

NATURAL RESOURCES SYSTEMS PROGRAMME
FINAL TECHNICAL REPORT¹

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Project Title

Informing the Policy Process: Decentralisation and Environmental Democracy in Ghana

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PROJECT COMPLETION SUMMARY SHEET

Abbreviations and Acronyms

AC	Area Council
AD	Agriculture Department
BADS	Brong Ahafo District Support Programme (DFID)
CBDP	Community Based Development Programme (UNICEF supported)
DA	District Assembly
DEAR	‘Decentralised environmental action research’ (The Project)
DBH	Diameter at breast height (silvicultural girth measurement)
DCE	District Chief Executive
DEAR	Decentralised Environmental Action Research Project (R8258)
DFID	Department for International Development (UK)
DPCU	District Planning Coordinating Unit
GIS	Geographical information system
GoG	Government of Ghana
GPS	Global positioning system
GTZ	<i>Deutsche Gesellschaft für Technische Zusammenarbeit GmbH</i>
MIS	Management information system
NGO	Non-governmental organisation
OVI	Objectively-verifiable indicator
PRA	Programme for Rural Action (GTZ)
RCC	Regional Coordinating Council
SPSS	‘Statistical package for the social sciences’
TL	Team Leader

1. EXECUTIVE SUMMARY

The Decentralised environmental action research Project (*'DEAR'*) is concerned with the role of information in environmental management at the interface between government and rural communities. It has conducted in-depth field research in Ghana's Brong Ahafo Region on the ways in which information figures in environmental decision-making, and has sought to help local resource users better manage information so that decision-making on the environment becomes more responsive to their needs. The research aims to improve the quality of information available to policy decision makers by supporting a two-way process: developing information flows upwards from localities to district administrations, and developing information systems within the district administrations that encourage policy makers to employ more consultative planning processes.

There were four outputs:

- ⇒ Devise an appropriate and publicly accessible *information system* for natural resource management within the district.
- ⇒ Build and help *networks of resource users* to develop programmes of concerns that can be put forward to policy makers
- ⇒ Build platforms of natural resource user networks as a vehicle to:
 - present demands to policy makers
 - sustain dialogue with them on appropriate policies;
- ⇒ Generate an interest in and demand for project ideas and services.

Activities included: supporting sub-district authorities to undertake surveys relating to natural resource use; updating district maps, using remote sensing data and GPS; analysing land cover changes; undertaking socio-economic studies of charcoal production and yam farming; investigating perceptions of the environment in the transitional zone among decision-makers at national level; participatory research on tree regeneration in farm and fallows; workshops with producers and decision-makers.

Attainment of OVI's at Project Purpose level has been positive. Two of the three area councils in the District have been supported to develop information systems under clear local ownership, which are far more detailed and accurate than anything which has gone before and probably exceptional by national standards. The District has requested Project support to extend the approach to the third and remaining area council. Two groups of producers (charcoal and yam) have been involved in developing networks which offer them a consolidated political base to articulate with policy makers and the policy process. The main challenge to the full achievement of project objectives has been the inadequate functioning of decentralised local government. In this situation, local-level platforms may have limited ability to achieve policy influence, even when working effectively on their own terms. With reference to NRSP Purpose, it is as yet too soon to say whether the approaches developed under the project will improve local livelihoods. The project's objectives concern behavioural changes which affect the relationships between district officials/office-holders and their constituencies. Its influence on the thinking of research partners and stakeholders – as well as its influence on the confidence of hitherto marginalised resource users to assert their interests in policy circles - may only be evident in the longer term.

2. BACKGROUND

The project (known in the field as *-The Decentralised Environmental Action Research Project, 'DEAR'*) is concerned with the role of information in environmental management. It has conducted in-depth field research in Ghana's Brong Ahafo Region on the ways in which information currently figures in environmental decision-making, and has sought to help local resource users better manage information so that decision-making on the environment becomes more responsive to their needs. Underlying these research objectives is a commitment to the promotion of local-level democracy in managing the environment. In other words, promotion of the view that people should be involved in decision making about development issues that affect them and about the natural resources they use to pursue and secure their livelihoods. The Project is founded on an assumption that information is central to sound management of natural resources and the development of effective local-level democracy, and that, in consequence, improvements in the quality and availability of information will have positive effects on both resource management and democratic decision-making.

Environmental policies tend to rely on narratives that are rarely evidence-based and make many assumptions about changes in the landscape. This is particularly the case in developing countries with high levels of natural resource dependence but socially polarised populations. Such assumptions include:

- ⇒ The view that 'wilderness' areas are pristine and free from human influence.
- ⇒ That natural environments are fragile, and in need of protection from the rapacious practices of humans, particularly the rural poor;
- ⇒ That the rural poor use inappropriate technologies that result in destruction of environments and the natural resource base.
- ⇒ That change and disturbance - particularly those initiated by humans - are synonymous with crisis and calamity, destroy the ecological equilibrium, and result in degradation which is, to a greater or lesser degree, irreversible.

These assumptions lead to two types of environmental policies. The first sees conservation policy as necessitating the exclusion of rural people from wilderness areas, the genetic resources of which are considered under threat. The second type of policy takes a managerial approach, requiring government policy makers and other important stakeholders - such as environmental NGOs - to take over stewardship of the resources allegedly under threat. A variety of devices are used to wrest authority away from resource users, and to justify and impose controls in the name of posterity and in the interests of the unrepresented future generations. These include the promulgation of crisis narratives which warn of imminent environmental destruction if affairs continue on their present course (Roth, 1989; Roe, 1991; 1995; Leach & Mearns, 1996; Leach & Fairhead, 1998), and the introduction of modernising technologies which profit from the elites' claimed superior scientific knowledge about the environment (Hill, 1986; Hajer, 1995). Where an immediate threat is lacking, Malthusian arguments are used to justify the need for urgent action, even despite the contrary evidence.

Such assumptions influence the interpretation given to the principles which fashion policy development. For example, community participation has become an important concept in natural resource management. However, in the contested area of environmental policy, notions of community participation tend to focus mainly on the roles that communities can play in controlling resources to prevent free riders degrading the environment, rather than, more positively, on the rights of rural communities over resources, and to the livelihoods that derive from them. The predominant tone tends to be one of ‘saving communities from themselves’.

Narratives of environmental destruction have not passed unquestioned in the development studies literature. Recent research has challenged the assumption of equilibrium, proposing rather a view of ecosystems as dynamic, characterised by change, and subject to long histories of human intervention (see: Fairhead & Leach, 1998; Maley, 1996). This approach overturns the theoretical assumptions that underpin much restoration ecology. If processes of degradation and deforestation are to be reversed in the name of environmental restoration, to which point in a long history of change is the environment to be restored? It is argued that if no ecological equilibrium exists, then plans for the environment must be based on normative decisions, not technical facts – that is, a vision of how landscapes should look and function, and notions of rights and entitlements to natural resources and environmental services.

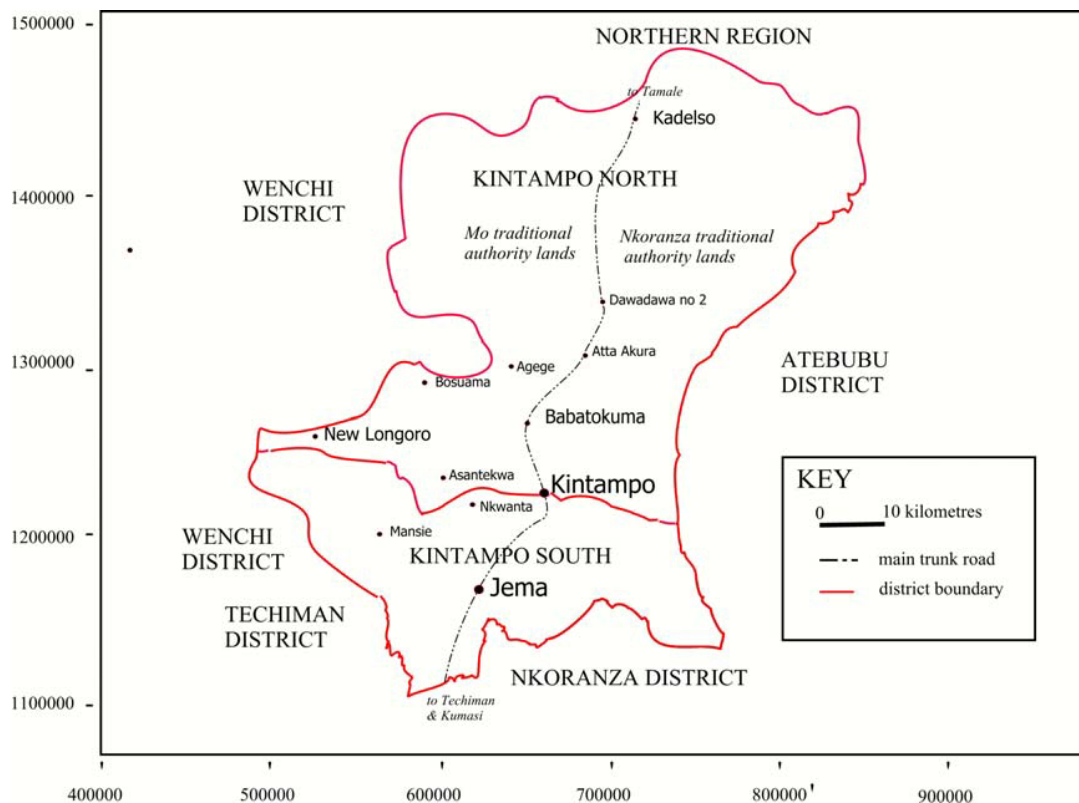
A topic of particular interest in the present context concerns the role of coalitions in environmental policy, as exemplified by the work of Hajer (1995). Coalitions can only be built if the potential networks that make up the coalition can understand each other and work within a common framework. To achieve this, environmental policies work through symbols which focus and ‘rally’ the networks. These symbols tend to depict a crisis that needs rapid intervention to save the situation. The notion of ‘crisis’ justifies the interventions of the network, the mobilisation of supporters, and the distribution of resources to the various actors in the network. The symbols allocate blame to certain groups. The attribution of ‘blame’ infuses the coalition with moral authority and empowers it to block and marginalise other groups whose views are not sympathetic to the coalition. As new groups join the coalition, they add their story lines to the coalition, and translate its objectives into their situations and circumstances. Through this interlinking of various story-lines joined by common overarching symbols with moral dimensions, a policy coherence is achieved which links global to local situations, and draws up political alignments throughout the various localities and institutional contexts that constitute the coalition. Such analysis illuminates the functioning of both narratives and the underlying policy processes.

