Ghana Case Study

Introduction

This paper is based on the findings of a joint DFID, FAO and ODI fact-finding mission to Ghana in October 2001, which interviewed a wide range of government and non-government staff from organisations involved in providing information on agriculture at National, District and Sub-District levels.

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Background

Poverty and poverty reduction strategies in Ghana

Ghana is a low-income country and a third of the population of 17 million people are living below the poverty line. The rural poor perceive lack of services and resources as the main constraint to improving their livelihoods. Agriculture makes up over 40% of GDP and 70% of rural employment, and has untapped potential. The incidence of poverty is highest amongst food crop and export crop farmers, and amongst self-employed rural people working in off-farm activities such as trade. Privatisation of the power, telecommunications and urban water sectors is underway which is intended to encourage further foreign investment. The economy generally is expected to improve with GDP growth forecast at 3.9% in 2001 and 4.3% in 2002 (EIU, 2001). The New Patriotic Party (NPP) applied for 'Heavily Indebted Poor Country' (HIPC) debt relief shortly after coming to power in early 2001. Although the previous government had developed an Interim Poverty Reduction Strategy Paper (I-PRSP) the preparation of the full PRSP is now an essential requirement of the HIPC debt relief procedure.

Ghana's Poverty Reduction Strategy (GPRS) is close to completion and has emerged as a central document in the medium term planning process of the new government. It remains to be seen how successfully sectoral strategies will be integrated into the GPRS. The Ministry of Food and Agriculture (MOFA), for example, has formulated an Accelerated Agricultural Growth and Development Strategy designed to increase the sector's annual growth rate based on the long term strategic programme for Ghana 'Vision 2020'.

The Agriculture Services Sector Investment Programme (AgSSIP) is intended to assist the implementation of this strategy through, amongst other things, empowering grassroots organisations to negotiate better with actors responsible for the delivery of services. Strengthened producer organizations, such as cooperatives and farmer groups will be able to provide better services to their members to facilitate technology adoption, by improving access to inputs and facilitating marketing. As most of the rural population earns their livelihood from farming, AgSSIP should contribute to broad-based poverty reduction in the country.

Information Infrastructure and ICT policies

The Framework for the Design of a National Information Technology Policy for Ghana covers a broad spectrum of information issues from content development to infrastructure and e-governance to education. The National Communications Policy will be multi-sectoral which requires it to be developed through an integrative process that involves a wide range of stakeholders. The policy aims to be comprehensive including issues such as:

- Improved technology and research capacity to focus on indigenous capacity building and local appropriation of technologies to reduce import dependency and help to 'internalise and domesticate' the technology.
- Training and development through the educational system and the development of specialised training institutes.
- Improve access through the mass media, education system, development of Ghanaian languages, and laws to protect indigenous knowledge.

A number of e-working groups have been established to develop programmes and project activities under the authority of different ministries within the framework. The Ministry of Agriculture is also involved in the e-community working group to promote community based IT infrastructure, access and use through a combination of investment strategies and tax incentives. The Ministry of Agriculture together with the Ministries of Local Government and Communication are also expected to carry out further analysis of the grassroots level impact and uses of ICTs.

Policy processes have already made some progress in Ghana towards improving rural community access through the liberalisation of the telecommunications sector. The part privatisation of Ghana Telecom is intended to increase investment in telecommunications infrastructure and the government has stipulated targets for an increase in the number of fixed lines between 1998 and 2002. Other investment in rural communication is expected to come from the provision of multi-access Wireless Local Loop (WLL) radio systems. There is a considerable disparity between rural and urban infrastructure provision with approximately 1 main line per 100 urban inhabitants compared to 0.12 main lines per 100 rural inhabitants (Bertolini, 1999). The completely liberalised mobile services market covers the major cities of the southern part of the country. Internet services are also planned through the fully liberalised ISP services that are currently focussed on the urban subscriber markets. At present the mobile networks hold the greatest potential to address the current rural –urban disparities in information infrastructure in Ghana.

