems

A number of obstacles exist, and these must be cleared before improvements can be made to the production systems.

- The land tenure system: this is an acute problem throughout the Sahel, and steps must be taken to facilitate access to land. In particular, the group noted that the lack of security in land rights prevents occupants making the necessary investments (although these would not have an immediate impact on production).
- Lack of farm credit systems suited to the needs and concerns of rural life.
- Obstacles to local level participation in the design, management and execution of projects. To clear these obstacles, changes are needed in the distribution of resources, knowledge and power among the three main parties involved. The parties recognize:
  - . that rural communities must have the power to manage village lands,

- . that farmer initiative is the key element in the transformation of a production system,
- . that governments have a vital part to play in offering support and inducements to local initiative,
- . that the donors, in collaboration with the Sahel governments and local communities, have a positive contribution to make.

Community participation also depends on efforts to raise consciousness, inform local communities and provide education and training.

- lastly, that technology geared to solving the population's problems is sadly lacking.

#### A.3. Factors for change in the production systems

For rational management of village lands, the following possibilities must be considered.

##### Land tenure:

- drafting and/or application of statutes giving security of tenure on the land;
- defining the rights of rural communities in the matter of development activities and natural resource management.

##### Credit:

- mobilization and utilization of local savings by communities;
- creation or strengthening of suitable credit structures.

##### Intensification of production:

- introduction of agroforestry, land tenure improvements, mixed livestock and crop farming, use of more efficient production systems, cultivation of fodder crops, introduction of new livestock systems and new marketing systems for agricultural produce.

##### Relations between the partners:

- better joint planning between government structures, donors, and farmers' organizations. This implies a better distribution of resources, knowledge and power between the three, for a more coherent, concerted approach to development problems. It also implies each of the

partners fully accepting their share of responsibility and, especially, a better definition of the rights of local communities in the management of their own environment, in order to harness local initiative and reduce administrative obstacles. In particular, the various governments should define their policies on village land management and provide the means necessary to implement them (financial and material resources, methodology, participation of the population encouraged by incentives). NGOs and donors should tailor their action to fit in with these policies.

#### II.1.6. WORKING GROUP SIX (7)

**Topic: A global approach to the transformation of farming systems**

##### A. ECOLOGICAL CRISIS, ECONOMIC CRISIS, FOOD CRISIS

The natural increase in population has led to increasingly saturated land use in the rural areas: with more mouths to feed, the acreage under crops has had to be increased at the expense of fallow land. The land has less time to rest, fertility is not sufficiently restored, and yields decline.

Similarly, a larger population means more wood cut for fuel around the towns and villages, preventing replenishment of the stock of young trees.

These two trends largely sum up the underlying causes of the ecological crisis in the Sahel countries. On top of this, the effects of drought and climatic irregularities have deepened the ecological crisis, making herders' and farmers' incomes - and sometimes their nourishment - even more precarious. In addition to the ecological crisis, populations are faced with an economic crisis and a food crisis. All this is well known.

What is not sufficiently stressed, however, is the variation in the form the crisis takes, from one region or local area to another. The crisis is deepest in the northern Sahel, where desertification is severe, but rapid population growth in the south also creates crisis situations, though these are less visible. In some areas there can even be found little-used arable land or virgin soil, though the process of colonization is irreversible. There are also some specific situations, as for example in lower Casamance, where colonization of the plateau lands and cultivation

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of the hillsides has led to the valley bottom rice fields being eroded and then sanding up.

#### A.1. Many different, complex solutions

There are no simple solutions to these problems, since solutions must involve production techniques, economic and institutional conditions and, above all, cultures and mentalities.

As regards production systems, there are many possible ways to assist intensification of agriculture, but they are not all applicable everywhere and they have to be adapted. Moreover, intensification cannot be taken very far in regions where rainfall is low and very irregular.

Some techniques, such as mechanized cultivation, also entail considerable changes in the domestic life and economy of the family. There are also many possible techniques for groundwater conservation, protection and restoration of the soil, woodland and rangeland management and agroforestry.

Exchange of experiences between villages is very valuable in spreading these techniques - often more valuable than information diffused by the government extension services, which do not always know what advice to give as they are not familiar with the different local problems. Increasingly, however, new solutions will have to be thought up and research will have to be carried out. Some rural organizations, like the CADEF in Casamance, are already doing this. Others are wondering how to put the right questions to the research institutions (Foyer Ross Bethio).

#### A.2. Solutions can only be effective where the economic environment is favorable

However, very often the technical solutions are only worthwhile if the entire institutional and economic environment is favorable (laws, regulations, organizations; market organization, agricultural prices, credit conditions). This raises a further question: under what conditions will an agricultural policy enable producers and rural Sahelians to improve their production methods so as to produce more, while improving the natural environment?

For it is clear that restoration of the environment is costly, and at a time of ecological and economic crisis, producers have little in the way of resources to invest in reconstituting this lost natural asset. Their immediate reaction is to turn to their governments, which figure so large in the Sahel countries, and which have always optimistically hoped to orchestrate rapid development. However, the continuing financial difficulties of the Sahel governments mean that on the one hand they have to count on outside aid, and on the other hand they have to hope the rural

communities will, as far as possible, tackle the problems of their own development themselves, with their own resources (i.e., small collective savings, collective labor). Indeed many local initiatives have been taken without waiting for government aid, especially in areas where ecological damage has gone furthest.

#### B. THE ROLE OF RURAL ORGANIZATIONS

This raises a new problem: the allocation of roles. Every initiative involves crop farmers or herders (individually or collectively), local authorities, various levels of government authority, outside NGOs and donors. Each of these has a part to play, but the right balance between them has not yet been struck. To find that balance, there are two questions that need answering:

- Who is responsible for what, and who should pay for what? For example, some Sahelians may ask, "If I plant a tree on the plot I have been allocated, who is going to tend it if I am not the owner?" Or "If the land belongs to the State, should the State be responsible for its ecological restoration (reforestation, development)?"
- This leads to the question of who decides, and who initiates? Should governments just set up infrastructures and leave local development to the local authorities?

What happens in practice is that the rural organizations take initiatives to tackle the problems they have to solve, so deciding the issue by default, whether the question is one of production, protection techniques, market outlets for produce, credit, shortage of fuelwood, or land tenure.

On these various issues, the rural organizations present in the group gave the following replies:

##### B.1. Land development and farming techniques: appropriate materials

There are many local techniques invented in situ, and also techniques learned from elsewhere. These need to be spread to all areas, and organizations encouraged to exchange experiences. What should be done when there is no technique that works, i.e., when all are either ineffective or too expensive? Some rural organizations would like to put questions directly to the research institutions and ask researchers to come and study their problem.

However, the heart of the problem lies elsewhere. While the techniques may be known, the problem remains of access to those techniques. Many people are asking for greater possibilities for mechanized cultivation, which implies heavy investment at farm level. This raises the question of credit in a situation where savings are meager and irregular.



On the other hand, there is never or hardly ever any local demand for rehabilitation or development of the ecological environment. Apart from the land ownership problems this raises, everyone seems to prefer investments that will have an effect in the short term (farm machinery, in the hope of a quick harvest) rather than in long term investments for future generations (reforestation, for example).

### B.2. Rural credit

Some agricultural banks have gone bankrupt. Cooperatives and national organizations providing farm season credit and advice have been disbanded. How is the need for credit to be met?

In the first place, some conventional agricultural credit and advisory services still exist. It is also possible to apply to the banks, though these require a grouping of credit requests with group guarantees, as in the case of the village Tons in Mali. This is also done in Niger by the credit cooperatives linked to CLUSA. There is unanimous agreement that collective loans or mutual funds are possible solutions.

Only too often, however, the lending organizations do not know how to explain to borrowers, while borrowers fail to note the dates, amounts and interest rates for repayments, and then find themselves out of their depth. When all the conditions are clearly set out, producers can negotiate the conditions of the loan, its duration especially, and mutual trust is established between lender and borrower. Clarity in the contract may do more to stimulate credit than a lowering of interest rates, even though these are considered too high (over 10%).

For many participants, it is essential for the borrowing group or cooperative to have some working capital. It was also pointed out that until women individually have access to credit, certain kinds of improvement will not be possible: for the purchase of rice field cultivation equipment in Casamance, for example, or for plows and oxen for women in Mali. Cases of women's collective fields and collectively held equipment were reported.

### B.3. Outlets for agricultural produce

This problem varies according to the crop (cereals, export crops).

As regards the traditional cereals, the main problem is market regulation. The organizations (cooperatives, village tons) have tried a number of solutions but have met with many difficulties. In Mali, for example, they bought up cereals to stock them for later sale, hoping for a higher price, only to find that the price fell.

Often all a producer can do is put his trust in the traders. Only they know the more distant markets. For example, Burkina Faso's market garden produce is bought at low prices by the Abidjan traders who control the market; for cowpeas, the price is decided in Nigeria (Niger cooperatives).

The situation is better for industrial crops (cotton and groundnuts) since prices are guaranteed and the producers can choose. However, if prices fall there will be problems, as no other crop guarantees an equivalent income. In Casamance, "food security means producing cotton or groundnuts to provide an income with which to buy food". "The government ought to do the same for the grain crops as it does for these crops: in the rich countries governments subsidize grain growing".

Meanwhile, "for want of government-guaranteed prices", the rural organizations present felt they should "organize to confront the traders, so that the balance of power is more in their favor", and "negotiate with the traders, because they need us as much as we need them". To do this the cooperatives must receive their marketing loans in time, "like the traders", so as to "hold out at millet harvest time and not have to sell at a low price". If the credit does not come through, everyone has to sell "and the circle is broken".

There is also a need to study the markets more thoroughly, to process produce at the local level, and to regulate the markets better. However, the organizations are asking for government help to enable them to do this.

#### B.4. Fulfillment of energy requirements

In theory, it is almost always the governments that handle forest management. In practice, they do not have the funds to do so. The cutting and sale of fuelwood brings in a substantial income and is impossible to control. Some villages neglect their cotton to sell wood by the roadside, the women especially (Mali). Elsewhere it is outsiders who come to the villages to cut wood, which creates conflict. In some cases nobody knows any longer who owns the trees: the family claiming "traditional family land", the village, the cooperative or the government.

For many years villagers "did not understand why the forestry authorities asked them to plant trees. But gradually they realized". Some plant on their own plots. They appreciate the "green stakes". Villages are setting up tree nurseries for fodder trees, mango trees, etc. Improved cookstoves are spreading with backup from the government services.

Meanwhile, many difficulties remain. Large scale reforestation takes place in the rainy season when the men are fully occupied, and to persuade them to plant, the projects pay for the work. Some



participants thought this makes the farmers feel less responsible; others thought the farmers have to give priority to short term income (crops) before they work for the longer term (trees), and that payment for tree planting is a good way of combining short term income and long term interest.

Woodcutting has to be brought under control. Sometimes villages lay down rules, e.g., woodcutting must relate to family size (the women of some villages in Mali). Everyone is agreed that only the villages and local organizations can control the forests. However, it remains to be seen whether proper control may not imply discouraging individual woodcutting and ensuring that all wood is cut by local community organizations.

#### B.5. Land law and land tenure problems

In nearly all the Sahel countries, modern law overlaps with traditional land law. Under traditional law, the land is divided among families, and within the family the land is divided according to custom. Under modern law, the State owns the land.

Under Senegalese law on the lending of State-owned land, at the end of two years, the borrower of a plot has the right to remain on it. This puts those who have to borrow in an extremely precarious position, and makes it impossible to invest in land improvements. Deteriorating land, low yields and low incomes discourage the head of a holding from distributing land to young people or women, and this can increase departures to the towns.

The ecological crisis also encourages men to emigrate and demand land in the host villages. This can go so far as to submerge the host village, which cannot take the land back later if its own villagers need it. Moreover some people use traditional law to occupy a piece of land and then use modern law, which they had opposed in the first instance, to settle there definitively.

As a solution to these problems, some people suggested a return to the traditional system. Others thought the village organizations need a thorough knowledge of the law to be able to defend themselves and to ensure that, in the event of a conflict, the State cannot decide the issue without also involving the rural organizations. This could mean farmers' organizations being represented in the local authority decision-making bodies.

The question was raised as to whether the solution lies in a universal application of private property, as now applies in the towns. In any case a real estate market is developing and, "if the government does not take a hand the big landowners will squeeze out the small". If the government wants small farmers to survive, therefore, it must "provide checks and balances in the law" to set a limit to land accumulation.

While some argued for private property, this was primarily to ensure that any occupier investing in land improvements to increase productivity will enjoy the right of usufruct. In fact it all depends on the type of investment. Some investments are profitable in the short term and do not require absolute security of tenure. Others may be more useful in the longer term, and do require security of tenure. Clearly, however, whenever farmers consider it worthwhile to intensify production and invest in environmental improvements such as reforestation, they would like to be regarded as definitive owners of the land.

### C. CONCLUSION

The different subjects discussed show that the rural organizations, and the farmers in particular, inevitably do take initiatives to solve their own problems if governments do not respond to their longstanding requests for organized production, seed supplies, dissemination of advances in techniques, market outlets, credit, fuelwood resource management and local regulation of land tenure issues.

On the other hand the group felt it to be the task of governments to establish the general laws and policies that will enable these local initiatives to be effective: market regulation, export facilities, food security, availability of credit, etc.

In this sense possibilities for change in the agricultural production systems involve both the organization of local communities and the general responsibilities of central government to enable the communities to organize.

## II.2. - SUMMARIES OF DISCUSSIONS ON SPECIFIC TOPICS

### II.2.1. - Topic one: PARTICIPATION OF RURAL COMMUNITIES

#### A. INTRODUCTION

On May 23 and 24, 1989, Working Groups 1 and 2 discussed the following sub-topics: group 1 examined the organization of rural groups, their structures and types of management, their relations with each other, their problems, and their relations with government and donors; group 2 analyzed the autonomy of rural organizations, and their capacity to provide their own leadership resources and pilot their own development.

This summary is based on the two groups' discussions on the participation of rural populations, topic number 1 at the Ségou Regional Encounter.

Discussion participants included representatives from the three groups involved: the rural organizations, donors, and governments.

#### B. STRUCTURE OF RURAL ORGANIZATIONS

Most rural organizations were reactivated during the great Sahel droughts of 1972 and 1984. The organizations' goals were to provide for populations' immediate needs (digging wells, construction of small dams, setting up grain banks, supplying basic necessities, marketing grain).

With the benefits from the sale of their products the ROs set up village schools, clinics, pharmacies, etc. The creation of the RO made it possible to reinforce solidarity on the village level: collective environmental conservation efforts were organized, food production increased, and the rural exodus slowed.

Rural organizations were created at the initiative of local populations themselves, governments, and NGOs.

To better manage their activities the rural associations have set up decision-making and management structures such as general assemblies, management committees, boards, secretariats, and auditing boards or monitoring committees. Funds come mainly from membership fees, the sale of the products of individual or collective labor, international or local NGOs, governments, embassies or agencies for bilateral or multilateral aid, loans, and donations.

Resources are managed collectively (by management committees) and each activity has a separate accounting. The ROs are careful to use resources wisely, as they are anxious to promote sustainable and profitable development that will benefit their members and

their villages. They make it a point of honor to reimburse loans taken out, and they set up savings and loan funds.

The ROs are also aware of the need to extend their knowledge. They organize visits between associations and between villages in order to find out about activities undertaken by other groups. These exchanges also help to establish trade links between villages and thus reduce the need for intermediaries.

The ROs prefer to rely on their own resources. They first organize activities to encourage leadership from within the organization, and mobilize local resources and surpluses generated by their own activities. Then and only then do they seek outside help.

This desire for autonomous action and decision-making has taken the form of unions and federations of rural organizations that are ready to defend their rights to development.

The rural organizations are aware of conditions in Sahelian countries. They would like to see governments and donors create conditions favorable to sustainable development fostered by communities for their own benefit. The rural organizations would like to have greater control of their own destinies.

"THE WORK WE DO IS FOR THE COUNTRY, AND WE ARE PART OF THAT COUNTRY ALSO"

Women are an important asset in efforts to improve living conditions in rural areas. Individually and as members of organizations, they work side by side with the men in socio-economic activities for the survival and development of the family, the village, and the land.

Governments and the international community recognize the role and place of women in the creation of a Sahelian society capable of taking charge of its own development.

The common efforts of men and women for sustainable development in the Sahel should be supported.

#### C. CONDITIONS NECESSARY FOR PARTICIPATION

In the area of autonomy, experience in all countries has shown the need to:

- a) Efficiently organize rural populations aware of their role in the development of the village and the land.
- b) Make it possible for rural populations to take part in decision-making.

- c) Initiate activities and development projects that take all members of the community into account.
- d) Promote leadership from within rural organizations and the autonomous management of activities and projects (through training, seeking out know-how within the organization, etc.)
- e) Establish contractual relations with governments, NGOs, other village organizations, and donors, in order to receive their continuing support.

On the subject of leadership from within the organizations, discussions centered on the following related points:

- Leadership from within organizations presupposes training, information, and activities to make rural populations aware of the importance of such leadership.
- The type of leadership required depends on the type of action initiated by the organization, and also on the means of carrying out that activity.
- Villages should be considered as legal entities where village land management is concerned.
- The three types of players involved (rural organizations, governments, donors) should be fully aware of their responsibilities in order to harmonize development activities at the local level.

Many laws apply to the national territory in general and the village lands in particular. Thus rural populations must be informed and educated so that they will be able to participate more actively in managing village lands.

Rural populations and their organizations must themselves take the initiative to provide their own leadership.

The ability of a rural community to foster its own development depends primarily on the rural population's level of organization, its capacity to take on development activities, and its ability to mobilize local resources in support of these activities.

Debates and discussions on the topic "participation" brought out the following positions:

#### C.1. Rural organizations:

- The ROs would like donors to continue to recognize the central role of government in development, but put funds and means directly at the disposal of the ROs.

- The ROs would like greater freedom in organizing and managing their own activities. They would like to see governments display less pressure and more trust.
- Governments do not always respect engagements made with rural organizations.
- Governments are reluctant to grant financial independence and decision-making authority to organizations.
- The rural organizations are critical of donors' very different means of operation, and of projects that are often not adapted to communities' needs.

#### C.2. Governments:

- As governments are responsible for development, they would like to control the activities of both rural organization and local and international NGOs.
- Government representatives point out that they are not sufficiently informed of the existence of rural organizations and of the activities of NGOs. They also note that laws and regulations are not always correctly followed by ROs and NGOs.
- Governments are concerned about the increasing number of NGOs in the Sahel.
- Governments criticize donors' lack of coordination and harmonization in approaches, methods, and financing.
- They note the lack of necessary means for genuine and efficient decentralization.

#### C.3. Donors:

- Representatives of donors would like to have the right to work directly with rural communities.
- They point out the problem of administrative red tape, on their level as well as in each country.
- Donors would like governments to give local groups more authority in the areas of:
  - . local ownership of natural resources,
  - . rational management of these resources,
  - . resolution of conflicts concerning them.



Donors would also like governments to allow local groups to acquire the financial means needed to pursue their goals.

It is clear that government plays a central role in the development of the village lands. Consequently, government should:

- Share power to efficiently manage natural resources at the local level with the rural organizations.
- Establish clear rules defining the partnership of the three actors in development (rural organizations, donors, government).

Given the large number of actors in development and their different methods of approach, there must be increased cooperation on all levels.

Discussions also led to the following observations:

- Statutes and legal texts relating to rural organizations are often non-existent or inadequate. This lack of official definition often makes it difficult for the organizations to operate and to evolve;
- Procedures for approving organizations are slow, and these organizations often have difficulty attaining access to development factors, especially land, agricultural inputs, credit, equipment, and technical assistance;
- Leadership is poor because of lack of means, the small number of leaders, their methodology, and lack of training;
- Rural populations are poorly organized;
- The number of NGOs in the Sahel is increasing rapidly;
- Women participate little in the development of village lands because of socio-economic and cultural factors;
- Health care in rural areas is inadequate, particularly for mothers and children, and above all in areas where crops are irrigated.

These observations led the participants to propose the following areas of orientation:



#### C.4. Rural populations:

- Be aware of the need to organize rural populations in order to form an entity that will be taken into account.
- Also be aware of the need to encourage the participation of women in rural development.
- Work to set up adequate organizational structures.
- Mold rural populations' spirit of initiative and willingness to work into activities that will satisfy basic needs in the village.
- Mobilize potential resources (material resources, human resources) in view of future autonomous management of the organizations. Autonomous management is a necessity for sustainable development in the Sahel.
- Encourage and support women's participation in development.

#### C.5. Government:

- Create conditions that will encourage rural populations to participate in sustainable development in the Sahel.

To do so:

- a) Take the administrative, legal, and financial steps needed to facilitate the organization of rural populations. Encourage their training, information, and access to land and means of production (credit, inputs, equipment, etc.);
- b) Define rules for the various partners' (government, rural populations, donors) participation in development;
- c) Provide appropriate health care for all rural communities, and especially for women, children, and populations living in irrigated areas;
- d) Allow rural populations to take on their responsibilities;
- e) Make rural populations' efforts more worthwhile by organizing the market.

#### C.6. Donors:

- Support the efforts of Sahelian governments and the initiatives of rural populations to develop village lands.

To do so:

- a) reexamine development methods and adapt these methods to local needs;
- b) coordinate all donors' activities, and coordinate donors' projects and government efforts;
- c) encourage and support women's participation in development.

II.2.2. - Topic two:           **CONSERVATION OF THE ENVIRONMENT AND ITS  
PRODUCTION POTENTIAL**

A. INTRODUCTION

The Encounter had brought us together to discuss local level natural resource management in terms of the management of "terroirs villageois" or "village lands". However, it is not certain that everyone is agreed on the meaning of this expression. It was not the purpose of the two groups (groups 3 and 4) to define the concept but the question remains open for the final debate.

One may wonder why "management of village lands" and their natural resources is now considered so important. It would seem that the degradation of these resources, worsened by the pressure of population growth and recent climatic crises, has now reached such a stage that measures to conserve resources and improve their management are becoming imperative.

We shall first outline the main points of recent trends, and then put forward some ideas as to the concept of village lands and consider possible measures.

B. TRENDS

B.1. Worrying trends

Since independence, and increasingly rapidly over recent years, economic and demographic trends in the Sahel countries have worsened, their results accentuated by poor climatic conditions (the droughts of 1973 and 1984).

Production techniques, legislation and the pattern of international aid all seem to be ill adapted to this situation, and a number of disquieting features are emerging.

Despite the severe droughts of the past two decades, crop farmers continue to extend their croplands northward, so finding themselves in fierce competition with herders in a low rainfall belt. Clearing bush and laying bare new fields in this fragile belt creates new centers of desertification which may, for example, set the dunes in motion. Available grazing land is threatened by advancing sand as well as by the extension of cultivated land. Yet although livestock activities are of greater economic value than crop growing in this belt, it is generally the crop farmers who are protected by the authorities in the event of conflict.

Investment in livestock by some town dwellers after the recent droughts has also caused some environmental disturbance. For want of other investment outlets, many townsfolk have invested in herds which they have tended by other people. As they prefer to have the herds near the town, land around the towns is becoming overgrazed.

With structural adjustment, cash crop production is greatly encouraged, even though the extension of the acreage given over to these crops runs counter to natural resource preservation. The techniques and inputs used in this expansion of cash crops (animal traction, insecticides, herbicides) also run the risk of making soil, water and vegetation less productive.

Some developments, such as command areas, have added a new factor to local resource utilization. The newly irrigated land is frequently split up between the owners who have recently arrived in the area. This cuts off the former riverside pastures on which a number of grazing systems were based.

The laws governing utilization of the natural resources from which the majority of the population draw their livelihoods have not been amended in response to this situation. User behavior also needs to change.

#### B.2. Positive factors

Some rural communities have organized themselves better to improve the use of their local resources (bush fire control brigades, for example). Some have had the benefit of outside leadership, others have acted on their own initiative. In both cases, these communities are highly motivated to confront the negative trends in their environment.

The governments have also changed some of their national land development policies (e.g., with desertification control plans).

These new policies encourage the rural communities' attempts to organize, though unfortunately they are not easy to implement - there are contradictions between the new policies and older laws which have been slower to change.

Sedentary livestock farming is becoming an increasingly viable option, provided that:

- the herders' group can control access to its territory by non-members, and
- that transhumance is still possible (a) southward in the event of drought, and (b) northward when rainfall levels are good.

### C. WHAT IS A "TERROIR"?

#### C.1 Defining the "terroir"

After much debate as to what can be included in the notion of "terroir villageois" or "village lands", the concept was variously defined as:

- "The area of activity of a community."
- "The totality of natural resources (water, soil, land, vegetation, fauna) utilized and possibly managed by a rural community (crop farmers, herders, crop farmers with herds, etc.) for their well-being."
- "An entity identifiable from its boundaries, its physical natural resources (climate, bedrock, soil, vegetation, water, etc.) and the anthropic features (humans, cattle, technology) which interact in the utilization of those resources."

Whichever definition is preferred, the "terroir" is widely recognized as being an interactive system requiring a global approach.

#### C.2. The boundaries of village lands

Boundaries are not defined with the same precision in all cases; it depends on the type of activity carried on, and is not the same in a purely rangeland or forest area as in a saturated crop farming area or a situation somewhere between the two extremes.

This makes it difficult to find a single definition or, above all, to divide the land according to boundaries that will be acceptable to all. The areas used by different communities for access to natural resources may overlap in various ways, especially on rangeland and in mixed cropping and grazing areas.

On the other hand in the Sahelian context one cannot always accurately talk of "village" lands or resources, as dwellings are not always clustered together.

Development activities focus on areas of various sizes, which may be defined by administrative boundaries, the customary range of a local community's territory, the area covered by a rural organization, or a physical entity such as a watershed.

#### C.3 . Natural resources

- Water: for human needs, irrigation, watering herds.

- Land: rangelands, arable land, etc.

The expansion of towns and the creation of new villages also have an impact on land use.

- Vegetation: grazing lands, wood.
- Wildlife: hunting and fishing are a significant source of protein in the diet of rural Sahelians.

