

Dryland Networks Programme

ISSUES PAPER

**Co-operation between
Senegalese
Non-Governmental
Organisations and
National Research
Structures: Constraints and
Perspectives**

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INTRODUCTION

Despite the increasingly important role they play in rural development in Africa and the potential support they can provide in terms of disseminating research findings, NGOs have few links with research institutes. In fact, research programmes have so far usually been designed and implemented without any NGO involvement. However, it is now being realised that very little of the research already undertaken has been successfully translated into practice. One of the reasons for this could be the lack of communication between researchers and local people, as inadequate consideration is often given to the problems and priorities of farmers when drawing up research programmes. In view of the fact that NGOs generally work very closely with local people and have a greater understanding of conditions on the ground, better co-operation between researchers and NGOs could help the former to make research more relevant to the requirements of local people, as well as finding the most appropriate ways to ensure that the innovations developed are taken up. A closer relationship could also be beneficial especially for national NGOs, most of whom have difficulty in gaining access to the necessary technical skills to carry out their activities. Such contact with research institutes could thus provide an opportunity to back up NGO activities in the technical field.

The aims of the present study are:

1. To assess the current state of co-operation between research institutes dealing with agriculture and food production and non-governmental organisations, with particular reference to Senegalese NGOs.

2. To identify the main constraints hindering the relationship between these two types of organisation.
3. To define the modalities for strengthening the relationship between researchers and NGOs.

STUDY AREA

Situated at the western edge of Africa, Senegal's territory covers 192,000 sq km. The population of approximately 7 million is unequally distributed, as it is estimated that 60% live in the central part of the country. Senegal is basically an agricultural country, with 70% of the population earning their living from agriculture. The main crops, covering an area of approximately 2,300,000 hectares, are groundnuts (50%) millet/sorghum (40%), rice (3%), cotton (2%), maize (4%) and cow-peas (2%). Although agriculture is practised in various agro-ecological zones, rainfed crops predominate, representing 90% of agricultural production and 90% of non-exported cereal production. This dependence on rainfall, which has greatly decreased over the last 20 years, demonstrates the fragility of the agricultural sector.

Food production barely covers 50% of requirements. This unbalanced situation is aggravated by the fact that food production is growing less rapidly (.9% between 1961 and 1984) than the population, whose growth rate went from 2.3% between 1960 and 1970 to 2.9% today (Martin, 1984).

Agriculture is still characterised by the predominance of small farms. It is estimated that 50-60% of farms do not exceed 5 hectares and the area cultivated

per active member of the population was an average of .40 hectares in 1982/83. Groundnuts are still the main crop, although there has been greater development of cereal crops over the last few years. Rather than resulting from a deliberate choice, this new trend is one of the consequences of the New Agricultural Policy which, by sanctioning the disengagement of the state, has made it more difficult for producers to gain access to production factors such as seeds and fertiliser for groundnuts.

The decline of agriculture seems to be one of several factors responsible for the dead end in which the Senegalese economy finds itself. The causes of this decline fall into two categories. On the one hand, the land has become degraded and overloaded due to demographic pressure, climatic change (9 years of drought since 1987) and the lack of an adequate response from researchers and development agencies to the growing fragility of production systems (Durufle in CONGAD, 1991). This situation is partly responsible for the implementation of the New Agricultural Policy whose objectives are centred on disengagement of the state (in particular the fading away of state extension services and the abolition of the agricultural programme) and the empowerment of producers.

One of the consequences of this policy and of the continual worsening of farmers' living standards has been the emergence of grassroots initiatives and especially the increasingly obvious presence of non-governmental organisations in the rural areas, seeking to generate or support such initiatives.

1. THE INSTITUTIONAL FRAMEWORK

1.1 Agricultural research and extension in Senegal

1.1.1 Organisation of agricultural research

During the colonial era, the agricultural research system in Senegal was mainly organised with a view to meeting the requirements of the metropolis. Research operations undertaken during this period were basically concerned with the intensification of the dominant cash crop, groundnuts. Research was then mainly directed towards improving groundnut varieties. It was only towards the end of the 1950s that the increasing signs of soil impoverishment began to influence research priorities, directing them more towards topics such as soil improvement, selection of appropriate crops and crop rotation and mineral fertilisers (MDR, 1984). Very little attention was paid to the development needs of other crops.

The establishment of the Senegalese Agricultural Research Institute (ISRA) in 1975 was, *inter alia*, a response to the need to ensure better co-ordination of the various research programmes which had, until then, been entrusted to various French agencies. Attempts to ensure widespread use of the innovations which had been developed faced three major obstacles (MDR, 1984):

- a) The absence of any major structural change.
- b) The notorious imbalance between the various agricultural sub-sectors, especially the dominance of groundnuts.

- e) The lack of integration and failure to take sufficient account of economic constraints faced by producers of research mainly conducted at research stations rather than in the field.

The ISRA is a public body of an industrial and commercial nature (with autonomous management and empirical monitoring of management). It is attached to the Ministry of Rural Development and Water Supply and its activities cover research in the four key areas of the primary sector:

- Plant production
- Animal production
- Forestry
- Fisheries

Each of these sectors (see attached organigramme) is headed by a Director. A parallel system deals with research into production systems. There are today seven main centres representing the decentralised structures of the technical departments, each centre having in its turn a number of research stations where the bulk of the experimental work is conducted.