Opportunities to improve information for livelihoods

The opportunity exists to improve information for livelihoods through a number of different policies, institutions and processes involved in agricultural information provision in the country. Information exists in Ghana that could be used for monitoring the GPRS such as data from a series of four living standards surveys (1988-1999), welfare indicators, a population and housing census (2000) and a health and demographic survey (1998). Sectoral data on performance and outcomes and data on expenditure and service provision at the District Level exists and could be used to improve planning and service provision. Much of the information is under-utilised in policy planning and monitoring and it is unclear how the GPRS will be able to alter this at least with the existing low-level involvement of the Statistical Service (Killick and Abugre, 2001).

In addition to the quantitative data available there is a considerable amount of qualitative data available within many institutions and despite attempts by the World Bank and the Planning Commission to collate it (in 1992, 1997 and 1999) it remains largely uncoordinated.
The opportunity to assist in the implementation of these programs lies in enhancing the capacity of the policy-level decision-makers to access, use and demand information within the central ministries and the District Assemblies. This will help to build on the existing policy processes and develop the democratic processes through improved information sharing. This could involve the coordination of existing information resources, training in accessing and using external information sources, training for improved information management processes and the development of more demand driven information and resource packages.

At a more local level the growth in the number of civil society organisations (CSOs) in Ghana could potentially contribute to the processes of democratisation and institutional change. These organisations, however, also have problems accessing public information and often require even more capacity building in accessing and managing information than those within the civil service. Local language is the key to communication at the local level but low literacy levels also result in most information flowing by verbal and audio methods with visual demonstrations, images or diagrams rather than text based materials. Increasing access to public information therefore requires not only greater coordination of the sources available but more appropriate formats and demand driven information packages. There is no shortage of organisations able to translate materials into local languages either for formal text documents or for use as part of a demonstration or training programme. Art work can easily be produced that reflects local cultural practices and knowledge systems. The opportunity exists to improve the range of information resources available to CSOs and to assist in the provision of content for the creation of locally relevant materials. This could be coordinated through the information centres identified within the research institutes either as part of the RELC or separately through new partnerships.

Specific opportunities to address of the key issues identified in the desk study are described below.

1. Information costs, income generation and financial sustainability

Cost is a central issue to the availability of information in Ghana. Public information should be made freely available but despite longstanding problems of political resistance and secrecy the cost of providing efficient information infrastructure and training is also preventing the free flow of information in many cases. As discussed above, much of the capacity to collect and collate information within the government is fragmented into uncoordinated pockets of expertise. The value of information sharing therefore cannot be realised without further information management training and the development of information

resources that respond to the demands of both government officials and their constituents. External information sources (such as foreign journals, Internet sources) are become increasingly available through services such as the, Institute for Science and Technology Information (INSTI/GAINS) Question and Answer Service for agricultural and natural resource information, and the growth of cyber cafes in the major towns. Charging for information services, however, remains a challenging exercise given the very limited resources of individuals and organisations.

2. Access, empowerment and democratisation

The historic lack of information has meant that users at all levels rely on their own informal information sources. Therefore demand for published and broadcast information is high but difficult to determine. In many cases users are not accustomed to having any choice of information made available to them. Farmers in particular have very limited access to information and the extension services only provide information sporadically. Only a relatively small percentage of farmers receive any information from extension officers services. Improving access would help to generate the demand for more information and more responsive and demand driven information resources. Community based radio programmes are one of the best methods currently being used in Ghana to provide technical information in local languages that are demand driven and present the information in an entertaining and educational format.

3. Appropriate content and context

It is evident that much of the information and relevant for Ghanaian farmers is already present in Ghana or can be generated in Ghana. The main constraint is that this information is not mobilised. Knowledge and experience might have been already documented but materials are uncoordinated among organisations and difficult to access. There are numerous organisations producing agricultural information from research institutes to private sector input suppliers but there appears to be very few consistent information sources providing regularly updated, high quality information. The extension service and MOFA policy-makers rely on the research institutes such as SARI and CRI which *can* provide high quality information but are restricted by limited and uncertain funding. There is a need for greater coordination of information between the macro and micro-levels in order to ensure more appropriate content for users at every level.