Damage attributed to some large animals occurs only in restricted areas, especially as these creatures are practically on the way to extinction. Moreover, one must not forget the potential such animals represent for developing tourism.

#### C.4. The human factor

This refers to the men and women who live in the rural Sahel, from the point of view of their activities: crop farmers, herders, mixed crop and livestock farmers, all of whom also hunt, fish and live in rural communities.

Their activities interact at various levels: within a community, between communities, and between the village community and the State.

##### C.4.1. Relations within the community

###### a) Crop farmers

The sedentary crop farmers have organized themselves in energetic village groups working to satisfy the needs of the community and are inspired by traditional values (creation of economic, socio-educational and cultural infrastructures).

Although there is a firm grounding for a climate of understanding among crop farmers, there are nonetheless some negative factors in their relations:

- the difficulty of defining the boundaries between neighboring farmers' fields;
- problems connected with loan of land, the duration of such loans and the return of the land to the lender.

###### b) Herders

Relations between herders within a community are mainly positive, with:

- mutual help in the event of natural disasters (contributions of animals to those who have lost most);
- collective creation and management of water holes, wells, etc.;
- calm relations in the shared use of ground water and surface water, grazing land and rangelands.

Negative aspects are:

- the immediate surroundings of public watering points are overused, with strong competition for the poor grazing and resulting disputes;
- the traditional appropriation of water holes by certain communities, preventing access by others, is a source of friction.

#### c) Relations between crop farmers and herders

Crop farmers and herders generally live on the same land or in neighboring areas, and their fates are linked. Their relationship has its positive aspects:

- Both can contribute through financial subscriptions or with their labor to establishing water holes for the benefit of the entire community.
- Herders and farmers can conclude "manure contracts", the herders providing organic manure for the fields against crop residues for their herds. The exchange may be free or may involve a symbolic gift of grain or milk. Any attempt to separate herding from crop farming is an obstacle to increased agricultural production; the application of imported mineral fertilizers has quickly reached its limits.
- The longstanding social cohesion of mixed communities of crop farmers and herders prevents habits that are damaging to the environment. The technical services and those responsible for environmental protection should rely more on the rural organizations for setting up resource supervision and bush fire-fighting teams.

Despite the advantages of integrating crop and livestock farming, there are some very regrettable misunderstandings between the two groups as a result of the damage caused by herds in arable areas and the establishment of cultivated fields on grazing land.



#### d) Other activities

##### Fishing

Fishermen are dependent on freshwater resources, and the management of these resources concerns them, especially when developments bring pollution or threaten their existence.

A code of good conduct for the protection of freshwater resources, which are the sole livelihood of fishermen, should be adopted.

##### Hunting

Hunting is not a principal activity, but it brings in a considerable income for some communities as well as taxes for governments. Extensive agriculture and partially nomadic herding reduce the hunting grounds.

Bush burning is detrimental to hunting activities, wildlife protection and herding.

Village land management policies should also be concerned with hunting.

##### Foresters and charcoal burners

Energy requirements are primarily met by wood cut, and often cut too intensively, in natural woods and forests.

The woodcutters' activities have a major impact on the natural resources of a village.

##### Artisans

It is local artisans who adapt farm implements to the social and agroclimatic features of a given area.

#### C.4.2. Relations between communities

Inter-community relations show much the same features as intra-community relations, though they are more sharply accentuated and in the event of conflict only the authorities can intervene to solve the problem.

Relations between different herders' communities are connected with the management of grazing land, water holes, etc.; if the resources are adequate relations are good, but if resources are short, conflicts arise.

Relations between farming communities and herding communities are good in years when rainfall is adequate, but highly regrettable conflicts can arise over the question of transhumance:

- either because of resource scarcity,
- or where outsiders fail to respect the resource utilization rules in force in a village.
- Problems in relationships between farming and herding communities are accentuated by governments' seeming tendency to favor farmers. Farmers are perhaps more readily assisted than herders, whose relationships and sociological reactions are not as well known. Likewise, donors have fairly strict criteria regarding cost-effectiveness and tend to favor certain types of agriculture.

C.4.3. Relations between village communities and central government

The rural organizations are aware that their development depends on their relations with central government, which remains, after all, the guarantor of social order within the nation's boundaries, and an arbiter in conflicts between rural communities.

Support for the rural organizations is an expression of the government's more or less manifest willingness to recognize that they are essential as partners in development. The governments of the CILSS countries declare that national development is above all the business of voluntary organizations of producers.

While it is recognized that governments play an undeniable part in encouraging rural organizations, there still remain certain shortcomings:

- Information on the role and the extent of rural organizations is not available.
- Laws on the promotion of rural organizations have not been adapted to changes in the situation due to recent droughts or to schemes to improve living conditions (primary health care, education, etc.).
- The rural organizations and their representatives reflect Sahel society, in which the majority of people are still illiterate. An educational scheme for all is clearly indispensable.
- Agricultural prices are fixed more in terms of urban consumers' needs than producers' needs, and take no account of production costs.

- The poor distribution of technical services creates disparities in development.
- Producers would have more incentive to cooperate in brush fire control, a halt to over-exploitation of fuelwood resources, etc., if relations with environmental protection officers improved; the latter ought not to restrict themselves to policing and imposing fines.

#### D. TECHNIQUES FOR CONSERVING AND IMPROVING LAND POTENTIAL

Discussion around this point was geared to pinpointing the conditions that will stimulate widespread application of these techniques.

Starting from the hypothesis that the techniques are known and that all that is needed is to clear the obstacles to their dissemination, the group realized that:

- a) first, certain traditional techniques are poorly understood and have not been studied in depth,
- b) second, there are some environmental degradation problems for which no appropriate technical solution exists.

##### D.1. Known techniques

Various techniques were reviewed and divided into mechanical water and soil conservation methods and biological techniques. The problems of dune fixing and of reconstituting soil fertility were examined in detail.

##### D.1.1. Mechanical SWC techniques

These are crescents, stone lines, earth banks or bunds (sometimes with a covering of stone) along the contour lines, filter dams, zay (holes).

Generally speaking these techniques are fairly simple and can be mastered by local people. Their purpose is to slow down surface runoff, encourage infiltration and concentrate water.

Some techniques are more readily accepted than others. Crescents and bunds had only been created in project situations and had not been maintained by local people after the project ended.

Stone lines on the other hand had been widely adopted in Burkina Faso, even in individually farmed fields. Zay are a traditional practice in Yatenga and Mali (in the Djenn and Mopti regions). Filter dams seem to be readily adopted, but they require aid for transport owing to the quantity of stones required.

There was doubt as to the reasons for these differences. Stone lines do not concentrate runoff water and let water through; earth banks concentrate water upslope to the detriment of farmers lower down (poor application of the technique).

#### D.1.2. Biological techniques

- Reforestation: plantation and natural regeneration;
- Shrub lines or herbaceous strips (Andropogon or Vetiver),
- Tree fallowing, prohibition of grazing:
  - . problems of unsuitable tree species for the environment, lack of water especially;
  - . land tenure problems affect long term investment;
  - . failure of State-run plantations;
  - . good dissemination of small-scale tree nurseries in Niger and Mali, and of individual reforestation;
  - . villagers prefer fruit and nut trees and forest species that may prove profitable (Nere or Soumbala tree, baobab and maringa leaves, etc.)

#### D.1.3. Dune fixing

Situations differ according to:

- (i) the degree of invasion by the sands,
- (ii) the type of operation threatened:
  - . a productive area such as arable land or palm grove,
  - . a group of dwellings or community infrastructure such as a water hole,
  - . State or local authority structure (roads, etc.).

#### D.1.4. Intermediate techniques

The techniques used are as different as they are specific to the above mentioned instances.

- Prohibition of grazing and natural regeneration for slightly disturbed ecosystems.

- Direct biological fixation in the case of dune systems at the start of the degradation process (tree planting, assisted regeneration, direct sowing).
- Preliminary mechanical stabilization where dune movement is at an advanced stage (wattle fencing, counter-dunes, artificial dunes, etc.). Here the materials used may be plant-based (millet straw, branches, etc.) or manufactured (asbestos cement, fiberglass, plastic netting).

Dune fixing generally calls for fairly large-scale resources, but experience has shown that where the people are highly motivated they can take on several types of work such as direct sowing, tree planting, grazing prohibitions and setting up wattle fencing.

Dune fixing schemes are generally beyond the means of rural communities wherever earthmoving equipment is required or transport is required for materials.

#### D.1.5. Reconstituting soil fertility

The techniques mentioned were fallowing, trees in the cultivated area (*Acacia albidia*), mulching, better use of organic fertilizer (compost or manure, including manuring by combined livestock and crop farming) and soil improving plants such as legumes and *Acacia albidia*.

For fertilization:

- Problems are not the same with non-irrigated crops in low rainfall areas as they are with irrigated crops (chemical fertilizers can be considered on the major irrigation schemes).
- Manure and compost: quantities may not be sufficient for all the fields in the village.
- Chemical fertilizer is expensive and unsuitable for non-irrigated crops in areas where climatic conditions are unreliable (not economically viable).

Conclusion: it cannot be said that there are one or more fertilization techniques that simply need to be disseminated.

This review of techniques showed how crucial a role the NGOs have played in developing and disseminating techniques.

#### D.2. Application of the techniques

The application of these techniques very much depends on the degree of mobilization of the population. It also necessitates

adequate financial, technical and human resources and involves organizational and institutional choices.

#### D.2.1. Local participation

This is a key factor, and depends on a number of conditions. A ten-point check-list:

- a) Local people's preference for short term considerations:
  - is forced upon them by their precarious economic situation,
  - is all the stronger when they find themselves up against the wall,
  - means preferring techniques that will give an immediate increase in yield or an additional product (fruit or nut trees),
  - raises the question of pay (or compensation) for work. Opinions are divided on this issue.
- b) The amount and complexity of the work involved in a scheme may or may not allow local people to master the process (depending on the labor force available).
- c) Different types of work require different degrees of participation:
  - individual,
  - in the interest of the whole village collectively,
  - in the national interest or of value in the long term.
- d) For local participation to be promoted, it needs to be seen as a priority by all those concerned nationally. The mass media can make a considerable contribution in reflecting this view, and should be mobilized for this purpose. Participation by local communities also requires information about their activities being communicated to the entire national community. This two-way flow of information will make sure the local communities' interests and concerns are taken into account, and will ensure that they are involved in decision-making and are made aware of measures that affect them.

Participation must be voluntary; activities and funds must be managed by the rural communities. For this to happen, the local community must be involved at the conception stage and must be able to supervise the work of the technical services.



- e) The role of the authorities and technical services must be redefined, but it remains an important one: technical support, training in management techniques.
- f) Local people must be given the logistical means to run their schemes (choice between trucks and wheelbarrows or carts); recurrent costs factor and continuity of schemes.
- g) Importance of consciousness raising and organization: the role of the state extension service as a catalyst: an extension worker nearby (based in the village) and an open approach (undirected discussions) geared to the situation (not forgetting the women).
- h) Competition with other activities: waged work (in town), trade, social and political activities.
- i) Question of putting decentralized funds at the disposal of village communities.
- j) N.B.: not all schemes have to be carried out by organized groups; some can be undertaken individually.

#### D.2.2. The resources required

The necessary resources are of three kinds: financial, technical and human.

##### a) Financial resources

- Funds from donors, and the channels they pass through before reaching the village.
- Question of local-based management of the development budget.
- Credit problem:
  - . access to credit for all (women included),
  - . need to educate local people in credit matters.

##### b) Technical resources

- Materials:
  - . imported or available locally (plastic netting versus millet straw),
  - . economic costs by comparison to sale price (e.g., millet straw),
  - . local availability of materials (distance involved in fetching stones).

- Tools and transport:
  - . Simple or sophisticated? (e.g., truck vs. wheelbarrow), one expensive item or many cheap items (1 truck = 1,000 wheelbarrows),
  - . Donation or loan?
  - . One option: subsidize the equipment and encourage establishment of a village fund for its maintenance and replacement.
  - . Technical resources must be appropriate to local conditions of use.

#### c) Human resources

- Village organizations: ideal where there is one, but this is not always the case. Such organizations must be actively encouraged, but must not be set up for the sole purpose of utilizing funds. Individual motivation must also be used.
- Labor force available in the village: the emigration problem. Not to forget the women and the additional workload such schemes impose on them.
- Training and education for local people and extension workers.
- Support from the technical services, starting from local demand.

### E. THE NEED FOR A GLOBAL APPROACH

#### E.1. What is a global approach?

The global approach is a concerted approach in which the protection and conservation of the ecological balance remain the constant preoccupation of all concerned. It is based on agreement between central government and the rural community as to the multi-sectoral schemes to be undertaken in a given area to ensure that economic and social development will occur in a global context that takes account of all the interactive factors involved at the local, national and international levels. Some members of the group, however, thought that this notion of a "global approach" was still essentially conceptual.

The characteristics of the global approach seem in all cases to be:

- Concerted action: It is a joint approach by all the parties concerned. It is important that even the conception and detailed design stage of projects be gradually handed over to the users on site, enabling them

to take a more active part. Some group members spoke of genuine development, in many cases, of research by farmers.

- Organization: The different sections of the community need to organize to become the partners of those involved from outside the area, i.e., communities in neighboring areas, government and donors.
- Protection and defense of village lands: This naturally presupposes the problem of effective ownership of the land to be solved (the land tenure question), so that the community concerned can exercise proper control over the use of its lands.
- Use and management of natural resources at the local level: Given the fact that project failures are nearly always due to ground-level organizational deficiencies rather than technical inadequacies, the solution is to promote grass roots organizations. These organizations will then be able to call on the competent technical services and research institutions on technical issues that are beyond their capabilities.
- Integration: The global approach must take account of the need for different schemes to complement each other so as to maintain a balance in the locality. Similarly, while specific areas may be put to specialized use according to their potential and priorities may be established for the use of the specialized areas, this too needs to be done in an integrated way.

Training and education, particularly for middle management in the civil service and for people in the localities, is a crucial feature of the global approach. Training and literacy coaching for rural communities is a considerable help in gradually changing mentalities.

Financial resources: Various systems of rural credit and savings need to be tried, tested and supported, to provide rural communities with strong enough guarantees for them to alter their land use habits towards a less predatory use of natural resources.

#### Applied research:

- Farmers' know-how should be verified by technical and scientific research, and other research should be undertaken in response to problems raised by rural communities in the matter of land development and natural resource management.

- A flexible approach by the outside partners involved - the Sahel governments and donors - is an important element in integrating farmers' preferences when deciding what form outside support should take. The priorities defined by the local community should be taken more into account, as should the pace at which land development activities progress.
- Governments must do everything in their power to create rural organizations and recognize and support organizations that spring from local initiatives, to increase their capacity to conceive, manage and develop their own projects.

## E.2. The key points

### E.2.1. Women

Only too often, extension workers still address themselves essentially to men, even though women play a key part in SWC and often account for 70% or more of the labor force. In Noogo, Yatenga, the women are setting up stone lines in the family fields, in the hope that their menfolk will decide not to emigrate again. Traditionally, married women are allocated small plots by their husbands. These are often on the less fertile ground, and they are now yielding less and less. Women's income from crops is thus declining.

The problem of women's access to land and to credit: access to land is essential for women. There are no new revenue-producing activities. Land is increasingly being allocated to women's groups, but this is only a palliative (one or two hectares for two hundred women). Without access to land, women will exploit the bush more (fuelwood, karité, etc.). The current trend on the Central Plateau of Burkina Faso is for the old men to allocate good quality land to the women's groups, for fear that the women too will begin to emigrate. Women therefore need access to land and training.

Lightening the burden of household tasks: new technologies and other ways of lightening women's tasks must be identified and brought into operation (mills, water pumps, bicycles, woodland nearer to the village).

Promoting activities that will generate an income for women: fattening sheep, small scale trade, processing of agricultural produce.

The problem of demographic growth must be faced by all Sahel governments. These governments use various means to approach the problem:

- relationships between population policies and environmental capacities;
- impact of internal and external migrations and the capacities of favored areas to receive newcomers.

#### E.2.2. Organizing the rural community

Where are the farmers' organizations? Very often there are none, or else they are set up in response to the availability of money and the problem of finding an interlocutor for the donors, to ensure that support for development activities continues.

Establishing local organizations is a long term task, and this is a problem for donors who expect tangible results in the short term. One should not expect spectacular results sooner than in five or ten years. The creation of local institutions is a prerequisite to village land and resource planning.

Once they are set up, farmers' organizations demand:

- to be involved at the conception stage of action programs,
- to control the implementation of the programs,
- to manage the funds (from membership fees or from international aid) directly.

Governments must do all in their power to create farmers' organizations and ensure that they are capable of running their projects. They must also be prepared to give rural communities the autonomy they need to manage their development budgets.

Multi-financing in the field can create problems: some groups may have "too much money and too few good ideas."

#### E.2.3. Decentralization

One common observation was that the role of the State needs to be redefined. As they gain strength, the farmers' organizations are demanding autonomy to manage their funds and control the utilization of their land. But this does not mean the State has no part to play at all. The State, and its decentralized technical services particularly, can ensure that development activities continue in the post-project phase.

The role of the State is:

- at the national level, to have a global idea of land use planning, into which individual projects will fit;
- at the local level, to provide technical services for training and backup.

Question: are the donors prepared to give funds directly to the village communities? Except in the case of decentralized cooperation (twinning) and the NGOs, this depends above all on the willingness of the Sahel governments.

#### E.2.4. The land tenure problem

- The lack of written title deeds is felt to be a major problem. The ODEM herders' groups in Mali have rules governing access to grazing land, but they do not have exclusive rights or any defense against incursions by other herds.
- In crop farming areas the land tenure problem arises in villages where many of the farmers are on borrowed land, which discourages them from making improvements in that land.
- People often do not know the land tenure situation.
- In many Sahelian countries it is the State that owns the land, though customary law continues to operate and to be obeyed by the population.
- The guiding principal in any attempt to improve legal and institutional provisions for land tenure must be the intention to ensure that those who work, develop and improve their land (crop land, grazing land, forest or mixed systems) enjoy the full benefit of their labor.

#### E.2.5. The coordination problem

In some areas there are several coexisting SWC projects, each with its own methods of work. This often confuses local people and wastes money. Should the initiative lie with donors or the Sahel governments?

Donors should harmonize their methods of work to a minimum extent and/or schemes should fit into a framework designed by the government. For example:

- a) each donor could be allocated a part of the country in line with the government's national development plan,



- b) each donor could take charge of a specific sector within a system of integrated projects,
- c) donors should adapt their procedures and approaches to the local natural resource development situation,
- d) donors should assist in the development and implementation of national policies on land use planning and local level natural resource management.

### II.2.3. - Topic three: A GLOBAL APPROACH TO TRANSFORMING SAHELIAN FARMING SYSTEMS

The workshops focused on the crisis in agricultural production systems and fuelwood supplies. This crisis is the result of a long historical process that can be analyzed either economically or ecologically. Historically, it can be examined in three phases:

- A first phase, prior to European colonization, when the system of production was a subsistence system;
- A phase during which export crops and the market economy made their appearance, with some production systems developing in terms of surplus production;
- A third phase, under the impact of drought, in which some production systems were reduced to operating in terms of survival and others as subsistence systems, while others still produced a surplus.

During this latter phase, drought was severe and population growth very rapid, precipitating the ecological crisis. Land occupation quickly became saturated and the land was cultivated ever more intensively, reducing fallow periods and so preventing soil fertility from regenerating; deforestation increased, pastures could not regenerate at the same rate.

In economic terms, this has meant low agricultural incomes and sometimes food shortages. These problems are widespread, but take different forms depending on region and land type. They can lead to such social problems as competition for land among families or within families, with women and young people finding themselves allocated smaller plots.

To confront these problems, the rural organizations have taken initiatives in many fields - often because they have understood that the government does not have the means to do everything.

The rural organizations represented in the group put forward their experiences and defined what they considered came within their scope, and what should fall within the scope of central government.

It should be pointed out at this stage that all the organizations expressed interest in an exchange of ideas that would take all the organizations further forward in their search for solutions.

There was unanimous agreement that techniques already exist for agriculture, herding, fuel requirements, natural resource management, soil and water conservation and soil protection and restoration, and that what is needed is an exchange of experiences

(successful and less successful). Some organizations would like the research institutions to help them solve concrete problems.

In the credit field, the rural organizations think that local mutual funds are a necessity, but that government banking services must improve their performance: loan contracts must be clear and the credit must arrive on time; without that, there may be a lack of trust.

As regards outlets for produce, the rural organizations noted that it is difficult for governments to organize the cereals markets or guarantee prices for export products. They would like assistance in the form of improved knowledge of the market, especially export markets, better price regulation, and aid for product processing and conservation. However, since producers must always ultimately deal with the traders, and since it is the latter who set the price, the organizations conclude that producers must organize to gradually change the balance of power, in the knowledge that each party needs the other.

As regards fuelwood and reforestation, the rural organizations think that local control over woodcutting is necessary to avoid deforestation on a massive scale. The forestry authorities do not have the means to control forest utilization everywhere. Moreover, clarification of woodland ownership and the responsibilities of the State, the local authorities, village organizations and private occupants will soon be necessary. In the villages meanwhile, agroforestry is increasingly understood and practiced.

Finally, as regards land tenure, the superimposition of modern law on traditional law creates problems. Some people use traditional law to occupy land in a village, and then modern law to settle there definitively (i.e., where modern law enables the occupier to become the definitive occupant after a certain period).

To avoid conflict, or for better arbitration, some organizations demand a return to customary law in particular cases; others demand to be better informed on the legal side and for farmers' organizations to be involved in the application of the law.

In fact there is an expanding real estate market, and if governments wish to protect small farmers, they must establish checks and balances to prevent the larger landowners from squeezing out the small.

The proposals made were geared improving local ability to respond to local problems, while asking governments to adopt general policies (agricultural policy, regulation of the economy, new laws) that would enable such local solutions to be effective.

### II.3. FINAL SUMMARY: THE SEGOU LANDMARKS TO GUIDE CONCERTED ACTION

#### FROM THE NOUAKCHOTT STRATEGY TO A REGIONAL CONSULTATIVE APPROACH: THE SEGOU EXPERIENCE

For twenty years, the Sahel has suffered from persistent drought and ecological degradation, which, combined with the economic crisis and population growth, have put considerable strain on the Sahelians and have hampered the development efforts of the countries in the region.

At the initiative of the CILSS and the Club du Sahel, Sahelian leaders met in Nouakchott in 1984 to discuss the situation. Proposals were made there for a desertification control strategy. Such a strategy was subsequently adopted by all the Sahelian countries, and received the support of those countries' partners in the international community.

Since Nouakchott, Sahelian governments have drawn up national plans for desertification control and socio-economic development. They have also embarked upon large-scale programs to put those plans into action.

1. It has become apparent that these programs and projects have encountered problems in transforming the key points in the Nouakchott strategy into concrete action (e.g., popular participation, local level natural resource management, the global approach).
2. At the same time, it has become clear that a growing number of local development initiatives by rural organizations of all kinds have been successful in all types of agro-ecological situations. However, these initiatives have not spread on a larger scale in a process of sustained development.
3. Similarly, development partners expressed concern that their aid was having little real effect on promoting sustained development in the Sahel.
4. Meanwhile, the effects of desertification have continued to spread, further aggravating the socio-economic difficulties encountered by Sahelian population groups, their organizations, and governments.

Recognizing this situation, the CILSS and the Club du Sahel decided to organize in Ségou a consultation meeting bringing together the three parties involved in the development process: rural population groups, represented by their local organizations, governments, and their partners in the international community (official aid agencies and organizations, and NGOs).

The Ségou Encounter was the first of its kind, and its primary objective was to apply to practical situations the concepts of popular participation, local level management of natural resources and the global approach so that the Sahel can undertake to move towards sustained development.

The debates in Ségou were open, fruitful and lively. A wide variety of successful initiatives were used as the basis of discussions, and all the participants put across their respective viewpoints in a spirit of mutual respect. At the Ségou meeting, rural organizations, governments and development partners outlined a frame of reference for the future, within which the success of all subsequent endeavors can be measured.

### LANDMARKS TO GUIDE CONCERTED ACTION

#### 1. Ecological rehabilitation: restore a degraded asset

Problems of land tenure, outdated production systems and farming techniques, and successive droughts have led to serious degradation of the natural environment. Part of this initial capital has thus been lost, and there is now an urgent need to reconstitute those assets.

The cost of this rehabilitation is high. Many techniques could be used: certain could be applied immediately by local groups, while others are more complex and costly, and depend on government action. Local populations' awareness and determination to participate in the rehabilitation process are essential but not sufficient.

External aid will be indispensable, as good intentions at the local level clearly have their limits. If producers are struggling just to make their farming operations survive, they will tend to favor solutions that generate income in the short term. Rehabilitation, on the other hand, involves investments that will only pay off in the medium to long term. Incentives and aid in the form of logistic support, supplementary income, etc., should thus be made available so that producers will make the necessary long-term improvements. In this respect, future structural adjustment programs will have to take ecological constraints into account adequately.

Furthermore, land rehabilitation must be seen not only as a way of conserving the environment, but above all as a way of improving production and generating sources of income in order to cover the costs incurred by producers.

For effective action to be taken, technical support from the relevant government departments is needed. Thus, those departments must have the means to fulfill their roles.



2. Local level natural resource management: share responsibility with local communities

Ecological rehabilitation involves systematic management of renewable natural resources at the local level. Numerous techniques must be used here. Certain are suitable for grazing land, while others must be applied to the local areas that are suffering from ecological deterioration. Areas with higher rainfall call for yet other techniques which are better suited to more intensive forms of agriculture.

Not everybody knows about these techniques, and efforts must be made to disseminate them and to stimulate experience sharing. Research and development initiatives must seek to address the problems encountered by those who are most closely concerned.

The fact that suitable techniques exist is clearly not enough. Rural population groups must also organize themselves in an efficient manner. A wide variety of rural organizations and institutions already exist to deal with specific problems (management of forests, watersheds, grazing land, etc.). Most importantly, these organizations should be autonomous in their day-to-day operations, in training, and in management. In this respect, one basic requirement is for the legal system to recognize the existence of these organizations.