Senegal devotes about 10 billion CFA francs to research every year, mainly funded from outside the country. By contrast, the contribution of the private sector to research funding is only about 2% per year. As far as the ISRA is concerned, it has been noted (Faye, Bingen 1898) that over the period from 1975 to 1985, the state contribution has gone down in both real and absolute terms. On the other hand, donor contributions have greatly increased in absolute value and as a percentage of the overall budget. ISRA's financial dependence on donors inevitably reduces the Institute's scope for independent

action. It is thus not surprising that the "invisible hand" of donors can always be found behind the various structural adjustment measures.

Unreliable cash flow leads to a degree of uncertainty in programme implementation. The need to balance the budget of the Institute resulted in staff cuts (one third of the work force) in 1987. There are 128 researchers, including 98 Senegalese, amongst the 580 people currently employed by the ISRA.

In terms of results, it should be pointed out that, in general terms, agricultural research in Senegal has produced major findings and improved knowledge of tropical agriculture (Sene in Faye and Bingen, 1990). However, the weak links of the Institute with its environment have meant that its accumulated findings are put to little or no use. This has cast doubt on the need to support research at national level. The Government and donors, despite their interest in research, are asking questions about the relevance of their support in view of the results obtained (Ly: ISRA, 1990).

The most frequent criticisms expressed by decision makers and donors are related to the weakness of Research and Development. Analysis of past and present experience does indeed reveal a lack of producer participation, a priori definition of constraints faced by farmers and thus of the techniques which should be tested, as well as the lack of interest of researchers in this field (Faye, Bingen, 1989).

ISRA's restructuring process is still in progress and far reaching structural changes are expected in the short term, whose objective will be, apart from ensuring more rational use of resources, to make research more relevant.

Strategically speaking, co-ordination of scientific and technical policy is the responsibility of the Scientific and Technical Affairs Department (DAST). The particular brief of the DAST is to check that research programmes implemented by the various research institutes and centres fit in with national policy. Two types of fund are available to the DAST for research promotion; the scientific and technical publication fund (about 10 million CFA) and the research promotion fund amounting to about 100 million CFA.

1.1.2 The agricultural extension system

The national extension system is based on a network of structures including:

- **Traditional technical services** (agriculture, livestock, forestry etc) which represent the decentralised structures of the various Ministries to which they are attached and which are responsible for putting extension policy into practice.
- **The Regional Rural Development Agencies (SRDR)** which were set up to promote the economic development of particular agro-ecological zones. An SRDR was thus set up for each natural region. These agencies co-exist in the same area with the traditional technical services whose role in the field of extension they over-shadow. However the effectiveness of these agencies was soon prejudiced by cumbersome operating procedures and a very directive and production centred approach to rural development.
- **Multi Purpose Rural Extension Centres (CERP)**, composed of pluridisciplinary teams, which are the extension structures closest to the

people. Each technical service has a representative within this structure. The CERP is in fact the ideal structure for extension work, but its normal operation is hindered by a lack of resources as well as the "divided loyalties" of the CERP worker, who is under the authority of the head of the CERP as well as that of his/her immediate superior in the technical service from which he or she comes (Sow in Sy, 1988). This situation leads to a degree of ambiguity and confusion in the implementation of some programmes. Despite this, the CERP has often acted as a channel for the transfer of certain technologies.

Other structures play a greater or lesser role in extension work. In terms of seed distribution, for example, the seed supply service operates as a buffer between the extension services and researchers. It is responsible for the multiplication of improved seeds placed at its disposal by research institutes. In this respect, it works with the farmers to produce the seeds which will then be distributed by the technical services or SRDRs.

In the field, the regional research and development committees are supposed to ensure interaction between research and extension services. Unfortunately, they have never operated very well, considerably reducing consultation between researchers and extension workers.

Although they play an important role in spreading knowledge about certain research findings, NGOs have no formal recognised status within the extension system. In the same way, the ISRA has no active policy with regard to NGOs. Such approaches as are made by the latter rarely go beyond requests for information. The growing numbers of NGOs and the increasingly important

role they play as a result of the disengagement of the state should, however, be an incentive for closer co-operation (Faye, Bingen 1990).

The New Agricultural Policy laid down in 1984 considerably reduced the activities of some extension services, especially the SRDRs, in favour of giving greater responsibility to farmers. In an attempt to make the national extension system more operational, the government set up a National Agricultural Extension Programme (PNVA) in 1990, with support from the World Bank. The first phase is due to end in 1993.

The aim of this programme is to provide better co-ordination of extension activities which had hitherto been insufficiently linked together. In particular, approaches should be standardised, while the number of people with whom farmers have to deal, who often give out contradictory messages, should be reduced. The PNVA will thus seek to pool all human resources available in the field, whatever their origin. For instance, in an area where an NGO is working, the programme should rely on the staff of that NGO to get extension messages across.

The PNVA's operational structure in the field will consist of regional committees, which will be revised and each deal with a particular ecological area. They will include representatives from the Regional Rural Development Agencies (SRDRs) which will chair them, the ISRA (Secretariat), the technical services (agriculture, livestock, etc) NGOs and village organisations.

1.2 Non governmental organisations (NGOs)

1.2.1 General Information

According to a survey conducted in 1988 by the then Social Development Ministry and the United Nations Development Programme (UNDP), there are 126 recognised NGOs including 69 international NGOs and 57 national NGOs (Zarour, 1990). However, a more recent estimate gives the number of NGOs in Senegal as about 223 (CONGAD newsletter 1991). NGOs have emerged and developed as a result of several factors, including the deterioration of rural living standards, the gradual loosening of state control and also the civil service cuts, with some former officials finding a new occupation in establishing NGOs. However, these NGOs are encountering some structural difficulties, including:

- Shortages of financial, human and organisational resources

Financial constraints, apart from creating a degree of dependency, considerably limit local NGOs' room for manoeuvre and potential activities. This has several implications. In effect, it is quite often the level of available funding and not the scale of the problems identified which determines the scope of projects. Moreover, many local NGOs will accept any offer in order to gain access to funding and may then work in fields where they do not necessarily have the necessary skills. Such situations also lead to a degree of fragmentation in activities.