4. Building on existing systems

The information infrastructure available to government ministries in Accra varies between ministries but is generally improving due to investment in telecommunications. Despite improvements in telecommunications infrastructure and strategic planning for improved decentralised government the district assemblies remain relatively isolated. About 50% of the 110 DAs are connected to the telephone and virtually none have access to e-mail and the Internet. There are plans[1] to connect most government ministries and 20-30 DA s over the next 5 years with a co-ordinated government software programme that will improve budgetary planning and monitoring. Outside Accra the information infrastructure is minimal and networking is largely informal and personal. The Council for Scientific and Industrial Research (CSIR) centres and University faculties of agriculture are marginally better equipped but network failures and prohibitive pricing persist and are unlikely to be solved in the short term.

[1] Oracle has been contracted by the government with World Bank funding to develop a financial management system for the Ministry of Finance Public Financial Management Reform Programme (PUFMARP) with a wide area network (WAN). Siemens has been contracted to implement phase 1 of the IT infrastructure to 42 government sites.

5. Building capacity

The context in Ghana of limited information use at every level means that there are a very broad range of possible interventions that could usefully be undertaken to build capacity in the use and management of information. There are a number of possible entry levels and capacity building activities will need to reflect the needs of the different user groups and stakeholders such as at the policy level, district level, research and community levels. Capacity needs to be developed in terms of the technical skills for the collection, preparation, storage and dissemination of information as well as the social skills to demand and use information for improving livelihoods.

6. Realistic approaches to technologies

In order to provide information to the vast majority of the poor living in remote rural areas in Ghana such as the Northern Region mass media represents the most realistic mechanism. The population is spread over a large area and even with improved information management skills the extension service does not have the manpower or other resources that are required to reach anything but a small minority of the population. The most regular supply of agricultural information is the weekly radio and television programmes (GBC) although these are not demand driven. There are currently no facilities for copying and re-broadcasting or showing these programmes in a more localised context. A few rural radio stations provide more localised agricultural information programmes such as Simli radio and they also suffer from a paucity of available information sources for the content of their programmes. TV and radios are widespread and are the best ways to reach the majority of the population. Local FM stations are very popular and can be extended in to more remote areas by relay stations.

7. Strengthening partnerships

Historically there has been relatively little CSO activity in Ghana. These institutions are now beginning to develop there is a need for greater information sharing between the government and CSOs to assist in the development of new democratic institutions.. Partnerships with the private sector and between line ministries could also assist in developing improved resource allocation. Agricultural extension information is often prepared and promoted by the private sector as part of the marketing campaign for specific agricultural inputs. Weinco, for example, translates material into local languages and hires government equipment to prepare and broadcast videos and information displays in rural areas. The effort s of the private sector need therefore not only to be monitored but harnessed to achieve a more coordinated delivery of information resources. Partnerships across traditional government sectors such as with education, IT and finance will be necessary to assist in the implementation of the GPRS in Ghana. Education resources such as schools (eg IEDE) teachers, training institutes and the media could represent innovative partners in improving information flows in Ghana.

A District-level intervention

The decentralisation process in Ghana is centred on the establishment of **District Assemblies (DAs)** which are required to co-ordinate and manage government programs at the district level. There are 110 DAs that house representatives from the various sector ministries. The Common Fund for the financing of local development programmes by the District Assemblies is equivalent to 5% of the central government tax revenues.

The extension service is located at the DAs and is structured as follows:
- District Director of Agriculture (DDA)
- District Development Officer (DDO)
- Agricultural Extension Agent (AEA)

There is also a designated information officer for the whole DA under the Information Services Department and an agricultural information officer working within the extension service. The opportunity exists to provide assistance both to the decentralisation process as mentioned above and through direct interventions at the DAs targeting the extension service staff in particular.