3. Decentralized management: increase efficiency

Governments will encourage local communities to shoulder greater responsibility if those communities show that they are genuinely able to take their development in hand. However, for this transition to happen, government departments will have to help local communities to become more aware of the issues involved, and will have to transfer responsibility for certain activities from the public sector to these communities.

The State must take new institutional steps to guarantee and monitor local development. Comprehensive land-use planning is needed to rationalize investments, and rural development policies must seek to increase the incomes of rural inhabitants and help a non-governmental sector to take shape.

Similarly, as part of the international community's efforts to move closer to rural organizations in order to increase the effectiveness of outside aid, donors could decentralize to their local agencies part of their procedures and decision-making power.

Since the three families of actors - local organizations, Sahelian governments and donors - are to act as partners, the ground rules of partnership must be established as clearly as possible.

#### 4. Land tenure reform: hedge local investments

Land tenure poses numerous problems of various types at the local level, and many of those problems have become acute as available land is in greater and greater demand. There is thus a need to find a flexible way of combining the modern legal system - which is still insufficiently known - with customary laws. One solution would be to consult producer organizations in the event of disputes.

One aspect of the land tenure issue that is particularly worrisome is the development of the land market in certain areas. The poorest, marginalized producers, who are forced to sell fields to bolster their incomes, subsequently have no choice but to overfarm their remaining land, thereby contributing to ecological degradation. Newly landless farmers are swelling the ranks of the unemployed in the cities. Suitable rules are needed to avoid these problems.

In the short term, the central problem is the lack of security of investments in the land. Producers will continue to be unable to invest in improving the land if they are unsure of reaping the benefits later. Legislative solutions must be found.

#### 5. Local credit and savings: increase local investment

The success of credit and savings systems depends on the development of viable local voluntary organizations (cooperatives, associations, etc.) based on mutual trust.

Attempts to set up savings and credit systems that meet local requirements should be encouraged.

Nevertheless, links between these systems and the banking system pose various problems that must be solved:

- liquidation periods on loans to producers should be lengthened to take into account the uncertainty of income levels due to climatic variations;
- similarly, the amount of collateral demanded from producers must remain flexible in order to take local situations into account;
- loan contracts must be clear and firm so that borrowers are fully aware of their commitments from the outset.

More globally, the insecurity of prices and markets discourages producers from contracting loans. Governments policy should thus promote conditions that limit excessive fluctuations in the prices of the main crops, assist producer organizations in gaining a better understanding of market trends, and promote processing, conservation and marketing of local produce. Food



aid must be integrated into this global approach.

#### 6. Women's participation: make it work

The historic role of women in rural areas has been altered by desertification and rural exodus. As a result, women today are performing different tasks, and, in particular, they play an essential part in ecological rehabilitation and local level natural resource management.

However, their formal status within society is still incongruous with this new level of responsibility that they are assuming. Increasingly, women are asking for sufficient land so that they can meet their monetary requirements; they are seeking access to farm machinery and, therefore, credit facilities; and they wish to take part in the decisions that affect the life of the community.

Training is needed in those areas of activity where women are now involved. Extension work is now too often aimed exclusively at the men. In addition, aid should be made available in order to lighten women's day-to-day workload and to diversify productive and other activities enabling them to find new sources of income.

#### 7. Information and training: share experiences

Local experience is particularly useful. Valuable lessons can be learned from successes as well as from failures. Rural inhabitants are eager to find out about these experiences and appraise them directly.

If experience sharing is organized and encouraged, ideas progress faster and reach wider audiences. A genuine communication policy should be adopted in order to achieve these aims. Such a policy addressing the major issues facing the rural world would accord rural problems the priority they deserve. This communication policy would mobilize the mass media as well as alternative channels of information, and would include visits and experience sharing by representatives of the rural areas of different Sahelian countries.

To consolidate efforts to improve agricultural and environmental rehabilitation techniques, close attention should be paid to the development of management and leadership skills required for the management autonomy of local communities. Experience sharing is needed here also, but suitable training is an even more pressing requirement.

#### 8. Population and development: control the future

In view of the ecological, social and economic environment of the Sahel, the question of the population policies that will

#### 8. Population and development: control the future

In view of the ecological, social and economic environment of the Sahel, the question of the population policies that will underpin sustained development should be examined in the light of the N'Djamena Plan of Action.

It is of primary importance to involve local population groups in the definition and implementation of these policies.

#### THE SÉGOU REGIONAL ENCOUNTER

- wishes the Sahelian governments to consider the frame of reference outlined at Ségou and to work within that framework whenever appropriate;
- calls upon rural organizations, the Sahelian governments and their partners in the international community to nurture the spirit of Ségou by organizing three-sided coordination meetings so that concrete action can be taken to promote sustained development throughout the Sahel;
- requests the CILSS and the Club du Sahel to take guidance from the Ségou landmarks and to continue their examination of the issues involved.

### CHAPTER III - SUMMARY OF WORKING DOCUMENTS

### III.1. SUMMARY OF THE MAIN DOCUMENTS

#### III.1.1. SUSTAINED DEVELOPMENT IN THE SAHEL: THE ROLE OF THE LOCAL ORGANIZATIONS (8)

Documents were prepared by the CILSS/Club consultants for seven CILSS countries (see Appendix D).

The summary document used as one of the working documents at the Ségu Encounter was written by Mr. Soumana Traoré.

The pages below give a country-by-country account of the opinions of the representatives of local organizations as expressed in the preparatory meetings prior to the Ségu Encounter.

#### A. BURKINA FASO

In addition to general information on the situation in the area under investigation, comments on the five-year plan and the national desertification control plan, the report describes:

- organizational dynamics of local community participation;
- the experience of village associations

#### A.1. Organizational dynamics of the local community and village association participation

This aspect is evaluated in terms of government policy in the field. The organization movement dates back to the colonial period when friendly societies and rural producer mutual societies were founded.

Between 1962 and 1965, when the mutual societies failed with the advent of independence, the government encouraged the founding of loan cooperatives designed to supply members with agricultural inputs through two technical assistance groups (SATEC and BDPA).

In 1966, the ORDs (regional development organizations) were founded. These were independently-managed governmental organizations. The ORDs set up an economic and social development association called the "Groupement Villageois". This movement started to grow in 1974.

As a result of the absence of legislation, each ORD tried to design its own model. ORDs worked for preference in the field of dissemination of techniques and supply of inputs.

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(8) Document RC-08 (Traoré)

The socio-economic motivations and needs of members were not foremost in the concerns of the former ORD organizers.

Other forms of rural organization emerged such as:

- the NAAM Groups
- Savings and Loan Cooperatives (COOPEC)
- the Vive le Paysan association (AVLP)
- the Sya Agricultural Cooperative (SOCASY)

Village Groups were founded by:

- the former ORDs
- by the farmers themselves,
- some women's village groups were founded by men's village groups
- other village groups were founded in response to rural radio programs.

In practice:

- most village groups were identified and founded by ex-ORDs;
- each village group works in its own way in compliance with the socio-economic motives and customs of the members and the personality of the group leaders;
- the working of a common field is a decisive factor;
- financial backing by NGOs and/or the FEER/CRPA remains essential.

The NAAM groups have their roots in traditional community youth work organizations, which also include the elderly.

This type of organization, without any distinction as to social status, is founded to solve problems faced by its members in a spirit of mutual assistance and solidarity. As from 1976/77, the 6 S (Savoir Se Servir de la Saison Sèche au Sahel - knowing how to use the dry season in the Sahel) groups were set up and the NAAMs consequently received the funds, human resources and equipment that would enable them to develop independently.

Other forms of association emerged:

- the savings and loan cooperative was founded on the initiative of the NGO ADRK - Association pour le Developpement de la Région de Kaya. The ARDK was founded in 1972 and its main aim was self-help schemes for villages and agricultural development through the provision of flexible loan facilities.
- The Vive le Paysan (AVLP) association founded in 1980 by 11 young people from Saponé. In 1981, they were farming a common groundnut field with negligible harvests. In 1982, they created a market garden but the tomato harvest, initially promising, was destroyed by animals. Despite poor harvests, the 11 young people persevered and their efforts were rewarded: OXFAM contributed aid in 1983. In 1984, the AVLP was asked to help out in three neighboring villages and it was officially recognized in June 1984. In March 1988, there were 1,041 members in 42 villages.
- AVLP activities fall under three headings:
  - . health, education and training,
  - . agriculture and the environment,
  - . women's development.

The Sya Agricultural Cooperative (SOCASY) was founded in 1986 by 9 farmers and its principal concern is market gardening. The Cooperative has 100 members with 500,000 F CFA capital. SOCASY is located in the Bobo-Dioulasso region with fairly favorable rainfall conditions. SOCASY calls in the 6 S groups for assistance.

Desertification control activities in the area described (the center, center-north, Yatenga, Sahel) commenced in 1962 with a widespread campaign of earth bund building throughout the whole of the Yatenga (180,000 ha of bunds built) with no prior notification of the farmers, and without any contribution or participation from them.

In 1972, the Government designed and carried out SWC micro-project programs on the whole of central plateau, this time with participation from village communities.

From 1976 to 1986, 49,000 ha of anti-erosion sites were built by the ex FDR/FEER working with the former ORDs. In 1981, faced with the sheer size of the surface areas, (2,600,000 ha), other NGOs implemented desertification control projects.

## A.2 The experience of known village associations

### a) Experience of the Ranawa village group

Stone bund techniques were employed as from 1983 with support from the agro-forestry project backed by OXFAM in collaboration with staff from Ministry of the Environment and Tourism and the CRPA (Regional Farming and Grazing Encouragement Center).

### b) Experience of the Séguédin village group

Gully plugging using earth-retaining dams (a series of rubble-faced walls from top to bottom).

### c) Experience of the Sabouna village group

Development and recovery of village land by;

- building and stabilization seeding of bunds,
- building of earth-retaining dams,
- grazing bans on village land.

The report describes the various techniques that were adopted, known and used in the area.

The farmers were trained to use the techniques applied in bund building, contour line mapping of the bunds built and gully plugging.

## B. SENEGAL

The work was carried out by the CIEPAC, an NGO working in Senegal, further to an assembly of representatives of rural organizations from various regions of Senegal and representatives of the government departments convened to discuss the following subjects:

### B.1. The participation of rural communities

The meeting discussed:

- projects executed initially by the association;
- the actors (villagers, Governmental organizations, NGOs);

In the report, the CIEPAC attempts to define local community participation through its motives, new developments, modes of participation, and impact of the latter.



## a) motives

The meeting stressed the fact that effective participation was based on:

- the farmer bearing responsibility as a fully-fledged partner and not as an operative;
- his ability to negotiate, take initiatives and undertake projects himself.

## b) new developments

Emergence of a new class of farmers from a wide range of social groups. The association had given more people access to the land.

## c) modes of organization for practical participation

Several types of organization are found:

- village groups
- pro-development action committee
- federation or union of groups
- regional and departmental coordination committee.

Public information campaigns, awareness raising and training should be organized to develop the farmers' sense of responsibility and will to participate.

## d) the impact of participation

Impact is assessed through the results obtained by the various types of associations, especially in terms of obviating the drift to cities, redeveloping and giving new life to the region, creating a sense of unity within the community and improving living standards.

Associations tend to encourage:

- raising of awareness
- better farmer organization
- greater confidence from donors and the government

B.2. Soil and water conservation

The farmers realized the situation was worsening when they observed that:

- trees were dying;
- river levels, the water table and rainfall had dropped;

- cattle, sheep and goat populations were drastically reduced;
- sand dunes were advancing.

Further to these observations, action was taken on several fronts:

- reforestation and creation of tree nurseries;
- dune stabilization;
- early burning to prevent bush fires;
- planting of wind breaks;
- construction of anti-salt bunds and micro-dams for slowing up the advance of salt water and the problem of soils leaching into the river;
- drilling of bore holes and building of rainwater storage tanks.

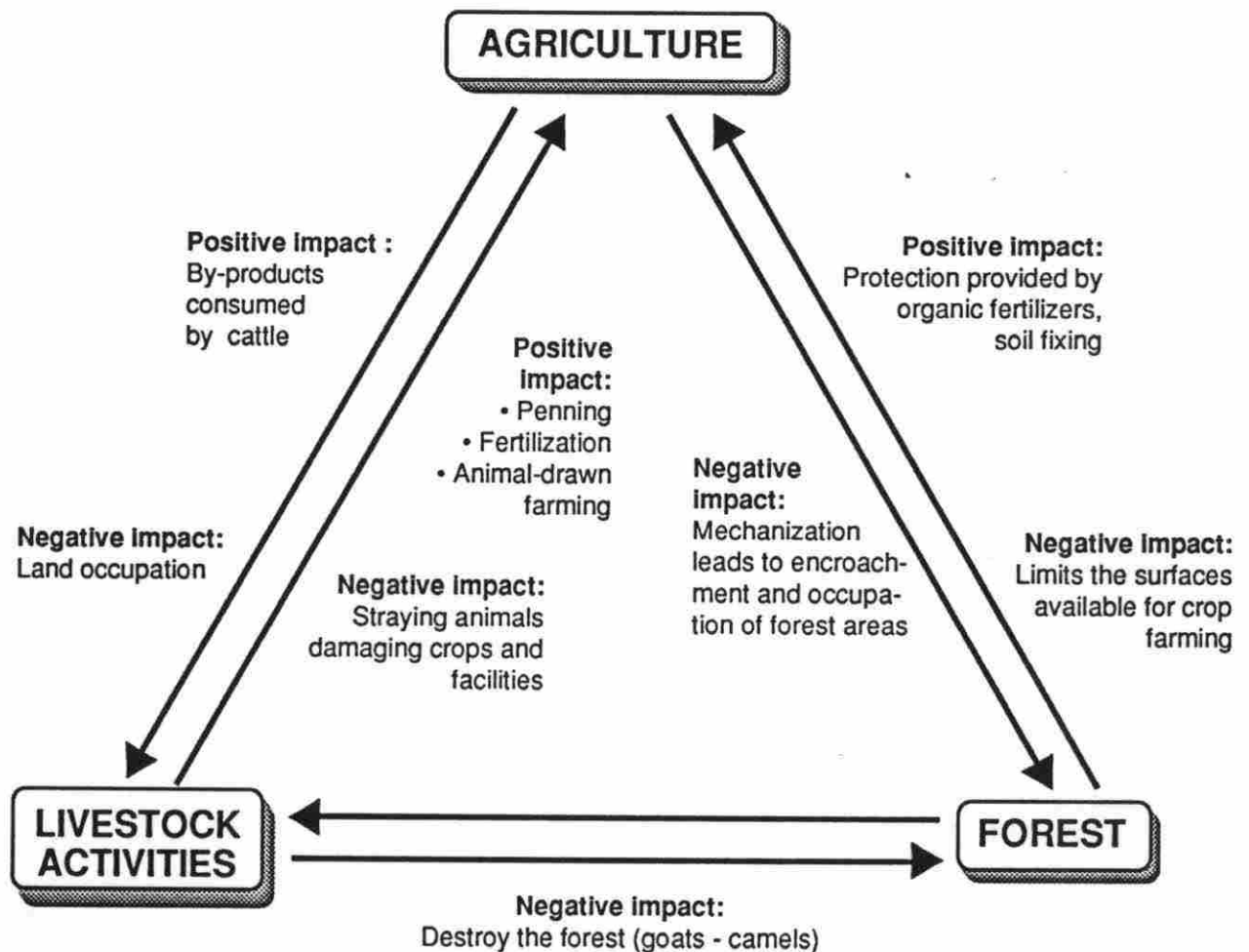
### B.3. Changes in farming systems

The meeting also discussed the theme as it applied to the working of the land in question - arable farming, livestock rearing, forestry management - and attempted to analyze the relationships between these factors and the way they interact. The analysis was carried out in order to demonstrate the advantages and disadvantages of the various relationships and interactions.

The meeting identified stumbling blocks and bottlenecks and put forward solutions.

A number of questions still remain:

- How to organize efficiently to prevent misuse of structures from internal and external sources?
- How to help farmers exercise more control over changes implemented to improve farming techniques?
- How to encourage the launch of local craft industries to improve links with the wider economic context?



### C. NIGER

This report is based on working groups organized with representatives of farmers' groups in Niger.

Meetings were held on the themes below:

- 1 - Participation by rural communities,
- 2 - The conservation of water, soil and the farming and grazing environment,
- 3 - Reform of farming systems

#### C.1. Participation by rural communities

##### a) structure of participation

In Niger, rural communities participate through two national structures which are:

- the CND (National Development Council)
- the UNC (National Union of Cooperatives)

The latter is under the auspices of the former.

Ten thousand villages were organized as cooperatives in 1978/79 in response to a governmental campaign. Cooperatives are represented:

- at the national level, by the UNC;
- in each "département" by the Union Régionale des Cooperatives (URC);
- in each "arrondissement" by the Unions Sous-Régionales des Coopératives
- in each "canton" by the Union Locale des Coopératives (ULC)
- in each village by the Groupement Mutuel Villageois (GMV)

#### b) Organizing participation

Community participation goes through official channels (CND and UNC). These structures were chosen by the government as the basis of the national development scheme.

The NGOs and multilateral and bilateral cooperation agencies are obliged to work with the CND and UNC structures. The local communities are not usually involved in the preparation of the projects they implement. Participation is in the form of self-help.

Women contribute to national development through the local branch of the Niger Women's Association (AFN). They do not attend meetings and are not involved in cooperative movement. Women seem to be the most motivated in view of the higher success rate of their projects compared to those prepared by men.

The herder is often far from the decision-making centers and rather than being included in national development concerns, he is frequently faced with a fait accompli.

#### c) The results of participation

It has been observed that:

- Only cooperatives and mutual village groups aided by projects backed by NGOs and by cooperation agencies are active. These groups can then obtain the inputs and structural assistance they need.
- Cooperatives without outside aid have great difficulties. The farmers do not feel they own the cooperative and they

deplore the irregular nature of the government department visits which rarely lead to concrete action.

Communication between the top and the base of the pyramid is very poor. Participants also mention the following difficulties:

- problems with credit for marketing crops and purchase of agricultural inputs;
- processing and conservation of agricultural produce;
- producer prices not high enough.

d) Proposed solutions

Farmers want to work with the government towards the development of Niger. To this end, the following are necessary:

- the various technical departments should provide better organizational services for farmers and increase their awareness of their problems whilst safeguarding their socio-cultural context;
- the farmers should be involved in the design and formulation of projects;
- the farmers should take responsibility for all development and desertification control projects;
- donors should continue to finance rural projects whilst adapting forms of funding to the specificities of the rural world;
- NGOs should redouble their efforts in training, education, awareness raising on development and desertification control;
- greater attention should be paid to women and to herders in order to integrate them more fully into all rural development programs.

## C.2. Water, soil and the farming and grazing environment

The signs of desertification observed in the Sahel are usually present in Niger:

- dying out of forests and wild animals and sometimes reductions in head of cattle and sheep;
- reduced rainfall;
- lack of water and impoverished soils;
- drift away from the land.

The following programs have been established:

- drought control and its effects;
- reforestation;
- soil and water conservation (SWC), soil protection and recovery;

None of these programs can succeed unless the farmers are involved and given full responsibility.

### C.3. Reform of farming systems

For the farmers, the land belongs to those who work it. In modern thinking, the land belongs to the State. In rural areas, the traditional heads and ruling families play an important role in the acquisition of land which they then rent or sell. Land is inherited according to customary law.

Although the role of women in farming is recognized by the men, they have great difficulty acquiring land. They can inherit land belonging to their father or husband.

Under the Governmental land development programs, projects started or managed by the State are usually run by State bodies. The State chooses the siting of the project that farmers are to benefit from.

In any case, several problems are raised, due to:

- the rise in the population growth rate;
- drought and desertification;
- difficulties in obtaining inputs;
- lack of market organization;
- lack of training and information.

### D. Other countries

Other studies have been carried out by CILSS/Club consultants in Mali, Gambia, Chad and the Republic of Cape Verde with a view to:

- analyzing the experience of farmers' organizations;
- choosing representatives to take part in the meeting.

We restricted ourselves to the case studies on Burkina Faso, Niger and Senegal as a basis for our discussion.



### III.1.2. WOMEN AND SUSTAINED DEVELOPMENT IN THE SAHEL (9)

This paper is a follow-up to the study on the role of women in desertification control (see III.2.6) and is restricted to two countries: Burkina Faso and Mali.

Women account for 51% of the population and they do 60% to 80% of the agricultural work: "crop production, use of the environment through gathering, supply of most of the wood and water used; women also shoulder additional loads in their role as mothers bringing up their children...". Women have a primordial role to play in sustainable development in the Sahel.

The analysis for each country was based on:

- national policy reports for Burkina Faso and Mali;
- policy reports from the main multilateral or bilateral aid agencies.

The actors defined the prospects and/or issues likely to structure the discussion.

#### A. National policy in Burkina Faso and Mali

In a historical perspective from independence to the present day, women in Burkina Faso and Mali have been dominated and exploited. There has been some attempt to improve the lot of women in general and that of rural women in particular.

##### A.1. Legal aspects

In Burkina Faso: the legal code adopted on November 2, 1988, governing individual and family matters, is favorable to women, mainly in that it declares monogamy as the legal form of marriage (although polygamy is tolerated). Burkina Faso has adopted a progressive family code.

In Mali: as early as 1962, the marriage and guardianship code broke with the past and granted women: free consent to marriage, the right to initiate divorce proceedings and ask for custody of children with provision for child maintenance. The code does not solve all problems however, since the husband is still the only recognized head of the family and the monogamy option is the privilege of the husband alone.

### A.2. Labor Code

The Labor Code (1962) gives equal rights and duties in employment to all citizens in both countries. However, men still hold a monopoly in some sectors.

In Burkina Faso, as from 1984, national service was extended to women. Women can also now work in the police force and customs.

### A.3. Political situation

Women can both vote and be elected in Burkina Faso and Mali. There is a Union of Burkinabé Women and a National Women's Union of Mali. Each Union has formulated:

- for Burkina Faso, a national action plan for women, currently tabled for debate which should be adopted by the Popular Front;
- for Mali, a three-year plan 1987-1989.

Politically-speaking, women are fully-fledged partners indispensable for sustainable socio-economic development. The promotion of women remains a primary goal.

The promotion of women should be extended to rural areas and not limited to city-dwelling women who already lead a privileged existence.

For women's promotion and advancement, the following are necessary:

- the appropriate legal provisions should be adopted (family code, labor code, reform of farming systems, access to contraception and training/information...);
- measures should be taken to inform and train both men and women and to raise their awareness in order to convince them of the advantages of the new policies.

### B. The policies of the aid agencies

The policies of the main aid agencies as regards women tend to concur on most points.

The authors feel that the donors dragged their feet in the implementation of coherent and appropriate strategies. This is damaging to the promotion of women and leads to negative consequences on the rate of return on investments and the economic growth rate.

The absence of concertation and coordination between the various aid agencies is regrettable. The difficulty in implementing

general policies (which appear in theory to be wise and progressive) arises from the problems entailed in enforcing the subsequent sectoral policies.

How, in the context of the management of natural resources, can the following be facilitated?

- individual access by women to working the land;
- access to credit;
- access to literacy campaigns;
- access to organizational support and aid in development.

How can the problem of women's personal fields be integrated into the context of farming system and land reform in the Sahel?

The solving of this problem is the sine qua non of the access of women to agricultural extension work.

The authors raise the problem of women as workers to be integrated as a factor in the equation of global sustainable development in the Sahel on an equal footing with men.

In what terms should the population growth question be raised? What population policy should be adopted in these two Sahelian countries and in the Sahel in general? What role should birth control occupy in pursuance of this policy?

The control of the population growth rate is still a major national and regional issue the world over, and a very acute one in the Sahel. Education, training and information campaigns can improve living standards and general welfare of both city and rural families.

In the long term, women should benefit from effective measures against ignorance and disease, and from the ancillary measures needed to improve the standard of living and the purchasing power of rural women.

The authors suggest three avenues of study essential in their eyes for the advancement of rural women as protagonists of sustainable development:

- recognition of women as fully-fledged producers in the agricultural, grazing and forestry systems and consequently granting them access to all factors of production (land, labor, capital);
- answering rural women's growing desire for control over their own fertility in order to mitigate the population growth rate;

- the right of women to organize their activities as they deem fit.

What answers should be given to the questions raised by the authors as to avoiding the risk of giving women a marginal role in social and economic development? Women are a dynamic factor in a society, subject to the specific conditions of its political and social context. Improving the status of women improves the living conditions for the whole of the Sahel.

### III.1.3 SAHELIAN GOVERNMENT POLICIES: APPROACHES TO INTEGRATED RURAL DEVELOPMENT AND DESERTIFICATION CONTROL (10)

The authors of this working document attempted to define the scope of the discussion and to look at the main factors used to evaluate policies aiming to increase responsibility and organization in rural areas. This was done as a follow-up to the regional seminar on desertification held in Nouakchott in 1984 under the auspices of the CILSS and the Club du Sahel and which lead to a fundamental review of strategy.

The need was felt for an global approach in this new strategy, making it part of a general economic and social development process, which would lay the bases for a new social and ecological balance. The coming of the "post-Nouakchott phase" coincided in most countries with economic and financial austerity programs, which encouraged rural development policies that would emphasize not only increased agricultural production levels but also parallel programs for better conservation and use of natural resources (soil, water, vegetation).

Policies for rural development and desertification control are based on four main tenets: rural development, desertification control, a global approach, and participation of the local community.

#### A. Rural development policies aimed at food self-sufficiency

These are directed towards:

- a) Crop diversification: results have fallen far short of estimates although there has been some development in horticulture and tree nurseries;

The tendency to encourage cash crops remains strong in many countries. Other countries, however, are turning towards the development of subsistence crops and particularly cereals but the

results are not sufficiently encouraging to preclude shortfalls in food for rural communities.

