

**NATURAL RESOURCES SYSTEMS PROGRAMME**  
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The DEAR Project

# Info sheet

DECENTRALISED ENVIRONMENTAL ACTION RESEARCH No 3

## **Building District Information Systems for Natural Resource Management**

Policies for natural resource management at the district level lack consultation, dialogue, and consensus-building. They do not involve the rural communities in decision-making. The policies tend to be top-down implementations of national policy. They tend to be prescriptive –based on does and don'ts rather than presenting evidence and policy choices for discussion. They are often based on assumptions that do not reflect the complexity of the rural reality. They rarely take rural people's knowledge and livelihood strategies into consideration, or build upon existing good practices. As a result they are perceived by rural people as insensitive and against their interests. Thus policies and regulations rarely gain support from the rural people and or often ignored. Environmental policies rarely work in practice.

The major failing in environmental policy-making is a lack of information on the actual conditions of natural resources and their use by people. Policies are made within the districts without reference to information and there are no procedures for policy-making that involve reviewing the evidence, discussing different perspectives and policy options, and listening to the perspectives of different groups within the communities. There is no systematic process of collecting evidence and data and making it available for policy deliberation within the district assembly among the elected representatives of

communities. Most decisions are made by a small number of technical staff without extensive discussions in the assembly, in which representatives would put forward the perspectives and demands of their constituents. Yet existing legislation and regulations decentralisation make provisions, define roles, and lay down procedures for discussions of policy with communities, and the collection of data by the District Planning Coordinating Unit for policy deliberation.

The DEAR project is concerned with the lack of information in district policy processes. It has developed a programme in Kintampo District which aims to involve the district in the collection of relevant data on natural resources for planning purposes. District-based institutions will be able to manage this data, update it, and expand it when the need arises, ensuring its relevance for policy-making.

The DEAR Project carried out a pilot project in the New Longoro Area Council of Kintampo North District to develop an information system for natural resource management and environmental policy making. The data collected includes data on the population of the settlements, the primary and secondary occupations of the electorate, the crops grown, involvement in charcoal burning, tree planting, livestock rearing, bee keeping, the level of education, and various occupations and livelihoods. Since data was collected on the vast majority of adults in the New Longoro Area

(7,500 people entered), this provides comprehensive information on natural resources and their uses that can be used in planning for the area. The data can be used to identify the main activities in the various settlements; the main activities of different groups - including women, youth and migrants, the extent of particular activities within different settlements - such as charcoal burning. Services such as agricultural extension will also be able to identify the main settlements in which particular crops are grown and the individuals involved in particular activities, such as cashew cultivation or honey production.

In addition to this the DEAR project also created a new map of the district, since the old map was out of date and many new settlements were found in the course of the survey which were not known to the Area Councils and district. The new settlements were geo-referenced using a GPS and plotted on a map. It was created by using remote sensing data, but also from data collected by other projects within the district, such as the Kintampo Health Vitamin A project. Information from other national research institutions was also compiled including soil maps of the Kintampo area, and information from the last population survey. Following the completions of the survey it was extended to the Babato Area Council.

On the basis of the pilot project carried out in the New Longoro Area Council of Kintampo North District, the DEAR project has devised a methodology and principles for developing a district based information system.

### **Basic principles and considerations for managing information**

1. Information is about collecting data on changing conditions within the district that is communicated so that people can deliberate, and exercise choice about how things can be regulated for the collective good. This involves different interest groups dialoguing, making compromises and coming to a consensus of the common good.

2. Information is not concentrated at one place but is multi-sited. It involves policy makers explaining their policies and policy choices, and end users putting forward the conditions under which they live and their needs, and research verifying the relevance of policies and of people's demands.
3. Since information is part of a participatory process of exercising choice the collection of data and information can also come from different sources and involve people with different types of knowledge and skills. Information is not the preserve of the highly skilled and experts. The challenge is to synthesise or harmonise different types of knowledge so that they can be viewed together and create platforms where rural people can participate in policy-decisions.
4. Expert systems are expensive, difficult to update, and difficult to extend into the district administrative structures since they are characterised by a shortage of staff and shortage of highly skilled staff. Governments frequently choose to support expert systems for generating their data, as in national census. However the constraints results in a lack of information systems, poor management and use of information, and a lack of relevant and up-to-date information.
5. Within the districts, communities have many networks that are familiar with their environment and people, and can easily assemble a lot of data with minimum training. By assembling these networks to collect data and to process the data into information districts can begin to build information systems that can be used in policy-making.
6. The structures of decentralisation can be mobilised for the generation of information. Since the sub-district structures, the Area Councils, are relatively small they can easily assemble comprehensive data on all the people within their area. People can relatively easily be trained within the Area Council to conduct surveys, input the data into computers and analyse it. With minimum training this data can be assembled for use in policy planning. With practice and experience the information that the Area Councils can collect will become increasingly sophisticated. They are also

motivated by a desire for development within their community and a voluntarist spirit. Most positions within the Area Councils and Unit Committees are voluntary.

affect their lives are made since they affect their lives. They should be involved in discussions about policies and their needs.