District Assembly of Komenda- Edina- Eguafo- Abrem (KEEA).

KEEA has a District Director of Agriculture (DDA), a subject matter specialist (SMS), an agricultural information officer and 18 Agricultural Extension Agents (AEAs). The ratio for the district is approximately 1:5000 extension agents to farmers which is the underlying problem in reaching more farmers with the information they need. The AEAs now have motorbikes and are able to reach more farmers but the district and agricultural information officers do not have many resources available to collect, generate or repackage information for use at the local level. Information resources used to be provided under the NARP through quarterly meetings as part of the RELC although only 5 of these meetings took place and they have now stopped but are expected to begin again. All the extension staff for the district meet every two weeks for training and to discuss farmers' problems. There is a need to support more extension materials especially on topics requested by farmers because the SMS are unable to provide many materials. The AEAs focus on 'contact' farmers who are able to pass on extension advice and church groups to make announcements. There are approximately 50 electoral areas within the assembly and 'assembly-men' can be also be used to pass information to farmers. AEAs are used to collect information from the main markets and use market girls to spread information on prices and projects such as the Village Infrastructure Project. Information collected from the markets is sometimes broadcast on the radio as part of the local news programme.

The District Information Officer is part of the information service department and works mainly with the District Chief Executive (DCE) to advertise campaigns, programmes and initiatives. The KEEA DIO has no transport of his own and no communications facilities (telephone, fax, typewriter, computer, e-mail). He travels with the DCE and uses the radio to broadcast information for the DA. There is a meeting with other DIOs on the first Wednesday of every month to discuss the work programme and special events that will involve working with departmental information officers such as the Farmer's Day event with Agricultural information officers. These meetings could be used to provide more responsive information from a coordinating centre at the regional level.

An information intervention in the KEEA district would need to include:

1. A participatory assessment of farmers' prioritised information requirements.
2. Assistance with IT equipment and training of staff in the collation of existing information materials and the development of a district level database that reflects the priorities expressed by farmers.

3. Identify gaps in information resources and establish responsibility and resources for new data collection, extended information searches, and integration into the district level database.
4. A Communication Strategy to establish the most effective mechanisms, using different media and partnerships, to achieve widespread and equitable information dissemination to farmers in the district.
5. Responsibility for implementing the Communication Strategy will need to be allocated to a range of partners with the appropriate skills to facilitate the dissemination process at various stages, such as:
   - The University of Cape Coast and Sasakawa Global 2000 facilities for mid career training of extension workers could be used to train extension workers in managing a question and answer information service for farmers.
   - Local radio stations such as Radio Peace could carry out the community needs assessment and integration of technical material into radio programmes, broadcasting schedule and timing to correspond to crop cycle and listener preferences (eg Elmina fisherman listen to the radio while mending their nets ashore on Tuesdays).
   - Markets could be used for advertising information resources available, range and choice of materials. Regularly attended by extension and information specialists (eg from CRI, FAO) to host discussion groups, demonstrations and videos.
   - Private sector input suppliers could provide information for the district database and material for advertising would be monitored for quality and according to the priorities of the Communication Strategy.
6. Training in information management and accessing resources could be integrated into a specialised training programme that should correspond with the existing resources, infrastructure and capacity at the district level. The development of a responsive information network both within the extension service at the district level, and between the extension service and farmers is essential to achieve all of the sub-programs of the AgSSIP.

Organisations involved in information provision

Box 1 - The Research and Extension Linkage Committees- (RELC)

The Research and Extension Linkage Committees- (RELC) were established under the NARP and are regarded as a successful part of that programme and will be continued under the AgSSIP. This forum provides support to extension services by providing specific training programmes to extension officers and investigating problems identified by farmers though participatory research. There are limitations to the RELC that are largely due to funding but the potential for partnerships between research and extension to be strengthened in Ghana is clearly demonstrated by these committees. There are opportunities to build on the existing RELC system and to develop new partnerships between agricultural research centres, faculties of agriculture and the extension service.