Finding innovative ways to interrogate conventional wisdom and translate new agendas into policy has engaged a number of researchers in recent years. Solutions suggested include creating counter narratives and building selective networks of sympathetic voices. These both run the risk of becoming a barrier to evidence-based policy. An alternative – favoured in the present context – is to promote policy with alternative policy scenarios backed up by evidence. Capacities of civil society actors to advocate are then developed, based on the use of evidence in stimulating deliberations and the development of the consensus of the groups involved.

The Ghana Context

Research was undertaken in the North and South Kintampo Districts of Ghana's Brong Ahafo Region (Figure One).

Figure One: Kintampo Districts, Brong Ahafo Region



Previous NRSP research in the Brong Ahafo Region (referred to hereafter as ‘the Scoping Study’) found wide acceptance of a very negative characterisation of the environmental condition and the progress of alleged environmental destruction. There was a powerful narrative of anthropogenic environmental destruction, and a strong notion of local ‘blame’. This sanctioned the view that local users were ill-equipped to manage their resources, and that external and local elites must intervene on behalf of the collectivity (see, for example, Amanor and Brown, 2003; R7957 FTR, 2002; Amanor, 2004).

This was despite the process of local government decentralisation which has been put in place in recent years. In theory, decentralisation should encourage more responsive policy development, in that it enhances the democratic authority of local populations. The constitutional provision for decentralisation provides a framework for the administration of resources, based on participatory democracy. The various units which make up the system (elected district, sub-district and local representatives; the district level

departments that report to them, and the regional council providing capacity building and governance controls) come together to provide what is in essence a sound framework for the devolution of power. However, in practice this framework has been created without establishing the necessary mechanisms to deliver downward accountability. Local government still responds predominantly to the interests and agendas of national elites and central government. At the same time, civil society lacks the potential to act as a countervailing force, to press for the local interests.

It is against this background that the DEAR Project has worked to develop a more locally-responsive approach. In a context dominated by strong and constraining narratives of a hegemonic and profoundly anti-poor character, new approaches to research are required if evidence from resource users is to be drawn successfully into policy development. The Project has sought to better understand environmental policy processes, and to develop innovative methodologies for user control, where local communities are empowered to champion their interests against the centrist narratives, within a structure of decentralised management and in support of a framework of participatory democracy.

3. PURPOSE

'New approach to environmental decision-making under decentralisation which can improve the livelihood opportunities of poor people, developed and promoted at the FAI in Ghana'

The research was concerned with environmental management at the interface between government and rural communities. This interface occurs at the level of local government since, in this context, most government agencies are incorporated in some form or other into the structure of district administration. The work examined the use of information in the management of the environment and the extent to which environmental management is influenced by political agendas rooted in the control of natural resources.

Evidence is synonymous with information, and the communication of information is closely related to planning processes. Where national policies are informed by a clear recognition of the need for evidence, this is likely to result in demands for information flowing up the administrative hierarchy and the building of local level capacities to collect, manage and communicate it. Where policies are largely based on over-centralised planning, dogmatic prescriptions are more likely to be transmitted down the administrative hierarchy with little demand for feedback. Over-centralised planning processes at the national level will also translate into top-down planning processes at district level. There will be little downward accountability or attempt to create transparent planning processes which are justified by evidence. Figure Two presents these alternatives in diagrammatic form.

The main objectives of the programme were to:

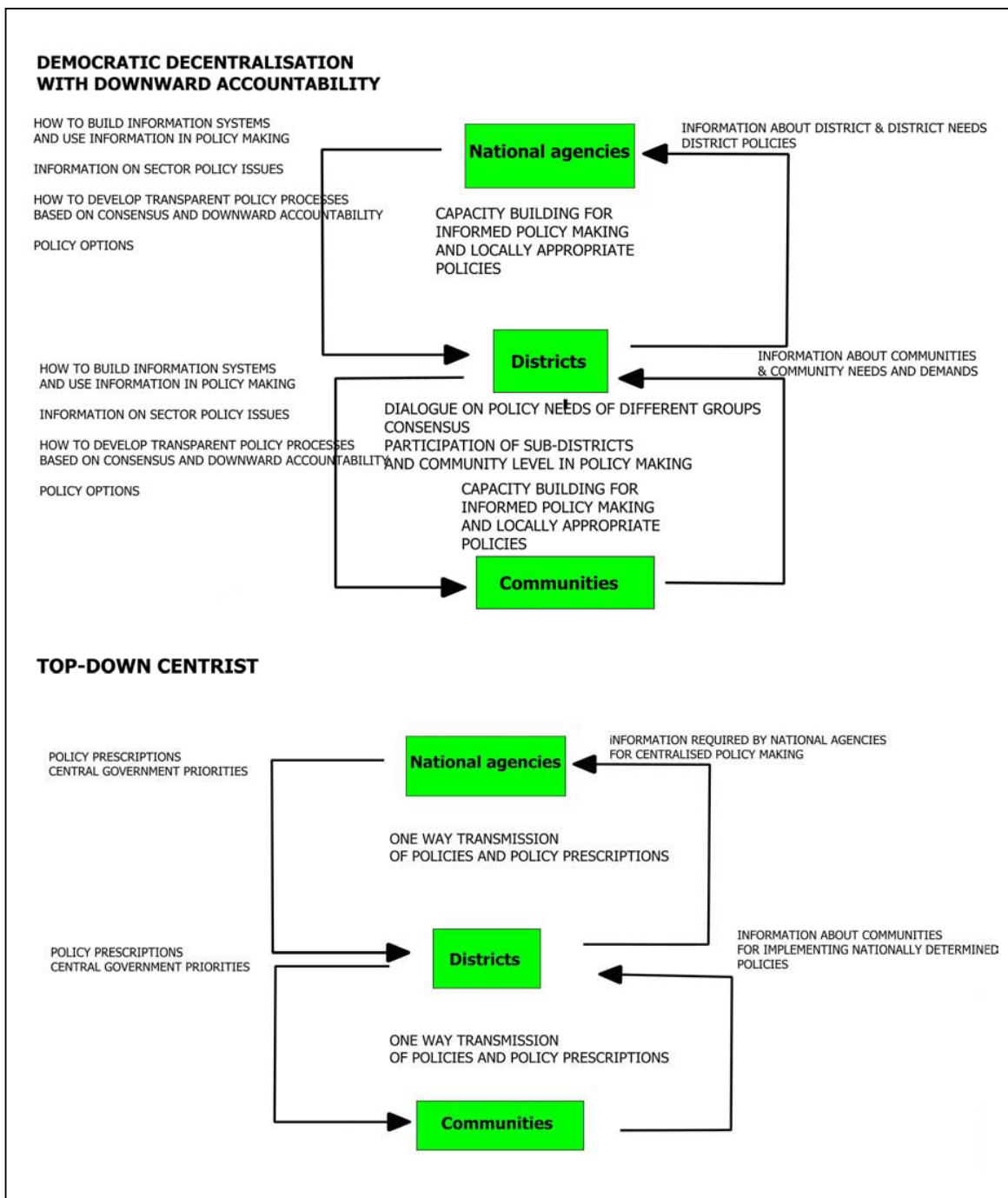
- ⇒ Devise an appropriate and publicly accessible *information system* for natural resource management within the district, which would:
 - provide a basis for planning, drawing on evidence of conditions within the district;
 - promote a consultative process with community participation.
- ⇒ Build *networks of resource users* who might come together, analyse their situation and develop a programme of concerns and demands that could be put forward to policy makers
- ⇒ Build platforms of natural resource user networks as a vehicle to:
 - present demands to policy makers
 - sustain dialogue with them on appropriate policies, resulting in more consensual processes of policy making.

The notion of 'information system' is used here in the sense of an institutionalised process for collecting, analysing and updating information for policy-making. The main emphasis was on analysing and elaborating the process of building an information system under user control, rather than just assembling data according to a set methodology. The building of platforms aimed to permit a two-way flow of knowledge: the information

needs of producer networks can be put before policy makers, and policy makers can communicate the information they have at their disposal to citizens (Annex E, I).

Research was also carried out on specific issues related to the interests of the various networks and controversies that emerged in natural resource users (Annex I). The research sought to collect data on key resources of relevance to the various networks (Annex J). This data was used to inform the networks and the platforms, but also provided the basis for independent analysis.

Figure Two: The role of information in national policy structures



Research centred on Kintampo District, in the transitional Brong Ahafo Region of Ghana. There were three main categories of project partners:

1. *Local Government Authorities*: The Kintampo *District Assembly* (subsequently, this became the Kintampo North DA, after a revision of district boundaries, which split Kintampo into two); the *Area Councils* (sub-districts) within the Kintampo-North District (New Longoro and Babato-Kuma; levels of contact with the third, Kadelso, are discussed below).
2. The *District administration* (working mainly through a *reference group* which was established in the District Assembly, comprising senior level district officials - the Deputy Coordinating Director, the Planning Officer, the District Forestry Officer, a representative from the Ministry of Food and Agriculture, and the District Environmental Health Officer/Chair of the Environmental Committee).
3. *Resource users in the communities* (chiefly the various groups of yam farmers and charcoal producers).

In examining information systems, the study focuses on four different scenarios:

- 1) A situation in which there was *little data available for policymakers*. The main focus in research here included the following:
 - to determine how low level decentralised agencies could effectively collect information;
 - what appropriate tools could be generated to enable information to be collected at the community level with the participation of communities;
 - how information about localities would help policy makers to develop more sensitive policies, a better appreciation of the interests of various groups within the area under their jurisdiction, and more capacity to engage in learning, deliberation, consensus building and representation to higher administrative bodies.

This case study was developed in relation to the Area Councils, the lowest level of administrative decentralisation (See Annex B and E).

- 2) A situation in which *a particular interest group felt maligned in the policy world*, where their livelihood activities were presented in policy frameworks as promoting deforestation and unsustainable land use. The main focus here was on the following:
 - How could the group effectively network to articulate its positions and present evidence to policy makers that its activities did not degrade the environment?
 - To what extent would policy makers listen to them and incorporate their perspectives into policy processes?