Cereal production progresses haltingly as a result of irregular rainfall and climatic uncertainties.

b) The improvement of production systems through improvement of soil productivity (anti-erosion measures, building of anti-erosion bunds, planting of wind breaks, etc.). Intensification and other farming techniques.

c) Local land use management. Although no well-structured programs have yet been implemented in Sahelian countries, innovative experiments in Burkina Faso, Mali and Senegal are evidence of promising new avenues.

The approach adopted in Mali and Burkina Faso is based on simple SWC techniques, plant cover restoration and improved productivity.

Local community land management is closely linked to rural planning which should be given pride of place in Sahelian policies for rural development and desertification control.

Efforts made by governments still fall short of those required by the magnitude of the problem.

Senegal excepted, no government has yet finalized its national land planning and development program. Attempts have been made however:

- In Niger, land planning is part of the five-year plan.
- Mali has undertaken a program aiming to elaborate a plan as part of the Inventory of Land Resources Project (PIRT).
- In Burkina Faso, through the Sahel Burkinabé Program.

d) Development and integration of livestock activities: The deterioration in grazing production systems is a direct result of the drop in herbage production (due to drought) and insufficient land management. In development policy, livestock development programs do not seem to be a priority. Population growth and the gradual extension of utilized agricultural areas encroach on grassland, putting further pressure on the major constraint, i.e., carrying capacity.

e) Conservation program integration: Widespread agro-forestry programs are sometimes implemented (networks of wind breaks, hedge planting, full cover vegetation planting, aids to natural plant regeneration). Interesting experiments have been carried out in this field by the Sahel Burkinabé Program (PSB), the Integrated



Rural Development Program (IRDP) at Keita in Niger, and the integrated development operation in Kaarta, Mali.

f) Cereals policies: Although efforts have been made to consolidate cereal balances in the Sahel, cereal production has not yet undergone any major development.

This is due, to some extent, to local drought and the financial and economic context. Enforcement channels for cereals policy have not performed as well as expected - they tend to excel in the reception and distribution of food aid rather than in the management of vehicles of these policies.

Policies tended to stress the constitution of cereal banks to safeguard against shortfalls and to stabilize the market.

Policies tried to improve food supply security by encouraging the building up of cereals reserves at national and farm levels (buffer stocks, etc.). Policies should give priority to food security at all levels (national, regional, local, farm...) through the constitution of stocks. An effort should also be made to improve information on the context and trends, facilitating proper management of the mechanisms regulating the domestic cereals markets.

g) Development of irrigated crops: The development of irrigated crops is justified by the considerable hydraulic resources present in the catchment areas of the main rivers in the Sahel.

Using this potential, it is possible to irrigate 4 million hectares out of an irrigable potential of 12 million hectares (FAO estimate).

This raises the question of resources and possibly the political will of the Governments to pool this potential since, here more than anywhere, results depend on international coordination of efforts.

## **B. Desertification control policies**

Since the Nouakchott seminar, desertification control (DC) has been incorporated into the overall development process. This should result in the effective inclusion of desertification control schemes in rural development programs, i.e., full integration of DC projects in the production systems. This will require better use of resources in national and local land planning options and a considerable transfer of responsibilities to the local communities.

Under the auspices of the CILSS, the States have committed themselves to the drafting of a national desertification control plan.



a) Management of natural resources

Land planning defines, classifies and decides on the way in which the various ecosystems in a country are to be used. As such, it is the de facto cornerstone for a rational use of natural resources: it is essential to be acquainted with the features and aptitudes of an ecosystem in order to use it optimally.

Efforts have been made to control deforestation, to restore forest and grazing land and to control bush fires.

b) Conservation of forestry resources

Forestry resources are protected through:

- increased protection of natural formations as yet undamaged by combining increased surveillance by forestry authorities with involvement of local communities;
- formation management for rational use (production of fuelwood and charcoal);
- improved processing and consumption efficiency of ligneous fuels;
- substitution of ligneous fuels by other imported sources of energy;
- improved management of forest and grazing land by respecting carrying capacities and usage standards for woodland;
- reform of land and forestry law with a view to encouraging the local community to take part in resource conservation programs in their areas.

c) Control of bush fires

Bush fires are a major worry in desertification control. Attempts made in this area have been sporadic and therefore insufficient and ineffective. Efforts should be backed up by education, mobilization, organization and the support of local communities.

d) Reforestation

The forestry development strategies initially adopted by the CILSS placed the emphasis on tree planting in villages and around urban areas and industry to satisfy the need for wood fuel and structural timber. Wind breaks and crop shelter trees were also planted to protect and improve production systems. The initial aims

of the CILSS remain valid but have changed considerably in the light of past experience.

e) Reforestation for fuelwood production

Stress is currently laid on energy savings and improved management of natural formations. Large-scale reforestation is only contemplated in areas where the water problem has been solved (valley development schemes). The current trend is increasingly to satisfy ligneous fuel needs in the areas where the programs are set up.

f) Reforestation for crop shelter and improved production

The planting programs for wind breaks, hedges and regeneration of *Acacia albida* now interest local communities again and participation is increased.

**C. The global approach**

The global approach has been a priority since the Nouakchott seminar - its starting point is a general diagnosis and an attempt to cure the disorders by simultaneous treatment of all symptoms, whether visible or not. The global approach must be underpinned by land planning programs.

National strategies based on the seminar's recommendations have defined and launched programs along these lines: examples are the Senegalese Forestry Program, the Kaarta integrated development operation in Mali and the PSB in Burkina Faso. The essential factors governing the implementation of the PSB are twofold:

- transfer of responsibility to local communities to encourage their participation in programs undertaken for improved environmental management;
- restoration, improvement and rational use of the land and ecological "capital" in compliance with the rules and principles of national and local land planning.

In addition, the various partners (farmers, States, international donors) undertake to combine their efforts in the execution of a program defined on the basis of a three-way discussion.

The program implementation methodology puts the accent on information, training of producers, training of development workers and discussions between partners.

The major steps adopted in program implementation are:

- Zoning (division of the national territory into homogeneous zones reflecting ecological, sociological and economic features).
- Preliminary surveys (identification and classification of the problems and needs of the villages in order of priority coupled with an assessment of resource potential). These surveys found that primary needs were food and health.
- Formulation of a plan of action with ranking of priorities in terms of immediate, mid-term and long-term objectives.
- Implementation of the program, further to examination and approval of all partners.
- Assessment after a three-year pilot phase to report on progress and decide on subsequent programs.

#### **D. Participation of local communities**

The authors analyzed changes from independence to the present day.

##### **a) Relationship between governments and farmers**

Following independence, a number of cooperative and quasi-cooperative structures were founded with a view to integrating all levels of society.

Major projects were initiated and managed by State bodies.

These cooperatives were not usually founded on the principle of free membership and had no specialized management. They were conspicuous by their failure to organize marketing of products and guarantee incentive-raising prices. Most of them met with unqualified disaster. Recognition of the shortcomings of both the major projects and the cooperatives led many Sahelian states to give a wider margin of autonomy to farmers' projects in the seventies.

Local NGOs were founded here and there. New relationships between the State and the farmers were sketched out and developed in various ways.

In some countries, growing awareness in the rural populations led to new types of structure emerging in Burkina Faso (ORD) and Mali (ODR).

Following the severe drought of 1973, both the farmers and the States reappraised the limits of government aid. Policy was

reviewed in order to find the best way to associate all the dynamic forces of the nation.

Existing rural organizations were given new life and new ones were founded by farmers, governments and NGOs in order to answer the real needs of rural communities.

About 15,000 groups of all types can be found in the Sahel.

The scope of these organizations ranges from economic to social aspects: cereals production, cereals banks, land protection and recovery, SWC, literacy campaigns, health, etc.

Programs with short-term benefits motivate rural communities more than the long-term objectives, about which local communities are more reticent.

Participation can be in the form of:

- self-help,
- paid labor.

Self-help is the most widespread form of participation. It is based on a deep-seated motivation to contribute to a common project in order to build a more secure future.

Paid labor was employed to a large extent just after independence, but is less frequent today; it may be used in some PSTP/HIMO projects, road and track building, etc.

The level of participation depends on the community's interest in the project. It also depends on the structure - the closer the organization is to the farmers, the more successful the program is likely to be.

The authors have tried to analyze the nature and success of relationships between farmers and State organizations on the one hand and farmers and NGOs on the other. An effort was made to show the advantages and disadvantages of each type of organization.

More and more self-managed farmers' organizations are emerging in the Sahel today. They are distinguished by:

- their level of organization (Board of Directors, AGM, etc.);
- the steps taken to consolidate them;
- links with other farmers' organizations;

- a proprietary interest in the group's capital and efficient use of loans and outside subsidies, full return on resources, self-financing.

Difficulties encountered by self-managed farmers' groups spring from:

- lack of self-assessment and outside evaluation;
- illiteracy of those responsible for economic units;
- the scope and diversity of activities as opposed to the small number of skilled members;
- democratic organization (election and renewal of officers).

The authors analyzed the relationships between the farmers' organizations and other actors. This is made complex by:

- the plethora of development organizations;
- their diversity of approach;
- the type of organizational dynamics.

b) Relationships between the State and farmers' organizations

There are multiple links upline and downline from the production phase and in the field, operating through the decentralized structures of the ministries defining sectoral policy with respect to agriculture, livestock, hydraulics, the environment, etc.

The frequent lack of initiative granted to the farmers is regrettable. "The State owns the land, formulates, implements and follows up rural development projects. The State fixes the prices."

As a result, the farmers are powerless. However, this type of relationship is gradually changing.

The Sahelian authorities are trying to see how they can best answer the aspirations of rural organizations. Legislative reforms now attempt to lay greater responsibility on the local communities.

c) Relationships between farmers' organizations and NGOs

The number of NGOs working in the Sahel today is increasing.

- Local NGOs which are often self-help groups. They are grass roots organizations of local people, which may grow into unions or federations.
- International NGOs which aim to provide local communities with technical and financial assistance. Members of these NGOs do not normally benefit from the results of action undertaken.

The comparative success of the NGOs is mainly due to:

- the immediate solutions found to community problems,
- the direct contact with rural organizations,
- the lack of cumbersome bureaucracy.

d) Relationships between farmers' organizations and the private sector

Private enterprise does not play a major role in the agricultural sector and still less in desertification control. Private sector activities in agriculture started to increase with the advent of new agricultural policies.

The only real contacts between the farmers and the private sector is in the sale of agricultural produce and the purchase of inputs. The State was intolerant of this parallel commercial network for many years but is now restructured in many countries further to reorganization of cereals boards. Collaboration between governmental and private sectors is now emerging in the sale and supply of cereals.

e) Recommendations

The authors go on to make recommendations for the involvement and participation of local communities in the design, implementation, management and follow-up of projects for rural development and desertification control.

To this end:

- projects must be flexible enough to adapt to farmers' needs;
- special efforts must be made towards rural literacy and organization;
- rural communities should be the leading partners in all development projects;
- proper coordination between different projects is essential to avoid conflict;



- the cash income of farmers must be increased;
- guidelines for donors should be adaptable to the various different situations arising in the technical and financial implementation of programs;
- donors must guarantee funding over a three to five year period to meet any requirements arising in the field. They should also ensure that funding is flexible and fast.

For optimum community participation, the following are necessary:

- effective involvement of local communities who are given real responsibility;
- training and information;
- frank, open, direct and continual discussion with local communities.

A global approach requires a national land use plan, accompanied by efforts to improve conservation of capital in terms of land and plant resources as well as increased productivity.

The report also raises a number of other questions:

- Are the desertification control programs underpinned by the global approach?
- Is the participation of rural communities in development and desertification control projects more effective than before?
- How does the food security question affect drought and desertification control?
- What are the latest developments in research on food security in the Sahel?
- What action is being taken to conserve natural resources?
- How should the increasing population factor be integrated into the equation of development and drought/desertification control?

### III.1.4 TRENDS IN THE DROUGHT AND DESERTIFICATION CONTROL STRATEGIES OF MAJOR DONOR AGENCIES IN THE WEST AFRICAN SAHEL (11)

#### A. GENERAL REMARKS

This working document describes and analyses the changing drought and desertification control strategies implemented in the West African Sahel since 1975.

The report examined and analyzed the CILSS/Club proposals on drought and desertification control strategies. In 1976, the CILSS set up a working group whose main task was to formulate medium and long-term development strategy for the Member States of the CILSS.

The working group put forward strategies and programs aimed at ten major sectors: rainfed crops, irrigated crops, livestock activities, fishing, plant and harvest protection, human resources, transport and infrastructure, marketing-prices-storage, appropriate technologies and ecology-environment.

The prospective studies carried out at that time stated that it was possible to achieve food self-sufficiency. These studies indicated that sufficient natural resources were available to substantially increase food production, and even exports of agricultural produce, processed by the agro-food industry. One of the results, it was stated, would be the creation of new outlets.

At that time, desertification as such was hardly mentioned. The Sahel was concentrating on new production systems to meet the needs of a growing population and to provide safeguards for the future.

The ecological and environmental sector tended to lay emphasis on forestry. The persistent drought of 1968-1973 lent a new dimension to desertification with the spreading of the phenomenon into the Sudano-Sahelian area.

A new awareness of the phenomenon and its consequences emerged at that time and the regional seminar on desertification held in Nouakchott in November 1984 drew the following conclusions:

- that desertification was a fundamental handicap to development in the Sahel. New strategies centered on human resources, ecology (the environment) and the economy were born. The new global approach sought to:
  - a) meet the basic needs of communities and aim at food self-sufficiency;

- b) protect the environment, ecological capital, and the rehabilitation of productive potential.

This new approach was multi-sectoral since no improvement of production systems is possible without taking ecosystems into account.

The strategies of the CILSS/Club were adapted to reflect the need to meet the requirements of local communities and to protect and rehabilitate the environment.

These years were also marked by an increase in the debt burden. At the same time, the IMF and donor agencies put steady pressure on the various member states to reduce State intervention, cut staff and increase the role of private enterprise.

#### **B. STRATEGIES ADOPTED BY THE MAIN DONOR AGENCIES IN DROUGHT AND DESERTIFICATION CONTROL**

The objective of the document is to reflect the various positions in the donor group on this subject.

##### **WORLD BANK**

The strategy described in the World Bank guideline report, published in 1985, is very similar to that adopted at Nouakchott (1984 Seminar on Desertification).

The salient new factor is the inclusion of population policy: the World Bank is convinced of the need to reduce the population growth rate, particularly in areas where it far exceeds the possible carrying capacity.

The World Bank report states that regulations and legislation on social organization should be examined in order to identify and influence change and reduce obstacles to the establishment or recognition of true grass roots organizations.

##### **UNSO**

In 1974, the UNSO published a document on "how to save and rehabilitate the Sahelian region". This laid stress on the importance of involving the local communities and re-establishing the fragile balance between man and the environment. The document deals extensively with grazing but does not mention forestry.

The main activities of the UNSO are to carry out feasibility studies and to plan, program and formulate pilot schemes to be put forward for donor funding.

**IFAD**

The IFAD launched a special program in 1985 for sub-Saharan countries affected by drought and desertification. Its programs are based on the principle that local communities themselves should implement intelligent methods of land use.

Since 1986, the IFAD has been investing in programs related to SWC, water recovery and agro-forestry for several Sahelian countries.

**FAO**

The FAO has no particular desertification control policy for the Sahel. Its activities in this field have been somewhat fragmented as it also works for other donor organizations. Nevertheless, the Forestry Department, Water and Soil Development department and the Inter-departmental Work Group on the Environment and Energy have been able to collect a vast amount of information and have acquired considerable experience in desertification control.

**COMMISSION OF THE EUROPEAN COMMUNITIES (CEC)**

In 1985, the CEC prepared a rehabilitation and recovery plan to help those African countries most affected by the drought to rehabilitate their agriculture.

In 1986, the CEC set up a desertification control plan emphasizing the need to invert the desertification process, undertake large-scale projects (200,000 ha for the management of a catchment area and 30,000 to 50,000 ha for reforestation schemes.)

**USAID**

From the American viewpoint, priority in the desertification control field must be given to improving agriculture and implementing family planning programs. The new approach also involves the farmers in natural resource management.

**CIDA**

The main aim of the CIDA is to strike a new socio-ecological balance. The guiding principles of the aid program are a grass roots approach through small-scale projects aimed at the development, planning and use of natural resources at the local level.

**THE NETHERLANDS**

The regional policy for the Sahel is based on three sectors:

- development of food crop production;
- improvement of the water supply;
- activities to conserve the ecological balance.

Most of the funds earmarked for agricultural development (70%) have been used for irrigated crops and 20% for rainfed crops. In the ecology/forestry field, plans based on village plantations were put forward in 1986.

A new regional policy for the Sahel was drafted in 1988. The policies defined for the ecology and forestry sector put the emphasis on village plantations, family and personal plantations, agro-forestry, improved cookstoves and decentralized management of existing natural woodland. For socio-economic development, special emphasis is placed on family planning policies.

#### **FRG**

The Federal Republic's desertification control strategy is almost identical to that of the CILSS, which it supports through the PA/CILSS. The initial phase of the program was launched in 1980 and was basically devoted to research and pilot schemes.

The second phase (1984-1988) gave the CILSS additional backing to put its desertification control strategy into operation. The PA/CILSS supported the PSB (the Burkina Faso Sahel Program), the Tillabery-Nord Program in Niger and the Ansongo Menaka program in Mali. The FRG is currently increasing its involvement in integrated rural development projects. It feels that it is particularly important to raise the rural communities' awareness of their problems.

#### **ITALY**

In 1982, Italy put 500 million US Dollars at the disposal of the "Initiative pour le Sahel". Rural development, road building, village water supplies and infrastructures are the priority areas tackled by Italian cooperation authorities. Italy also accords considerable importance to the concept of integrated rural development and has financed several projects in this field in the Sahel.

One rather successful example is the integrated rural development (IRD) project of Ader Doutchi Maggia (IRD/Keita) which is based on SWC, water harvesting and tree planting.

#### **SWITZERLAND**

Switzerland gives priority to projects in the ecology and forestry sector. A quarter of the total budget of Swiss aid goes to various activities in this sector.

#### Switzerland finances:

- forestry projects in Burkina Faso, Mali and Niger;
- African NGOs: FONGS, 6 S, INADES, CESAO, ENDA;
- international NGOs such as the IUCN and World Wildlife Fund;
- applied research in SWC in Niger
- training at all levels from adult literacy campaigns in the national languages to the training of forestry and hydraulics engineers.

Switzerland considers farmer participation to be extremely important.

#### FRANCE

Since 1980, French aid has been concentrating on agro-forestry.

Since 1985/86, the FAC has been working closely with the CCCE and the World Bank to implement natural resource management projects concerning: rural water supplies, agricultural development, livestock development, tree planting and management of village lands.

In 1986, a number of proposals on desertification control were put forward. The approach adopted in this strategy suggested that development should be global, interdisciplinary and multi-sectoral, integrated, motivating and systematic.

Two types of activity were suggested:

- individual action at the field level to modify production systems;
- community action to deal with natural resource management projects.

#### IUCN

In 1986, the IUCN (International Union for the Conservation of Nature and Natural Resources) published its long-term strategy for the rehabilitation of the Sahelian environment.

The IUCN argues for the promotion of new types of development at the national and international levels.



### C. CONCLUSION

A broad consensus exists between donors on the subject of desertification control. A common approach should be adopted in this field.

A wide range of techniques are currently available.

Responsibility for desertification control activities should be transferred to resource users. Most organizations agree that users should be involved in the preparation and implementation of new programs.

The report calls on the international community and Sahelian governments to give thought to the following:

- What are the major obstacles to better coordination of the various activities in the field of drought and desertification control and how can they be eliminated?
- How should the drop in the amount of aid earmarked for drought and desertification control be seen?

### III.2. SUMMARY OF SUPPORT DOCUMENTS

#### III.2.1. EXAMPLES OF SUSTAINED DEVELOPMENT - SUCCESSFUL NATURAL RESOURCE MANAGEMENT IN THE SAHEL (12)

For the past fifteen years the ecology of the Sahel has been undergoing profound changes, and in places the Sahelian zone in the strict sense has shifted 61 to 133 km south. It is therefore imperative to stop using the traditional rainfall measurements in planning projects. Because of this ecological crisis, West Africans are more open to innovation, and innovation becomes in itself a natural resource. The team analyzed 70 initiatives in the field in terms of the following criteria:

- Has soil fertility improved or soil degradation been halted?
- Has water utilization or water management improved?
- Has the vegetation cover increased, especially as regards plants that stabilize the soil, increase soil fertility or improve water availability?
- Have the conditions for biological diversity been developed or maintained, including horticulture, crop varieties, animal species and habitats?
- Has the productivity of human labor increased, enabling individuals or communities to consecrate more time and/or income to managing natural resources?

The team's main observations in the field were as follows:

#### THE TECHNIQUES AND THEIR IMPACT

As regards water conservation, there are many traditional techniques in West Africa. It would seem that projects on too large a scale are often beyond farmers' technical, financial and organizational capacities. In the schemes the team visited, timely arrival of inputs, loans and assistance was the critical point that only too often decided the scheme's success or failure.

Soil conservation brings less immediate benefits than water conservation; the known techniques demand a great deal of work and often imply a temporary drop in production. The vast majority of initiatives are undertaken in the areas where degradation is most severe.

In many of the projects analyzed, technology transfer is not thorough enough, and concern for technological factors fades away with the project team. On the other hand, local initiatives very often lack both the means and the authority to develop.

In agroforestry, the team observed a wide range of schemes combining traditional and modern techniques, and were particularly interested in integrated management systems combining trees, shrubs and crops: associations of *Acacia albida* to fix nitrogen and produce fodder, hedges of sisal and spurge, orchards, individual woodlots.

Generally speaking the farmers are highly motivated towards reforestation, and anxious to learn to plant and care for the trees. However, they are mistrustful of the forestry authorities, who have a reputation as law enforcers rather than educators. Large scale natural forest management projects have shown that fuelwood and timber can be produced economically on a decentralized basis by introducing a few exotic species alongside the natural species.

#### **MAINTAINING BIOLOGICAL DIVERSITY**

The drought has led people to encroach on the wilderness and increase the pressure put on it by their hunting and fishing activities. Wild animals are now seen as enemies. Unfortunately, maintaining biological diversity is not a priority for Sahelian governments, who see it as an alternative to economic development rather than its complement, though the farmers themselves are aware of the need for such diversity. The team found only a few initiatives launched to conserve diversity in local flora. Such schemes are exceptions, and cannot counter the pressures imposed by economic necessity. Maintaining biological diversity cannot be an issue in itself; it must be combined with economic incentives.

#### **SOCIO-ECONOMIC INCENTIVES**

It is obvious that where natural resource management brings jobs and higher incomes, technical assistance has acted only as a booster to overcome a specific technological limitation. Similarly the existence of a ready market is a strong stimulus in developing woodlot. It may also be necessary to give people a financial interest at the start of a project and then to develop an economically profitable, self-managed activity (for example, a farmers' cooperative may be set up to take over the management of a plantation). Another initial stimulus already tried out is free distribution of forest tree seeds; yet another is "social" recognition (e.g., in Senegal, a woman has been decorated by President Diouf for her work in running a tree nursery).

### POLITICAL MEASURES AND INCREASED INCOMES

Political measures have a catalyst effect when, similarly to the Malian law on improved cookstoves, they meet a need. However, if they are purely restrictive, like a ban on hunting or bush burning, they merely worsen relations between the government authorities and the rural population. The most effective political measures are those that transfer ownership of land from the State to the village communities, provide training for these communities outside the institutional structures, or develop local authority structures.

### CULTURAL ECOLOGIES

There is an observable trend towards increasing homogeneity in cultural ecologies, an increasing mixture of cultures within a given area, increasing sedentarization, etc. This leads to inter-ethnic competition for the same resources as ethnic specialization declines.

### SCALE, COST AND TIMESCALE OF OPERATIONS; TECHNICAL ASSISTANCE

Operations vary enormously in geographical scope, cost and duration, from the planting of a village woodlot to a river valley development scheme. Broadly speaking the impact of planting a small woodlot or managing an area of natural forest (both fairly low-cost operations) will be felt three times faster than the impact of an industrial scale plantation or a forest reserve protection scheme (which are also more costly).

Technical assistance, too, varies enormously according to the scale of the operation; in small individual operations there is none, while in valley development schemes it may be available on a very large scale. In general, local inhabitants prefer long term technical assistance as sometimes practiced by NGOs.

### LESSONS

Analysis of 70 experiments in the field reveals many successes, though these are still isolated cases and have not been integrated into any coherent strategy. The study clearly shows that an effective approach to natural resource management has to aim first and foremost at solving environmental problems as such. In other words, more jobs and higher incomes must be created out of the natural resource management itself. In many cases the local population has different objectives to the government. For example, one may want to plant eucalyptus to protect the crops, the other to sell the wood.

It is very hard to say whether an operation is a success or a failure until it has been running a certain length of time; as

a rule it takes ten years for a scheme to mature, and even longer if a new technique is being used.

Lastly, it is important to design projects in such a way that, in the long run, they foster genuine participation by the local people and help develop the donors' skills; there has to be a repeatable, pragmatic process in which, for each individual project, the initial objectives can be reviewed and altered and the operation suitably adapted to the specific local culture.

### FINANCIAL VIABILITY

The authors have graded the 70 experiments into six groups for financial analysis: windbreaks, *Acacia albida*, hedges, chemical fertilizers, organic fertilizers and compost, small-scale irrigation schemes. A first calculation gives the rate of profitability of each technique taken singly. If one considers two or more of these techniques in combination, it can be seen that the most financially profitable combinations are not necessarily the best in technical terms. Broadly speaking, in "*Acacia albida* programs" for example, there is a considerable gap between the financial value of a scheme for the farmer and long term economic profitability (i.e., environmental conservation). This is a good reason for combining this type of scheme with more financially attractive operations.

### CONCLUSIONS

People have succeeded in regenerating degraded land and creating productive micro-environments through their labor; their task has been facilitated by the growing interest shown by governments and donors in natural resource management.