Box 2 - Institute for Science and Technology Information (INSTI)

INSTI mandate is to develop a national capacity for the provision of scientific and technological information to Ghanaian society through the publication and dissemination of the results of scientific and technological research. INSTI houses a central library although other CSIR Institutes also have their own. INSTI provides some computer training facilities as well as public access internet facilities for which users are charged on a time basis. A video production unit is also operational. This unit has produced films on a range of agricultural and livelihoods related issues from bead-making to silviculture. The programmes are broadcast on the national television and are popular.

Box 3 - Ghana agricultural Information System (**GAINS**)

GAINS, based in INSTI, is mandated to collect and disseminate agricultural information generated in Ghana and elsewhere in order to support agricultural research management. With the financial support of CTA, GAINS has established a Questions and Answers Service which cover a wide range of topics. GAINS has shifted from free service to fee-based service, in an attempt to achieve a sustainable cost-recovery model which is proving difficult.

Box 4 - Crops Research Institute (CRI)

CRI's research mandate covers all food and industrial crops except cocoa, coffee, sheae nut, coconut, oil palm, sorghum and millet which are the mandated crops of other research institutes. Research objectives include inter alia development of improved crop varieties and production technologies. CRI's Training, Communication and Publication Unit (TCPU) provides training for research and extension personnel, develop extension materials (research training guides, crops production guides, farmers Handbooks, flip charts, fact sheets etc). TCPU activities are driven, as the whole CRI according to its Director, by third-parties funded projects as a result of the lack of funding. For instance, courses on rapid multiplication of planting materials, development of fact sheets, farmers handbooks and other extension materials have been organized in the context of MoFA-sponsored Root and Tuber Improvement Program. CRI conducted on-site trials and FFS for the JICA-funded Integrated Watershed Management Project. Sasakawa Global 2000 is also sponsoring extension activities such as FFS, on-site trials, printing of posters, flip charts etc. The extension materials developed by TCPU, freely distributed in the past, are now charged for.

Box 5 - Savanah Agricultural Research Institute (SARI)

SARI is an Institute of the Council for Scientific and Industrial Research (CSIR) and a statutory corporation under the Ministry of Environment, Science and Technology (MEST). SARI used to be the Nyankpala Agricultural Experimental Station under the Crop Research Institute (CRI) but became independent in 1994 . SARI works closely with UDS in the Northern regions and has received support for a number of years from the German Ministry for Economic Co-operation (GTZ). The institute co-ordinates the Research–Extension Linkage Committee (RELC) in the Northern and Upper Zones. SARI is a member of GAINS and has had access to FAO CD Roms and CAB abstracts as part of this. The ISIS database however has not worked since 1997 and therefore they have not updated the INSTI central database with their own research material since then. Instead, a separate database of recent SARI literature and documents is being built on 'Access' and could be made available to other organizations to search and request documents . SARI has recently been connected to the Internet by a radio link to Tamale and service is provided by Africa online.

Box 6 - Sasakawa Africa Association/Sasakawa Global 2000 (SAA/SG2000)

SG2000 provides budgetary support to on-going GoG efforts in increasing agricultural productivity. The focus is on the use of improved technologies and IPM. Projects are formulated through a participatory process involving farmers, traditional rulers and Agricultural Extension Services (AES). The NGO contracts AES and research Institutes such as CRI for the provision of logistics support and the capacity building of farmers and/or AES. Extension materials are often produced in that context, by CRI sometimes with the support of the Information Support Unit of MoFA/DAES in Accra. Some radio emissions have also been prepared with the participation of MoFa and CRI. SG2000 participates in RELC meetings and provides financial support to have some farmers on board. SG2000 also helps to access credit facilities. It acts with MoFA as guarantors for farmers who request credit loans to rural banks.