In terms of human resources, budgetary constraints limit NGOs' ability to bring in the necessary skills to implement their programmes. They therefore make

do with technicians who certainly are capable of providing technical advice and supervision, but very often do not have the necessary conceptual skills for programme identification, monitoring or evaluation.

- Problems in co-ordinating activities

The proliferation of NGOs in rural areas and the lack of coordination in their activities has been a cause for concern for a long time, within both the NGO movement and the government structures working in the countryside. In spite of various decisions taken since the lack of coordination of NGO activities is still causing concern. Several NGOs working in the same area and aiming at the same targets adopt different strategies. The desire to achieve greater harmonisation of activities led the government, through the then Department of Community Development, to establish a framework with a view to devising a code of conduct for NGOs (both national and foreign), so that the work of the latter might fit with the priorities as defined by the development plan. In parallel, in an attempt to strengthen such co-ordination, federative structures were set up for both NGOs and village development associations. The CONGAD (Council of Development NGOs) groups together national and foreign NGOs while the FONGS (Federation of Non-Governmental Organisations) groups together the most representative village development associations and acts as their representative within the CONGAD.

1.2.2 The CONGAD

The Council of Development NGOs (CONGAD), established in 1982, now has around 65 member NGOs both national and international. Its main aim is to

co-ordinate the development activities of its members in order to avoid duplication. Amongst its objectives are:

- a) Promoting consultation amongst development NGOs, as well as the coordination and harmonisation of their activities.
- b) To improve co-operation between development NGOs to provide mutual assistance.
- c) To place development literature at the disposal of NGOs and the public.
- d) To establish a forum for the exchange of information between development NGOs, relevant private agencies and international organisations.
- e) To strengthen links between NGOs and the government. With this in mind, the CONGAD encourages NGO participation in the formulation of development plans and promotes improvements in co-ordination between NGOs and the State Technical Services.
- f) To assist NGOs in their administrative dealings and to strengthen south - south and north - south relations with a view to establishing a genuine partnership.

The CONGAD does not intervene directly in the decision making processes of NGOs, which retain their autonomy in this respect. Its role in collecting and managing the information needed by NGOs is becoming increasingly important.

1.2.3 The FONGS

The Federation of Senegalese NGOs (FONGS) was established in 1976 on the initiative of leaders of farmer associations. It has national NGO status and pursues the following objectives:

- a) To bring together non profit-making, officially recognised associations pursuing socio-economic and cultural objectives.
- b) To ensure permanent co-operation amongst its members.
- c) To achieve greater harmonisation of projects and programmes implemented by member NGOs.
- d) To provide advice and technical and administrative support to farmer groups or NGOs at regional, national or international level, whether in the public or private sector, and to act as the host structure for people visiting member NGOs.
- e) To represent member NGOs vis a vis government and non-government agencies as well as at international, national, regional or local level.

The FONGS comprises 26 associations scattered throughout all regions of Senegal. It currently has 70,000 members belonging to these associations. Credit, food self-sufficiency and Women in Development activities are the three priorities in the work of the FONGS. Training provides the main means of enhancing the capacity of the member associations, which are fully autonomous in the definition and implementation of their programmes. They call on the

federal structure to help with activities which go beyond the scope of a single association (training, cereal banks, etc).

2. RELATIONSHIPS BETWEEN RESEARCHERS AND NGOs

2.1 Current Position

Generally speaking, experiences of co-operation between research institutes and NGOs are, for a variety of reasons, rare, isolated, ad hoc and very informal. Furthermore, the most significant links are between research institutes and international NGOs. The initiative usually comes from the NGOs themselves and rarely goes beyond requests for information. It has been noticed that local NGOs give even more weight to personal contacts in seeking such information than do international NGOs.

The evidence shows that the scale and nature of co-operation depends to large extent on the sector of activity involved. In particular, it has been noted that those research institutes which had the most contact with NGOs (CERER, ITA, CDH for instance) were also those which had no decentralised structures in the field through which to pass on their findings. The following examples provide an illustration of this.

The Centre for Horticultural Development

One of the most sought after research services within the ISRA is the Centre for Horticultural Development (CDH) which deals with research into vegetable

and fruit production. The rapid development of horticultural activity and NGOs' interest therein are mainly due to the fact that the precariousness of the rainfed crop production system has given new urgency to the search for income sources less dependent on rainfall, such as vegetable gardening.

In the field of vegetable gardening, the nature of requests for support or information by NGOs is very specific and covers three particular aspects:

- The establishment of nurseries
- Crop protection
- Improved varieties

Such requests are all the more justified in that the CDH estimates that, during and just after the rainy season, about 60% of nursery seedlings are lost as a result of inadequate mastery of nursery techniques. Like the ISRA to which it is responsible, the CDH is facing a structural crisis which prevents it from responding promptly to all the requests it receives. This situation is further complicated by the large number of NGOs working in this sector, their geographical dispersion and the drastic lack of staff at the CDH following massive cuts. The CDH plans to respond to this situation in two ways, firstly by preparing technical data sheets on these three key problems in a systematic way. Secondly, it plans to rely more on the PNVA to distribute these materials and to train the technicians who will then pass on their knowledge to others. However, the preparation of technical data sheets will require resources and one may well wonder whether the material capacity exists to meet all requests, although the ISRA does now have a documentary production unit.

