

Food security concept paper

1 What is food security?

Alongside a safe water supply, food is an absolute necessity for human survival for more than a very short period. There is no possibility of talking about a livelihood without detailed consideration of how people will have sufficient food to eat on a regular basis.

The most commonly used definition of food security is that developed at the World Food Summit of 1996. According to this definition food security is “a situation when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”. This is a complex definition and once it is broken down into its component parts a wide range of human economic activity, social structures and systems are revealed within its ambit. Novib (2001) provides a useful adaptation and initial deconstruction (Table 1).

Table 1: Definition of food security and all aspects involved

| | |
|---------------------------------------|---|
| Everyone has | Equity; all people |
| At all times | Stability of food availability, access and utilisation throughout the year and over time. Protection against risks affecting people’s food security. |
| Access to | The right to food. People are entitled to enough food. Affordability of food depending on purchasing power and market prices. Own production depending on land rights, etc. |
| And control over | The power to take decisions concerning food production, distribution, consumption etc. |
| Sufficient quantities | Enough food to meet daily food requirements, sufficient stock at household and community level to resist shocks. |
| Of good quality food | Variety of nutritious, safe and culturally appropriate foods. |
| For an active and healthy life | Proper consumption and a good biological utilisation of food, resulting in an adequate nutritional status of people. |

Source: Novib 2001, p.8

From the above it is clear that food security as a concept covers a wide range of areas. The concept cuts across the physical supply and availability of food, the macro and micro social systems that determine entitlements to food, nutritional value and the capacity of the body to use food and others. At a macro level food security must take into consideration marketing, trade and information systems. A common way of combining all these areas is to consider food security from the points of view of availability, access and utilisation.

Availability refers to whether food is physically available. Is enough food being produced to meet needs? If sufficient food is available at a higher level (say national) are distribution systems in place to deliver to local areas? How stable is the supply of food? For example, does availability rise and fall with the seasons or is there a constant supply to meet needs? Is the available food enough to meet daily requirements at individual, household and community level with reserves to withstand shocks? Production and distribution systems are central to availability.

Access to food is dependent on availability but goes beyond it by identifying whether a specific individual, household, locality or higher level is able to gain access to the food that is available. A central issue here is how food is procured. There are two basic ways to get food – either produce it yourself or exchange something else for it. The main form of exchange in a capitalist economy is through the medium of money, but this is by no means the only possible exchange. Especially in parts of the society that have limited access to financial resources, other means of exchange may be common in accessing food.

Access is probably the key issue when discussing food security. On a global scale there is enough food produced to meet the needs of everybody in the world. But not everybody has access to food, either because they do not have the resources to produce enough food for themselves - lack of land, genetic resources, water, tools or skills to produce or because they lack financial resources or other assets that can be liquidated to purchase food. Food security for the vast majority of the urbanised population is totally reliant on their capacity to generate income to buy food. In rural areas of Africa the situation varies. In South Africa very few people produce all their food needs for themselves. Even commercial farmers produce commodities (that happen to be food commodities) in exchange for money that they use to buy food for themselves. In other countries in southern Africa there is a large peasant base that produces most if its own food – even though this is seldom sufficient from a nutritional viewpoint.

Access to food therefore has two clearly defined components to it. On the one hand, improving access to food requires an intervention that boosts **agricultural productivity**. On the other hand, strategies to expand **employment** and the realisation of reasonable cash **incomes** can also improve access to food in the context of sufficient availability. The two are connected when agricultural production is used both for household consumption and for sale for cash. While an emphasis on employment may seem the most logical way to proceed, the Nobel Prize-winning economist Amartya Sen (1981, 5) argues that “a fixed money wage may offer no security at all in a situation of sharply varying food prices (even when employment is guaranteed). In contrast, a share of the food output does have some security advantage in terms of exchange entitlement.”

Food markets and trade play a role both in issues of availability of food and access to food. Apart from the obvious issues of distributing food through the market to places where it is needed (matching supply and demand), there is a centrally important issue of what happens to people who are not catered for by the market. Since trade itself is based on the market, food will only flow to areas where there is an effective demand i.e. where people can actually buy the food at prevailing rates. These issues are dealt with in a bit more detail below.

Support to households to produce their own food using land, water, physical and human resources is the first line of defence against food insecurity. Work done by CARE International in Lesotho on the Livelihoods Recovery through Agriculture Programme (LRAP) has demonstrated that there can be a dramatic reduction in food insecurity at the household level by supporting food production for household consumption. The second line of defence against food insecurity is in up-scaling household food production by linking it with marketing systems that can absorb surpluses from household gardens to ensure a source of cash to producing households and to promote redistribution of such surpluses to food deficit households.