SG2000 also runs the mid-career training course at UCC for MOFA extension staff (see UCC). The farmers and fishers programme is also based at Cape Coast and involves training of community groups in new techniques such as using different inputs, conservation tillage, training of trainers. The farmer training tends to focus on high input, intensive techniques to increase yields and farmers are provided with credit to purchase the inputs which they can pay back in cash or in kind. The courses last three weeks and farmers get paid to attend and are given materials such as handouts and pamphlets. Demonstrations also take place on farmers farms or with groups of fishermen during their day off or with the women who process the fish. Extension agents trained by SG2000 visit the Ayisa Fish Smokers Association , for example, who are part of the Elmina Cooperative Fishmongers Association. Fishmonger's rely on information from the Fisheries department extension officers but they do not visit very often and more demonstrations such as new processing techniques and book-keeping are needed. There is a demonstration village located on the University campus that is designed to show a range of income generating activities to farmers such as cultivating snails and grasscutters.

Box 7 - University of Cape Coast (UCC)

UCC runs a BSc course with an extension component and an innovative 2 year course for mid-career extension agents from MOFA. The mid-career training course is supported by Sasakawa Global 2000 (see SG2000) and takes approximately 35 students per year. The University provides support to the Kwadeso Agricultural College in Kumasi by developing the curriculum and training the lecturers to get more extension officers to diploma level, so that they are then able to attend course at the University.

The Faculty of Agriculture has carried out research under the NARP and will continue to work under the AgSSIP. The networking regarding the development of the AgSSIP is all carried out at meetings and therefore information flows are mostly face-to-face. Most of the research funded under AgSSIP will be designated according to priority research areas and a smaller proportion will be decided through competitive tendering. The Faculty has one computer connected to the Internet and a departmental library which does receive some FAO publications. The UCC Main library is a depository library and has a number FAO publications but also passes them on to the departmental library. FAO publications are therefore split which makes it more difficult to ensure the collection is kept up to date and that users are aware of the location of new materials. The library does have 9 computers linked to the Internet and the greatest problems is now training users in making searches. The FAO site is popular especially the full text articles when they are available and the statistical databases. Some articles are downloaded and put into pamphlet boxes. CDs can also be searched by students and there a video player to show films.

The UCC computer center provides training courses for the University departments on request and carries out administrative duties for the University. The demand on the IT infrastructure is high and computers are needed for training so much of the time that they are rarely available for students to use. There is an increase in Internet use but the departmental networking and inter University links have only recently been put in place as part of the UNESCO telematics project. The computer center also assists Junior and Senior Secondary Schools in the to connect themselves together with assistance from WorLD links and the old boys and girls associations. The computer center is also has also been involved with the IICD 'Global teenager project' that has linked two schools in Cape Coast to a learning circle and UNESCO's SchoolNet.

The African Virtual University (AVU) is located at UCC and it was operational although the next course is not taking place for a month. The courses are popular but people have to subscribe to the courses which can be expensive. The courses combine live lectures, simultaneously to a number of universities, videos and text books. The facility to ask the lecturer questions and listen to other University questions is popular. The resources appear to be under utilized with a lot of potential to use the equipment for more distance learning and video based teaching.

Box 8 – The Information Services Department

The Information Services Department explained during the round table discussion that information officers in each district had access to vans equipped to show videos and broadcast radio programmes locally. None of the information officers that the team actually met had in fact ever used one of these vans and they did not have access to any basic equipment such as a type writer, telephone, computer or transport let alone equipment for making programmes. The linkage between the extension services and the information service staff was also non-existent in the District Assemblies visited. The team also discovered that private sector input suppliers are using the equipment of the Information Services Department to advertise their products to farmers and there was no apparent control of the type or quality of the content of these programmes.

Box 9 - The Ministry of Food and Agriculture (MoFA) / Veterinary Service Department

MoFA's Pan-African Control of Epizootics (PACE) / Communication Unit is an EC funded project focusing on epidemio-surveillance of some transboundary diseases such as rinderpest. The project has established a Communication Unit to meet the information needs of the stakeholders implementing the project (livestock farmers, veterinarians, butchers, MoFA officers, NGOs etc.). The unit produces leaflets, information brochures and posters on typical symptoms, control and eradication measures of an epizootic. It also prepares articles to be published in national newspapers and radio programs to be broadcast at national and regional level. The Communication Unit underlined the lack of sensitization at VSD on the importance of information dissemination. VSD uses FAO's Transboundary Animal Disease Information System (TADInfo).