However, there remain two major obstacles: (a) the lack of any clear laws on landed property, and (b) lack of training for farmers and also for donors and government services.

Innovating farmers play an important part in launching the momentum. Yet so far little effort has been made to encourage such innovators and enable them to benefit from their own initiatives or help others to benefit.

Changes in government policy have increased incentives to farmers to manage natural resources more rationally (e.g., the Malian law on improved cookstoves). In the coming years, governments will have to play an increasing part in resolving conflicts between crop farmers and herders, between wildlife and domestic animals, etc. To this effect, land law will have to be clarified to allow private ownership of land, without which there will be no investment in environmental protection.



Successful experiences have created a favorable climate for greater effort. It has been observed that once a farmer has tried a resource management activity that brings in a return, he is often keen to start another, complementary activity. For example, a farmer who has agreed to plant acacia trees (in the knowledge that one tree will bring in \$ 3 to \$ 5 at the end of 3 years) will also be prepared to try soil conservation measures that may reduce his output in the short term.

A good resource management method can only spread if the socio-economic environment offers incentives.

This is why long term action must be combined with activities that generate income in the short term. The disparity between farmers' interests and those of the State means that projects must be approached consistently but flexibly. Of course the ideal case is the purely individual initiative stimulated by the existence of a potential market, but this kind of initiative cannot be automatically reproduced, as not all rural Sahelians have the same capacity for initiative.

It will be another twenty years before the impact of successful operations makes itself felt on a large scale. The time it takes to establish a climate of confidence and participation is often longer than the time it takes to build a bunds or plant a woodlot. The minimum timescale for a natural resource management drive is twenty years.

#### **PRIORITIES FOR A "NATURAL RESOURCE STRATEGY"**

To have a real impact, a natural resource strategy should take the form of a generation contract between local population groups, their governments and the donors, on four fronts:

- Biophysical: establishing a form of management capable of maintaining natural resources and supporting the needs of the rural economy.
- Economic: facilitating the supply of seed and inputs in cash crop areas, sharing the cost of these products in food crop areas, sharing the cost of natural resource management initiatives where rates of economic return are higher than rates of financial return, and sharing risks, especially by developing credit facilities with financial backing from the donors.
- Institutional: improving the definition of priorities and resource allocation. Extending training and transferring certain skills.
- Political: Settling the land ownership problem, increasing local control over natural resources,



adjusting the prices of farm and forest products in line with their true economic value.

### III.2.2. LESSONS IN THE FIGHT AGAINST THE DESERTIFICATION OF THE SAHEL (13)

The first part of this document analyzes 21 development experiences: nine from Burkina Faso, five from Mali, five from Niger, one from Mauritania and one from Senegal. Most are from the Saharo-Sahelian or Sudano-Sahelian zones.

Each case study covers one specific community and the land it uses; all were conducted in cooperation with the local inhabitants and development officers.

The second part of the paper draws some lessons from these studies, asking four questions:

- (a) What do drought and desertification mean for the people and the projects?
- (b) What desertification control measures have proven technically effective, and under what conditions?
- (c) How can the population be encouraged to participate in a responsible way?
- (d) Does the experiment in question indicate any concrete proposals for implementing the global, concerted, integrated approach, or the "land development/regional development" approach, both of which are crucial elements in the search for a new socio-ecological balance?

From these case studies, the authors draw three sets of conclusions:

- The Sahel possesses considerable assets in terms of proven or promising techniques and methods.
- Land development must take account of these assets as well as the problems of stock herding and hydrological basin development; and it must do so as part of a coherent national development scheme.
- Better soil and water resource management is imperative, especially since a return to normal rainfall will at first accelerate soil degradation.

The productivity of tillage must be improved, by lightening the burden of work involved in applying these techniques and increasing the productivity of soils and crops.

Crop diversification is also needed, to reestablish a balanced use of land, to widen the range of sources of income and make incomes more secure, and to facilitate mixed farming (crops with livestock).

Emphasis must, everywhere, be put on the application of simple mechanical technologies and the availability of such equipment as carts and wheelbarrows (encouraging local production).

Promising organic methods (farm agroforestry especially) must be encouraged; individuals and groups or communities must be trained in tree husbandry and nursery work, and must be recognized as the owners of the trees.

Participation by local people is an absolute necessity, even where skilled help is needed to apply the technique in question.

All operations must be based on local communities' socio-cultural and organizational assets.

It is important to recognize the validity of local human resources and techniques. On this basis, it will be possible to suggest technological improvements in line with local needs that can be introduced by the community and learnt by individuals. It is crucial to work in cooperation with the population, establishing a link between the satisfaction of immediate needs and long term needs. Except in extreme cases the "food for work" formula is inappropriate to this perspective; where a food contribution is necessary, it should be regarded as helping out for a short period only, for the purposes of a specific task the population has decided on.

Drought and underdevelopment have brought women to the forefront, in terms of work and responsibility alike. It is therefore imperative to lighten their domestic burdens and make training and information (family planning matters included) more readily available to them.

Farmers' mutual associations and non-profit making bodies for savings and credit must be given support and encouragement. Development assistance must be designed to make the most of local human resources by offering training and access to positions of responsibility.

Institutional and cooperative assets must be concretized and developed.

The most important structural adjustment the Sahel governments have to make is to reestablish a socio-ecological balance. To achieve this, the authors recommended that they set up coherent programs based on (a) coordination at all levels, (b) local land development, (c) national development and (d) furtherance of participation by local people. Special care must be taken to genuinely integrate desertification control into development plans, to introduce nature studies into training systems, and to gain control over population growth.

The improvement of women's status must cease to be treated as a passing fad and must be made a reality (access to schooling, legal status, etc.).

Governments must guarantee ownership rights for individuals and communities and must take steps to decentralize the right to plan, develop and manage the land.

NGOs must be encouraged in their activities even though they are known to make mistakes. In bilateral, multilateral and international aid, which is often still poorly matched to needs, discussion and cooperation must be fostered and technical, material and financial assistance must be faster and more flexible.

### **III.2.3. ECOLOGY AND RURAL DEVELOPMENT IN SUB-SAHARAN AFRICA: SELECTED CASE STUDIES (14)**

This paper reports on eight projects and farmers' organizations, assessing the sustainability of each in technical, economic, political and institutional terms. The notion of sustainability is here applied both to the use of natural resources and to development activities.

Sustained development implies not only changes in the production system, but also changes in the existing social structures.

The study describes the connection between existing Sahelian social structures and farming systems on the one hand and the deterioration of natural resources on the other. It concludes that this deterioration is largely due to the use of inappropriate farming systems, to the disorganization of societies where traditional governing structures have died out and have not been replaced, and to inappropriate development efforts in which farmers' own capacities are too often underestimated. As a result, underlying rural cultures have changed; there has been a shift from "subsistence societies" based on agriculture to "survival

societies" based on dependence on outside resources and overuse of the few remaining natural resources. This has reached the point where, in the absence of any tacitly agreed rules on resource management, many parts of the region now hold a higher population rate than they can sustainably support. Sustained development will necessarily involve a global change in social structures and production systems.

**Promoting global resource management as a complement to techniques aimed at specific problems**

The authors conclude that the changes that best contribute to a sustainable use of ecological and agricultural resources are those that improve the overall management of a production system. Techniques that are not geared towards resource management can of course provide answers to individual production problems, but they do not significantly help to improve the production system as a whole. Resource management oriented approaches seem to pay off in many ecological situations, although such approaches are not yet very widespread.

Technical responses to production problems are far quicker and easier to implement than a global resource management approach. In production systems where resource utilization is fairly complex - as indeed it often is - introducing global resource management entails introducing changes in social structures at the same time. However, fostering change in social structures takes time, and does not usually count among the aims of donors or Sahelian decision-makers responsible for rural development.

**RURAL ORGANIZATIONS TO THE FOREFRONT**

A first response to the need for change in social structures has been supplied by independent rural organizations. Handling their human and financial resources with skill, they have successfully launched many development activities. Still more significantly, they have shown themselves sufficiently competent and confident to promote innovative approaches for sustained resource utilization.

However, the current political and institutional environment does not enable rural communities to reorganize themselves and gain real control over the use of their natural resources. There are exceptions, where a large scale operation launched as part of an aid project leads to changes of policy on such problems as land ownership systems, users' rights to resources, or guaranteed benefits for those investing in long term conservation activities. These changes have enabled some rural organizations to gain better control over their productive resources as a whole - human, financial and natural. These are the cases that offer the highest chances of sustained development.

### Involving legislators and users in a common dynamic

In most present cases, the political or institutional decision-makers involved in natural resource utilization do not seem to be very highly motivated or to have a very clear view of how they might use - or share - their power and responsibilities. On the other hand resource users have little right of control over resource use. As a result, examples of how sustained development can be put into effect are still only very fragmentary. One can only hope that local communities will be given greater responsibility in natural resource management matters, and that governments will establish clear, well adapted legal frameworks.

### Questions pending

These case studies raise a number of questions about the concept of sustained development. Is it a priority? If so, other questions immediately follow. Are donors prepared to change their policies on financial and technical aid? Are governments prepared to hand down a part of their political, financial and institutional power to the rural communities? Are these communities prepared to organize themselves and subject themselves to rigorous self-control in their use of natural resources? And can the aid agencies, governments and rural communities sit down to discuss and agree on these measures and others in an atmosphere of mutual respect and shared responsibility?

### III.2.4. OPTIONS FOR PROMOTING USER-BASED GOVERNANCE OF SAHELIAN RENEWABLE NATURAL RESOURCES (15)

"The institutions that currently govern renewable natural resource management in the Sahel are inadequate..."

"The term institution is taken here to mean a set of rules, and not systematically a formal organization. In the Sahel today, a large number of institutions are in a position to contribute to the management of resources at all levels and on all scales. The main institutions are the family, village associations and authorities, local administrations (cantons, arrondissements, etc.), legal codes, rural development, finance and interior ministries, NGOs and donors".

The inadequacy of current resource management policies - characterized by the lack of recognition of local jurisdictions and powers, and by the difficulty experienced by those local powers in mobilizing the finance they need to manage their resources - is



largely responsible for the relative inertia of Sahelian societies in the face of environmental degradation.

The apparent uniformity of the Sahel actually conceals an extraordinary and highly complex pastiche of micro-environments, which can only really be managed and preserved if everybody that lives in them behaves in an autonomous and responsible fashion. On the basis of this statement, the authors stress a number of fundamental facts:

- Natural resources can be divided into various categories on the basis of exclusion (i.e., the extent to which it is technically feasible to deny access to potential users), and mode of consumption (i.e., whether the resource is consumed in a joint and non-rivalrous manner, or whether consumption is separable and rivalrous).
- Private goods are resources that are subject to exclusion and separate or rivalrous consumption. Arable soils, for example, are considered private goods in many Sahelian rainfed agricultural systems.
- Private goods with externalities, such as water harvesting installations on uphill fields, may have positive effects on downhill holders (reduced threat of erosion), but they may also have negative effects (preventing water from moving downhill during droughts).
- Open access resources, such as grazing land around public boreholes, is open to anyone and everyone, and consumption is separable or competitive.
- Common pool resources are similar to open access resources, except that they are subject to easy exclusion (e.g., shallow aquifers in valley bottoms, where those that hold rights in the valley can get access to the water and use it until the supply is gone).
- Public goods and resources are not easily subject to exclusion. Better air quality, for example, is freely available to all those in the area, and consumption by one person does not potentially or actually interfere with consumption by others.
- Resource management needs rules and authorities (to govern access, etc.) Rules must be flexible and must evolve pragmatically.

#### **THE NEED FOR DECENTRALIZATION**

In view of this complexity, the need for real decentralization becomes considerably clearer, and decentralization must rely on



resource-specific institutions that can alter management rules in line with the specific resource situation. These institutions must be able to settle disputes between users, and must have the wherewithal to ensure that the resources themselves continue to exist and that management is sustained.

#### INSTITUTIONS TAILORED TO THE DIFFERENT TYPES OF RESOURCES

Although it is clear that private goods can only be managed correctly by the basic production unit (on condition that property rights are recognized), there is a need to protect these goods (police) and to resolve any conflicts that may arise (law). Similarly, collective resources must be managed by a collective organization whose authority is freely recognized. That authority will establish rules, and ensure those rules are respected and that resource availability continues. For open access resources, public institutions must prevent attempts by certain parties to keep the resources for their own exclusive use, and must take steps to avoid degradation caused by over-exploitation. In a word, central government cannot avoid promoting private initiative and local government, provided that such promotion is backed by national policies and by appropriate legal and jurisdictional frameworks.

Further, local institutions must fit the type and extent of the resources to be managed, and there is thus a need to review the basic principles of village institutions, which currently cover too many different types of activities. This should ease and accelerate the process of developing concerted approaches, defining common interests, and resolving conflicts.

#### RESPONSIBLE INSTITUTIONS

No collective organization can function correctly if it does not establish its own rules as part of a global policy that respects the resources that fall outside its area of competence. This autonomy not only promotes individual consciousness, but also makes it possible to solve most conflicts internally and quickly without needing to turn to formal institutions.

Nevertheless, legal and administrative authorities must always be in a position to intervene at the request of the local institution if the latter cannot establish the ground rules and ensure they are applied and respected.

#### INSTITUTIONS WITH SUFFICIENT FINANCIAL RESOURCES

As a result of the current state of land-tenure legislation and the fact that insufficient power has been placed in the hands of local communities, these communities cannot use savings and taxes to mobilize the capital needed to set up and implement large-scale natural resource management programs.

In most cases, capital must be brought in from outside, not only to cover basic investments, but also to provide the physical means of management. The problem of recurrent costs has purely financial aspects (how to mobilize the funds that are needed) as well as management-related aspects (how to optimize management of the resource in question). Guaranteed exclusivity of access to a resource by a given group of users (supervision, fences, etc.) is the best incentive for members of that group to participate in management and upkeep costs.

Once this has been established, a joint undertaking can be financed in a number of ways, such as local taxes, work in a collective field (where profits would cover all or part of the operating costs), etc.

Aside from the current difficulties in setting up this type of system (centralization and absence of official local taxes), one major problem remains: paying for access to a resource does not restrict the use of that resource once contributions have been paid. In other words, the "unit price" should reflect both the quantities consumed (and this is very difficult to measure) and the cost of reconstituting the resource once it has been depleted (marginal cost + external cost).

#### **STRATEGY FOR THE FUTURE**

Decentralization and the responsibility of rural organizations are not yet part of the real situation. Nevertheless, initiative has been taken spontaneously at the local level for some time now, and donors have started to change their attitudes and are now exerting pressure on governments to bring changes in the legal, organizational and financial frameworks governing natural resource management.

Today, the decentralization process is still in its early stages, and involves more delegation than real devolution of responsibility. It is now urgent to promote the institutionalization of the transfer of authority to the local level:

- transferring the right of ownership of natural resources to the local users;
- transferring the power to establish management rules to local institutions, which are the only actors in a position to make the rules fit the local context;
- transferring dispute-resolution power to local institutions;
- transferring the power to levy taxes and contributions to the same local institutions.

### **III.2.5. THE DYNAMICS OF ORGANIZATION IN THE RURAL SAHEL (16)**

Since the early 1960s, rural Sahelians have been developing modern forms of organization as alternatives to the cooperatives set up by governments. The movement expanded considerably during the two great droughts, as this type of organization was very widely popularized by the NGOs that were flooding into the Sahel to manage aid. Further encouraged by the forced withdrawal of central governments from the rural areas, self-organization is now an established social fact in the Sahel, even if the scale of it varies from country to country.

#### **TECHNICAL AND ECONOMIC FUNCTIONS**

These groups have a very wide scope of action, which may include services to individual producers, collective production activities, creation of infrastructures, land development schemes, grain banks for greater food security, and so on. They give the local community access to services which individuals on their own cannot obtain or could only obtain at a much higher price (e.g., input supplies or credit) due to their scale of operation or because they are a way of attracting financial aid.

They are therefore of obvious economic value to their members, and membership depends on this as much as or more than on the social structure they offer. Too many outside agencies idealize this social aspect, sometimes mistakenly attributing it to a "collective" African tradition and assuming that this is the sole reason for the existence of the groups. In fact, self-organization is a modern way of exchanging views and developing ideas, and the opportunities it provides for joint economic activity have a higher chance of success than does individual action. It is also a good way of introducing modernity through the group's more enterprising members. At a time when the rural Sahel needs to adapt very fast to a rapidly changing world, self organization is a first rate instrument of development.

#### **RELATIONS WITH FINANCIAL PARTNERS**

Farmers' groups are very often in touch with aid agencies who have introduced the concept of the "project". In fact the term has been absorbed into many local languages, not in the sense of a forward plan but meaning rather a set of technical development tasks and the financing that comes with them.

However, "projects" as currently conceived have some serious shortcomings. While in technical terms they enable considerable progress to be made, they also seriously compromise the group's

ability to reflect and adapt, since each project is defined once and for all at the outset, making it very difficult to change the purpose for which the funds are allocated at a later date.

A new form of financing theoretically provides a way out of this problem: this is the "flexible fund" for which the donor lays down only the general conditions for its use, the group members being allowed to decide on the precise application.

There is a very obvious problem of discipline and coordination among the groups' financial backers.

The groups have fallen victim to their own success, receiving far more money than they can handle to best effect. Groups that manage to tailor their rhetoric to donor expectations succeed in obtaining funds for giant schemes even where it is patently obvious that they will never be able to realize them, let alone handle longer term maintenance. Meanwhile other groups appeal in vain for the small sums they need to realize their projects. So there is a need to rationalize relations between the groups and their financial backers, especially if the flow of funds is to continue growing.

#### **RELATIONS WITH THE AUTHORITIES**

Relations between the groups and the authorities were for many years marred by mistrust and suspicion, but this is gradually changing. As the groups grow, they aspire to the legitimacy that would allow them to become genuine partners to the State authorities in local development matters. The governments, which have hoped for such a momentum to arise, must also make a place for it in the action they take. The gradual formation of federations at various levels - district, department, and up to national level, depending on the country - could improve farmer representation and facilitate "political" dialogue.

#### **THE FUTURE OF THE FARMERS' GROUP**

Despite the impressive expansion of the movement, most farmers' groups are still very new and it is hard to foresee how they will develop. It is not clear, for example, whether the movement is heading towards a type of farmers' union, or more towards a form of local authority, in which case the groups would pioneer political devolution and then die out, replaced by small management units.

The farmers' leaders and those working with them need to reflect on all these questions.



**III.2.6. WOMEN IN THE FIGHT AGAINST DESERTIFICATION (17)**

In this study, the role of women has been analyzed through forty-three case studies conducted in six different Sahelian countries: Burkina Faso, the Republic of Cape Verde, Mali, Mauritania, Niger and Senegal. The aim is to identify the factors that will further the economic, social and political advancement of women, with a view to development and desertification control.

The study has deliberately chosen to analyze positive experiences in desertification control. It reaches the conclusion that although desertification has caused severe, destructive disruptions, it has also generated a momentum for change. However, there can be no effective desertification control unless the crucially important part played by women on the land is given full recognition, and unless women are involved as partners at every stage from formulation to implementation of any desertification control schemes to be undertaken in the future.

Women have a very clear perception of the causes and scale of desertification and - a new and significant fact - of the negative impact of population growth on living conditions and the environment. The great majority of women interviewed want fewer, better fed children, properly cared for and with a school education. A large family no longer necessarily means a stronger family, and a new perception of the child seems to be emerging. These new ideas are firmly supported by the old women in the village, who have a lucid perception of the changes taking place and are ready to confront their sons on these taboo subjects.

Women are heavily penalized by the negative effects of ecological deterioration, especially as regards the availability of cultivable land, wild produce, water and fuelwood. Above all else, the women complain about the socio-economic effects of desertification: the mass exodus of the menfolk and young people, the destabilization of the household, the refusal of the young to live in the tough conditions of the bush, and the growing poverty of family and individual alike.

In the home, the overwhelming problems recognized by all women are the arduous tasks of grinding grain and fetching wood and water. The fuelwood problem is connected with access rights, woodcutting bans, and over-exploitation of resources in heavily populated areas. The increased workload and malnutrition seriously undermine the health of women and children.

The rural exodus and social destabilization have forced new responsibilities on the people of the Sahel. This has had two results: a new awareness, and new forms of organization. The

constant presence of women in the villages, where they form a high proportion of the population, has made it easier for them to gain access to information and to be taken into account in decisions affecting the village. New forms of pre-cooperative and village-level organizations have enabled women to be taken into consideration by developers and extension workers. In this way, women are consulted and are beginning to participate fully in village affairs.

It is known that Sahelian women take part in desertification control schemes in very large numbers. As the case studies show, however, they usually do the most arduous and least skilled jobs. Despite the meager advantages to be gained - food aid and a higher social status - their participation in the schemes has a negative impact on their daily routine of work, their health and any dry season income they might otherwise earn. Moreover, women rarely benefit from the land they help reclaim, develop and protect. They do not have easy access to agricultural extension work, agricultural loans, or the factors of production. They help reforest an area, but have no access to the trees they have planted.

The assessment of desertification control policies with respect to women is thus broadly negative. Sahelian women are employed as necessary, cheap labor without being involved in decision-making, and without any direct social and economic advancement. This is a situation that carries with it a high risk of demobilization. However, a promising momentum is building up: after group work on a desertification control scheme, women's groups are stronger and villages more united.

Positive forestry experiences show how in some cases - rare cases as yet, unfortunately - women have been successfully involved, for example, in growing saplings for planting and in creating, maintaining and running orchards and forest tree plantations. Despite the considerable constraints connected with land tenure and rights of access to the trees planted, women are genuinely interested in these activities, agro-forestry especially. A well-run drive to introduce improved cookstoves, in an area where women see this as a useful advance, wins their total support.

Women's participation in the management of wells, water points and natural forest is an absolute necessity. They must also be taught the basics of maintenance engineering for wells, pumps and mills. Lastly, the educational role of the women - which includes education in natural resource management - is under threat at the present time. This role must at all costs be maintained, if the children's future and that of the environment are to be safeguarded.

Some conclusive experiments in agriculture show how well-run desertification control can open the way to rural development and



the socio-economic advancement of women. At Noogo in Yatenga, women's participation in local land restoration has led to a new awareness on other issues: improved homes, a collective field, new cultivation techniques, pit composting and a mill have been introduced and used; the women have sent a few of their daughters to school and have asked for family planning instruction. In other places, there is market gardening combined with fruit production, or even desertification control work carried out in neighbors' fields for a wage.

As backup for these production schemes there is credit for the purchase of small scale equipment (and even animal-drawn plows, e.g., the "Vive le Paysan" Association), wells, vehicles, and the training of women as relay supervisors, seed distributors and forestry officers. The recovery rate for such loans is high. The main restrictions are still the land question, the lack of outlets for market garden produce and the reluctance of those who own the collective gardens and fields to make lasting investments (bunds, trees, etc.).

The report points out that extension work, training and organization are the key requirements if women are to participate successfully.

As a result of the women's decade of 1975-85, political positions favorable to women have been taken in all the Sahel countries. However, official rhetoric is no longer making any progress, and the situation of women is deteriorating. The men are afraid of change, especially where family or religion are affected. In many cases, the national women's associations are the only authorized organizations for women, and owe their allegiance to the government. Many of these national organizations are too firmly tied to be able to spark off change, even though their structure enables them to reach the majority of the women in their country. These organizations need solid professional support. The status of women must be reviewed, and policy must be defined on issues of population, education and the socio-economic advancement of women through participation in desertification control schemes.

### **III.2.7. SAVINGS AND CREDIT IN THE RURAL AREAS OF THE SAHEL (18)**

The end of the 1970s marked a significant turning point in discussions on credit and savings in the developing countries in general, and in the Sahel in particular, for it became recognized that the approach based on a supply of low-cost credit had led to widespread failure. Recent studies show that a much greater number of financial transactions take place in rural areas than are

handled by national financial institutions. The rural financial market is already a reality.

There is thus a need to stop injecting cheap credit into the rural world as if credit was just another technical input. Support must now be given to rural financial markets:

- by attaching greater importance to the collection of savings;
- by avoiding the creation of new institutions, but by strengthening the dynamics of farmers' groups;
- by simplifying procedures;
- by defining a legal framework that offers the flexibility of management and autonomy that rural financial institutions need. This conviction is borne out by a number of recent experiences with village savings and credit systems (e.g., COPEC and ADRK), which have shown extremely encouraging results.

The problem now is to devise mechanisms that allow rural financial markets and their institutions to develop in a coherent manner alongside the national financial markets and their banks:

- Although the collection of savings by a rural financial institution (RFI) should not pose any particular problems, the management of credit by RFIs should be introduced progressively and with considerable caution (solidarity aspects of the RFI, management capacity, guarantees by the national financial market, autonomy of management).
- The scope of the RFI should be restricted, if possible, to users that do not have access to the "modern" financial system.
- The favorable legal framework for RFIs mentioned above must be defined and applied.
- RFI promotion programs must be defined, with particular emphasis on training programs and the NGOs should play a considerable role in this endeavor.

### III.2.8. LAND TENURE POLICIES AND NATURAL RESOURCE MANAGEMENT IN SAHELIAN WEST AFRICA (19)

This study analyses some key aspects of land tenure policy in terms of their impact on natural resource management in the Sahel, and identifies possible ways of fostering changes that may improve resource management. Some case studies are presented as potentially conducive to effective change. The report considers the ownership and management of common and individual (family) resources and pays particular attention to forestry resources, looking at government forest regulations especially.

#### Ownership and management of common resources

The Sahelian States claim ownership over "common" resources - i.e., forests, rangelands, wetlands, fauna and fish - in line with the measures decreed by the French colonial administration in 1930. As a result, locally enacted resource management provisions have no legal status. Local communities are therefore unable to impose any control over the use of these resources by community members, still less by outside individuals or groups. Niger's Central Delta is given as a typical example of this situation.