The Institute of Food Processing Technology (ITA)

The ITA is already working with about a dozen NGOs, most of whom are national. Requests from the latter are mostly concerned with the transfer of technology to preserve or process fruits and vegetables which are produced in large quantities at certain times of the year, especially in Casamance.

Unlike other research institutes, ITA insists on contracts or written agreements when dealing with NGOs. However, the existence of such links scarcely conceals the Institute's difficulties in distributing its products adequately. Since its establishment, the ITA has developed between 100 and 110 new products and the least one could say is that very few of these products are known to potential users. There are several reasons for this:

- In conceptual terms, the nature of ITA and its research programmes are not always relevant to the specific needs and immediate concerns of development. Its approach to problems is basically technical and it is only when the time comes to make the solutions known that the difficulties become apparent. This approach of developing technological models and then offering them to producers often means that these models are unsuitable for producers' needs (Kane, 1983-84). Furthermore, the ITA has still not managed to explain to those who might have to promote them all the technical/financial and socio-economic specifications or the precise modalities of applying its findings on a village, industrial or commercial scale (Dembele, 1984).

- In structural terms, the ITA does not have any appropriate means of providing information, undertaking extension work or demonstrating its products, particularly in rural areas. This is why some NGOs say that the Institute is much more concerned with urban than rural areas. It is true that the methods used so far to make innovations known (trade fairs, prospectus, national campaigns, television) have been more relevant to urban consumers than those in rural areas who are both producers and consumers. Efforts are being made to prepare information sheets which deal more with recipes (dishes using local produce). However, these materials are still not widely distributed amongst NGOs.
- Finally, the lack of decentralised structures leads the ITA to undertake both research and extension work. Yet it is clear that research is the priority activity.

To some extent, these problems have prevented the ITA from adopting an active rural policy and such experience of co-operation as does exist has taken place on the initiative of NGOs. Requests always relate to support in terms of training, but the reduced staffing of the Institute suggests that the "training of trainers" would be a more appropriate option.

Renewable Energy Study and Research Centre (CERER)

The CERER, which is a University body, concentrates its research activities on making better use of renewable energy sources, with considerable emphasis on developing improved stoves and other combustion technology which could lead to a significant reduction in the consumption of fuel wood.

The CERER works in close co-operation with various NGOs in encouraging the widespread adoption of such technology. Here again, it is the NGOs who take the initiative and their requests for co-operation relate to training in stove construction techniques for people in their programme areas. What is more, in certain areas NGOs act as the CERER's extension structure. This is the case with Plan International, which is responsible for encouraging the use of this technology in its programme areas (particularly the Thies and Saint Louis regions). However, despite the interest shown in this innovation and some interesting experiences of co-operation, some difficulties remain:

- Intervention by the CERER often involves costs which national NGOs in particular are unwilling or unable to bear. Yet the CERER, which in addition relies on a vast university bureaucracy, does not have the budget flexibility which would enable it to pay the cost of its intervention. Some donors have funded training sessions on an ad hoc basis.
- In some areas, efforts to encourage the use of the technology have come up against obstacles of a socio-cultural nature, for instance in rural societies where stove construction is considered to be an activity exclusive to a given caste.
- In terms of communications, there are problems at two levels: language and approach. In some places linguistic barriers have certainly affected the process of extension through training. Moreover, the CERER has not developed its own methodology for approaching local people, which has often led it to call in external agencies such as the social development department the CERs or NGOs.

- The CERER currently has no specific mechanism for providing information about the various innovations it has developed. The preparation of simple, easy to use technical data sheets could for instance help NGOs to make up for the CERER's deficiencies in the field. Unfortunately, the only available information says more about the process of developing the technology than the characteristics of the product.

Relationships between other sectors and NGOs

Relationships with other research sectors (livestock, rainfed crops, forestry) are even more sporadic and problems are closely related to the particular ecological zones involved.

In the field of livestock research, links between NGOs and researchers are particularly limited. The reasons given relate to two main factors:

- a) Animal husbandry in sylvopastoral areas is extensive and transhumant. This gives rise to enormous problems in monitoring extension work with herders and is to some extent a factor which dissuades many NGOs.
- b) The bulk of NGO activity with regard to livestock relates to fattening. Yet this activity does not require complex technology. Easily available agricultural by-products provide the bulk of livestock feed and technical follow-up is readily provided by the decentralised livestock services.

Research in the livestock sector has made considerable progress in the fields of identifying and developing solutions to technical problems (diseases, feeding), but very little in terms of organising the activity. This is why research and

development in this sector is mainly concerned with developing technology to process the abundance of dairy produce available in the rainy season, improving the technology for water carrying, which is women's responsibility, and rationalising herd management in response to the shortage of pasture in the dry season. According to researchers, these are areas which could be investigated by NGOs and other extension services to support the research effort.

In the field of rainfed agriculture and especially in the groundnut-growing basin, the main challenge at present is the degradation of the eco-system. In the battle to conserve the soil, the most significant examples of co-operation are between international NGOs and research institutes. One instance of this is the co-operation initiated by Rodale in Thies with ENDA, SODEVA (Agricultural Development and Extension Agency) and ISRA.