- How would policy makers respond to their representations and deliberate on the new information presented?
- What were the available channels through which representations could be made and how effective were they?

This case study was developed in relation to charcoal burners (see Annex C)

- 3) A situation in which *a significant group of farmers felt marginalised and was unable to place its needs to government services, and call upon development services to find solutions to problems they faced*. The objective here was to find out:
- Ways in which farmers could develop a programme and place their demands to government services effectively;
 - the ability of development services to respond to particular demands of citizens and their capacity to network in new ways to arrive at solutions and place the local demands to higher level national agencies;
 - The main constraints in research and development services which resulted in the marginalisation of the farmers and a lack of support for their activities.

This case study dealt with yam farmers. Although they were the dominant farmers in the district, they received very little support from extension agents and research services (see Annex D).

- 4) A study of *perceptions among national level policy makers and NGOs*, about natural resource issues in the rural areas, and the implications this has for decentralised natural resource policy-making (see Annex G).

With the exception of the perception study, the other case studies involved a series of interventions which were made to observe institutional responses and capacities to change. They therefore constituted a programme of action research.

4. OUTPUTS

OUTPUT ONE: INFORMATION:

'Improved quality of information available at regional and district levels on production systems, constraints, resource bases, different resource interest groups and options for social groups and communities within the district'

<The response is amazing. People with very little education handling - not just typing on the computer, but entering data and doing analysis, with interesting outcomes. They were using the system called SPSS. In our Communications Research class, this was quite complex for some postgraduate students. Certainly the approach is all that matters as I gleaned from the expert on the use of the information systems on the project- Opoku Pabi. "We learn from them and they also learn from us. We also try to use what we learn from them to solve their problems. That makes it an Action research." Opoku added. The name of the project is not far from the explanation. For some time, the Kintampo North District has benefited from the DEAR project. >

UNIIQ 95.7 FM Radio, 17 June, 2005.

Assessment of Output

Output One has been substantially achieved. In line with the proposed OVI:

- ⇒ An information facility has been developed in forms accessible to local users;
- ⇒ Community interest in collection and analysis of information is attested to by the experience of two ACs in establishing GIS databases;
- ⇒ Evidence of local demand is shown by the extension of the information system from the pilot AC to a second AC, and then by request of the DA for guidance on its further extension to the remaining AC in Kintampo North.
- ⇒ The DA has agreed to take over, house and manage the database, post-project, guaranteeing access for local users.

Key Findings

1. There is wide recognition of the value of information in policy, though there is a tendency for information to be used to justify policy decisions already taken, rather than to actively inform and influence their formulation.
2. The preference of government is to use experts to generate information in relation to pre-defined questions responding to its own interests, rather than to seek to illuminate decision-making in a more participatory and open-ended way. This has consequences for public attitudes to the policy process. It tends to reinforce elite opinions and disempower local level actors.
3. Decentralisation provides a framework for consultation with communities. However (per '2' above), a tension exists between the centrist drive of policy and the consultative mandate of decentralised government. This undermines the

functioning of the lower-level administrative units, whose rationale is to manage the interface between local government and the communities.

4. Strong justifications exist for broadening the information base beyond such experts, in order to:
 - a) improve the relevance of information;
 - b) satisfy a democratic imperative (people's right to be consulted over issues that affect their lives);
 - c) bridge the gap between policy formulation and implementation.

Surveys:

5. The DEAR Project has shown that, with modest levels of training, it is relatively easy to mobilise resource users at Area Council level to carry out effective surveys, as well as to input and analyse data.
6. Contrary to the general perception, rural communities in the sub-districts have a keen appreciation of the need for information in natural resource management and socio-economic development.
7. It is cheaper to establish a community information system at the sub-district level since members are ready to work on a voluntary basis. Likewise, the trained individuals are more likely to offer their services in future when information is to be updated.
8. The DEAR Project also shows that it is feasible for the lowest levels to manage information successfully. This is a function partly of the relatively small size of the areas in question, and the strength of the networks of resource users (in terms of proximity and knowledge). The sub-districts know their communities well. With their collaboration, it becomes easier to identify data sources and establish gaps in information flow between the communities and the sub-districts. They are also more sensitive to inaccuracies in the data provided by members of their communities in questionnaire administration. Thus community management improves the quality of information generated.
9. However, while it is relatively easy to create an information system at the Area Council level, it is more difficult to get information used in planning, since this involves political factors and relations with higher levels of bureaucracy in which commitment to service and incentives are poorly developed, and which are characterised by top-down institutional processes.
10. Thus, the barriers to the successful use of information by local communities are political and not informational. As a result, external support is likely to be required if the local levels are to be empowered in this fashion.
11. Not all information changes lead to 'win-win' scenarios. For example, besides contributing to understanding of the bases of rural livelihoods, surveys may be used to enhance tax revenues. While such activities may be justifiable in relation to long-term community welfare, they are likely to generate an element of social conflict within the communities. It will increase their acceptability if they are associated with benefits which are immediate and positive – as when improved information allows area councils to better access central government services and transfer schemes.

Remote-sensing:

12. Remote sensing has proven to be of greatest value as a research activity carried out by the project to address the needs of the research community, rather than the basis of local information systems. This is because caution is needed if it is not to be used as a vehicle to convey simplistic messages based on partial interpretations of data.
13. However, it can be used in a variety of useful ways. It has proven particularly useful in generating district maps, and from this has followed other useful functions such as improved and better targeted survey design.

Description of Output One

The main focus of this output was on the use of information in the structures of the local administration. Research examined the ways in which information is institutionalised, assimilated and communicated at the district level. Research also looked at the relationship between information and planning: the types of information that are used in planning; and the extent to which evidence, dialogue and consensus form part of policy planning. One of the objectives was to devise an appropriate information system for natural resource management which would provide the grounds for evidence-based planning. This information system needed to be relevant to the requirements of district natural resource management, usable within the districts, while at the same time promoting participation rather than narrow technicist and top-down approaches. To meet these requirements the information system needed to:

- ⇒ build upon existing capacities and capabilities;
- ⇒ be rooted within the institutional frameworks of the district;
- ⇒ compatible the existing financial, human, social and cultural resources, so as to be sustainable.

The study sought to identify appropriate levels within the process of decentralisation at which information gathering and analysis could be developed, so as to enhance the management and updating of information about natural resources in the district, and their use in policy processes.

Information for policy making differs fundamentally from information for academic research. While academic research is able to use case study methods which are later scaled up and tested, a prerequisite for sound administrative decision-making is comprehensive data on the whole area under the given policy domain, leading to unbiased decisions as to where to allocate resources. This caveat had practical implications for the DEAR research. Given the size of Kintampo North District, creation of a comprehensive information system for the whole area would have been impractical. Thus intervention was limited to the lowest policy domain – the Area Council level. The Area Council represents the most appropriate institutional structure at sub-district level, in that this is the lowest level with both a formal planning mandate and the means to

execute it, receiving (at least in theory) the proportion of the district assembly revenues raised in the locality.

The research team began by seeking to identify a suitable Area Council with which to work. The main criteria were:

- ⇒ Evidence that it was active and functioning, as reflected in regular meetings and an operational agenda;
- ⇒ Interest in natural resource management, willingness to take part in conducting a survey and engage in the entry and management of the data; ability to commit resources to this;
- ⇒ Willingness to share the results, and engage in dialogue with the communities and groups of natural resource users in the area.

On these criteria, New Longoro was selected as the most favourable Area Council in Kintampo District. Work began there and was extended to Babato-Kuma in 2004. In 2005, the Project was asked to advise the District Assembly on how information gathering might be extended to the remaining Area Council (Kadelso). This provides an important indication of the Project's positive impacts, and of its success in transferring responsibility and 'ownership' to the participating communities.

Research began with general social surveys on conditions of agricultural production and charcoal burning in three settlements within the New Longoro area. The main objective in building information systems within the district institutional structures was to promote more informed policy-making based on deliberation, consultation and evidence. The objective of building networks of users was to create demands on policy makers, to ensure that the perspectives and demands of end users were represented in the formulation and implementation of policy. Research was interdisciplinary, involving the collection and synthesis of socio-economic, institutional, ecological and spatial data at different levels within the landscape (see, for example, Annex M).

Among the indicators of success of this initial survey work were the following:

- ⇒ Agreement on complete coverage of the whole adult population (18 years+) within the survey period;
- ⇒ >80% of responses within the first six weeks;
- ⇒ Management of the survey by the Area Council, under its own initiative, with technical advice, training (in survey methods and data entry), and minimal financial support from the Project;
- ⇒ 7,500 records inputted, to establish a fully functional database within six months at New Longoro.

Scaling-up

This experience was later transferred to the second AC, Babato-Kuma, using the New Longoro enumerators to train a new 8-person team. Again, within a six month period, the majority of questionnaires (8,947 in number) were inputted into the database. Area coverage in Babato was less complete than in New Longoro, but the experience confirms the capacity of the AC to collect information relevant to its planning needs.

Out of this AC level work, the Project began to develop a district database in which the results of the survey conducted by the Area Council could be incorporated. This involved synthesising all existing data that could be found at the district, regional and national levels and within specialised agencies. The project also devised ways of sifting information from the partial records of the activities of the district administration.

A summary of survey work undertaken, and statistics generated, is provided in Box One.

Outcomes:

With regard to Output One, the main achievements were:

- ⇒ Heightened awareness at district level of the importance of information in environmental decision-making, and the need to improve the quality of information available to decision-makers in the Brong Ahafo Region.
- ⇒ Creation of a GIS database of two Area Councils and training of people within the community and Area Councils to undertake surveys, and collect, input and analyse data.
- ⇒ Updating of district maps (settlement and land-use cover).
- ⇒ Establishment of an information system for the first Area Council, and its extension to the second AC by members of the first, with the research team only facilitating and providing technical backstopping.
- ⇒ Agreement of the District Assembly to take over, house and manage the database.
- ⇒ Expressed interest of the District Assembly in extending the information system to the Kadelso Area Council, to complete survey for Kintampo North District, using its own resources. The District Chief Executive has requested DEAR's help in drawing up a budget.