**Steps in creating an information system in New Longoro:**

7. In contrast with this the size of districts - as compared to the number of staff employed, the low motivation of staff related to low levels of remuneration and training, and the rapid turnover of staff - makes it more difficult for them to generate and manage information on the district. However, the district is in a better position to collate the data and information systems of different sub-districts, harmonise them into a district-based system and solicit national level support for building the capacity of this system.
  8. The sub-districts and communities must be involved in determining their own information needs, designing their own surveys and analysing their data, so that they are able to use this in prioritising their own development needs and discussing this with the communities. If the Area Councils are merely solicited to collect pre-defined data for district, regional or national information initiatives, this will not result in a process of policy dialogue at the sub district level leading to the formulation of plans and needs put forward to the district for funding.
  9. It is relatively easy to establish an information system within the Area Councils and districts, with the advent of computer technologies with simple graphic interfaces. It is much more difficult to get this integrated into planning, since district planning has failed to be institutionalised within the structures of democratic decentralisation and implemented according to laid down rational procedures.
  10. Central government needs to play a more proactive role in building institutions that create support and monitoring structures for district planning and information management.
  11. Information is a right. People need to know the basis on which policies that
1. The DEAR team met with the Area Council to discuss natural resource management and information. The New Longoro Area Council discussed a survey it had intended to develop. After discussions a list of relevant information they Area Council required on natural resources was drawn up and designed as a simple questionnaire.
  2. The Area Council Chairperson took on the responsibility of coordinating the survey. [does not have to be Area Council Chairman] A working Group of 6 Area Council councillors was established to manage the survey. All the Unit Committees were informed and nominated people within their communities to input the data. Thirty people were nominated as enumerators. All people over the ages of 18 in all settlements were administered the questionnaire. In one month 7,500 people were covered in the New Longoro Area.
  3. The Area Council nominated eight people to be involved in the inputting and management of the data on computers. These included members of the Area Council and members from the community with some education up to Junior Secondary School to take part in the exercise. This included teachers but also farmers. None of them had ever used a computer before. Three of the data inputting team were able to learn how to analyse the data and to transfer it into a GIS programme. The inputting of data onto computers took place in Kintampo rather than New Longoro, since the Area Council office in new Longoro lacked electricity. The group were able to successfully input all the data collected.
  4. A Reference Group was established at the District Assembly, who were informed about the progress of the survey, who supported some of the activities and who were made responsible for informing the

district assembly about its development and institutionalising it within the district.

5. After the completion of the New Longoro survey the survey was extended to Babato Area Council. Members of the New Longoro information group became the trainers of the Babato group. In contrast with New Longoro, the Babato group entered the survey for all people within the area (including all those below 18 years).
6. Discussions and a workshop were held with district personnel focused on institutionalising the information system within the district, and ensuring that the Area Councils had access to their databases. The logistics of handing over the database to the Area Councils was felt to be impractical given that their offices lacked electricity and that they would experience difficulty in maintaining computers within these localities. Since there were a number of projects within the departments that used computers and had computer technicians the district administration could support the management of equipment. The District has agreed to house the information system within the district administration and give the

Area Councils access to the management of the survey.

The district has also agreed to house the database and to take over its management at a district level. It is interested in extending the survey to the third area council of Kadelso which will create a complete data set for the district.

#### **Lessons learnt**

Information is required by everyone to communicate their interests, perspectives and demands. No one group has a monopoly on information. All groups of people also have access to some information which is relevant, although information is always influenced by interests and perspectives. Democratic policy making involves including all group interests in society an discussions and reaching some form of consensus. Given that all groups have an interest in information; it makes sense to involve them in the creation and communication of information that can be used in policy making. This ensures that information collected is relevant but also discussed by different sections of society. This contributes towards creating policies that are participatory and involve rural people in their deliberations and rural people who are more aware of policies and the problems they are trying to solve. It mobilises the capabilities and capacities of rural people for development.

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