Water erosion is in fact seen to be one of the causes of soil degradation and such erosion is itself the result of reductions in plant cover and inadequate infiltration of rainwater.

The participatory approach used in efforts to control erosion seeks to facilitate the transfer of innovations to local people and encourage them to take responsibility for these. After sessions to raise their awareness of the problem, local people have been taken to visit erosion control programmes conducted by the ISRA. These visits have been broadly responsible for the solutions currently being applied.

Despite the originality of this pluri-institutional approach, some problems have been noted. In fact, the impact of such work on agriculture and the

environment is not always fully understood by the local people, which to some extent explains the currently reduced enthusiasm for participation.

In the field of forestry research, co-operation between NGOs and researchers is even weaker. Several reasons have been put forward to explain this situation:

- a) NGOs work more with the technical forestry service which is responsible for encouraging the use of innovations suggested by forestry research. Generally speaking, the technology required is available from this service.
- b) The increasing number of forestry projects throughout the country has reduced NGO forestry activity in some areas, although in some areas these projects provide a reference point for NGOs which are still working on reforestation.

With regard to reforestation, considering the scale of resources devoted to this sector, extension work encounters fewer material problems although, in conceptual terms, the success of forestry policy is hindered by certain constraints, the most important of which include:

- (1) the lack of involvement of local people in programme design;
- (2) the lack of information on local knowledge and needs;
- (3) the lack of legal clarity about the ownership of forestry products (Sall 1989).

2.2 Reasons for the weak links between researchers and NGOs

Despite a few isolated and informal attempts, links between NGOs and agricultural institutes remain very weak. This assessment of the current state of relationships between these two types of structure has pinpointed constraining factors at various levels.

2.2.1 Psychological factors

- There are prejudices on both sides which are not necessarily well founded. NGOs say that research institutes are inaccessible, while for their part research institutes often complain that national NGOs do not have the expertise to allow for a valid dialogue.
- Many NGOs say that they are working with well tested technology and cannot put up with long experimental procedures. The problems with which they are dealing are generally simple in technical terms and solutions are often already available from extension services.
- Scientific language, at least that which is used by research institutes, is complex, hard to understand and even intimidating. Furthermore, information is not fed back in a way which facilitates its immediate use.
- The lack of formal and official NGO involvement in the various structures responsible for defining or implementing research or extension programmes has been a major factor in the isolation of these organisations which are none the less reproached for failing to co-ordinate their activities.

2.2.2 Institutional and organisational factors

- The lack of reciprocal information is both cause and consequence of the weak links, but remains one of the most serious problems today. There is a degree of compartmentalisation whose causes are subject to different interpretations. NGOs have not made the effort to go and get the necessary or available information from research structures or to forward it to them and vice versa. This situation often leads to duplication. For instance, the ISRA has established an information and development unit (UNIVAL) whose objective is to establish a data base on agricultural research and rural development in general. In parallel, the CONGAD is in the process of working on a similar project designed to supply information to its member NGOs. These two data bases will certainly contain more similarities than differences. A closer relationship between these two units would help to optimise the use of resources.
- The same sort of compartmentalisation is found in terms of information flow. Very few national NGOs have access to ISRA publications. The ISRA's UNIVAL unit, which produces an enormous amount of documentation, has little contact with NGOs, most of whom do not know it exists. Although UNIVAL has already begun to produce technical data sheets which it can sell relatively cheaply, it has very few NGOs amongst its customers. However, some efforts have been made recently to establish more regular contact with the CONGAD. With regard to other research bodies such as ITA or CERER, the lack of an information bulletin reinforces institutional compartmentalisation. The same applies to most local NGOs which have no means apart from the CONGAD bulletin of passing on the information they hold.

The reasons put forward to explain this failure to distribute publications widely relate mainly to:

- The lack of resources to prepare and distribute a large number of documents. This is a constraint which often hinders the development of relationships between NGOs and researchers. The CDH has technical information available which would be useful to most NGOs funding gardening projects, but does not have the resources to reach NGOs which are, moreover, very scattered geographically. The CERER and ITA encounter the same sort of difficulty.
- The large number and diversity of NGOs making it difficult to decide which NGOs should receive publications.

Paradoxically, national and foreign NGOs receive more scientific information from outside the country than within. NGOs and village development associations tend to favour information sources (perhaps because of their links with northern NGOs) stemming from an international network which may not necessarily take account of knowledge gained at national level. This explains such paradoxes as the organisation of tours to Burkina Faso to study the manufacture of solar dryers while the ITA and CERER have substantial experience in this field.

The desire for flexibility leads many NGOs to prefer informal links when seeking scientific or technical information. This option is often more profitable, especially in terms of speed of response and cost. NGOs think that research institutes are too heavy and bureaucratic, making them very slow to respond to the often urgent requests they receive.

The funding structure of most NGOs offers no scope for greater implication of the latter in research activities. In fact, many national NGOs deplore the fact that the rules governing the use of the funds they receive do not allow for anything other than the funding of specific projects.

Approval procedures for research programmes are too formal and only of interest to administrative and technical structures and donors. The same goes for extension work, where research institutes are more likely to call in the SRDRs and technical services: upstream to help in identifying the constraints which give rise to research topics and downstream in disseminating the findings.

Generally speaking, national NGOs are rarely invited to meetings (workshops or seminars) organised by researchers and vice versa. The CONGAD is quite well aware of this situation and plans to try to remedy it by initiating meetings between NGOs and researchers.