Box One: Summary statistics on Output One

[from O. Pabi]

New Longoro AC

- ⇒ The survey covered 48 communities (most of them in locations with poor accessibility), scattered over an area of approximately 1123.21 km²
 - 30 persons were involved in the enumeration
 - 10 persons were trained for data entry in SPSS (these included Area Council and other community members and personnel from the district Ministry of Food and Agriculture), three for data analysis in SPSS,
 - 10 persons: Area council and community members and personnel from Ministry of Food and Agriculture were educated on the basic concepts of GIS, data display in Arcview software and some applications.
 - 4 were trained in data entry and editing in Arcview software

Output of data analysis

- Several statistics based on communities, gender, tribes, age groups, were generated in SPSS. Soft copies and hard copies are available.
- More than 60 thematic information items were inputted for the communities in the Arcview table

Babato-kuma AC

- ⇒ The survey covered 36 communities (most of them in locations with poor accessibility), scattered over an area of approximately 1566.77 km²
 - 29 persons were involved in the enumeration
 - 7 persons were trained for data entry in SPSS (Area Council and other community members), three for data analysis in SPSS,
 - 5 educated on Arcview software and some applications

Updating of Districts maps

- ⇒ The Kintampo North and South maps were updated with 43 communities that were geo-referenced by community members using GPS
- ⇒ Large formatted district maps of the scale 1:150,000 and 1:120,000 were printed for district departments.

What is less certain is the future use of the information generated. The collection of data from communities using sub-district structures is one thing. Getting information used in planning processes quite another, and much more difficult as it is influenced by political factors and deep-seated institutional practices. It remains to be seen whether, in the absence of the DEAR Project, the ACs are able to use the newfound information at their disposal to champion their own interests – even against the probable resistance of the bureaucracy. The latter remains excessively dependent in its attitudes to and relations with central government. The reasons for this are to be found in the truncated process of decentralisation, and the low level of commitment to local government decentralisation in the present government. At the same time, the GoG sees environmental knowledge in terms only of elitist expertise, and decentralisation has not generated a culture of information sharing and transparency

There are three other areas of concern:

- i. *Political dynamics at AC level:* leadership is highly factionalised, and heavily contested within the councils. In cases such as New Longoro, this has had debilitating effects on its ability to build on the successes of the project, and to use the information system proactively. One consequence of this is that the Area Council has been weak in representing its interests at the District level.
- ii. *Political dynamics at DA level:* likewise, the DA level is also weak in representing its capacities and needs to the regional level. Within the DA there is little capacity to manage information or institutional recognition of the importance of information in planning. Local government officials and assembly members participating at the 2005 District Information Workshop were notably (and outspokenly) sceptical of district level planning and its failure to consult administration staff, as well as the paucity of

information sources used in the planning process (see Annex B). However, there are other pressures on districts to generate information, deriving both from the spread of new technologies and the growing interest of donors and investors in greater transparency. Whether these pressures will complement the DEAR approach, or act against it, is as yet uncertain. To the extent that they are informed primarily by top-down processes, they may well not translate into more democratic planning methods.

- iii. *The role of the Regional Coordinating Councils (RCC)*: decentralised information systems and planning might well be strengthened and enhanced by transforming the roles of the RCC, and making them largely responsible for realising capacity in information management and planning at the district and sub-district level, and building their capacities to realise this function. However, the growing focus of donors on central financing through the Ministry of Finance, and pressures on governments to comply to international policy prescriptions have both tended to strengthen centrist top-down approaches to planning, and have undermined the role of the RCC and the districts in building decentralised planning and policy-making capacity.

Sustainability:

The computing equipment and databases are in process of being transferred to the District Assembly, where they will be retained as a community resource. Other things being equal, it would have been preferable to allow the Area Councils and the communities to take ownership and responsibility for the system. The consensus, however, was that there is inadequate financial and technological capacity to maintain the system at these levels. Besides the limited capacity of the AC and communities, the small size of the relevant populations would not optimise the benefits and sustain their operations. Transfer has been made on condition that the DA will facilitate access, and not exclude the ACs, government departments and institutions, etc. from using it. The location within the Assembly premises is viewed as preferable to the alternative district-level location (within the district administration), in that it confirms the precedence of the elective levels over the bureaucracy. The arrangement should also facilitate collaboration between the ACs and the DA in data generation, which is a key objective for the project.

Key Project Documents for Output One: Annexes A, B, E, F, H-J, L, M, N, O.

OUTPUT TWO: FARMER NETWORKS:

'Networking between groups of farmers established within the region to share experiences on responses to particular problems and innovations'

Assessment of Output

Output Two has been partially achieved. In line with the OVI:

- ⇒ Two networks have been supported (charcoal burning and yam farming), and participatory research conducted on these themes; the former network extends to over thirty villages, the latter to five villages.
- ⇒ Network activities and farmer exchanges have provided the basis for mutual learning over environmental problems; participation in project workshops has been used to bring themes to the attention of the sectoral services (including a charter of demands from charcoal burners).
- ⇒ However, the networks need more time to consolidate, and there is a risk that political and sectional interests will hamper their development and sustainability.

Key Findings:

1. A precondition for responsive natural resource policy is the creation of networks where rural producers can come together to reflect on their situation, and develop a common programme which they can then articulate to policy makers.
2. A key to effective networking is meaningful representation.
3. Promoting effective networks of poor rural farmers carries high transaction costs; this is a major justification for external intervention.
4. Networking needs to be accompanied by serious in-depth research if it is to function effectively to allow resource users to influence policy.
5. Research has the capacity to link together otherwise-segregated producers and to generate comparative understandings; it functions to:
 - i. help producers understand policy frameworks and their impacts upon their livelihoods;
 - ii. develop a consensus of views;
 - iii. illuminate, and help resolve, conflicts between resource users;
 - iv. implement a common programme.
6. If representative networks are to develop, then caution is required in seeking to promote existing agendas; groups with pre-formed agendas are likely to be politically connected and influenced by elite interests; these are often disproportionately the middle strata.

7. Action research in support of network development is better advised to focus on the existing practices of farmers and the ways in which policy impacts on them than to seek to transform livelihoods; the latter risks undermining participatory development;
8. Policy can serve to disempower, as well as empower, producers. The functioning of each network thus needs to respond to the specific policy constraint. For example, where *policy marginalises producers* within a production system the value of which is nevertheless recognised and endorsed (as in the case of yam farming), then networks need to function so as to mobilise broad support. Alternatively, where *policy is antagonistic to the production system* (as in the case of charcoal), then networks need to seek to bring about more radical policy change.

This output focused on supporting the creation of networks of local resource users.

Environmental policy in Ghana involves a large number of partners and state/non-state actors. These include state forestry institutions and a plethora of local government agencies which contribute to management (organisations dealing with agriculture, information services, disaster management, security services, etc.), as well as experts, in the form of both international and local consultants, international and national NGOs, and (for implementation) civil society groups. Community participation has become an important concept in natural resource management. However, the community is often assumed to be an undifferentiated group representing the interests of all. In reality, 'community interests' may be controlled by modern or traditional elites, who represent their own narrow interests as those of the community. In the Ghana context these elites are composite and complex, including not just government officials and traditional leaders (the 'stool authorities') but also elected assembly members and various partisan groups. What these have in common is an interest in establishing their own right of control over resources which are, by and large, presently in the hands of the rural poor.

It is in this context that the Project has sought to work with community-based groups, to form and develop their own 'counter-coalitions' (Annex J). The purpose of these is both to promote community-level interests in the environmental policy arena and also (where they find it appropriate) to develop their own counter-narratives to challenge the hegemonic views of national, regional and local elites. A particular area of interest that emerged in discussion with the Area Councils and local bureaucrats (members of the DEAR 'district reference group') was charcoal burning, the major source of revenue of the district, but an activity surrounded by controversy. A second research area was agriculture. This eventually came to focus on yam cultivation, the major crop within the district and the second in rank after charcoal in terms of revenue generation. The research partners were groups of charcoal burners and yam farmers within select communities in the Area Councils. It became evident that the way to build networks was to engage in research activities around these interests: to investigate issues that emerged from their perspectives and to report back to these groups on the research findings.

Research began with general social surveys on conditions of agricultural production and charcoal burning in three settlements within the New Longoro area. In addition, joint research was established with a small number of farmers and charcoal burners on farms and fallow, collecting information on regeneration. The objective of this study was to better understand the potential for natural regeneration, since little data exists on this in the transition zone. The main findings of the research are summarised in Box Two. These findings were discussed in group meetings and at workshops organised within the project headquarters in Kintampo. The networks rapidly expanded to encompass a large number of settlements representing the district, and extending into area councils outside of the immediate Project area.

A striking feature of the policy process in relation to charcoal is the level of external antagonism to the production system (See Table 1, below; also Annex C; cf. Annex M). This is paradoxical in view of the heavy dependence of most district assemblies in the Brong Ahafo Region on revenues raised by taxing charcoal production (Table One). Charcoal figures prominently among the motifs of alleged environmental destruction and as a symbol of local destructiveness, but it is symptomatic of the strength of elitist narratives that this conception was rarely challenged by policy makers in the district. High dependence of the assemblies on charcoal revenues was matched by high national dependence on charcoal for fuel, and high local dependence for local livelihoods. Thus, charcoal commended itself to the research as an environmental commodity of high importance, albeit one marked by a notable imbalance in public perceptions, and an absence of evidence-based policy. Clearly, if the high revenue share from charcoal was indicative of unsustainable production, then this would be undesirable on both economic and environmental grounds. However, this conclusion was not borne out by the research (Box Two). Existing production systems were judged sustainable on both economic and environmental grounds, and their sustainability derived in part from their association with farming systems. This has policy implications. Policy should focus on reinforcing the authority of producers to manage their resources in line with established local codes of conduct, rather than (as is presently the case) seeking to prohibit indigenous production systems in favour of unproven and economically uncertain alternatives with some highly questionable environmental effects.

The research on charcoal led to a series of meetings with farmers in 2004-5. The findings of these were fed into two large workshops in the District, in 2005. At the first workshop, findings were discussed and distilled into one page of demands. These were presented to the District Assembly and Area Councils at the second major workshop in the District (see Annex A, section 4). Participation increased progressively over the period. Thus there were 18 participants from 8 settlements at the first meeting in July 2004; 54 from 14 settlements at the workshop in December 2004; and 73 participants at the workshop in February, 2005.