Government policies are geared towards drawing up codes of law, regulations and controls to be implemented at national level, but very little attention is paid to economically viable management models that would win local support. In an environment where resources are at the free disposal of all, no one is responsible for managing them or conserving them for the future. However, modern bureaucrats confronted with this lack of control have not managed to establish a new management system, which would mean gathering and analyzing information on changes in the status of these resources, followed by rapid decision-making and action. Only the users of the system can link the need for information with the need for immediate, flexible action.

The users of the system need unambiguous rules on resource utilization, to restore the economic motivation that will ensure they play their part in resource management. Distribution of the benefits of a reforestation project, for example, are rarely seen in terms of the contributions made by individuals. Furthermore, local authorities are currently too weak or atrophied to impose resource use standards on communities which have become very heterogeneous.

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The solution lies in cooperation among governments, local

communities and individuals. The government must provide a legal framework and technical assistance, while the community must identify forms of management likely to interest its members (and so become an integral part of their development options), and the tolerable limits of control.

Niger's forest and land use planning project (Planification de l'Utilisation des Sols et des Forêts or PUSF) is quoted as a positive experience: cooperation has been established between the government forestry service, a local cooperative marketing timber from the forest of Guesselbodi, and a group of woodcutters. Roles, contributions and benefits have been clearly established.

In Senegal and Niger, exclusive rights to the use of certain rangelands and water points are granted to associations of herders, providing an institutional basis for new ways of developing livestock herding in the Sahel. Similar provisions are included in the new Pastoral Code in Mali.

The future aim of policies on common land is to give user groups a more important role in control and management. One obstacle to this is the weakness of local institutions. Particular attention will also have to be paid to the individual interests of the members of the group concerned, and how those excluded from access to the resource are to be compensated. Aid projects can provide excellent opportunities for experimenting new management models, and the results of such experiments must be taken into account in the formulation of future policy at national level.

### **Security of tenure for the family farm**

Customary law in sub-Saharan Africa varies widely, but as a whole provides "individual" farmers, as members of the social group, with very secure tenure in the form of long term rights of usufruct and use of common land. Security of tenure is recognized as a key element in farm management. While the sale of land was once the exception, custom now recognizes an increasing number of modern forms of transaction such as rents, mortgages and sales, confirming a trend towards individualization of property rights.

Modern legislation has often cut short this tendency of customary law to shift towards greater security of tenure for the individual farmer. In Senegal, limits have been imposed on these rights, which have been transferred to the authority of the Rural Communities. Moreover, transactions authorized by governments involve registration procedures and expenses which discourage farmers, inspire mistrust, and encourage "illegal" transactions. Outside operators with the necessary means are sometimes helped considerably by government intervention in land tenure matters, since the latter action limits small farmers' possibilities of appealing to the local authorities.



Future policies must encourage governments to give individual farmers clear, unambiguous land rights. Sources of insecurity must be identified, as they endanger long term investment on the land; they may or may not be due to land tenure problems. Individual rights must be offset against the interests of the community and the state. Reforms must take into account the needs of women and "outsiders" to the local community, and must protect farmers from arbitrary decisions by the authorities, local or national. They must facilitate and officially recognize new forms of transaction, and must set up institutions where disputes will be settled equitably - an important element for security.

### **Forest regulations and the management of forest resources**

Under Sahelian forest regulations, the State has supplanted local communities and individuals in forest management matters, and even where trees planted by man are concerned. In Mali, for example, where the nation's forests cover more than 90% of the country's land area, one must have a permit to cut fuelwood even for trees on family land, though in this case there is no charge. Permits and fines make up a large part of the forestry service's revenue in Mali: 50% in 1984. Obviously this system, which applies in most Sahelian countries, fosters a police mentality among forestry officers and abuses in the issuing of permits, generally undermining the population's motivation. How can farmers be encouraged to produce, protect and manage forest resources if they are not even allowed to cut their own trees?

A new forest policy must involve reforms that will change the policing role of the forestry officers into one of resource management guidance. Technical solutions must be made an integral part of the overall land tenure system, taking into account restrictions under which farming people - men and women - operate (whence the importance of agro-forestry). Changes in forest regulations must have an impact on the factors that discourage long term investment at farm level.

### **Concluding remarks: models of innovation**

Several Sahelian countries are in the process of revising their codes of pastoral, forestry or rural law. Legal reforms are not enough, however. The attitudes and mentalities of government officers must also change - towards a search for innovative solutions and towards dialogue, with instruction in the new regulations and education in management methods for farming people. An approach involving development projects as a test bed for new methods and models should make it possible to stimulate individual and/or community interest through national and, if appropriate, local legislative changes. This approach is especially useful in developing new forms of management for common land. Another innovative model is to experiment with land use planning methods based on local participation through village committees (as has

been done with World Bank finance in Burkina Faso). This approach is useful in seeking out forms of individual and collective appropriation and simple, low-cost methods of land administration appropriate to the Sahelian context.

### **III.2.9. ANALYSIS OF CILSS MEMBER STATES' LEGISLATION AND REGULATIONS IN NATURAL RESOURCE MANAGEMENT (20)**

#### **BACKGROUND**

National legislation governing natural resource management in the CILSS Member Countries is still, to a large extent, ill-suited to the desertification control strategy that is generally accepted to be a vital part of the move to place responsibility on the shoulders of local population groups, and is incompatible with maintaining a balance between resource exploitation and the conservation of the environment.

Access to land ownership is, in most cases, difficult and costly, if not impossible, but it is nonetheless a basic necessity if local population groups are to assume responsibility for their future. In most cases, classification of a forest is not synonymous with good management. Legislation on bush fires is repressive without offering effective prevention. Legislation on woodcutting is aimed more at generating resources for the State than at managing the natural heritage. Only four countries in the CILSS area have a Water Code, and, whether or not authorization is needed before a borehole can be sunk, systems to monitor the level of underground aquifers are non-existent. Priorities for water utilization are not clearly defined, and, as a result, optimum use is not made of this resource (it is recognized, for example, that hydro-agricultural schemes waste large quantities of water). As regards livestock activities, only four countries have regulations governing conflicts between herders and farmers, and rules on overgrazing are either insufficient or non-existent.

#### **RECOMMENDATIONS FOR THE FUTURE**

There is an urgent need to encourage governments to draw up or improve sectoral natural resource management codes. In particular:

- Local communities and private individuals should be able to hold land and register that land more simply and at lower cost.



- Forest classification should be reviewed, and classification should form part of a global management plan.
- Local communities should be relieved of the responsibility for bush fires, if it is clear that they have made serious attempts to extinguish those fires, and preventive measures should be included in legislation.
- The notion of forest clearance should be extended to cover clearance caused by the construction of roads, mines, etc., and a system of compensation should be introduced.
- Water codes should be drawn up by the countries that do not have them, and national committees should be formed to ensure that these codes are applied and to control and plan for water use in rural areas.
- Authorized fishing net mesh sizes should be defined on a scientific basis, and the rights of fishermen in border areas should be stipulated.
- Legislation on overgrazing and over-use of grazing routes should be clarified, and moves should be taken to guarantee that the size of the animal population is compatible with the availability of water and forage.

### III.2.10. THE PRESENT STATE OF SOIL AND WATER CONSERVATION IN THE SAHEL (21)

This report analyzes the current state of soil and water conservation, with emphasis on physical conservation structures, mainly in Niger, Burkina Faso and Mali.

First of all, the author describes recent and traditional SWC systems; he then gives an analysis of current trends and puts forward some recommendations to the Sahelian governments, aid agencies and rural organizations.

#### A NEGATIVE ASSESSMENT BUT GROUNDS FOR OPTIMISM

The author observes that the SWC techniques employed over the past thirty years have had very little effect, despite the considerable sums invested. He expresses regret that the traditional techniques, which are less spectacular, have not been

widely used and have often been dismissed as rudimentary. As a result, there is now an enormous gulf between SWC needs and actual achievements. However, within this worrying overall picture, there are hopeful developments. In particular, donors are showing increasing interest in SWC, local participation is on the increase, greater research efforts are being made, and the traditional techniques are now recognized as valid.

On a more technical level, the author observes that the early 1980s marked a step forward in SWC projects, especially as regards:

- attempts to achieve voluntary, responsible participation by local people,
- greater attention to the problem of water conservation,
- integration of trees with herbaceous plants in conservation projects,
- a farm-based or village-based approach,
- a mushrooming of SWC schemes and initiatives,
- transfer of certain successful methods from one region to another.

#### **TOWARDS BETTER SOIL AND WATER CONSERVATION IN THE SAHEL**

Taking account of the enormity of the task to be accomplished and the limited funds available, the author recommends applying effective, low-cost conservation methods that can be used by local people with a minimum of outside help.

This approach will succeed only if certain conditions are fulfilled, the following in particular:

- a more thorough knowledge of traditional SWC methods that may be suitable starting points for new programs;
- more research, especially in semi-arid regions that until now have been neglected in favor of the Sudano-Guinean zone;
- fostering maximum local participation, especially by means of:
  - . simple, low-cost methods that effectively increase crop yields,
  - . training in the field and opportunities to exchange experiences,

- . aid for tools and equipment: spades, pickaxes, carts, etc.;
- . concerted efforts in densely populated areas where the environment has suffered badly;
- . a review of SWC incentives; "food for work" operations in particular should be reduced to a minimum, and food aid replaced, wherever possible, by community infrastructures or measures that encourage production.

### **RECOMMENDATIONS**

The author advises the Sahelian governments to introduce national SWC policies under the aegis of a single authority or institution. Implementation of a SWC policy should be based on coordination between projects and donors, identification of priority zones, consciousness raising, training and research.

He also recommends not accepting loans from the international community but relying on donations, wherever the increased production due to an SWC project goes to boosting self-sufficiency rather than producing more for the market.

To the cooperation agencies he suggests increased funds (in the form of donations) for applied research, training, basic equipment, etc.

Financing can only be planned for the long term, allowing the time required for preparing projects with local farmers.

Priority must be given to simple, low-cost techniques even though these are often less spectacular in the short term.

For the rural organizations, the key recommendations are to mobilize the farmers and to improve organizational abilities and self-management skills.

### **III.2.11. PROSPECTS FOR IMPROVING PRODUCTIVITY IN SORGHUM AND PEARL MILLET SYSTEMS IN WEST AFRICA** (22)

Except in the Sudano-Guinean zone, there is no great scope for extending existing farmland in the semi-arid areas of West Africa. If existing farming methods are continued in the Sudan and Sudano-Sahelian zones (where 84% of the rural population live), production will fall inexorably. Since displacement of the population has amply proven its limitations as a solution to the

problem, all hope of reversing the decline in production must lie in changing farming methods.

In the Sahelian zone (under 350 mm rain a year) the chances of increasing sorghum and pearl millet productivity are limited. However, encouragement must be given to simple technologies that will limit the effects of drought, and to the use of short growth cycle varieties, some of which already exist. It will take another ten years to develop drought resistant crops. Moreover, it can be argued that since the Sahelian zone is already too heavily exploited, it ought to turn towards intensive stock farming, probably the most rational and ecologically feasible activity that can be promoted.

In the Sudano-Sahelian zone (350 to 600 mm/yr), promising SWC techniques are being developed, especially in areas of high population density where the degradation of the soil is obvious and farmers fear the consequences. However, yields are unlikely to rise very significantly before the year 2000; sustained improvements can only be obtained in high population density areas once there has been investment in systems designed to control surface runoff water. In the Sudanese zone (600 to 800 mm/yr), better rainfall offers greater possibilities for more intensive farming combined with SWC techniques. Intensification will involve, in particular, moderate use of chemical fertilizer and recurrent applications of organic matter, along with suitable crops (high population density areas). In areas where population pressure is lower, there is as yet little incentive to invest in SWC techniques: mechanized tied ridging is the most appropriate here.

Mixed crop and livestock farming has the twin advantages of animal power and biomass for recycling. Unfortunately, the practice is too rare in areas with a low labor force density where there is less need for animal power, and this could be a threat to soil regeneration in the long run.

In the Sudano-Guinean zone (800 to 1,100 mm/yr) there are substantial possibilities for improving sorghum and millet productivity, whether through improved yield (irrigation, fertilizer, high-yield varieties) or by cutting down on labor (herbicides, animal traction, etc.). However, in this zone the farmers are turning to cash crops, rice or corn wherever they can, as they utilize inputs more efficiently.

Besides these new orientations, there must be an expansion of R & D by government services (in addition to the basic research undertaken by international institutions). The very specific nature of each area in social, ecological and agricultural terms must be emphasized, and work on simple SWC techniques - essential to millet and sorghum farming in the short and medium terms - must be intensified.

### **III.2.12. LIVESTOCK ACTIVITIES IN THE SAHEL (23)**

Livestock activities are currently going through a period of deep-seated structural change, which the droughts of the 1970s and of 1983-85 brought to light and exacerbated. The Advisory Group on the Development of Livestock Activities in the Sahel, which was set up by the Secretariats of the CILSS and the Club du Sahel, observed in 1984 that the data available on this sector were insufficient. It was subsequently decided to undertake an in-depth analysis of the issue and to draw up concrete proposals for Sahelian governments and donor agencies.

An interdisciplinary team of experts direct by Mr. Kenk Breman visited Burkina Faso, Mali and Niger in April and May 1985. The three detailed reports produced in 1986 and 1987 formed the basis of a 28-page summary report by Mr. Roger Pons, which was published by the OECD in January, 1988.

The Breman mission paid close attention to the ecological and environmental aspects of livestock activities, and to forage availability, which is considered central to the difficult problem of livestock activities in the Sahel. The first chapter of the OECD summary deals with recent developments in this important sector and with the current situation.

#### **A TREND TOWARDS SEDENTARIZATION**

Pastoral animal production systems, which were considered highly efficient in the past, are progressively breaking down. Droughts have amplified the incongruities within these systems and accentuated the contradictions that already exist between livestock activities and agriculture. As a result of social changes and population growth, agriculture is gaining an increasing hold on areas that have traditionally been used for livestock activities (reduced fallow land, extension of areas under crop, herders liquidating herds in difficult periods or selling their animals at low prices to farmers and investors (traders or civil servants from the cities, who are legally known as "absentee herders"). There is a general trend towards sedentarization. The center of gravity of the livestock sector is moving south, particularly for bovines, and at the same time productivity and efficiency are falling. Transhumance - the traditional method of optimizing resources - is faced with innumerable difficulties, and dry-season grazing land is becoming increasingly scarce. While development strategies have concentrated on animal health and pastoral water supply, the mission revealed that the principal constraint is in fact low food availability, particularly in the dry season. The well-being of



the Sahelian livestock sector depends primarily on the intensification of agriculture, for this is the only way of producing animal feed of sufficient quality. This conclusion was drawn on the basis of a number of observations, including: the inevitable decline of herding activities, which will nevertheless continue to exist in areas of the north that are unsuitable for farming, and which must be assisted; the growing tendency for farmers to become involved in livestock activities and for livestock activities to become associated with agriculture, even if considerable efforts must still be made to reverse the tendency for farmers to expand their cropping land and to encourage them to intensify (improved yields, use of fertilizers, leguminous crops, manure, animal traction, etc.).

#### CONSTRAINTS AND DETERMINING FACTORS FOR THE IMPROVEMENT OF LIVESTOCK ACTIVITIES IN THE SAHEL

- Ecological factors and constraints:  
space; natural resources (grazing land and over-use of grazing routes, degradation of trees, shrubs and grasses); water resources (which are not the principal constraint, contrary to popular belief); animals (the control of epizootic diseases and breed improvement are not the most important factors in improving the situation, for deaths caused by food shortages are far more numerous than disease-related deaths, and local breeds are well suited to the local context, but are under-nourished).
- Socio-cultural aspects:  
the intensification of agriculture seems inevitable. Neither increased animal populations (grazing land is already over-exploited) nor increased cropping land can solve the food shortage problem. Herders suffer from the occupation by farmers of the best dry-season grazing land, the reduction of grazing routes, conflicts with farmers, the absolute power of the State on land tenure issues, and the breakdown of their socio-economic structures.
- Economic aspects:  
despite the current unfavorable economic environment in the Sahel, livestock activities play an appreciable role. Not only do livestock activities supply international markets with meat and milk, but they also provide traction and manure, and provide a potential for exports to neighboring coastal countries.

Analysis of the animal population demonstrates that, despite the severe droughts and the "running down of stocks" that they provoked, the animal population has increased everywhere in the Sahel over the last twenty-five years. Sheep and goats have



increased in number dramatically (from 27 to 40 million head), while bovines have increased only from 16.5 to 19 million, and Mauritania's bovine population has actually fallen. In general, there has been a tendency for bovines to move south, and the proportion of bovines in national animal populations is now smaller. Burkina Faso and Senegal have benefitted from these trends, to the detriment of Mauritania and Niger.

The severe droughts of 1973 and 1984 led to a more substantial fall in the number of larger animals (bovines), but on both occasions populations were reconstituted in the two or three years following the drought.

By contrast, the average price of animals seems to have fallen, and in terms of equivalent head of cattle (250 kg live weight), the overall Sahelian animal population is probably static, or falling, despite the increasing number of animals.

Despite these fluctuations, the overall national financial income from livestock has increased in real terms, even if the distribution of this income has changed a great deal. Supplies to the cities have increased with the accelerating trend towards a market economy. These global data must be kept in perspective, however, and it should always be remembered that the human population has doubled over the last quarter century. In terms of resources per capita, therefore, overall increases in livestock activities have not offset the effects of population growth.

Exports are difficult to gauge. Most exports involve border movements of live animals, which are impossible to monitor accurately; but there is little doubt that large numbers of animals are exported to the coastal countries. Export flows vary at different periods, increasing sharply during droughts. These exports play a role of fundamental importance in the foreign trade performance of several Sahelian countries. The sale of carcasses has never reached the levels that governments had hoped for, and various State organizations in charge of industrial slaughterhouses have recorded major losses. Exports of this type are now falling appreciably, for Sahelian products are no longer competitive with meat imported to the coastal countries from Argentina or Europe.

#### OUTLOOK FOR THE FUTURE

The last chapter of the summary report is entitled "What can be done to counter the crisis and develop livestock activities in the Sahel?" Propositions are based on the observations and comments made in the preceding chapters. Agriculture is the most promising sector for the future, provided that it adapts correctly and succeeds in becoming more intensive. Livestock herding activities are not doomed to disappear, however, even if their role becomes less important. Protective measures can be taken (mobility, transhumance, conversion of dispossessed herders). Governments are

invited to review their plans and attach greater importance to improving the production of high-quality animal fodder, and to breaking down the traditional barrier separating agriculture from livestock activities - two sectors that will be forced together increasingly in the future.

CHAPTER IV - DISCUSSION TOPICS EMERGING FROM  
THE RESULTS AND RECOMMENDATIONS OF THE ENCOUNTER

#### IV.1. AN OUTLINE OF THE OBJECTIVES OF THE ENCOUNTER

The Ségou Encounter dealt with three main objectives:

- to encourage the population to participate in sustainable rural development in the Sahel, through the backing of an autonomous socio-professional structure vested with its own initiative, power of control, and decision-making capabilities;
- to disseminate efficient techniques, tested in the Sahelian context, for the development and management of public and private land;
- to exchange acquired experience and to look at ways of modifying the production systems in order to provide a foundation for sustainable rural development and to strike a new socio-ecological balance.

The generalized nature of the first objective needed some clarification. Accordingly, the objective of the participation of the population in rural development was broken down into three parts:

- to define projects aimed at sustainable development by "meeting the real needs of the local population rather than providing them with offers which are not necessarily in line with their requirements" (Meeting of the Club du Sahel, Bern, December 1987); to specify, in association with local population groups and their organizations, the way in which these projects will be selected and implemented;
- to seek ways of enabling rural organizations to be confirmed as "full partners" of Sahelian government authorities, and the range of supporting donor and funding organizations;
- to seek ways to enable rural organizations to make full use of their powers of initiative and management capabilities, both locally and in their own projects, through a process of decentralization, and to make proposals regarding these solutions to government authorities and aid agencies, both public and private.

The Encounter was an innovation in itself in that it addressed rural representatives from the Sahel. To ensure its success and to make further meetings of this type possible, the following objectives were drawn up:

- to show that direct dialogue between individuals involved in Sahelian development - the rural organization

delegates in particular - is possible and to ensure that such dialogue is constructive and effective, it is not sufficient simply to call in rural delegates. It is also necessary to:

- enable delegates from rural organizations to talk about their practical experience and the conclusions and proposals resulting from them. Other participants could thereby benefit from their experience;
- help the delegates from rural organizations to fully comprehend their associates' arguments and proposals so that they are better equipped to discuss them and tailor them to their own context.

#### **IV.2      RESULTS AND ACHIEVEMENTS EMERGING FROM THE ENCOUNTER**

##### **IV.2.1    RURAL ORGANIZATIONS AS FULL PARTNERS IN DEVELOPMENT**

The Ségou Encounter was a success. The most important factor was its achievement in bringing rural organizations into the discussions. Discussions were frank, clear and firmly centered on practical experience. The willingness to show mutual respect and the desire to reach consensus created an atmosphere that all participants would like to see maintained in future meetings of this kind. This is proof that meetings at which the "associative" sector, i.e., the rural organizations, is present, can be useful and effective. A major step forward has been taken in recognizing these organizations as partners in the difficult debate on Sahelian development.

##### **IV.2.2.    THE COMPLEXITY OF SOLUTIONS CALLS FOR LOCAL CONTROL OF DEVELOPMENT EFFORTS**

Participants did not support conventional approaches through sectoral projects (livestock activities, forestry, etc.), or the major drought control schemes. On the contrary, a broad consensus was formed around the idea of breaking away from large-scale organizations to move towards development at the local authority and village level. This is in line with the advancement of the concept of land management as part of the "global approach" methods, recommended at the Nouakchott Seminar in 1984.

Experience over the last few years has indicated that the special nature of individual land management problems and the complexity of the measures needed to deal with them, calls for far greater local control of village and small-scale regional development. A progressive redistribution of roles between local (on varying geographic scales) and government authorities would also seem advisable. This redistribution of roles would pave the way for effective regional and rural development policies at the national level.

#### **IV.2.3. THE LESSONS TO BE LEARNT FROM OTHERS' EXPERIENCE**

Rural organization representatives appear to have appreciated the opportunity to discuss a wide range of problems and possible solutions. Personal experiences were frequently discussed both inside and outside work sessions. The most popular topic concerned the techniques used in desertification control and the marketing of agricultural produce. Exchanges also took place on the creation of rural organizations, their management problems and the day-to-day difficulties encountered. Representatives also requested that further exchanges of this kind be organized. Publications handed out during the seminar - especially R.M. Rochette's book on desertification control experiences - made a useful contribution to the talks.

#### **IV.2.4. EIGHT LANDMARKS EMERGING FROM THE DISCUSSIONS**

The eight "landmarks for future action" are the outcome of a long series of group sessions punctuated by periodic roundups. A number of totally new ideas or approaches are reflected in the landmarks:

- desertification control is approached in terms of the rehabilitation of former ecological assets. It is recognized that the cost of regaining and protecting this capital far exceeds the resources of the local economy and that national and international financing is fully justified. This point brings us back to the question of agricultural subsidies in structural adjustment programs, which should accord more importance to ecological questions.
- The need to transfer certain responsibilities to local communities throws open the debate on public sector responsibilities. The State need not exercise total control: local communities could manage both their own natural resources and the services required for local development. Diversifying the concept of public sector responsibility could help to solve the State control/privatization dilemma, in that it would be easier for the State to decentralize certain responsibilities that it does not have the resources to handle. The question of the mobilization of resources by local communities is thus placed in a whole new light.
- The problem raised by the increasing scarcity of land is clearly going to be a crucial problem in the future, because of the risks entailed in generalized access to the land market and because of the growing number of legal disputes arising.



- The need for economic stability was raised by the farmers who have been hard hit by the uncertain climate. It would therefore be useful to consider the future more in terms of agricultural policy rather than projects. The basic tenets of the policy adopted must be to tailor the existing institutions to the requirements expressed and to tailor agricultural financing (particularly rural credit and savings schemes) to the specific characteristics of the production units. Agronomic research, marketing, and price policies must also be addressed.
- Ségou broke with previous discussions (in particular, the revised Strategy for Drought Control and Development in the Sahel, the Strategy for Desertification Control in the Sahel and the Mindelo Conference) in recognizing the significant role played by women for the first time. This role is particularly important in the areas that are hardest hit by desertification, where the men have left to look for work and the women have taken on new responsibilities as a result.

#### **IV.3. PROSPECTIVE CONTENT OF THE WORK PROGRAM**

The eight landmarks defined in the final summary contain numerous concrete proposals. Some of these will require clarification or further consideration.

##### **IV.3.1. ECOLOGICAL REHABILITATION**

Four problems are worthy of consideration:

- rehabilitation and conservation costs
- economic justification
- aid coordination problems
- financial absorptive capacity

The costs: rehabilitation and conservation techniques must be defined and itemized. A unit cost analysis could help to provide a clearer indication of the total investment required and the associated recurring costs.

Economic justification is of particular interest to donor organizations. Profitability can be discussed only if a very low discount rate is applied or externalities taken into consideration.

Aid coordination requires local authorities to exercise a certain control over local development with the State authorities handling only those matters directly concerning them. Any problems in the system could be pinpointed, and the appropriate conclusions drawn, through case studies on completed village land investment projects.

Small-scale projects and the schemes based on them could, in certain cases, absorb more funding than large projects. An analysis of project funding and operational procedures, based on a fast increase in funds, should reveal any basic defects and improve absorptive capacity.

#### IV.3.2. THE ROLE OF LOCAL COMMUNITIES IN THE DECENTRALIZED MANAGEMENT OF SAHELIAN LAND AS PART OF A NATIONAL LAND DEVELOPMENT POLICY

The concept of land management covers not only environmental rehabilitation and conservation techniques, but also the organizational, administrative and managerial techniques used by local communities to deal with their own areas of responsibility. It would be useful to draw up a handbook of procedures and methods which could be used by local communities for training purposes.

With respect to decentralized management of renewable natural resources and community goods and services, a preliminary study of existing cases could highlight the most important experiences and analyze the conditions required for success. A detailed list of the fields of application of decentralized management could be drawn up on the basis of this study. The range of possible regulatory and institutional procedures could be explored in each field as well as the technical, economic and organizational conditions of viability.