There are a number of key issues that can be highlighted regarding support for production. The type of agricultural production model envisioned at the start of an intervention is crucial for the direction that will be followed and its success or failure. Central to this is the question of production for **household consumption** versus generating **cash** from production. It is clear that a balance must be struck between them. This operates even at a macro level where generally trade is put forward as the primary driving force of production decisions – especially since the advent of structural adjustment that sought to use agriculture as a generator of foreign exchange. An alternative and more sustainable approach is to see smallholder food production as prioritising household and local consumption followed by (rather than driven by) trade in surpluses. A question raised earlier was whether agriculture should be just another economic activity that assists in the generation of income or whether agriculture could play a dual role in generating income and also meeting basic food needs directly?

Diversity is a key principle underlying the construction of sustainable agricultural and food systems. This refers in particular to diversity of production types nationally and regionally (small and large, capital and labour intensive, with a range of products between and within farms).

A third issue that should be noted is that food security is a critical issue in both **rural and urban** areas. Many people may think of rural areas when they think of the need to support direct food production as a mechanism to relieve food insecurity. On the other hand national food policy tends to be distorted towards urban areas where production is deprioritised in favour of accessing the cheapest food available, even if this is produced halfway across the globe on the basis of government subsidies, or by offering farmers a very low price for their produce. Generally food prices are presented as a tension between urban consumers who want the lowest prices and rural producers who want the highest possible prices. Balanced growth is necessary where food prices reflect the true costs of production, including a fair wage, the internalisation of currently externalised environmental costs (soil and water pollution, wastage of water, the hidden costs of global and even national transportation etc.) and the value of food in human society.

In the context of high structural unemployment in much of Africa food production for household consumption takes on added significance because the possibilities of secure, reasonably-paid employment are slim for a large percentage of the population.

Utilisation of food serves as the interconnection between food production and distribution and other sectors, in particular health. Utilisation refers to food quality and nutritional content, and the biological capacity of an individual to absorb the available nutrients most effectively. This relates to health, HIV/AIDS, access to water and clean energy sources, and other related issues.

The **social context** that enhances or reduces food security is an important element for consideration and is dealt with more in the section on integrating food security and sustainable livelihoods below.

The definition of food security and the food security approach tends to focus on a goal rather than a programme with specific policies and actions. An advance on this is the Food Sovereignty approach with specific policies and actions embedded in the definition. The international movement of peasants and small farmers, Via Campesina, has

developed seven principles of food sovereignty as a guide to action (Windfuhr and Jonsen 2005, 17). These are:

- Food as a basic human right (building on existing international law to this effect);
- Agrarian reform, especially the redistribution of land to the landless;
- Protecting natural resources (sustainable production systems and conservation of biodiversity);
- Reorganising food trade (food first and foremost a source of nutrition and only secondarily an item of trade, prioritisation of production for domestic use and food self-sufficiency);
- Ending the globalisation of hunger (regulation and taxation of speculative capital and enforceable codes of conduct for food and agricultural multinationals);
- Social peace (freedom from violence for all);
- Democratic control over agricultural policy and other decision making at all levels.

2 Promoting food security in practice

South Africa is food secure at a national level as a result of domestic production and sufficient generation of foreign exchange from exports to enable the importing of shortfalls or products that are not produced domestically. National food security is increasingly reliant on the ability to import products that domestic producers cannot produce competitively in comparison with heavily subsidised producers elsewhere in the world. Given growing balance of payments problems (with the value of imports far outstripping the value of exports even with a strong rand) this is a dangerous basis for a national food security strategy.

Other countries in Africa face an even worse situation. The gap between food production and imports and food needs is estimated to be 187.5 million tons for sub-Saharan Africa in 2020 with the region being the only one that will have a predicted growth in the number of malnourished children between 1990 and 2020 (Conway 1997, 28 & 29). Most countries in southern Africa are heavily reliant on food aid to meet the basic food needs of their populations.

In all SADC countries at local level there are severe shortages of food among some rural and peri-urban communities. The high levels of unemployment are still indications that even where food is readily available, it is not necessarily accessible to all that need it because of shortages of disposable income.

There are a number of intervention strategies that governments use to improve food security. These can be grouped into three basic categories:

1. The **provision of food** directly to the poor;
2. Supporting access to food markets in the form of promotion of **income generation** including **income transfers**;
3. Support for direct **production of food** by the poor;

In addition there is crosscutting support for **nutritional improvement**.

There is much critique of **food aid** as a stand alone intervention, in that it creates dependency, it permits local politicians to use food aid as a tool for retain power and

control, and it leads to the destruction of food systems from production through to retailing. However, it is apparent that the mere elimination of these programmes without more robust food systems in place will lead to even greater food insecurity and hardship for the poorest, including child-headed households. The key question is how to provide food in such a way that it is integrated into longer-term development interventions, opens up opportunities to local populations, households and individuals and contributes to the structural reduction of vulnerability to food insecurity.