Box Two: Main Findings of Charcoal regeneration study

- a) The study involved participatory research with farmers and charcoal burners over the life of the project. There were three components: [i] quadrates in a number of bush sites, and girth [DBH] measurements; [ii] quadrates and inventories on farms

- and fallows, and records of the number and nature of coppices, tracing the history of land use within the plots; [iii] coppicing experiments on common lands.
- b) A variety of species were identified as commonly preserved on-farm, and several of these were exploited for charcoal. Regeneration from coppices of stumps, felled, or burnt trees on-farm was extensive and particularly strong on farms that had been abandoned after 1-2 years (less strong where plots were intensively farmed for several years); the heights at which the stumps are cut influence the process of regeneration, and this is well-understood by producers.
 - c) The hypothesis that charcoal production under local conditions destroys the environment was not supported by the research.
 - d) Charcoal burners are selective in their cutting strategies, in relation to species (with a preference for prolific coppicers), girths and frequency; trees in community-designated forests are not cut for charcoal, even in areas with large numbers of producers, and high frequencies of preferred charcoal species (such as ‘Kane’, *Anogeissus leiocarpus*).
 - e) Locally-adapted codes of conduct have been established in the various producer communities, and these are well-respected.
 - f) Most coppicing species are common and robust, and rapidly regenerate, with a maximum cutting cycle of 8-12 years; with sound practice, it is possible that harvesting regimes of 4-6 years could sustain production.
 - g) The effects of charcoal burning on the environment cannot be separated from those of yam farming; most of the species and specimens used for charcoal are exploited on-farm, and are cut or burned during land clearance for yam cultivation; many of those used for staking yams are used subsequently for charcoal production.
 - h) In view of (d), above, the preferred option of policy makers – charcoal woodlots – is unlikely to be a viable option. Apart from the farming systems considerations above, the environmental effects of clear felling, monocultures of alien spp., etc. must also be questioned, particularly as this is a fire-prone zone.

Table 1: Area Council Revenues in Kintampo North, 2000-4 inclusive

[In New Cedis]

BABATOKUMA AREA COUNCIL						
<i>Year</i>	<i>charcoal</i>	<i>farm produce</i>	<i>Market</i>	<i>others</i>	<i>Total</i>	<i>% charcoal</i>
TOTAL	226,167,800	122,699,500	43,083,500	7,426,500	399,378,800	60

KADELISO AREA COUNCIL						
<i>Year</i>	<i>charcoal</i>	<i>farm produce</i>	<i>Cattle</i>	<i>others</i>	<i>total</i>	<i>% charcoal</i>
TOTAL	181,929,000	43,165,120	15,945,000	3,722,100	244,761,220	70

NEW LONGORO AREA COUNCIL						
<i>Year</i>	<i>Charcoal</i>	<i>farm produce</i>	<i>Others</i>	<i>Total</i>	<i>% charcoal</i>	
TOTAL	212,495,710	49,785,000	12,037,900	274,318,610	76	

By contrast, the platform organised for yam farmers was not concerned with articulating a set of demands for policy changes, but rather with developing an analysis of the farmers' situation and the considerable (but varying) stresses they were under; thus, understanding the very complex interaction of environmental, market and genetic factors that had led to their current difficulties. This reflects the more secure political standing of yam production, but also the greater variety of production conditions yet the common concerns of local producers at declining yields and profitability (*see*: Annex A, section 5).

The project has worked with five yam farming communities (chiefly, three settlements in the New Longoro and Babato sub-districts). Partners have included men and women, mature farmers and youths (conflicts between the mature farmers and the youth are often particularly pronounced and reflected in sub-district politics). Networking among the yam groups was different from that among the charcoal groups. Groups were smaller in the former case, and tended to meet in an impromptu way in their settlements around a focal person, many of whom were youth. This made it somewhat more difficult for project-based interaction than was the case with charcoal, although meetings were nevertheless frequent, and yam farmers participated actively in the regeneration study. Policy-relevant issues specific to yam have not been easy to identify, however. While it was tempting for the Project to perceive its mandate as looking for means to resolve conflicts between different categories of yam farmer, this temptation was resisted (the Project's focus was on the problems which resource users had with the policy world, not their conflicts with each other, which an external intervention might well serve only to exacerbate). As understanding and analysis of yam farming developed, the Project was able to bring the farmers together with NGOs (such as Abrono Organic Farmers' Project a local group supported by CARE-Ghana) and the relevant extension services. A workshop was held in October 2005, with participants from all of these stakeholder groups. Among the farmers participating, were 59 persons from seven settlements (45 males and 14 females). The farmers are now developing a joint research programme with the Crops Research Institute at Kwadaso-Kumasi, which will seek to marry the latter's interesting yam genetic variety improvement with the farmers' own adaptive strategies, and then to link up the farmers with the extension services and NGOs.

Key Project Documents for Output 2: Annexes A, C, D, P.

OUTPUT THREE: PLATFORMS

'Articulation by rural producers of their needs and problems to Unit Committees and District development organs'

Assessment of Output

This output was partly achieved.

- ⇒ The three district level workshops and numerous feeder workshops and meetings provided the main formal vehicle for rural producers to put forward their viewpoints to district officials and elected representatives;

- ⇒ Communications tools have included a charcoal poster, and five DEAR *Newsletters* and *Info Sheets*; these have contributed to the Project's profile in the District;
- ⇒ The implementation period (2 years) was too short to ascertain the broader effects on the democratic process and decentralised local government.

Key Findings:

1. It is noted that ensuring the political and civil rights of rural people, by creating platforms in which people can engage in open debate, criticism and dissent, is central to the process of generating information on natural resources. However, these platforms are generally lacking for small-scale rural producers in the Brong Ahafo and, in the current political climate, need long-term support if they are to develop.
2. Creation of local policy platforms requires a two-way movement of information, where rural producers articulate their own interests to policy and policy-makers are required to solicit the views of communities.
3. In context such as this, active intervention is needed if policy makers are to develop consultative planning processes, which require them to solicit the views and perspectives of communities.
4. Political patronage structures weaken the ability of platforms to influence decision-making by simultaneously co-opting some individuals and marginalising others.
5. Democratic decentralisation opens up space for the participation of the rural poor in local political debates, but this space has to be negotiated and fought for.
6. Functioning policy platforms do not necessarily resolve farmers' problems; their strength lies in the opening of channels of dialogue not in the suppression of conflicting views.
7. Technocratic thinking may be a barrier to democratic consensus, in that it confuses science and politics; it is likely to promote patronage-based rural policies and to destabilise the livelihoods of the poor. It follows that the democratization of policy may require a challenge to technocratic approaches.
8. Institutionalised political processes tend to reinforce conventional wisdom, particularly in the environmental field.

This output focused on helping to form platforms by means of which the networks of resource users could engage in policy promotion.

The essential conditions of an effective democracy, as Dahl has noted (1971), include not only the right to participate but also the right to oppose. Thus, ensuring the political and civil rights of rural people, by creating platforms in which people can engage in open debate, criticism and dissent, is central to environmental democracy. The Project aimed to support the user networks to develop into strategic platforms able to articulate with the structures of local government. The transition from user networks to strategic platforms was most evident in relation to charcoal. The beleaguered status of the commodity in the political arena facilitated intervention by the Project to help platforms develop. A series of four charcoal workshops was organised at the DEAR centre in 2004-5, initially involving producers from eight settlements, subsequently a further 20, and these were followed by the major District-level Workshop reported on in Annexes B, C, and D. The youth were particularly keen to form associations, although this made for some difficulties in that it risked dispersing efforts and voice between the various groups. The yam farmer networks were from five settlements.

The way in which institutionalised political processes tend to reinforce conventional wisdom is particularly evident in relation to charcoal policy. Challenging this is made more difficult by the ‘complementary’ way in which conventional wisdom is depoliticised, while contrary views are seen, within the patrimonial system, as inflammatory and insubordinate. This simultaneous politicisation of the opposition and depoliticisation of the established order serves as a form of social control, by imbuing the status quo with positive moral qualities while placing the opposition very clearly outside of the established political order. At the same time, it serves to sustain the marginalisation of the rural poor, by reinforcing the social boundary of elite interest and generalising the insubordination of the poor, which acts in its turn as a disincentive to the coalescence of alternative platforms.

A major barrier to the full achievement of Output Three has been the inadequate functioning of decentralised local government. In this situation, local-level platforms are not necessarily able to achieve policy influence, even when working effectively on their own terms. It seems unlikely that there will be any significant strengthening of local government within the foreseeable future.

The politics of resource control are considered further in Annex A, Section 4.

Key project documents for Output 3: Annexes A, B, C, D, K.

OUTPUT FOUR: COMMUNICATION WITH DEVELOPMENT AGENCIES:

'Interest and demand for project ideas and services generated elsewhere in the Brong Ahafo Region and beyond, at the FAI'

Assessment of Output

The output has been achieved only to a limited extent.

- ⇒ The communications strategy has been developed and implemented;
- ⇒ Media contacts have been established, though the transactional culture which characterises the media has limited the benefits;
- ⇒ Contacts have been made with regional and national government organs, and bilateral and multilateral official donors and NGOs;
- ⇒ However, as matters stand, there seems little prospect of take-over of the project concept by a donor-funded programme or project, although the continued interest of the DA in the information system work is positive and gratifying.
- ⇒ The hoped-for buy-in from local NGOs has materialised only to a limited extent; NGO attitudes to environmental issues lack independence and authority and the NGO presence remains fragile in the area; however, the project Co-Director has worked extensively with NGOs on issues germane to the project, and continues to do so, and helped to advance their thinking.

Key Findings:

1. Given the radical aims of DEAR, generating an ongoing interest in project ideas and products is not primarily a matter of communications and negotiation with external agencies but rather creating a dynamic for policy change within the producer communities.
2. Several other information-based initiatives exist, though the reference points for decision-making of these are almost entirely outside the localities. This conflict of philosophies does not allow for easy association of ideas and objectives.
3. In a context dominated by development assistance finance, channels for influence are largely conditioned by donor decisions and policies; again, these have tended to involve pre-defined packages, which restricts willingness to draw on the evidence of initiatives such as DEAR.

This output focussed on communications with development agencies and other partners. The Project Communications Strategy was developed in 2003-4. Implementation of the strategy has been most effective in information gathering at the lower levels in the government hierarchy, creating awareness, mobilising local-level actors, and articulating their demands at District level. It has been more difficult to engage with the higher levels of the system, and to secure support from development-assistance funded partners.