Finally, decentralized management of community goods and services should progressively move towards decentralized economic and financial operation. An *ex ante* analysis is thus needed to identify, in regional development terms, the measures governments could take to position economic development within the new framework.

#### IV.3.3. THE LAND ISSUE

The diversity of land problems is such that an analysis should first be made to classify the different cases and determine their causes. A more far-reaching analysis could then be made to identify the risks incurred by the continuation of current trends. This work could be based on representative case studies.

Investment security requirements were looked at during the Encounter with a view to increasing private ownership of agricultural land. This point is to be analyzed in a macro-economic and micro-economic study to analyze costs, benefits and incurred risks.

The European model need not be adopted for this as there already exist a variety of land tenure formats offering full investment security.

#### **IV.3.4. LOCAL CREDIT AND SAVINGS FACILITIES**

Conventional agricultural credit formats have frequently failed in the past. The major credit organizations have excessive operating costs, offer standard credit conditions which are inflexible and highly unsuited to the conditions of producers, and have difficulty in attracting deposits. On the other hand, traditional forms of credit are varied and tailored to the needs of traditional societies, although insufficient for agricultural and investment funding. An effort must be made to analyze existing formats and to subsequently try out new and imaginative forms of rural savings and credit facilities. Case studies could be carried out to show that there is no set solution (such as a type of benefit society) and that it would be better to adapt the formats to specific local conditions.

#### **IV.3.5. RECOGNIZING THE VALUABLE ROLE PLAYED BY WOMEN**

The proposals put forward during the Ségou Encounter showed a general recognition of the status problems and other difficulties faced by women in the Sahel.

Changing attitudes and ideas (at the level of all three "families") will eventually improve the status of women and bring about a greater recognition of their valuable role. However, a number of steps can be taken as of now in support of these objectives:

- provide women with information to help them understand the nature of their environment and to improve their working conditions;
- make it easier for women to gain access to the means by which they can improve their working conditions and quality of life (notably land and credit so that they can acquire production equipment and facilities and subsequently market their produce).

Any initiatives planned should be part of an overall approach based on the complementarity and solidarity of rural population groups (men and women) to encourage sustainable development in the Sahel.

#### **IV.3.6. INFORMATION AND TRAINING**

Two objectives should be pursued:

- 1) To keep the international community informed of rural issues to ensure that rural problems are placed at the forefront of national affairs.

- 2) To pass on the successful experiences of other communities to rural population groups so that they can benefit from them.

Both these objectives could be furthered by discussing with the media ways in which they could improve their coverage of rural activities. The radio, television and press should be encouraged to report on successful rural experiments. Such reports could be produced through field visits to exchange information.

It would be worthwhile to conduct a survey on rural community attitudes to modern methods of disseminating information (radio, television, press) in order to clearly define the potential support of the media. The study should also look at alternative methods of communication (other than conventional radio-television-press methods).

Training sessions could be provided for technicians and rural organization representatives under the guidance of the Institut du Sahel (Training Division).

#### **IV.3.7. POPULATION AND DEVELOPMENT**

In view of population growth rates (current and predicted), existing production systems are no longer suited to the needs of rural population groups. The situation calls for a transformation of farming systems through intensified production.

In keeping with the need for a balanced population policy, measures should also be implemented to encourage population planning. Any action taken should comply with the recommendations, objectives and principles of the N'Djaména Plan of Action: it is essential "to strike a balance between the population growth rate, economic growth and the desired level of social development" and to "give all Sahelian couples access to birth control methods and information so that they may choose how many children they want and when they want them".

The N'Djaména Plan of Action states: "The (Sahelian) governments are requested to define the role of State agencies, the private sector and non-governmental organizations in the implementation of population programs and policies, with a view to optimizing the contribution of each sector". The Ségou Regional Encounter reaffirmed the need to involve the population in the definition and implementation of such policies.

The N'Djaména Plan of Action on population and development in the Sahel (24) was adopted by the 24th Session of the Council of CILSS Ministers, held from January 16 - 17, 1989 at Praia, Cape Verde. The significance of the program's adoption lies in the fact that the formulation and enforcement of national population policies are now becoming a priority objective in the Sahel.

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(24) The N'Djaména Plan of Action was formulated by the Conference on Population Policies in the Sahel held December 5-9, 1988 in the capital of Chad. The conference was jointly organized by the CILSS and the CERPOD.

## APPENDICES



APPENDIX A

**REGIONAL ENCOUNTER OF SEGOU  
LOCAL LEVEL NATURAL RESOURCE MANAGEMENT IN THE SAHEL  
MAY 21 - 27 1989**

AGENDAMONDAY MAY 22, 1989

8:00 am - 10:00 am	Registration of participants
10:00 am - 10:45 am	Official opening
10:45 am - 11:00 am	Coffee break
11:00 am - 11:30 am	Election of the Committee and adoption of the agenda
11:30 am - 12:30 pm	Presentation of working documents:
	a) Assessment of the approaches and experiences of rural organizations;
	b) Assessment of the policies and initiatives of Sahelian Governments and donors with respect to the role played by women in three fields;
	c) Assessment of the policies and initiatives of Sahelian Governments;
	d) Assessment of the policies and initiatives of the donors.
	Each paper is followed by a short question and answer session.
12:30 pm	Lunch
3:00 pm - 5:00 pm	Presentation of working documents (continued)
5:00 pm - 5:15 pm	Coffee break
5:15 pm - 6.15 pm	Creation of working groups; it is suggested that six such groups be set up:
	- Participation of rural communities (two groups)
	- Conservation of the environment and its production potential (two groups)
	- A global approach to transforming Sahelian farm systems (two groups)
8:00 pm	Dinner-reception offered by the Governor of Ségou and hosted by the Super-Biton.

TUESDAY MAY 23, 1989

8:00 am - 12.30 pm	Group session
	Lunch
3:00 pm - 6:00 pm	Group session

**WEDNESDAY MAY 24, 1989**

8:00 am - 12.30 pm	Group session
	Lunch
3:00 pm - 6:00 pm	Committee sessions on each topic

**THURSDAY MAY 25, 1989**

7:30 am - 10:00 am	The delegates of rural organizations will split up into three groups, one for each topic, for an individual examination of the reports. This will be followed by a collective discussion on group reports with comments from the delegated rapporteurs of the States and donors:
	collective examination of group reports
10:00 am - 12.30 am	Presentation in plenary session of the first topic
	Lunch
3:00 pm - 6:00 pm	Presentation in plenary session of the second topic

**FRIDAY MAY 26, 1989**

8:00 am - 11:00 am	Presentation in plenary session of the third topic
11:00 am - 11:30 am	Coffee break
11:30 am - 12:30 pm	Meeting of the Encounter Committee for the final summary
	Lunch
4:30 pm - 7:30 pm	Summary session (continued)
	A choice of visits will be organized for the other participants:
	. the village lands at Dancina and the Tomb of Biton Coulibaly,
	. the Markala dam and the Tomb of Biton Coulibaly
8:00 pm	Cocktail offered by the Secretariats of the CILSS and the Club du Sahel.

**SATURDAY MAY 27, 1989**

	Plenary assembly for adoption of the final summary
8:00 am - 9:00 am	Individual examination of the proposed summary of the Encounter
9:00 am - 10:30 am	Discussion, amendment and adoption of the final summary
10:30 am - 11:30 am	Coffee break
11:30 am - 12:30 pm	Closing ceremony

APPENDIX B

**WELCOMING SPEECH  
BY HIS EXCELLENCY, MR. MOBIDO SIDIBE,  
GOVERNOR OF THE REGION OF SEGOU**

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It is my pleasure to welcome you to the capital of the 4th Economic and Administrative Region of Mali. I take the opportunity to express, from this rostrum, our joy and gratitude to the Executive Secretariat of the CILSS and to the Club du Sahel, who chose to hold this regional encounter in Ségou.

The honor you do the entire Malian nation has filled the population of the 4th region with hope and is a source of great pride for the Political and Administrative Authorities.

These feelings of hope and pride are easily explained by the geographical and economic identity of the 4th Region, an entity characterized by a rare degree of cohesion, an entity that is socially stable, economically viable and, moreover, in an excellent geographical position.

The Region of Ségou is in the center of Mali and borders all the other regions with the exceptions of Kayes and Gao.

It also borders on the sister Republics of Burkina Faso and the Islamic Republic of Mauritania.

The Region has a surface area of 63,821 km<sup>2</sup>. It comprises 7 Cercles, 39 Arrondissements and 2,056 villages. These administrative structures also correspond to the political Sections, Subsections and Committees of the "Union Démocratique du Peuple Malien".

The Region of Ségou boasts a long and eventful history:

- the Bambara kingdom of Ségou, whose capital is today the most important town in the Region,
- the Toucouleur kingdom, which followed it,
- the Peulh kingdom of Macina,
- the entities defended by the Bronconies in the current "Cercle of Niono" or the Sarro and Monimpé warriors in the "Cercle of Macina",

- a more recent example is the Bobo revolt in 1916, which spread throughout the Region of Ségou. Today's generations are rightly proud of this glorious past.

With a population estimated at 1,328,250 inhabitants in 1987, the Region of Ségou is the most densely populated administrative district of Mali. This is a direct consequence of the Region's boundless economic potential. On the economic front, the commodity producing sector is by far the most active production sector in the Region. About 85% of the population live off the activities of this sector.

At this moment in time, the main objective of the Malian agricultural development policy is to achieve food self-sufficiency and food security in cereals (millet, corn, sorghum and rice) through different production and land systems aimed at rewarding farmers' efforts without damaging the ecosystem. The supporting pillars of this policy are as follows:

- organization of the rural world to promote integrated development, initiated at grass roots level,
- water control to protect farmers from the harmful effects of climatic uncertainties (given the recent endemic drought which ravaged Mali and all the other Sahelian countries),
- desertification control to stop the relentless march of the desert.

Faithful to its watchwords of PARTY and GOVERNMENT, the Region of Ségou has become, with the support of the Offices and Operators of Rural Development, the leading producer of sorghum and paddy rice with production figures of 450,000 and 110,000 tons respectively during years of good rainfall.

From an industrial standpoint, the 4th Region has the most extensive industrial facilities after the district of Bamako. It houses the agricultural industry, the textile industry, the mechanical industry and the food industry, embodied by the Complexe Sucrier du Kala Supérieur, the rice-processing factories of the Office du Niger and Opération Riz, and the Compagnie Malienne de Textiles (COMATEX) to name but a few.

The current deterioration of village lands is strikingly clear. Urgent action must therefore be taken to re-establish the agro-sylvo-pastoral balance.

Every effort is made to seek the cooperation of village associations and tons in order to encourage the population to play an active and responsible part in the village land management programs started some years ago by a number of different rural

development organizations. The ultimate objective is to guarantee the long-term success of the action taken. This is in line with the PARTY and GOVERNMENT policy of increasing farmers' responsibilities with a view to promoting integrated development at grass roots level.

Clearly, then, the local level management of natural resources in the Sahel, the subject of the Regional Encounter of Ségou organized by the CILSS, is important in that it encourages an exchange of scientific and technical information between Sahelians at all levels around a highly sensitive issue, the struggle against deterioration of the ecosystem.

Our population is anxious to hear any new facts that could consolidate or broaden their experiences in the field of environmental control. That is why their eyes are turned towards this conference with the hope of a pupil waiting to be taught by the Master, anticipating the splendors offered by new-found knowledge.

It is my most fervent wish, a wish that I know is shared, to see an intensification of the current co-operation between the different development actors. This would generate a positive synergy around the preparation and execution of multi-faceted village land management programs in the Sahel:

- implementation of appropriate agricultural techniques,
- reforestation and protection of wooded areas,
- anti-erosion structures,
- protection and regeneration of natural grazing land,
- water conservation.

I hope that this regional encounter will address all of these aspects, which we hold to be essential. I would like to express warm and sincere thanks to the Executive Secretariat of the CILSS and the Club du Sahel. I wish the participants in the Regional Encounter of Ségou every success in their efforts to build a better future for man in an improved socio-ecological environment.

**OPENING SPEECH  
BY MR. JEAN-H. GUILMETTE  
DIRECTOR OF THE CLUB DU SAHEL**

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I would first like to say how grateful we are for the hospitality offered by the Government of Mali and the city of Ségou and the efforts made to welcome such a large delegation.

This is one of the most important meetings held by the Club since the Mindelo Conference in 1986.

The Sahel has always been a priority for the members of the Club since it was founded in 1976. Our meetings are held in a constantly renewed spirit of trust and transparency, based on faith in our joint destiny.

The considerable number of participants from the International Community present at the encounter today, is further proof of the solidarity linking the Sahelians and their partners.

The Club has always strived to bring together Sahelian Governments and donors with international experts in order to generate fresh dialogue. Discussions have always been frank and based on hard facts to avoid being caught up in ideological quarrels or running foul of unwritten protocol. This is the first time a meeting of this type has called upon as diversified a group, a group in which Government representatives sit side by side with NGOs, Sahelian authorities, donors and experts. As such, it is a new challenge for us all.

It may be useful to take another look at the objectives of this Encounter:

- To encourage the population to participate by helping to reorganize its socio-professional structure so that it may be autonomous, able to take the initiative, shoulder responsibility, and take action where needed.
- To help disseminate techniques whose worth has been proved with respect to the preservation of land capital and local level management of natural resources.
- To exchange experiences and explore the possible ways in which the production systems can be transformed in order to restore the socio-ecological balance and to lay the foundations for sustainable rural development in the Sahel.
- And lastly, to seek ways in which power can be decentralized and to make concrete proposals on this subject to Government departments, services and external assistance groups so that rural organizations can take the initiative to manage their own natural resources.

The group brought together at Ségou has no regular meetings and no power of decision. It is more a think-tank, generating new ideas with a practical basis, drawing attention to hidden traps and suggesting innovative courses of action.

A broad-based consensus will hopefully arise out of this meeting. However, we do not have to agree on every little point.



Discovering the true causes of disagreement is often the first step to finding a real solution.

The so-called "happenings" of the 1960s brought together people of different origins and relied on the potent mixture created by the dynamism of the participants to make events happen.

This encounter has not been improvised. The quality and quantity of the documents is proof of this. However, we may hope that, if everybody collaborates, it will be possible to generate the energy needed for an intellectual happening.

I would like to leave the last word to two sages of ancient China. I have with me the translation of an ancient Chinese document called "Dispute over Salt and Iron". This classical text faithfully retranscribes a debate that took place in China in the year 81 B.C. during an extraordinary meeting of the Council of Ministers, to which the Emperor had called notables, wise men and elders. The debate concerned the affairs of the Middle Empire. The State monopoly on salt and iron, declared forty years early, is at the center of this exchange between the government and the representatives of the non-governmental sector.

It is both reassuring and sad to learn that others, well before our time, have tried to answer the same questions and to solve the same problems. Allow me to read you a short extract; the text is sharp, apt and may well inspire our own discussions:

The Elders:

"It is incumbent upon you to rid the people of the scourges of hunger and cold. To achieve this, you must abolish the monopolies on salt and iron, limit profits, redistribute the land, stimulate agriculture, and develop the production of hemp and mulberry. In a word, you must make the most of the land. You must limit the corvée and control outgoings. That is the only way of ensuring the people prosper, even in times of flood or drought, and even in years when the harvests are poor."

The Chancellor:

"What makes the monopolies so harmful that they must be dismantled? Members of the different trades are occupied with other tasks and lack resources, and the iron they make is badly smelted, badly forged and lacks strength. We asked for iron and salt production to be centralized so quality and prices would be uniform, and so the needs of private individuals and the State could be satisfied. If the State employees give their instructions clearly and the workers work as they should, the iron they make will have the requisite strength and the tools will be of good quality."

The Elders:

"When private individuals bought licenses to produce iron and salt, the price of salt was no higher than that of grain, and tools were made with good iron and stayed sharp a long time. Since the State has been responsible for manufacturing metal tools, the situation has changed: many products are of very poor quality and there is enormous wastage; the State workers are exhausted and work badly. When independent craftsmen worked together and fathers and sons put all their energy into the tasks in hand, each and every individual was determined to do his best. There were very few bad tools. When there was an urgent need to sow crops or bring in the harvest, a good supply of tools was available throughout the countryside. The people were allowed to buy them or to sell them, to exchange old for new or barter tools for other goods. The State could put its corvée workers to other tasks, such as building and mending the roads and bridges, for the benefit of the community at large."

Free translation of an extract from "Dispute over Salt and Iron", China, 81 B.C., by Yantie Lun, published by J. Lenzmann & Seghers

**OPENING SPEECH BY  
MR. BRAH MAHAMANE,  
EXECUTIVE SECRETARY OF THE CILSS**

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The men and women of the Sahel and members of the International Community welcome the opportunity to sit down around the conference table in Ségou and discuss the future of the Sahel.

We must establish landmarks if we are to find an answer to our questions. The landmarks needed to secure our future can only be found by searching our history and our present. Ségou offers us all we need. We have not forgotten the former splendor of this town steeped in history. However, Ségou does not live on its glorious past alone. The capital of the 4th region of Mali is not going to let the future pass it by. Ségou is determined to claim its place in Mali and in the Sahel as a whole. Its efforts have already won recognition. I have no doubt that we made the right decision in coming to Ségou.

The whole of the Sahel has endorsed this decision by participating in this regional encounter on land management. This choice was a conscious decision, a mark of our admiration for Ségou, Mali, and His Excellency, General Moussa Traoré, General Secretary of the UPDM, President in Office of the OUA, President of the Republic of Mali. President Traoré symbolizes an acute awareness of the pitfalls to be avoided, he has the unshakable will needed to place the Sahel and Africa firmly on the road to

development. I would therefore like to take this opportunity to thank him on behalf of the Sahel for the example he never ceases to set. I would also like to thank all the official organizations whose efforts to make this encounter a success went far beyond the call of duty.

The Sahel has a clear view of its objectives. It wants to break out, to break out of the lonely confines of hunger, thirst, increasing dependence and dwindling resources. However, there is no clearly defined route showing the way out. We will need landmarks if we are to keep on course towards our goal. Ségou is such a landmark, as were Nouakchott and Mindelo.

The issues that bring us together today, making Ségou the center of the Sahel if not the world, are therefore of the utmost importance. We do not often have the opportunity for frank, open discussion and mistakes are a luxury that the Sahel can ill afford. We must therefore make the most of the chances offered.

Ségou marks the end of a long maturing process that has brought us to the question of the management of village lands. The subject title alone gives some idea of how far we have traveled through the regions of the Sahel in order to narrow our subject matter down to the village, the smallest management unit. The strategy adopted within the Sahel is no doubt imperfect but it has helped to pinpoint existing problems and find appropriate solutions. However, at a purely operational level, we are beset by doubts and can only offer hypotheses in the place of facts. We are aware that Man must be the driving force as was stated in the revised development and desertification control strategy. We must not make an abstract concept of individuals. The people of the Sahel, the Mamadous or Fatous, heads of families or mothers, solve their own problems of survival every day. Taking effective action is difficult at this level. There are as many contexts and as many specific characteristics to the region as there are men and women or, in any case, communities sharing the same physical, historical or sociological background.

The main difficulty in the Sahel is to reconcile urgent needs with future development, day-to-day survival problems with long-term planning. We must extend our horizons and yet remain in touch with events in our immediate surroundings.

The choice of Ségou for our meeting reflects a desire to stand back and adopt a new perspective. The capitals of the Sahel symbolize the innumerable petitions that could divert us from our goal. It is true that the choice of Ségou is not without its disadvantages. I do not need to be told that a number of minor problems have already arisen. However, I am sure that the evident goodwill of our hosts will more than compensate for any difficulties.

At the risk of repeating myself, I would again like to express my thanks to our partners from the donor agencies on behalf of the Sahel. I thank those who financed this encounter and also all the others who have shared in our fears and sorrows, our successes and our hopes since the birth of our Organization in 1971. It is my sincere wish that Sékou will reinforce our pact of solidarity.

- Long live the CILSS !

- Long live International Cooperation !

**OPENING SPEECH  
BY MR. CHEIKH B. BATHILY,  
REPRESENTATIVE OF THE MINISTER OF AGRICULTURE**

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On behalf of the Minister of Agriculture, who is unfortunately unable to be here in person, it gives me great pride and pleasure to welcome you all to the Sahel, and more precisely to Mali.

I thank you all sincerely for the honor you have bestowed upon Mali in choosing Sékou for your Encounter on a pressing issue that concerns us all, local level natural resource management in the Sahel.

Our objective is to place the development of the Sahel in the hands of its inhabitants. This will involve rethinking our own conception of development and aid to encourage rural populations to become actively involved in formulating and executing projects aimed at development and desertification control.

This can only be achieved if a broad-based cooperation can be established between the Sahelian States, Sahelian Population groups and Donors.

It was just the right time, therefore, for the Encounter on the local level management of natural resources. We hope that it will serve as a basis on which to establish a fruitful dialogue between the different actors involved in the development of the Sahel. This three-way exchange of experience and information should ultimately maximize the possible benefits to be obtained from a pooling of know-how.

The Encounter will also offer an opportunity to guide the development strategies and policies currently implemented by Sahelian States and Donors with a view to transferring power to the rural communities, the ultimate objective being to develop a partnership between the States, the Donors and Rural Organizations.

I trust therefore that you will bear with me if I take the opportunity on behalf of the Executive Secretariat of the CILSS

and the Club du Sahel to express our profound satisfaction with the happy decision to bring the three main partners of rural development in the Sahel together around the conference table: Sahelian Administrations, Sahelian Rural Organizations and the Aid and Cooperation Agencies. Our objective is to stimulate concerted action on the ecological and agricultural production policies implemented in Sahelian countries.

Despite the considerable efforts made by our own Sahelian populations and Governments and also by our Partners from the International Community to improve the quality of life in the Sahel, we cannot but admit that the primary objectives of food self-sufficiency and the re-establishment of the ecological balance in the Sahel are far from becoming a reality.

However, despite these sad truths and the gloomy shadow they cast over the future, the Sahel is not about to give up the fight. Far from falling a prey to discouragement and despair, the communities of the Sahel are becoming increasingly organized in an effort to take their future into their own hands with the help of their different States and the International Community.

In this way, organization of the rural world is becoming a reality and a number of experiments in integrated development based on the conservation and protection of the environment have been undertaken successfully in various parts of the Sahel.

We feel that these facts argue most strongly for the reinforcement of the role of rural organizations in the development of the Sahel.

This meeting, which is the first of its type, is in fact a logical follow-on from the Nouakchott Seminar in 1984 and the Mindelo Conference in 1986, on desertification control and the cereal policy respectively. Both of these events are concrete examples of the revised CILSS strategy.

Let us not forget that the approach recommended in the revised CILSS strategy is a complete turnaround on the former stance. The development of the Sahel concerns everybody.

I am confident that your talks and discussions will produce constructive suggestions for future action. Your recommendations will guide Sahelian decision-makers and the International Community and also provide landmarks for any future action taken to assist the rural community.

I hope sincerely that your work on the local level management of natural resources in the Sahel will meet with every success.



OPENING SPEECH  
BY MR. SIDIKI DIARRA,  
PRESIDENT OF THE NATIONAL ASSEMBLY

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This opening ceremony of the Regional Encounter on the Management of Village Lands in the Sahel, which it is my great honor and privilege to chair, gives me the happy opportunity to extend a warm welcome to you all, on behalf of the Malian people, their party, "l'Union Démocratique du Peuple Malien" and the party's General Secretary, General Moussa Traoré. Welcome to Africa and to Mali.

Your presence in Ségou does honor to the Malian people who, through me, wish to express once more the profound friendship and fraternity they feel towards the Countries and Institutions which you represent.

I would also like to take the opportunity to express my profound gratitude to the Secretariats of the CILSS and the Club du Sahel for taking the happy initiative of organizing a regional encounter on a subject as important as the local level management of natural resources in the Sahel.

Our States clearly view efficient management of village land as the central issue, an indispensable condition for development.

It is true that for almost twenty years, the Sahel has been ravaged by the effects of drought and desertification.

It is true that famine, malnutrition and misery have devastated the Sahelian population.

Unfortunately, it is also true that the Sahelians must share the burden of responsibility for the deterioration of their environment.

Inappropriate agricultural practices, excessive deforestation, bush fires, overgrazing, the Sahelians have broken the contract so skillfully woven between the people and their environment.

These difficulties are compounded by the deterioration of the terms of trade and the increasing indebtedness of our countries.

For this reason, it is reassuring to note that, faced with these problems, the Sahelian countries have defined a strategy, based on the following lines of action:

- to increase man's sense of responsibility and make him the driving force of development,



- to rebuild the economy of the Region on healthy foundations,
- to strike a new ecological balance and improve land management.

The local level management of natural resources is completely in line with the objectives of this strategy.

Mali, true to its commitments, answered the call made by the Heads of State and Government in January 1984 in Niamey, and in January 1986 in Dakar, by defining a food self-sufficiency strategy and a drought control plan, which it is steadfastly striving to apply.

Great changes have since taken place in our country.

The efforts of the Party and Government are now focused on developing grass roots initiatives.

As a result of this, numerous Village Associations and Village Tons have been created by the village populations themselves. These groups are working tirelessly to re-establish the balance of the ecosystem.

These village structures are involved in a variety of activities (product collection, transport, threshing, processing, trade, reforestation, bush fire control), which were once the responsibility of technical monitoring organizations.

The hitherto unsuspected dynamism of these organizations is enabling them to progressively improve the quality of their land through internally-centered and self-maintained development, thereby creating the conditions for sustainable development.

The timing of this encounter is fortunate. It comes at a time when the Sahelian population, confronted by a hostile nature and a difficult economic climate, are organizing themselves in order to take their future into their own hands.

For the next five days, you will be studying subjects as important as:

- participation of rural communities in development and drought control activities,
- water and soil conservation,
- improvement of farming systems.

Your task will be to initiate an open and fruitful dialogue between all the actors of development in the Sahel.