Promotion of employment, income generation, social protection and cash transfers are the second major intervention and are designed to enhance the ability of beneficiaries to purchase food from the market. Some countries have active programmes to improve economic growth and ensure it reaches the poor, eg through development of micro and small enterprises. Most countries in the region have policies in place to build social protection as a component of food security. Real or perceived lack of resources to sustain programmes emanating from these policies has retarded their operationalisation. While social protection systems have potential value in building and strengthening household and individual assets, their application to food security rely uncritically on food markets and leave the distorted systems of food production and distribution untransformed. The way access to food markets is conceptualised does not involve a transformation of these markets in favour of the poor over time, or their downgrading so that access to food is not premised only on having enough money to buy it.

The challenge is how to link up the sets of measures for **prevention** and **protection** on the one hand and measures for **transformation** and **promotion** on the other. The linkages have the same characteristics as those that connect the governance macro to the meso and micro in that at the higher level the systems manage total dependency whereas at the micro level systems have to be self-sustaining. The sets of measures should not be seen or handled separately and in isolation.

Support for food production involves supporting the widening of the base of producers, not only for commercial production, and includes support for low external input sustainable agriculture (LEISA). The range of support required is wide, including resources such as tools, seed, water, land, fertiliser/compost, credit, training and skills development in appropriate production methods, financial management, production planning administrative/organisational development and management, and marketing. There is a closed circuit relationship between inputs, production systems, marketing and processing and financing (see Figure 1).

Most countries in southern Africa have policies and even laws regarding these interventions. Yet for a number of reasons implementation lags. These include a disconnection between policy makers, implementers (government and non-government institutions) and beneficiaries. There is usually little or no participation in the design and implementation of policies by direct beneficiaries, and this leads to passivity. Another reason why the policies are not implemented is the decay or collapse of extension services that previously were run by the state but since liberalisation have not been maintained. The role of extension is critical in linking research and practice, constantly improving and updating the menu of options available to producers and working with farmers to develop practical ways to carry out options that producers have selected.

Figure 1: Picture of agricultural business system

From the above it is apparent that participatory interventions should have a clearly defined transformative component to them, since hunger and food insecurity are structural in character and structures are no more and no less than codified human interactions. It becomes clear that the sustainable livelihoods analysis (SLA) framework offers a valuable conceptual starting point for considering how food security interventions can both protect and strengthen livelihoods and for suggesting where Khanya-aicdd may make the most effective contribution.

4 Identifying a conceptual and operational niche for Khanya-aicdd

4.1 Integrating food security and sustainable livelihoods frameworks

Khanya-aicdd's approach to development is based on making interventions at three levels:

1. *Empowering communities - micro (community) level*
 - To help people to be active and involved in managing their own development by claiming their rights and exercising their responsibilities to reduce their poverty and vulnerability.
 - To create community-based, private sector or government systems and structures that are responsive, active and accessible for provision of services at the local level
2. *Strengthening district and local government - meso level*
 - Ensuring that at district and local government levels (lower meso) sustainable livelihoods planning is facilitated, provided or promoted effectively and responsively in a coordinated manner. These government levels are held accountable by local

communities for ensuring that aspirations of persons, households and communities are fulfilled.

- Ensuring that at the upper meso level, support and supervision are provided to the levels below
3. *Realigning the centre - macro (national, regional and global) level*
- To advocate that the centre provides strategic direction, redistribution and oversight, and that at all times and under all circumstances it responds to micro and meso-level realities and inputs.
 - to advocate that international institutions and processes help to promote the capacity of nation states to take on the strategic roles to eradicate poverty.

Khanya-aicdd sees the sustainable livelihoods approach (SLA) as a useful framework in addressing poverty. This recognises the different assets of individuals/households/communities (natural, social, physical, financial and human assets, the critical importance of understanding vulnerabilities, the institutional environment, and people's choices in terms of preferred outcomes and the livelihood strategies they choose to employ (see Khanya-aicdd documents on sustainable livelihoods approach). Khanya-aicdd's approach is to work with communities and groups in communities to build on their existing assets/strengths to facilitate the development and strengthening of coping and survival strategies and improving livelihoods.

The common denominator in individual, household and community livelihoods is the judicious management of resources. Management principles will pervade all levels when they are constantly informed and empowered by Khanya-aicdd's unique approach of inclusive community-based planning (CBP), facilitated using community-based services in order to achieve all-inclusive community-based management (CBM). The integration that takes place in these practices and processes vertically and laterally aligns the vulnerabilities of all classes of society in an entire paradigm that requires a holistic approach. Koos Neefjes (2000) contends that what is required first and foremost is a change in the mindset of relief agencies and a better understanding of local people's survival strategies.