Sometimes, products arising from research were not relevant to NGOs' needs. For instance, the rural family centres which work with the ITA in the field of food processing/storage technology complain that the innovations proposed by researchers are more relevant to urban than rural areas.

NGO projects tend to have a short term perspective. Projects generally have a short life time and this represents a dissuasive factor for both NGOs and researchers in respect of long term cooperation programmes. It should, however, be noted that many NGOs claim to work more closely with technical services in the field which, in general, are able to provide solutions to the technical problems encountered. This is true for NGOs involved in

reafforestation activities who work directly with forestry services or projects. The same goes for NGOs in charge of animal fattening projects who are able to obtain the necessary technical advice from the livestock services.

3. PROSPECTS FOR IMPROVING RELATIONS BETWEEN NGOs AND RESEARCH INSTITUTES

3.1 The need for co-operation

Despite the obstacles which have hitherto prevented researchers and NGOs from working closely together, both sides would like to co-operate. Strengthening links between researchers and NGOs should be seen in terms of mutual support to help lift the constraints facing each side.

The constraints faced by local NGOs in respect of which research support is *needed include:*

- a) The lack of adequate technical skills for the design, implementation and monitoring of activities in the field. Research institutes could co-operate by providing training to help upgrade the technical skills of the staff of these NGOs. Training needs are very diverse and some of the most urgent have become apparent as a result of problems encountered in the various sectors (nursery techniques, plant protection, improved varieties, erosion control, construction techniques for anti-salt dams in the Casamance, processing and storage of gardening produce, distribution of improved stoves).

- b) **Restricted access to scientific and technical information.** In this regard the diversity and dispersal of sources makes it very tedious and costly to gather information, especially for NGOs working in areas far removed from information centres. Furthermore, this information is often in a form which makes it difficult to use.

On the research side, it has been pointed out that the weak links between research and development mean that it is difficult to distribute innovations widely. This is due either to the fact that the innovation is inappropriate to the needs of the user, or to the use of unsuitable extension methods. From this point of view, NGOs could:

- Act as channels to pass on scientific information to the grassroots; provided that efforts are made to simplify such information.
- Make known research findings by setting up agronomic tests.
- Monitor research activities in the field.
- Encourage people to get into the habit of approaching research institutes and vice versa. In this respect, study visits by producers to research institutes should become the rule.
- Help research institutes to identify rural research priorities or needs.
- Induce the media (rural educational radio, television) to give more coverage to the problems of research/NGO cooperation.

3.2 Action

It seems that the lack of contact stems basically from the fact that the two sides have prejudices and inadequate information about each other. Although both sides would like to strengthen co-operation, the various agencies think that a framework should be established and resources made available in order that such co-operation might be sustainable.

3.2.1 The framework and resources for cooperation

The main proposals are as follows:

- a) The establishment of a research and development unit comprising NGO/Village Development Association officials and researchers, which could be extended to other agencies. This structure could perhaps enable the various partners to set up joint research and development programmes on the basis of the priorities defined and expressed by rural people and the funding available to implement such programmes. This unit would also have the role of stimulating debate around problems of interest to the various partners, as well as co-ordinating the circulation of scientific and technical information. This process should be set in motion on the basis of the following criteria.
 1. Researchers should provide guidelines and check that NGO objectives correspond with development needs.

2. NGOs and research institutes should make arrangements for joint evaluation of ongoing programmes; this implies research participation in NGO or village development association co-ordinating units. Such participation is justified by the need to:

- Establish the precise areas where NGOs can provide effective support.
- Establish written agreements in respect of these specific areas.
- Include in these agreements the modalities by which staff and training exchanges will occur.

b) The establishment of a fund to promote and support partnership.

One of the major constraints facing national NGOs concerns financial resources. Most of these NGOs, while agreeing in principle to strengthening co-operation with researchers, stress their inability to cope with the financial implications of certain joint activities. This problem is just as acute for researchers. It is thus vital to consider ways to fund the various activities which this new partnership will involve. The main idea is to try to raise the interest of northern donors in supporting such a fund, but also to take more account of the need to encourage such co-operation in the funding granted to national NGOs directly.

The priority activities to be covered by this fund would include:

- Training NGO staff: following an in-depth identification of needs, training programmes should be set up to help such staff to master certain technology. In some sectors, needs are substantial and quite clearly identified (gardening, improved stoves, processing of agricultural produce), while in others further definition is required.
- Production of appropriate materials for the dissemination of scientific and technical information.
- Organisation of NGO/research meetings; seminars on research and development; organised visits to encourage exchanges of experience amongst small farmers and so on.

Once the framework and resources for cooperation have been put in place, certain other obstacles must be removed if this partnership is to be viable in the long term.

3.2.2 Lifting psychological barriers through regular contact

The first step in improving relationships between NGOs and researchers will be to remove the psychological obstacles which have given rise to prejudice on both sides. Most proposals so far concern the holding of regular meetings, in which all have expressed great interest. The initiative could come from the new unit to be established or, failing this, from the agencies representing NGOs (CONGAD, FONGS) or researchers. An initial meeting, bringing together all research and extension agencies, should make it possible to identify needs on both sides, common concerns and the type of partnership to be set up

for long term work. This will underline the desire for closer links by taking more account of the concerns of the partner agencies.

3.2.3 Improving the management of information

On the research side, the ISRA must improve its targeting of local NGOs when sending various publications through UNIVAL. However, the present dispersal of NGOs means that UNIVAL will have to work through the CONGAD. In order to avoid duplication, UNIVAL and CONGAD must consider pooling their respective data bases. The future establishment of the national scientific and technical information network should be mainly designed to rationalise the use of scientific and technical information by providing a focal point which will eventually gather together all information about rural development.