Box 10 - The Institute for Educational Development and Extension (IEDE)

IEDE was established to train teachers in 1994/5 with assistance from DFID. All subjects are on offer and there is the opportunity to attend a 2 year residential course or a four year distance learning course. The Bachelor of Education course is being phased having successfully trained sufficient teachers to meet demand and will now gradually be replaced by a Diploma in basic education for primary school teachers. The distance education programme is cheaper to run and students do not need to relocate to attend a residential course , leaving their families and work commitments. The courses are run through centres around the country and tutors brings books and materials as the post was found to be too unreliable. The students have exercises to follow in the training handbooks and also have to hand-in a number of assignments depending on the number of credits for the course. Every month tutors at the centres provide learner support to answer questions and teach some of the key issues for each module. The training books used by students are written by trained writers and editors with graphic artists to help with book illustrations. These could be used to provide more material using FAOs resources especially for the Agriculture focused campuses such as Mampong. The centers are not networked at the moment and do not use the Internet for distance education, only text books. There are 38 teacher training colleges at the moment and these could easily be used to repackage information into numerous different formats such as video and local languages versions. Information produced on agriculture centrally could be made available through the 'district education office' in every district and the agriculture subject specialist could help teachers choose from a wider range of information sources.

Box 11 – Radio Garden City

There are around 10 FM stations operating in Kumasi, all private except **Radio Garden City** which is a state broadcaster. Coverage in Kumasi and within a radius of 100km. Language : 60% akaan, 40% english. GoG meets salaries but operating and investment costs are covered by the Radio. Source of revenues : advertising, emissions sponsorship. Market share : around 50% but a new study underway likely to reveal a smaller share.Radio Garden City has a one-hour weekly program on agriculture.that is sponsored by agric inputs suppliers.

Box 12 - District Assembly of Ejisu-Juaben

The District Agricultural Development Unit (DADU) is composed of a Director, 5 Development Officers, a MIS Officer, a Subject Matter Specialist (SMS), a budget programs and project officer and 22 Agricultural Extensions Agents (AEAs). AEAs are trained in monthly training sessions by Regional SMS, Regional Development Officers and through specialized training courses. Knowledge and skills of SMS are upgraded in the bi-monthly technical review meetings by research scientists (CSIR, Faculties of agriculture). Development Officers supervise AEAs field activities in their respective zone. AEAs deliver the extension services to farmers and collect data on the agricultural sector. Data are aggregated locally by a MIS officer who sent them to the Regional Development Officer. The MIS Office is currently not equipped with a PC and collection and basic processing are still done with paper and pencil. Students sent by the Faculty of Agriculture of KNUST for attachment helped DADU to publish the District's Agriculture Profile.

The formulation of local development plans is now the responsibility of DA. As a result DADU has drawn the plan for District Agricultural development. This plan rolls on three years to be compliant to the Medium-Term Expenditure Framework (national approach to budget preparation that integrates investment and recurrent expenditure into a unified, 3-years rolling budget). Activities output are matched with both MTEF and AgSSIP objectives. Activities planned are detailed and range from training of farmers, organisation of farmers and AEAs, establishment and strengthening of farmers based organizations, conduct survey programs on different sub-sectors, conduct weekly market information surveys, establishment of a functional MIS etc.