At present, there are several initiatives to strengthen information within the policy process. These are generally antithetical to the DEAR Project philosophy, in that most either seek to apply externally defined packages in the local context, or to reinforce the authority of external actors to deliver them. Where communities are to be brought into the decision-making process, then this tends to be on the basis of simplistic assumptions about the nature of ‘communities’.

Most notable, at national level, are the attempts to build the capacities of the District and Regional Planning Coordinating Units (DPCU), which can be found in the Guidelines for Operationalising of District and Regional Planning Units (National Planning Commission and the Ministry of Local Development and Rural Development, 2004). The Guidelines adopt a uniform institutional structure for planning within the districts. Beyond the logistic constraints, this initiative is open to criticism as excessively inflexible and instrumental. It responds to the need for information in central government institutions (encouraged by the introduction of new information technologies), but does not address the participatory linkages created in the framework for decentralisation, or the information needs of local government institutions for local-level planning. It seems unlikely that it will respond effectively to the rights of citizens for information about policy.

By and large, the bilateral donors have tended to withdraw from local level project work in recent years. A few projects remain, however. Within the Brong Ahafo, an information systems management unit has been established within the Regional Coordinating Council, the ‘Management Information Systems Project’. This is a project which was initially supported by DFID under the Brong Ahafo District Support (BADS) Programme, and then by GTZ. The objective of the programme is to introduce property taxes within the districts, as a more sustainable alternative to the existing arrangement which depends heavily on natural resource rents to provide the local revenue share. Aside from specific concerns as to the acceptability of the approach, given wealth distribution in the rural areas (and in this context, the historical experience with the colonial rural property tax – the ‘hut tax’ – is not encouraging), the approach is highly centrist, empowering the regional MIS to control the management of data. The districts have little opportunity to define the data they consider significant, and the data they want collected in their areas. Ultimately, the content and structure of the information system is determined at the regional level. Analysis of data is only carried out by the MIS Unit. Again, it does little to address the capacity of districts to collect, analyse and manage information, and to use it to negotiate their interests.

In recent years there have been several initiatives that have attempted to promote participatory planning. In Ghana this includes the GTZ Programme for Rural Action (PRA) and the UNICEF supported Community Based Development Programme (CBDP). These programmes have focused on building linkages between communities and district assembly and strengthening planning capacity. Though interesting, such initiatives do not easily translate into programmes concerned with the environment or with complex governance issues. They tend to assume that information is readily available to communities, and that the latter have a common and undifferentiated interest (see Output Two, above).

Other initiatives have proven similarly unresponsive to local level interests, being founded on highly elitist assumptions about the nature of progress in the agricultural sector and dubious claims about the state of environmental decline (see Annex A, *passim*). There has been limited buy-in from NGOs (for example, the yam farmers' workshop helped to consolidate links with the Abrono Organic Farmers' Project, as discussed under Output Two); such interest is likely to require further inputs from the Project team, if it is to retain its farmer focus.

In contrast with the approaches above, the DEAR Project sought to strengthen local capacities to use and communicate information upwards from localities. Having worked out a strategy for building information systems at the sub-district level, the project devised pathways for scaling up the project to the district level. This involved the area council training other area council and the district administration synthesising the database of various area councils into a district information system and providing support to the Area Councils. The information system can then be used in district planning. However, the ultimate success of this will depend on institutional reform within administrative bureaucracies and departments, a much clearer delimitation of roles and responsibilities, a recognition of the responsibilities of higher administrative organs to build the capacities of lower administrative organisations to set their own priorities based on information and information management, the institutionalisation of practices based on consensus building, and a recognition of the rights of communities to information and to participate in the process of making policy decisions that effect their lives and livelihoods. Ultimately, if citizens do not have rights to information and to make informed decisions through dialogue and consensus building policy processes cannot be transparent and based on downward accountability. Without these basic provisions, policies cannot meet the needs of rural citizens and build upon their capabilities, needs and aspirations. The barriers to the furtherance of an alliance with other initiatives do not lie, therefore, in the area of communications, but rather of politics.

Key project documents: Annexes A, D.

5. RESEARCH ACTIVITIES

The main *research activities and products* of the Project are listed in Table 2.

Table 2: Main research activities and products of the DEAR Project

<i>Research activity</i>	<i>Relevant levels</i>	<i>Relevant partners</i>	<i>Research products</i>
Survey of activities related to natural resources	Area Council	Area Councils	GIS database of Area Councils, tables and maps; report on main institutional issues
Synthesis of existing information at national, regional and district level	District	District administration and departments and Assembly Members	Partially complete GIS of district including datasets on Area Councils surveyed; report on institutional issues
Updated map of district using remote sensing data and GPS	District	District Administration, departments	Administrative and settlement map of Kintampo N & Kintampo S Districts
Analysis of land cover change within district using remote sensing	District, Area Council, Region and National level	District Administration (Planning Department)	Report on land cover change, map of land cover within district.
Socio-economic survey of charcoal burning	National agencies in forestry and energy sector, District, Area Councils, Charcoal burners and farmers	Charcoal burners	Report, workshop reports, info sheets, poster
Study of regeneration in farm and fallow land	National agencies in forestry and energy sector, District, Area Councils, Charcoal burners and farmers	Charcoal burners and farmers	Report, workshop reports, info sheets, poster
Socio-economic survey of yam farming	Agricultural department, Crop Research Institute, NGOs, Regional Ministry of Food and Agriculture	Farmers and Agricultural Department	Report, workshop reports, info sheets, poster
Workshops creating platforms between producers and policy makers	District, Regional, national agencies and NGOs	District and natural resource users	Workshop proceedings
Study of perceptions of the environment at national level	National ministries and the legislature.	National bureaucrats; Parliamentarians; NGO staff; journalists.	Research report.

6. ENVIRONMENTAL ASSESSMENT

The environmental assessment provided in the RD1 Project Memorandum remains valid, *viz*:

- The project is social and organisational in nature, and so its research activities are unlikely to have had direct negative impacts on the environment;
- Positive environmental impacts were the Project's long-term purpose, through the improved responsiveness of the democratic process;
- The project aimed to enhance the role of evidence in the policy process; as such, it did not have predefined environmental aims or effects other than to improve understanding of environmental issues and the quality of environmental management.

The Project has succeeded in demonstrating the positive contribution which can be made by information systems to planning at Area Council level and above. While it is too soon to say whether this will have positive environmental effects, such a view would appear logical and intuitive. Support for this can be found, for example, in the results of the research on regeneration, where the Project has endorsed the environmental sustainability of the existing coppice-based systems. This contrasts with the very questionable status, in environmental terms, of the monoculture plantation based alternatives much favoured by the extension services and the political elite (see Box Two, above).

Interestingly, the Project's approach has been viewed by sceptics as courting (further) environmental decline, in that the environmental practices of the poor are blamed for the allegedly parlous state of Ghana's transitional zone. Whether such views are factually 'true' or not, they are perhaps best seen primarily as 'disciplinary technologies' – that is among the ideological techniques used knowingly or unknowingly by the elite to discipline the peasantry (Foucault cited in Dreyfus and Rabinow, 1983: 135; Ferguson, 1990: 274) – without, in this instance, drawing on any solid evidence to substantiate the case. As the Project poster '*Charcoal Burners have a right to a livelihood!*' graphically highlights, the claims which are frequently made in Ghana to about the negative effects of farming in the transitional zone tend to draw heavily on the evidence of capital-intensive farming schemes (state farms and private enterprise) whose environmental effects have indeed been manifestly disastrous (irreversible conversion of the landscape to infertile grasslands following mass stumping and clearance, etc.). By contrast, the coppicing research undertaken by the DEAR Project provides strong evidence that indigenous techniques of charcoal production are sustainable. The preference among charcoal producers is for rapidly coppicing species often with pyrogenic qualities well-suited to the transitional zone. This accords with similar research undertaken elsewhere in West Africa (see, for example, Ribot, 1998).

Conclusion: There is no need for any follow-up actions to mitigate negative environmental impacts of this project.

7. PROJECT'S CONTRIBUTION – CONTRIBUTION OF OUTPUTS

7.1 NRSP Purpose and Production System Outputs

NRSP Purpose: 'To deliver new knowledge that enables poor people who are largely dependent on the NR base to improve their livelihoods'

Project Goal: 'Strategies to sustain livelihoods of poor people at the forest agriculture interface developed and promoted.'

The Project has made a positive contribution to both these objectives. This contribution has been at the level of institutions, social processes and management strategies, rather than technologies to deliver productivity increases or production improvements. Its findings are relevant to all social categories of the population.

The capacity of the Project to contribute to increased employment will depend on the functioning of the political process – that is, the ability of local government to secure the livelihoods strategies of the poor against sustained attempts to marginalise them, and to influence tenurial changes in the society in favour of continued access to land and other resources by the poor. The Project has demonstrated the capacity of local people and authorities to generate, aggregate and use data in support of decentralised local planning, and, through its work on charcoal and yam production, has demonstrated the rationality of these production systems, and their sustainability. Its findings are a contribution to the armoury of instruments needed to secure local livelihoods, though not, of course, a total solution.

7.2 Attainment of OVIs at Purpose Level:

The situation regarding the OVIs at Project Purpose level is positive. In two study sites, ACs have been involved in developing information systems which are far more detailed and accurate than anything which has gone before, and probably exceptional by national standards. They are also notable for their high (and meaningful) local 'ownership'. Two groups of producers (charcoal and yam) have been involved in developing broad networks which offer them a consolidated political base on which to build platforms to articulate with policy makers and the policy process. While the District Assembly has not proposed to scale up the intervention to regional level (OVI 3), it has asked the Project to help it replicate its activities in the third, and remaining, AC of Kintampo-North. Through the Project's 'District Reference Group' and its District workshops, bureaucrats and planners have been brought into contact with producers in a manner which has established the latter as authoritative in their own domain. By means of interventions such as the Project's contribution to the Tropenbos International 'state-of-the-art conference on Restoration and Sustainable Management of Forests in Ghana', held at Elmina in July 2005, practitioners have been challenged to interrogate received wisdom on the environment. Finally, international and local NGOs active in the area (such as CARE-GHANA which has national coverage), project thinking and experience has been made available in a way which has a good chance of influencing development practice.