The need to simplify scientific language is another concern. Most research partners recognise that scientific language must be simplified to make it accessible to users. The main idea put forward to resolve this problem concerns the production of materials other than technical data sheets which can only be used by technicians. Such materials should aim to enable local people to gain direct access to information. To this end, materials should be translated into local languages. It remains to be seen to what extent the various research institutes could involve NGOs more fully in preparing data sheets to make their form and content more relevant to field realities. It has been suggested that a list should be drawn up of the needs for training and scientific and technical information felt by national and international NGOs, in order that the content of the various materials may be more relevant to such needs.

3.2.4 Strengthening the institutional capacity of national NGOs

Apart from financial constraints, national NGOs face constraints in terms of human resources. Where significant links do exist with research institutes, they generally involve international NGOs whose resources are less limited. At least in the short term, it is therefore hard to imagine that an improvement in the relationship between local NGOs and research institutes could come about without the involvement of northern NGOs. The idea is to encourage triangular co-operation (northern NGOs/local NGOs/researchers) with a view to strengthening co-operation between local and northern NGOs in establishing programmes with researchers. This would have the advantage for local NGOs of enabling them to overcome their resource limitations, as well as building their institutional capacity. This concern should be highlighted when defining the partnership framework.

Another way of strengthening the institutional capacity of local NGOs could be the secondment of researchers. NGOs like the idea but are worried about the cost implications. This could be a matter for the fund to promote and support the partnership between national NGOs and researchers, whose field of activity could go beyond the funding of sabbaticals for researchers and extend to the placing of young, job seeking graduates as trainees with NGOs.

3.2.5 Improving relationships with the public authorities

It is essential to make the central authorities more aware of the role that NGOs can play in supporting research and extension work. This will mean dissipating certain prejudices. Closer links between the CONGAD and DAST on the one hand and between the CONGAD and other ministries on the other could assist

in achieving this objective. Over time, this should help to put NGO involvement in the various national consultation and policy making bodies on a more formal footing. This will also mean that agencies representing NGOs must give the authorities more information about their activities and the role that they can play in the field of research and extension.

CONCLUSION

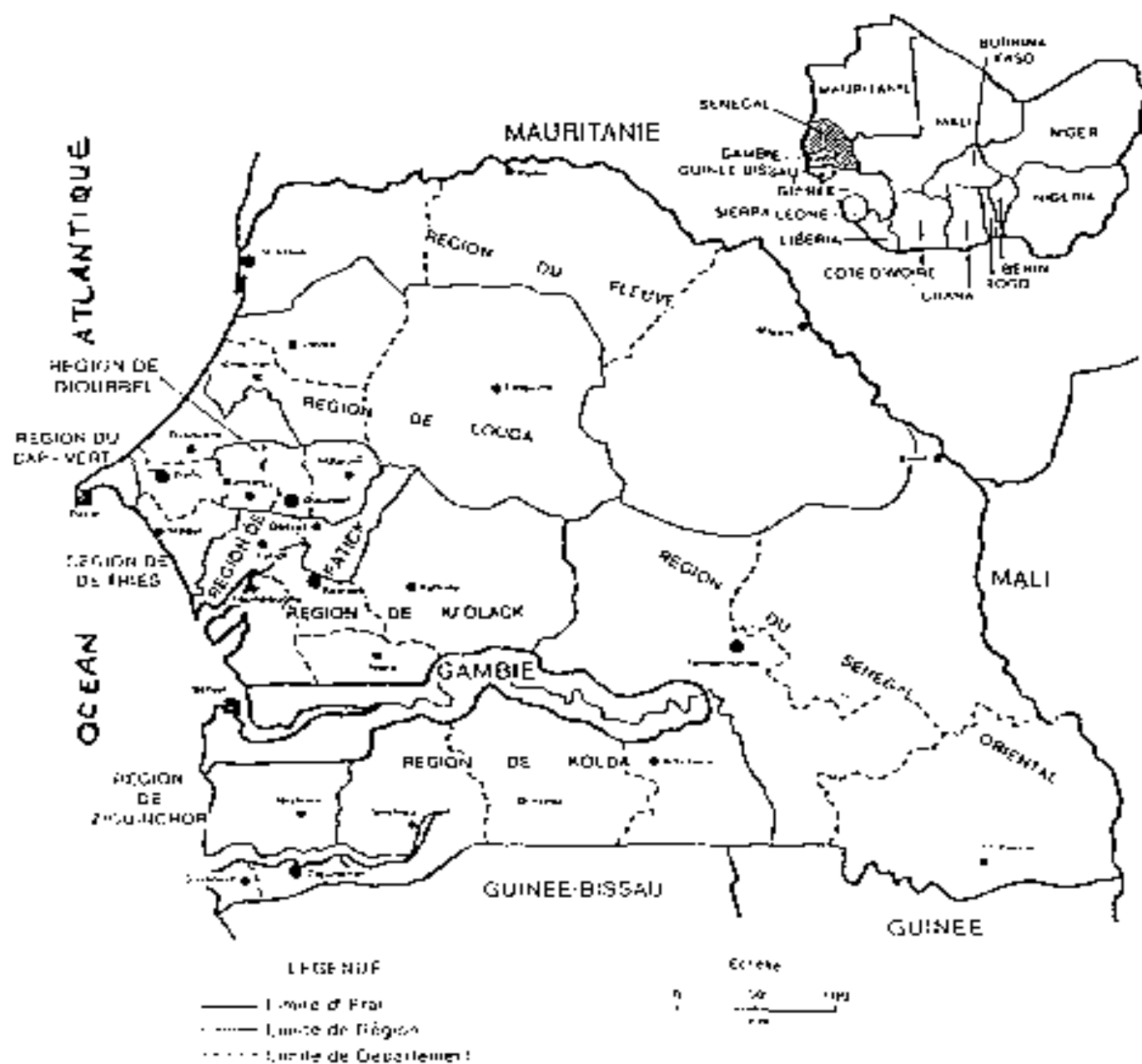
After conducting this study, it is clear that the psychological, institutional or organisational obstacles which have hitherto prevented close co-operation between researchers and national NGOs are not insurmountable, especially as the desire for closer links is obvious on both sides. However, there are some pre-conditions for the establishment of such a partnership, the most important of which have already been identified. As far as national NGOs are concerned, the main requirements concern training and scientific/technical information, especially in respect of gardening, fruit and vegetable processing and storage techniques, improved stoves, improvement of soil fertility, etc.