Box 13 - Wienco (Gh) Ltd

Wienco is one of the major Ghanaian agricultural inputs importer. It has a proactive strategy for informing potential customers about its products. The network of retailers and wholesalers are provided with product information and simple training booklets are prepared with the assistance of researchers such as from the Cocao research centre at Tafoe, Eastern region and the Cotton researchers at Nyankpala. Demonstrations are regarded as the best marketing tool and they have a full time agronomist in charge of farmer education programmes that aim to sell more products to the Cocao farmers in particular. A training manual has also been developed by the chemical company Bayer which consisted of large full colour laminated images and diagrams for use in the field. The layout, format and content (including simplified and local language text) is developed by an advertising agent in Accra. Other media used include videos, theatre and drama. The company hires the government information service van for up to two months at a time to cover 40 villages with video programmes and theatre and drama groups hired to support the product demonstrations.

Box 14 - MoFA / Village Infrastructure Project (VIP)

The VIP is funded by the World Bank, IFAD, KFW and the Ghana Government District Assemblies with US$60m over 5 years. Villages are encouraged to apply for concessionary funding for rural infrastructure in four key areas namely water, transport, post-harvest facilities and capacity-building. Applications are sent through the District Assemblies either for private groups (that existed before the VIP was introduced in 1998) or public requests. The project has found that despite the funds available with up to 90% of costs funded by the project it has been difficult to inform the District Assemblies of the funds availability and the application process. The Districts have received briefings and a number of booklets, leaflets and posters have been developed by the project. Rural radio broadcasts in local languages and materials such as printed sheets have also been used to stimulate grassroots demand. The process of completing applications is intended to build the capacity of the DAs and local organisations to develop improved strategic plans at the district level and address local infrastructure problems. The project is focusing on capacity building to generate more demands before the facility closes in 2003.

Box 15 - United Nations University (UNU)- People, land and environmental change (PLEC).

This project is being run simultaneously in a number of regions around the world. Ghana forms part of the West African cluster and there are six demonstration sites in the country. In the Northern region the demonstration site centres around the village of Zugu with a total of 33 villages included within a 10 mile radius. The emphasis is on local knowledge sharing and different activities such as botany, herbal uses for trees and plants, weaving for women's groups are developed according to local needs, demands and experiences. Specialised training courses are developed and where necessary teachers and facilitators are brought to the village to provide extra support. Classes are located at the central village but those from the neighbouring villages are able to work on demonstration projects in the village and are included in the teaching schedules. The a project focuses on capacity-building rather than traditional extension approaches and university staff and students assist the communities to develop their own problem-solving techniques and solutions. A wide range of information could be made available through this village 'partnership' approach but it would need to presented in a format that was relevant to the local context of the different villages to correspond directly to their needs.

Box 16 - Simli (Friendship) Radio

Simli Radio is located within the Ghanaian Danish Community Programme and is funded by Danida. The radio editor Mr Imoro draws from a range of agricultural information sources such as the Animal Research Institute, UDS, extension officers and NGOs. The programme producers spend approximately 12 days per month recording in the villages and most of the programmes are in local languages. The station currently broadcasts twice a day providing educational 'school for life' programmes for 8-12 year olds in the afternoon and adult classes in the evening for different target groups during throughout the week. The 'School for life' classes are aimed at those who do not have access to any other formal education and they make use of teachers and classrooms that are available in the afternoon when many of the children are free from their daily tasks as farm-hands and babysitters. The classes are limited to 25 children and a mix of 50/50 boys and girls is required although a higher proportion of girls is permitted. 50 officers are employed to find students for these classes and mobilise the communities. The station has built over 200 schools for these classes in the region and classes are held in over 400. Those that are out of reach of the radio receive cassettes so that they can cover the same course material as those that receive the radio. Classes last for 9 months covering basic literacy and have achieved better results than many secondary schools over much longer periods (up to 4 years). The station will soon increase its broadcasting time to 6 hours a day and it will need more agricultural information to support the content of many of the adult learning programmes. The FAO held a workshop earlier in the year and Simli made a number of contacts with other rural radio stations and has been able to share programme material. Tailor made courses on topics such as bee-keeping, poultry, compost making, agro-forestry for local species, preservation of local crops have been identified by the producers as being of interest to villagers and research and extension are being asked for assistance in providing some of the content.