Against these outcomes must be set a number of qualifications:

- The wider institutional context is presently unfavourable to such grass-roots empowerment, and is moving in a negative direction. The current government is lukewarm in its attitude to decentralisation, and also very supportive of a constituency (the stool authorities) which is openly (and understandably) hostile to this source of countervailing power. For their part, the official donor community has largely withdrawn from field interventions, in favour of direct support to the central government (through direct budgetary support, etc.). Local level outreach from the official donors is being increasingly outsourced to intermediary NGOs, whose own agendas are not necessarily any more favourable to responsive democracy, developed on an open-ended, non-blueprint basis..
- The broader national context has proven as unpropitious as had been anticipated from the Scoping Study. While the ‘Perceptions Study’ did identify independent-minded and knowledgeable individuals, mostly civil servants, these individuals were isolated in policy terms, and unable to bring their own ideas to bear to counter the dominant narratives. The local NGO community offered a depressing prospect, with little independence of thought and (given their financially dependent status) little likelihood of developing any. Their approaches to the environment are often excessively deferential to, and uncritical of, the grand narratives of environmental destruction. This experience vindicates the Project’s strategy of seeking to influence policy development from the grass-roots up, rather than through the superficially more attractive trajectories of national planning processes or national NGO-managed interventions.

The timeframe for the Project (which was approved in late March 2003, and formally ended in September 2005) is arguably too short to ensure that the institutions which it has helped create will be adequately embedded in local communities, sufficient to guarantee their sustainability in an adverse political environment. Equally, the time frame is too short to be able to claim systematic ‘impact’ on the thinking of partners beyond the project (NGOs, GOs, and donors), still less on national policy. (This does not mean that such impacts may not be felt, however.) Finally, the Project’s commitment to an institutional rather than technological approach, whatever its intellectual merit, fails to provide practitioners with the sorts of off-the-shelf tools and techniques which are favoured in the present highly transactional and commoditised development planning context. It should be noted that such off-the-shelf instruments have not proven themselves of much use in advancing environmental policy in Ghana, and their sustainability is also highly questionable. Most sink without trace as soon as the external intervention ceases.

In summary, the project has led to a number of positive changes in the way in which environmental issues are negotiated within the local government process, most notably:

- A more assertive approach from resource users, in the face of hostility from decision-makers and the media to local environmental practices;
- Good progress on providing the foundations for evidence-based policy.

Evidence of these is particularly strong in the participant contributions to the various end-of-project workshops, some of which are quite radical in their tone (see, for example, Annex B). The Ghana TL is well-placed to introduce its findings into policy debates in Ghana, and both TLs will seek to use ODI and other dissemination tools to bring its

evidence into the wider policy arena in the coming years. However, there are still major question marks over the dynamics of public administration, and the implications of this for policy development.

With a project of this type, formal completion does not imply the cessation of its potential influence. The project's objectives concern behavioural changes which affect the relationships between district officials/office-holders and their constituencies. Its influence on the thinking of research partners and stakeholders – as well as, particularly, its influence on the confidence of hitherto marginalised resource users to assert their interests in policy circles - may only be evident in the longer term.

7.3 Uptake Promotion

Development partners are presently the majority source of funding at DA level (see Box 2). It follows from this that research projects gain influence by close alliance with development assistance agencies and strategies; this argues against the separation of research programmes from structures to implement development assistance, particularly where the latter have complete local autonomy.

A clear message from this research is the difficulty for research projects of working in isolation from donor in-country offices and programmes (see Output 4). In a context in which national policy dialogue is so heavily influenced by bilateral and multilateral donors, a project with a policy vocation which is entirely funded and managed from outside the national boundary is in a politically isolated position. With no ownership of the DFID country office, and thus none of the influence with the central government or other donors which would come from this association, the project has lacked a champion at the national policy level. This has reduced its credibility with the GoG, and it has also prevented it from interacting effectively with other donor projects (most notably, the GTZ programme in the Brong Ahafo, which has a narrow and inflexible brief, quite at odds with that of DEAR). A degree of donor ownership would also dramatically reduce the transaction costs for researchers in attempting to interact with, inform and influence the less accessible structures of national governments. As the national 'Perceptions Study' shows (Annex B), important areas of central government, such as the legislature, are difficult to access by field projects.

Box 2: Sources of DA Revenues

The last year for which information is available is 2002. In that year the revenues available to the districts by source were, on average:

- Development Partners: **40%**
- Central GoG Consolidated Fund (which accounts for most of the national budget): **34%**
- The DA Common Fund (the main decentralised GoG source): **15%**
- The Highly Indebted Poor Countries Initiative (HIPC): **8%**
- DA's own internally-generated revenue (IGR): **3%**

Source: Implementation of GPRS, 2002 Annual Progress Report, NDPC

The inability of this project to influence significant parts of the print and broadcasting media (for want of funds to purchase copy and air time) has been a constraint on wider dissemination, though not necessarily one that should have been handled any differently. To a significant extent, it was outside of the project's control. Consideration needs to be given to those sources of information which exert power over these media. Again, the donor community is likely to score high. Other useful promotion pathways might include video production, where there is growing competence in Ghana, and this medium might well succeed in obtaining air time without additional investment costs. This option was considered but rejected by the Project, for want of time and capacity. It remains a possibility for the future.

More positively, the Project can expect a more receptive audience in the academic arena, through the work of the Ghana TL at the University of Ghana, and the academic publications in international fora of the three lead researchers, individually and jointly. ODI publications provide a proven route to access policy makers, and this channel will also be developed further. Among the concepts and ideas to be developed in future publications are:

- i. Science in the policy process;
- ii. Decentralised information system construction and management, lessons of the DEAR Project;
- iii. The negotiation of environmental claims, with particular reference to the work of Hajer and others, on the coalescence and functioning of coalitions, networks and symbols;
- iv. Politics in the policy process;
- v. Further work on environmental management under decentralisation, and the role of district-level bureaucrats;
- vi. Strategies of environmental rehabilitation and their implications for tenurial change.

Means will be sought to maintain the outreach at community level, particularly through the farmer and charcoal networks, which have real potential to generate a shift in power relations at district level.

8. PUBLICATIONS AND OTHER COMMUNICATIONS MATERIALS

8.1 *Book Chapters*

8.2 *Journal Articles*

- **Amanor, K. S. and Pabi, O. (forthcoming).** Space, time, rhetoric and agricultural change in the transition zone of Ghana, 32pp. in: 'Time and Generation in African Land Use: temporal heterogeneity in long-term studies', a special issue of the journal *Human Ecology*, ed. J.Guyer and E.Lambin.
- **Pabi, O., Attua, E. M. and Amanor, K. S. 2006,** forthcoming. Time and Space Differentiations of Land-Use Cover Changes and Natural Resource Management Policies, *Bulletin of the Ghana Geographical Association* 24. Accra.

Institutional report series

- **Brown, D. and Amanor, K. 2004.** Decentralising environmental management-Beyond the crisis narrative, *ODI Opinions* No. 13.
(http://www.odi.org.uk/publications/opinions/13_decentralisation_env_mgt_04.html)

8.4 *Conference Papers*

- **Pabi, O. and Amanor, K. 2005.** Community Participatory Geographic Information System Development for Enhanced Livelihoods and Natural Resource Management, Paper presented at the *Africa-GIS West African Local Users Conference* on 'GIS: An Effective Tool in Local Government', Accra, 30-31 March.
- Amanor KS, Pabi O and D Brown (2005) 'Natural resource management, information and democratic governance', paper presented at the TROPENBOS International Conference: 'Restoration and Sustainable Management of Forests in Ghana' held at Elmina, 5-7 July (under revision for inclusion in the conference volume).

8.7 *Extension oriented leaflets, brochures and posters*

- 'Charcoal Burners have a right to a livelihood!' Poster prepared for the Kintampo District Charcoal Burners Association, P.O.Box 22, Asantekwa, Brong Ahafo Region, Ghana.
- 'Recommendations for the Management of Charcoal to be submitted to the Kintampo District Assemblies by Charcoal Burners Association (Kintampo) and Decentralised Environmental Action Research (DEAR) Project'. District Charcoal Burners Association, P.O.Box 22, Asantekwa, Brong Ahafo Region, Ghana, 25th May 2005.

▪ **DEAR Project Info sheets** (all 4 pages):

Info Sheet One: Introducing the DEAR Project

Info Sheet Two: Information systems for natural resource management: building district capacities

Info Sheet Three: Building District information systems for natural resource management

8.9 *Media presentations*

- **DEAR Newsletters:** Newsletters 1 & 2.

8.10 *Project reports*

- i. **Luttrell, C. and Jehu-Appiah, J. 2005.** *Survey of Perceptions among Key Decision-makers of Environmental Issues in the Transitional Zone of Ghana*, September.
- ii. *Proceedings of a Workshop on Information and Decentralised Natural Resource Management*, Kintampo North District, 18 June 2005.
- iii. *Proceedings of a Workshop on Charcoal Burning in the Kintampo Districts: Policies, Environment and Livelihoods Issues*, Kintampo North District, 29 June 2005.
- iv. **Pabi, O. 2005.** *Decentralised and Participatory Information System Development in the Kintampo Districts*, Draft Report, 3 December.