Researchers' ability to meet these requests will depend to a large extent on the resources available. The enhancement of NGO skills which would result from such training and easier access to information should, in turn, bring about qualitative and quantitative improvements in the support NGOs are able to provide in ensuring that research findings are more widely known and applied.

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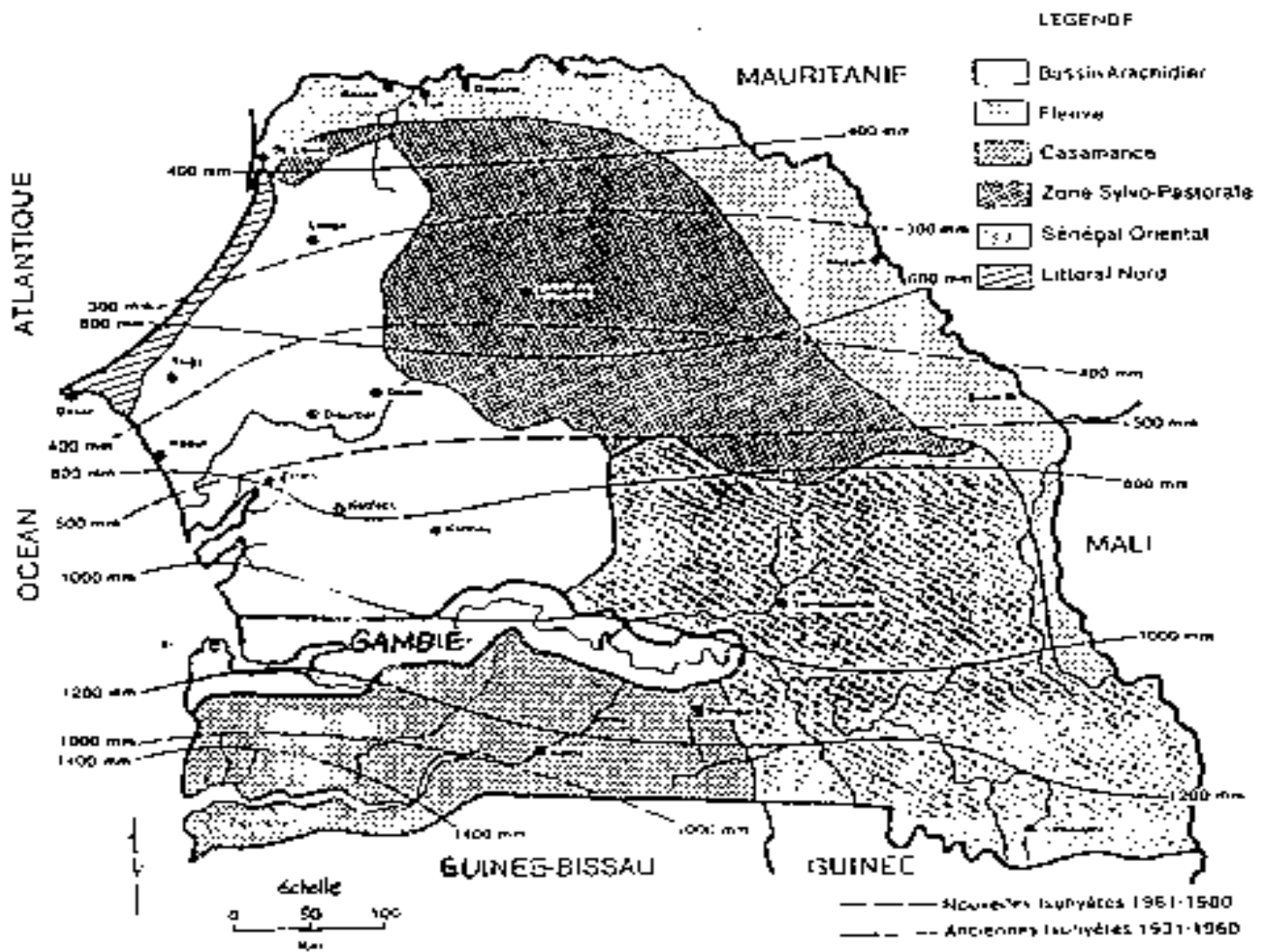
SENEGAL; ADMINISTRATIVE MAP



MAP 1

Source : Faye et Binquet, 1990

SENEGAL: AGRO-ECOLOGICAL AREAS



MAP 2

Source : Faye et Bingen, 1990



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