It will be your exalting mission to:

- analyze the approaches and experiences of the rural farmers' organizations, Sahelian States and Donors with respect to rural development and drought control, in order to establish a common language.
- examine the best ways and means to satisfy the expectations of the rural communities who should henceforth be involved in the formulation and execution of any projects concerning their future,
- initiate a fruitful and continuous dialogue between the three families present in order to create a new dynamism in the development of the rural world.

The current encounter is therefore particularly important both for our countries and for the International Community. The objective is to rethink our entire approach to the questions at hand in order to improve the methods and conditions of operation of rural farmers' organizations, States and Donors, with a view to coordinating our efforts for greater efficiency.

The considerable number of participants attending this encounter gives me reason to hope that you will attain your objectives.

I would therefore urge you to discuss all the obstacles to the development of the rural world and also to consider the efficiency of the action taken by the States and our Development Partners.

However, moving beyond discussion and simple rhetoric, I feel that it is imperative to take fast action to ensure that the Sahel ceases to be a synonym for famine, misery and devastation.

It is my firm conviction that your discussions will bear fruit in the form of precise landmarks that will help us to find the best remedies for the ills plaguing the disaster-stricken Sahel.

I wish you every success in your work. It is my great pleasure to declare this Regional Encounter on the local level management of natural resources in the Sahel open.

**CLOSING SPEECH  
BY JEAN-H. GUILMETTE,  
DIRECTOR OF THE CLUB DU SAHEL**

\*\*\*\*

We came to Ségou from all parts of the Sahel, Europe, America and even Asia. Our hopes were high and yet we were beset by doubts, troubled by a multitude of questions.

Would the Ségou dialogue really achieve all we hoped for?. Would we all be able to convey our own views and ideas whilst listening to those expressed by our partners? Would our Encounter bear fruit in the form of new suggestions or useful, specific ideas for the development of the Sahel? Or would we be hamstrung somewhere between sterile discussion and useless rhetoric? Would this large group descending on Ségou take more than it could possibly give? A vast number of interests and issues were at stake, thrown together in a make or break situation.

Yet then, Your Excellency the Governor, the charm and hospitality of the town of 100,000 balanzans started to weave its spell. Or were the participants moved by the spirit of Biton Coulibaly? Whatever the case, discussions between the three families around the table were extremely fruitful.

As a result, new landmarks were defined, pointing the way towards new courses of action to enable the Sahelian communities to improve resource management and thereby protect their children's inheritance whilst ensuring their own survival.

Together, we have laid the foundations of a new approach to development, an open approach drawing its resources at grass roots level and lending an attentive ear to the views and ideas proffered by each and every partner. Only three main families were physically represented in Ségou but the discussions brought out the significant contribution made by all the small families such as farmers' organizations, women's organizations, Government authorities, administrative bodies, researchers, investors, NGOs and multilateral organisms, without forgetting the judicial analyses of experts and consultants.

It could have turned into a latterday tower of Babel. Instead, Ségou breathed a new spirit into the earlier Nouakchott talks.

The "post-Ségou" period should see the creation of numerous think-tanks and action groups in which all the partners will be able to make a contribution.

The Sahelians must step into the twenty-first century equipped with all the benefits of modern society whilst continuing to draw

upon the wisdom of their customs, traditions and culture. This adaptation to changing circumstances is the challenge facing us all.

We hope that here in Ségou, we have contributed to the adaptation process. The Club du Sahel remains committed to the pursual of follow-up activities. Our objective is to further adaptation and ultimately to bring about the birth of a new society endowed with a flourishing non-governmental sector.

Your Excellency the Governor, Ladies and Gentlemen, we have now entered the "post-Ségou" period. Let us hope that we shall continue to be inspired by the spirit of Biton Coulibaly, the great founder of society who expounded the theories of environmentalism long before the term was actually coined.

**CLOSING SPEECH  
ON BEHALF OF THE EXECUTIVE SECRETARY OF THE CILSS  
GIVEN BY MR. MICHEL KOUTABA**

\*\*\*\*\*

At the close of this Regional Encounter of Ségou on the management of village lands in the Sahel, we are united in an overall feeling of satisfaction. The Executive Secretary of the CILSS, who has had to leave early as a result of other engagements, believes that without lapsing into complacency, we are justified in expressing a certain relief at the end of our discussions.

Our encounter was indeed at the root of much anxiety. This new experience with its innovative form and objectives, could have jeopardized our future.

Attempting to achieve a three-way dialogue is a difficult undertaking. The temptation to make it an unequal two against one is ever present. The isolated partner then shuts himself off from the other two and the hitherto parallel dialogue becomes impossible.

The idea of defining landmarks as opposed to the conventional solemn recommendations usually produced by meetings of this type, could appear to be rather a modest objective. This would not be a criticism in our eyes. Our modest aim was the reflection of a lucid and realistic approach. No attempt was made to paralyze discussions or to hide the real problems. We know that nobody could simply turn out a list of beautifully pat solutions in an area as new, as vast and as complex as this. We were not vain enough to think that we could rebuild the Sahel after a week's discussion. Our idea was to explore an alternative path, to define landmarks aimed at pooling the resources, knowledge and power of each of our three families

in order to create autonomous rural organizations, to achieve efficient international cooperation and to decentralize State services. Our discussions - frank, sometimes impassioned, but never discourteous - may not have solved the equation of development in the Sahel but did unquestionably shed new light upon the issues involved. This in itself is a real reason for satisfaction.

Without singling out any of the three partners, I must nevertheless congratulate the rural organizations who highlighted the essential role played by women in ecological recovery and land management. When we hear them confidently discuss the concepts of credit guarantees and ask for a moratorium on credit repayments in the event of a natural disaster, we realize how great an error it would be to want to continue to play the role of tutor to farmers' organizations.

This was made clear by the debates. We must place our trust in the farmers' organizations and have faith in their sense of responsibilities. This is not to say that we should implement a laissez-faire policy. The State is indispensable. Certain major responsibilities, in particular that of defining the rules of the game, cannot be undertaken by anybody else. Beyond the village is the Nation. Only the State can encompass the aspirations, constraints and plurality of the Nation and weave the fabric of national life from its numerous territories. This is an important point. We would be a laughing stock if, after having criticized balkanization and created regional organizations to end the dispersal of our potential and strength, we suddenly decided to do an about-turn and called for the end of the State, thereby bringing about the second balkanization in our history.

In Ségou therefore, we approved the development of rural organizations and we also approved the State. A State that is aware of its prerogatives.

As this Encounter draws to a close, I would like to repeat my thanks, on behalf of the Sahel, to our Malian hosts, to His Excellency, General Moussa Traoré, General Secretary of the UPDM, President in office of the OUA, Head of State, to his Government, to the Regional Authorities of Ségou and to all the Malian people.

We would like to express our gratitude to all those who have contributed to the happy outcome of our Encounter, partners in cooperation and also representatives of rural organizations and State delegates.



**CLOSING SPEECH  
ON BEHALF OF THE DELEGATES OF RURAL ORGANIZATIONS  
GIVEN BY MR. ANDRE EUGENE ILBOUDO**

\*\*\*\*

The delegates of Rural Organizations in the Sahel, moved by a desire for a frank and open dialogue, participated in the regional encounter of Ségou organized by the CILSS and the Club du Sahel, which brought together the three development families.

The delegates of Rural Organizations noted that former administrative methods fell far short of farmers' expectations.

A consensus has now been reached. Our objective must be to distribute resources, knowledge and power. At this moment in time, there is little or no such distribution at the Rural Organization level.

On the basis of these facts, the farmers' delegates in Ségou are in favor of the approach recommended by the Encounter.

They would like the States to back up and encourage the initiatives taken by Rural Organizations, in cooperation with the donors, to solve their everyday problems and to promote development-related activities and operations.

Lastly, they ask the CILSS and the Club du Sahel to arrange a meeting between the Rural Organizations of Sahelian States.

**CLOSING SPEECH  
ON BEHALF OF THE WOMEN PARTICIPATING IN THE ENCOUNTER,  
GIVEN BY MRS. ASSA SOUMARE**

\*\*\*\*

On behalf of all the women in the 9 member countries of the CILSS and the 8 representatives of rural organizations who have participated in the Regional Encounter of Ségou, I would like to thank the Executive Secretaries of the CILSS and the Club du Sahel, and also their colleagues.

For the first time, the three main development families were brought together around the conference table. They did not forget to invite a delegation of women, representing all their fellow workers, who could not have made their voices heard at this level without this happy initiative. The women's representatives participated fully and responsibly in this Encounter, which has proved to be an enriching experience both for the women themselves and also for the group as a whole. The presence of women around the



table also shows that the States, Donors and Rural Organizations have understood the specific role that women can play at men's sides in ensuring sustainable development in the Sahel.

We hope that the "post-Ségou" period will pick up the basic questions raised here on issues that concern us all: the responsible participation of women in the organization of the rural world through population planning, land development and land management. To quote a Mossi proverb: "It takes more than one hand to pick up the flour on a mat".

#### MOTION OF ACKNOWLEDGEMENT

The State Delegates, representatives of Rural Organizations and cooperation partners, brought together in Ségou (Republic of Mali) between May 22-27 1989 for the Regional Encounter on the Management of Village Lands in the Sahel, would like to express their sincere gratitude to his Excellency, General Moussa Traoré, Head of State, Secretary General of the UPDM, President in office of the OUA, his Government, the National Assembly, the regional authorities of Ségou and the Malian people who, in offering their unstinting assistance, played no small part in the success of the Encounter.

Thanks are also due to the partners (Switzerland, Holland, Canada) who financed the Encounter.

#### CLOSING SPEECH BY HIS EXCELLENCY, MR. MODIBO SIDIBE, GOVERNOR OF THE REGION OF SEGOU

\*\*\*\*

Mali and its fourth region are honored. We thank you for choosing Ségou for the Encounter on the local level management of natural resources in the Sahel.

It is not my intention to simply repeat what was said during the opening ceremony, even if our pleasure at welcoming you here was amply expressed at that time.

I reemphasize our satisfaction as we know that the name of our city will forever be associated with a momentous event that has taken place in the Sahel.

Our region will reap the rich benefits of your innovative discussions between State representatives, rural organizations and cooperation partners.

On the front page of the journal of Ségou, we may read, and I quote, "... a great distance separates concept from reality. The challenge facing the participants at Ségou is to define, albeit in outline, the way in which the concept of decentralization can be made a reality. The rural organizations have come to Ségou in force for this purpose. Listen to them with an open mind. The basic challenge consists in listening to those who have no voice", end of quote. I can say, without fear of contradiction, that the challenge has been met. The conflicting ideas of the different parties have generated a collective awareness of the vital need to increase farmers' responsibilities in such a way that the Sahelians are able to participate in their own development. Once we have taken the first step in this direction, mutual inter-dependence and the need to ensure complementarity will do the rest. To quote the words of a contemporary philosopher, "the life of each human being is part of our own existence for the fate of humanity concerns us all. Each one of us is responsible for our fellow human beings and each one of us bears responsibility for the events befalling our fellows", end of quote.

We have achieved the three-way dialogue described by the Executive Secretary of the CILSS during the opening ceremony.

The conclusions you have drawn, in the form of landmarks for future action, clearly show that you have taken into account the aspirations, constraints and prerogatives of all those concerned.

The landmarks are therefore realistic.

The spirit of partnership created by your discussions is highly reassuring. I believe that the development of Sahelian countries will henceforth be considered as everybody's business. It is my most fervent hope that the spirit of these discussions will continue to move us.

If we analyze the experiences described during the Encounter and the topics raised, it is clear that food security can be achieved and a socio-ecological balance established in the Sahel if the management of village lands is handled in a spirit of true partnership.

Allow me to brush aside your modesty in order to extend my warmest congratulations for the remarkable work carried out in such a small space of time, despite the extent and complexity of the subject.

I would like the three-way dialogue started in Ségou to go further! Hopefully, other regional meetings of the same type will be organized in specific fields.

This would be our real reward for the work carried out in Ségou and Mali. A new spirit was born in Ségou. We must keep it

alive and make it grow. We owe it to the population who have given us the mandate to find answers to their problems.

We have spent a week together. That's a very short period of time, too short for the Fourth Region, which would have liked to keep you longer to express its joy more fully. However, one week can be a long time if it becomes a landmark for all those concerned. I would like to take the opportunity to ask you to accept our most sincere apologies for the various inadequacies and shortcomings in organization that you have been obliged to tolerate during your stay in Ségou.

We believe that the landmarks set out will help us to define the best way to develop our Region.

I could not finish this brief speech without expressing my profound gratitude to our partners in development for all the help they have offered our States in the fields of drought and desertification control.

At this sad moment of parting, it remains for me to wish you all a safe journey home. It is my fervent hope that after the closure of this regional encounter, another Ségou will open in another part of the Sahel to follow up the achievements of the first one.

## APPENDIX C

## LIST OF PARTICIPANTS

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## SAHELIAN RURAL ORGANIZATIONS

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APPENDIX DLIST OF DOCUMENTS**a) Main documents**

- Sustained Development in the Sahel: the Role of the Local Organizations (Soumana Traoré) Ref. RC-08
- Sahelian Government Policies: Approaches to Integrated Rural Development and Desertification Control (Abdoulaye Kayne & Sylvestre Ouedraogo) Ref. RC-06
- Trends in the Drought and Desertification Control Strategies of Major Donor Agencies in the West African Sahel (Chris Reij) Ref. D-328
- Women and Sustained Development in the Sahel (Marie Monimart & Marthe Doka-Diarra) Ref. D-330.

**b) Supporting documents for the Séguou Encounter**

- Opportunities for Sustained Development: Successful Natural Resource Management in the Sahel (Shaikh et al) Ref. RC-03
- Lessons in the Fight against the Desertification of the Sahel (ed. Rochette) Ref. RC-04
- Ecology and Rural Development in sub-Saharan Africa: Selected Case Studies (Wright, Weber and & Broekhuyse) Ref. D-327
- Options for Promoting User-Based Governance of Sahelian Renewable Natural Resources (Thompson et al) Ref. RC-07
- The Dynamics of Organization in the Rural Sahel (Snrech) Ref. D-325
- Women in the Fight Against Desertification (Monimart) Ref. D-326
- Savings and Credit in the Rural Areas of the Sahel (Caputo) Ref. RC-02
- Land Tenure Policies and Natural Resource Management in Sahelian West Africa (Lawry) Ref. RC-05
- Analysis of CILSS Member States' Legislation and Regulations in Natural Resource Management (CILSS publication; ed. Goumandakoye) Ref. RC-09
- The Present State of Soil and Water Conservation in the Sahel (Reij) Ref. D-329
- Prospects for Improving Productivity in Sorghum and Pearl Millet Systems in West Africa (Matlon) Ref. RC-01
- Livestock Activities in the Sahel (R. Pons) Ref. D-314

**c) National documents**

Reports on consultations with rural organizations at the national level in preparation for the Regional Encounter of Séguou:

- Burkina Faso (Soumana Traoré);
- Republic of Cape Verde (Jacinto Santos);

- Gambia (Alhadji Alhassan Jagne);
- Niger (Abdou Salam Drabo);
- Senegal (CIEPAC);
- Chad (Charles Yonoudjoum).

The policies adopted by the various States to implement desertification control, to encourage better organization of the rural communities and to give them greater responsibility:

- Burkina Faso (Sylvestre Ouedraogo);
- The Republic of Cape Verde (Isabel Duarte);
- Gambia (Doudou Cherno Ahmed Jagne);
- Guinea-Bissau (Carlos Silva, Luis Albino);
- Mali (Moussa Cissoko);
- Mauritania (Thiaw Ibrahima);
- Niger (Aboubacar Issa);
- Senegal (Amadou Hadj);
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APPENDIX E

**AN OUTLINE OF THE METHODS USED TO SELECT AND PREPARE  
RURAL ORGANIZATION REPRESENTATIVES FOR  
THE SEGOU REGIONAL ENCOUNTER**

**1. INTRODUCTION**

By taking the ecosystem (in which production systems are put to work) as its point of reference, the concept of land management helps to stimulate an active response on the part of rural communities.

Rational management of the ecosystem's resources involves not only a recognition of the interdependence of its basic components - water, earth, vegetation, fauna, etc., but also a conscious, more global approach aimed at restoring and maintaining a balanced situation which will benefit both the rural community and the nation as a whole.

This global approach to harmonizing individual and collective interests involves, in addition to the rural communities, a number of development partners at varying levels from a variety of decision-making centers.

Although it is now widely recognized that rural population groups are the first to benefit from development programs and that their involvement has considerable bearing on their success, the analyses and assessments of development efforts and policies are, in a good many cases, placing more and more emphasis on the role of formally established partners - the Government, donors and funding organizations, and NGOs who provide assistance and determine local and national development activity.

The CILSS and the Club du Sahel feel that it is essential for rural population groups to be involved in the definition and monitoring of their own development projects. They therefore decided to seek ways to strengthen the dialogue between rural communities, government authorities, and donor and funding organizations as a way to boosting development program results.

With this objective in mind, the CILSS and the Club du Sahel prepared the Ségou Regional Encounter on the management of village lands in the Sahel.

This paper describes the methods, drawn up during the preparatory work for the Encounter which were used to identify and define the contributions of rural organizations.

Before defining the actual methods, a brief reminder of the context in which Sahelian land management programs were implemented will outline the scope of the proposed approaches.

## 2. LAND MANAGEMENT AND THE SOCIO-ECOLOGICAL SITUATION

Ecological deterioration in the Sahel regions (North) and the continually increasing use of land in the Sudanese regions of the Sahel (South) are two of the important parameters which should be taken into account when considering rural land management policies.

In the first case, the resultant imbalance needs to be rectified. In the second case however, priority must be given to maintaining the ecological balance and the taking of preventative measures.

In both cases, the success of the projects will depend on the involvement of rural population groups. This is because human capital is, and will long remain, the principal resource.

## 3. THE METHODS OF APPROACH

The primary aim of the approach methods used in the preparation of the Ségou Encounter was to seek answers to the following questions:

- Which rural organizations are involved in village land management projects?
  - What do these projects involve, and how can they contribute to the development of their promoters and the nation as a whole?
- a) Replies to these questions demand a good knowledge of local conditions, on the part of rural training and support structures as well as the rural organizations themselves.

The term "rural organization", is meant to imply any grouping of rural inhabitants within a given area (village or group of villages) set up on the initiative of its members to progressively resolve community problems.

Rural organizations may also be locally active NGOs, or rural socio-professional organizations supervised by the public service, provided that they remain autonomous in their day-to-day administration.

It should be noted that, in the approach chosen, the concept of "rural organization" does not include certain categories of NGOs, namely:

- service NGOs (domestic or foreign)
- associations of individual groups.

At Ségou, these types of organizations were only indirectly represented, i.e., within the delegation from a donor organization or a "grass roots" rural organization.

- b) The methods of approach implemented for the Ségou Encounter, do not consider representativity to be a criterion for identifying or selecting rural organizations, since experience has shown that, although a good many positive similarities can be observed between rural organizations (statutes, management methods, funding sources, etc.), there are as many differences as there are organizations (motivation, types of management, mobilization of resources, validity of references, etc.).

It was not simply a case of identifying representative rural organizations, but rather to look at the reasons why they were put together, the way in which they were organized, and the type of projects undertaken to restore or conserve their environment.

The research team generally found it necessary to gain access to rural organizations and to listen to their experiences in a totally "impartial" manner.

The need for replies which were "independent" of potential conflict on land management problems between rural organizations and other partners, led the CILSS and the Club du Sahel to call on the services of consultants from outside the public services and donor organizations.

In addition to conventional criteria (technical and economic), the evaluations took into account the results achieved by the organization, the way in which it was structured, the cultural content of the groups, and their objectives and strategic choices relating to local resources.

- c) This type of investigation normally calls for individuals and organizations to be brought in from outside the public services or project funding and training organizations, which tend to be fairly set and inflexible in their methods (whether this is justified or not). Even if one could level the same criticisms at consultants to some extent, the main objective is that they should be perceived by rural communities as "independent" and not in a position to exert pressure on them.

To further convince the rural communities that the consultants are truly independent, it is sometimes necessary to call on bilateral or international organizations to make the selection.

In this case, the government should be informed of the objectives and selection methods, and the procedures to be used in implementing the study should be approved by the Ministry concerned.

During the Ségou Encounter, CILSS and Agricultural Ministry correspondents coordinated the activities of the various government ministries at the national level with respect to village land management and the promotion of rural organizations.

This enabled consultants to work with the full backing of the networks run by the public service and other partners (donors, supporting local and international NGOs, etc.).

- d) The consultants decided to carry out their research and analytical work in five separate stages:

Stage 1 - To identify and evaluate common trends in national development policies through an analysis of objectives and strategies

- Investigations were aimed at assessing how much importance was placed on development/management of rural lands in developmental strategy and the role assigned to rural organizations.
- The analyses sought to clearly define the various existing and anticipated provisions and measures aimed at promoting and backing rural organizations, and to identify the partners responsible for supervising the projects benefiting rural organizations.

Stage 2 - To select rural organizations and define their actual role and contribution

In order to reduce the likelihood of error, the selection process was carried out on two different levels

- in association with support organizations (public services, donors, NGOs,...) and
- in the field in association with rural communities

A list of rural organizations (with emphasis on those involved in rural production activities and thus concerned with the problems of land management), and their salient features, was drawn up from information gathered by support and backer organizations.

- . A breakdown of rural organizations within each major agro-socio-ecological region, was examined to determine which regions and organizations would be visited.



- . The ideal solution would have been (given the diversity involved) to visit all the organizations selected, but, as time and means were limited, ecological parameters were used to define each rural organization's scope of activity. The areas to be investigated were determined according to the seriousness of the ecological problems of the region.

In the majority of cases, priority was given to Sahelian regions.

- . More specific criteria were applied to make a detailed analysis of the practical experience of the rural organizations visited (background to their formation, optimum use of local resources, forms of aid sought, etc.).
- . The experiments carried out by the organizations were selected in accordance with how they helped to improve production and production conditions in the light of the problems associated with environmental conservation and the duplication of production activities.

These considerations were looked at in terms of a series of questions which included:

- Who was responsible for creating the organization?
- Who are the organization's current members?
- What sort of problems does the organization deal with?
- Who brought these problems to light and through what methods (soil fertility, erosion control, mobilization of resources, etc.)?
- How did (does) the organization tackle the problems?
  - initially?
  - now?
- What sort of relationship does the organization maintain with the outside world?
- Where do the organization's resources come from (financial resources in particular)?

Answers to these different questions came from rural organization leaders and members as well as from support agencies. The research was carried out using a combination of organizational approaches and conventional investigation techniques (group meetings, groups of different age and sex, socio-professional category, etc.).

### Stage 3 - Assessment - Diagnosis - Final conclusions

The collated information was processed by the consultants in order to "classify" the organizations and their practical experience.

The results of the analyses were returned to a number of rural organization representatives (selected by the consultants on the basis of their observations in the field), and public service representatives, during the preparatory discussions (at the national level) for the Ségou Regional Encounter.

This approach had the advantage of establishing a good basis for dialogue between the various partners present by enabling a comparison to be made between the different ways of thinking.

Certain donors (both formal and NGO) were able to participate in some of these exchanges (for Burkina Faso and Niger).

### Stage 4 - Final selection of rural organization representatives and the experiences to be discussed

During the preparatory discussions for the Ségou Regional Encounter, a list was drawn up (on the basis of the exchanges) of representatives likely to make a positive contribution to the work of the Encounter.

The need for fluent French limited the number of possible representatives.

The list was then presented to the relevant government authorities. As they had initially approved the consultancy plan, there were no disagreements on the choice of consultant.

In general, it would be advisable, as in the present case, to include more representatives than are actually called for in the first list to give the authorities an opportunity to indicate their own preferences.

A few days before the Encounter, the chosen representatives were given training in how to present their practical experience. This helped them to put them at ease and thus make a more valuable contribution to the meeting. The preparatory discussions were also aimed at establishing direct links between the various representatives of Sahelian rural organizations, and establishing a good climate for the dialogue with the partners.

4. SPECIFIC ASPECTS OF THE IDENTIFYING PROCESS AND THE SELECTION OF FEMALE RURAL ORGANIZATION REPRESENTATIVES

The methods described above are equally applicable to the selection of female representatives.

However, in view of the importance and the specific nature of women's contributions to Sahelian development activity, the CILSS and the Club du Sahel decided that particular attention should be given to the selection of female representatives for the Ségou Encounter.

The selection of women delegates from three countries (Burkina Faso, Mali and Senegal) was therefore placed in the hands of an independent female consultant who was also involved in discussions on policies to encourage the initiatives taken by women in the countryside.

The number of delegates from rural organizations was restricted to two women per country - six in all. The representations from rural organizations in Gambia and Niger each selected one woman, bringing the number of women from rural organizations at Ségou to ten.

The consultant applied two main criteria to select the women delegates:

- field experience in supervising village group activities, either mixed or specifically female: organization, production and agricultural processing, desertification control activities;
- a good knowledge of French, and the ability to speak confidently at top-level public meetings.

A range of formal discussions on a national level were held with people in positions of responsibility:

- Government departments concerned: Social Affairs, Agriculture, Water and Forestry, Cooperation...;
- The NGO monitoring bureau, NGO associations and NGOs;
- External aid agencies involved in women's activities.

The best potential delegates were then personally contacted by the consultant through interviews or field visits. Their supervisors (supervisory authorities or NGO head) took a favorable attitude to the process, gave their approval to the selection and, in some cases, proposed candidates. The women chosen were asked to provide the consultant with a brief report on their field activities.

Despite the fact that the CILSS and the Club du Sahel had committed themselves to making a particular effort in the choice of women delegates, the approach adopted was fairly pragmatic given the short amount of time spent on the selection process. Ideally, the women should have been selected in liaison with the organizers of the overall selection process (selection criteria, official procedures, prospecting of rural organizations, organization of mixed preparatory meetings, invitation procedures, etc.). The approach adopted should be specifically oriented towards women at the start but should then rapidly integrate them into the overall (male/female) process to place them on an equal footing with the men.