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10. PROJECT LOGFRAME

LOGICAL FRAMEWORK (revised, as of 13 September 2004)

Project Number	Log frame and Production System reference number (complete from tender document)
R8258	

Narrative summary	Objectively verifiable indicators	Means of verification	Important assumptions
Goal			
Strategies to sustain livelihoods of poor people at the forest agriculture interface developed and promoted	Appropriate management strategies to sustain livelihoods and maintain forest integrity adopted by target institutions in two target countries	Reviews by programme manager Reports of research team and collaborating /target institutions Appropriate dissemination outputs Local, national and	Target beneficiaries adopt and use strategies Enabling environment exists Budgets and

		international statistical data	programmes of target institutions are sufficient and well managed
Purpose			
New approach to environmental decision-making under decentralisation, which can improve the livelihood opportunities of poor people, developed and promoted at the FAI in Ghana	By December 2004, in at least 2 study sites in different area councils, groups of producers are engaged in programme of building better information linkages, and Area Councils are involved in the programme. By September 2005, new institutional linkages (working parties, committees, regular meetings) established in study sites between Unit Committees and District Planning Authorities based on information collected in localities and participation By September 2005, District Assembly proposes scaling up the programme and makes independent proposals to Regional Coordinating Councils or other appropriate bodies.	NRPS mid-term review report District planning records (incl. evidence of GIS use in community and Council plans) Minutes of local government assemblies and sub-committee meetings Reports and manifestos of elected representatives, as appropriate, at local, district and national levels Reports of district administrators Reports and documentation of other research and development organisations, giving evidence of demand for project services and take-up of project approach in the Brong Ahafo and beyond Project dissemination outputs; reports of Information consultant. Monitoring reports of	National policies support (or at least don't actively oppose) more inclusive natural resource management rather than exclusive top down policies Donor programmes willing to work with project and share findings and services Government political authorities supportive Sufficient government funding released to all District Assembly members to establish mutually supportive relationship with community members No major external conflicts arise to affect – for

		<p>independent consultants demonstrating a link between project efforts and quality of environmental debate and local legislation</p> <p>Electoral returns, where appropriate and timely.</p>	<p>example – relations between indigenes and migrants</p> <p>Government policies and actions are supportive of local government decentralisation, in ways which encourage (or at least do not discourage) wide public participation.</p>
Outputs			
<i>Output One: Information</i>			
<p>Improved quality of information available at regional and district levels on production systems, constraints, resource bases, different resource interest groups and options for social groups and communities within districts.</p>	<p>Information facility developed in the ‘Community Information Centre’, facilitated by research team with input from communities and policy planning units, and involving GIS and case study components; and providing accurate information on human settlement and natural resource use in the project area, in forms accessible to, and manipulable by, local users; to be in place and operational by July 2004.</p> <p>Evidence that demand is satisfied</p>	<p>Routine project reporting (quarterly and annual)</p> <p>Anthropological/GIS components of Information System described in project documents.</p> <p>Documentation & evaluations of training provisions</p> <p>Appropriate formats for presentation of case study investigations</p> <p>Project documentation of demand for and use of GIS by community groups</p> <p>Reports and records of relevant local</p>	<p>District Assembly and Unit Committees have interest in establishing information systems and more responsive planning systems</p> <p>The public goods dimension of improved information recognised, so that information is not captured by those able to pay for it.</p> <p>Rural producers are willing to participate in articulating their</p>

	<p>for project-generated and inspired information sources on the part of AC and UC reps and community groups to inform planning processes at the local level, as evidenced by growing numbers of applications to the project and its partners for information on the part of key users at District level and below.</p> <p>Demand for information services from NGOs and others active in the B-A (at least 1 NGO and 2 CBO) documented by the Project, over its life.</p> <p>Interest in collection and analysis of information at Unit Committee level with community participation, as evidenced by completion of community surveys by March 2005.</p> <p>Evidence of demand for further case study investigations and project support by communities and user groups, documented by project by March</p>	<p>government structures and individuals over the life of the project ff. establishment of the info centre, such as -Govt. dept. and NGO reports - Minutes of meetings</p> <p>Community views and assessments, as reported through the project transactional records.</p>	<p>interests</p> <p>Sufficient funding to support logistics within District Assembly/ Area Council/Unit Committees</p> <p>Specialist information providers willing and able to furnish information in a suitable form for non-specialist consumption.</p>
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	2005.		
Output Two: farmer networks			
Networking between groups of farmers established within the region to share experiences on responses to particular problems and innovations.	<p>Improved articulation by farmers of their problems to government and development services as evidenced by at least two themes researched by project being brought to sectoral service departments or decentralised authorities (DEMC, DA, EPA) during the lifetime of the project.</p> <p>Farmer exchange visits (at least three in the Project period) provide evidence of mutual learning over environmental problems, as evidenced by positive feedback/evaluations and increased demand for project services, and further exchange visits.</p> <p>Evidence of use of project supported facilities (eg. information centre) by farmer networks, with statistics showing increasing use over the project period.</p>	<p>Minutes of meetings</p> <p>Report of research team on farming systems and farmer networking</p> <p>Reports of farmer exchange visits (verbal and written, as appropriate)</p> <p>Records of information centre and staff</p> <p>Reports of Information consultant</p>	Sufficient funding from sources external to the project (NGOs, bilateral donors, GoG) is available to sustain networks, once established.
Output Three: Platforms			
Articulation by rural producers of their needs and problems	Evidence that DEMC is actively using the new information	Records of information system and public/published reports	No major loss of political authority by

<p>to Unit Committees and District development organs</p>	<p>new information systems created in the district for agricultural and environmental policy formulation, in at least two thematic areas.</p> <p>Participation of producers in environmental planning processes, at DA level on an occasional or regular basis, but with evidence of growing frequency.</p>	<p>relating to its utilisation by Planning Officers and Sub-Committees (incl. DEMC) in policy fora</p> <p>Reports and records generated by the Weeks of Action</p> <p>Unit Committee/Area Councils plans on natural resource management incorporating perspectives of natural resource users and farmers within the communities</p> <p>Minutes of community meetings</p> <p>Reports of farmers' groups, media organisations, DAs, MPs, etc.</p> <p>Evidence of media (newspaper articles, radio programmes, etc.)</p>	<p>local level (eg. due to new laws enacted by central government).</p> <p>Democratic reform process advances further (ref. local control of political and civil service appointees) , or at least is not retarded.</p> <p>DAs and UCs receive enough funding from central government and other sources to function effectively.</p>
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Output Four: Communication with development agencies

<p>Interest and demand for project ideas and services generated elsewhere in the Brong Ahafo, and beyond, at the FAI</p>	<p>Project approach and achievements documented and 'packaged', as a coherent strategy, by end of March 2005.</p> <p>Approach and achievements disseminated locally, nationally and internationally,</p>	<p>Project publications and other outputs, including:</p> <ul style="list-style-type: none"> - Short published briefing papers - Press releases - Media briefings - Reports to bodies of decentralised government, - Radio interviews and briefings - etc. 	<p>Partner agencies retain ability to collaborate with a research project of this type. Specifically, assumption is valid that donors' interest does not shift away from strengthening</p>
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	<p>through a variety of media appropriately targeted, at least four different forms of dissemination covering all three levels (district, national, international) by end of project.</p> <p>Evidence of demand for these communications materials, at a variety of levels, including funders and development agencies – at least three demands in all, (at least one from each of govt/funders/NGOs), by July 2005.</p> <p>Evidence of demand for project trainings and briefings, from local and central government and other funders/development agencies – at least three demands in all, (at least one from each of govt/funders/NGOs), by July 2005.</p>	<p>Minutes of appropriate departments/ Reports of funders and development & support agencies in the Brong Ahafo and beyond</p>	<p>democratic decentralisation through enhanced community participation (towards centrist development and/or reinforcing non-democratic ‘traditional’ authority/top-down community initiatives), thus allowing for a range of options to be considered in scaling-up strategy.</p>
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Activities	Milestones (and budget if budgeting by Activity)	<p>Villagers' willingness to work with project not adversely affected by general aid environment in the B-A, or by disillusionment with local government decentralisation.</p> <p>Core research team established in scoping phase maintained in implementation phase</p> <p>Press continues to retain high degree of freedom.</p>
Activities relating to Out put One: 'Information' - Improved quality of information available at regional and district levels on production systems, constraints, resource bases, different resource interest groups and options for social groups and communities within districts	Output One:	
Inception meeting held	1. ~ (March 2003)	
Study Sites selected	2~ (May 2003)	
Project field office established at District level	3~ (June 2003)	
Components of information system defined (data collection process with A/C)	4~ (July 2003)	
5. Training of AC in survey methods	5~ (June-October 2003)	
Networking with farmer groups (incl. youth and women) to define case study topics	6~ (May 2003 – extended to 6/04)	

Case study investigations initiated on key NR issues.	7~ (August 2003 – extended to 12/04)	
Analysis of case studies/first drafts written up.	8. first drafts available by October 2004, further drafts through life of project	
Perceptions study (policy process study) undertaken	Study report available by December 2004.	
GIS component updated and refined	10. GIS set-up report by September, 2004, then reports on a quarterly basis, to March 2005	
Staff and local counterparts trained in accessing the GIS information (provided by the UG team members).	Training schedule and materials documented by September 2004, with regular reports on a quarterly basis, to March 2005.	
Activities relating to Output Two: ‘Farmer Networks’ - Networking between groups of farmers established within the region to share experiences on responses to particular problems and innovations.		
Community meetings and workshops held	12. Workshop reports in September and December 2004	
Community exchange visits organised	~ As required, reported on within a week of each visit, with a beneficiary assessment.	
Community information centre fully operational	14. ~ Report on public access by December 2004, with evidence of attendance figures included in subsequent quarterly reports	

Additional implementation workshops undertaken (resource management)	15. ~ at least two workshops by December 2004, written up and reported on within two weeks of meetings, with beneficiary assessments	
Activities relating to Output Three: ‘Platforms’ -Articulation by rural producers of their needs and problems to Unit Committees and District development organs		
District-level meetings involving ACs and community groups held	16. Reports on community and AC meetings periodic through second phase of project, reported on quarterly;	
Dissemination of findings to District and Regional Personnel by project staff.	17. District level meetings reported on in October and December 2004, and March 2005	
Production of information sheets for DAs and others on NR management issues.	18. By March 2005, four in the period.	
Activities relating to Output Four: ‘Communication with development agencies’ - Interest and demand for project ideas and services generated elsewhere in the Brong Ahafo, and beyond, at the FAI		
Develop communication strategy	Circulated by end August 2004	
Implement communication strategy	From September 2004, reported on quarterly throughout project	

Media contacts established	~ Individual reports produced on radio, press and parliamentary press contacts by end October 2004, continued activity to December 2004.	
Partnership activities undertaken (EPA, etc.)	~ Regular through project, reported on quarterly	
Forward strategy devised and implemented	Between July 2004-August 2005, with evidence of interest of at least one donor in taking forward findings established by August, 2005	
End of project seminar – Ghana	event held in July-August 2005, and reported on within two weeks of completion	
End of project seminar – UK	event held in August-September 2005, and reported on within two weeks of completion	
Policy-oriented publications produced	mostly between July 2004 – September 2005	
<i>Routine project reporting/transactional records:</i>	<i>Routine project reporting/ transactional records:</i>	

Regular project reporting	Quarterly [including reflection on the project's process by assessing progress against purpose level OVI, including analysis of (evidence of progress in) MoVs] and Annual .	
NRSP final report delivered	28. End September 2005	

11. Keywords

Ghana; geographical information system; environment; policy; decentralisation; agriculture; yam; charcoal.