A number of links between the food security framework and the SLA are apparent. In both frameworks, consideration of vulnerability to shocks and stresses is a key feature of analysis on which future planning is based.

If we consider the five assets categories that form SLA's core - human, financial, social, natural and physical – it is apparent that food security interventions may be allied closely to each of these. Strengthening access to natural assets such as land, water and genetic resources are a fundamental part of supporting food production.

There is a strong link between the entitlements approach and social and political assets that further relates to informal and formal systems of governance. An important part of food security relates to control over food, or the power to take decisions about food. An analysis of power is central to this. Entitlements are defined as "the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces" (Sen 1984, 497). In some senses entitlements can be seen as the practical mobilisation of the full array of assets to realise a commodity bundle that includes food. Not everyone can mobilise commodity bundles that meet their needs, including for sufficient food. Entitlement relations in a market

economy (an economy based on private ownership) include trade, production, labour and inheritance and transfer entitlements (Sen 1981, 2). Entitlement is not related to a normative right as such, but rather on the actual ability of an individual or household to mobilise the various assets at their command, including the power vested in them by the society they live in, whether formal or informal. There is a strong gender component to this because women often have weaker effective command over resources or assets than men.

Food security interventions are designed explicitly to strengthen individual and household assets. However they may not always be the best long-term interventions especially when they are not filtered through an analytical process that considers the structure of assets, vulnerabilities and opportunities holistically and contextualised in a policy and institutional framework. A unique and valuable aspect of Khanya-aicdd's approach is to highlight the importance of building on existing strengths and basing interventions on participatory holistic analytical processes.

4.2 Khanya-aicdd's focus in relation to food security

Food security is broad and Khanya-aicdd's focus is on processes rooted in community activity, seeking practical solutions to immediate issues of food security in such a way that they can be scaled up within a relatively short time frame, and have long-term development impacts. We seek to understand the broader food security agenda, while focusing our action on the production of food and natural resources, as well as improving incomes, but not directly on other cash transfer approaches.

In terms of approaches to **production** Khanya-aicdd focuses on approaches to assist vulnerable people to enable them to use the natural resources at their disposal most effectively to survive shocks and stresses in order to thrive and move on to sustainable and rewarding livelihoods. We seek to work with communities and to adapt or develop approaches and methodologies that can be replicated elsewhere. A critical challenge in many countries is the lack of the set of support systems required (credit, marketing, extension etc) as shown in Figure 1.

Key is the testing and implementation of appropriate methods of **extension**. Agricultural extension services are the interface between policy and external knowledge, and the locally-specific knowledge and experience of people actively involved in food production as a livelihood strategy. [\(link to separate page looking at approaches to extension\)](#) –see end of document. In practice most extension systems have been ineffective, do not reach farmers and are unable to provide value-added information to assist farmers to improve their husbandry. Khanya-aicdd is already engaged in a number of activities looking at testing and scaling up models of community-based extension work.

In addition Khanya seeks to ensure that the **agricultural business system** as a whole is able to support poor producers to produce for home consumption as well as for sale, so looking in an integrated manner at the need for extension, credit, marketing etc. Khanya is currently looking at projects addressing the potato value-chain in Lesotho. In South Africa land reform is critical, which has not been effective and is needed if a cadre of small farmers is to be developed.

Khanya's work on local economic development [\(link to LED practice on website\)](#) focuses more generally on support for **income generation**. This is discussed elsewhere but

clearly LED in rural areas is usually driven by agriculture and natural resources and so there is an overlap in these practices.

Khanya-aicdd offers an analytical framework that situates food security interventions in a sustainable livelihoods approach that is rooted in community participation, as well as an integrated and holistic picture of the agricultural business system. This enables policy makers and implementing agents to more fully understand the character of livelihoods and to better understand how interventions might positively or negatively impact on existing livelihoods strategies. Khanya-aicdd has particular skills in facilitating, modelling and scaling up community-based approaches to development and this can be applied fruitfully to agricultural extension and other mechanisms for the practical realisation of sustained improvements in food security for those who are currently food insecure.

5 Examples of Khanya-aicdd work on food security

Case study – Thaba Nchu food security project

In South Africa, Khanya-aicdd, in conjunction with Phaphamang Community Development Project, a non-profit organisation in Free State province, is piloting a model for community-based service delivery to ensure food security and income generation in the rural communities of Mangaung municipality. The project aims to support a range of disadvantaged groups including youth, women, people living with HIV and AIDS, clinic groups and school-based groups, assisting them to grow vegetables, fruit and small stock. An innovative community-based extension worker (CBEW) system is being applied with the CBEWs selected by community groups, trained and supported by Phaphamang. Technical and organisational support is provided by Food and Trees for Africa, World Vision and the Department of Agriculture. This method promotes dispersed active and locally accountable community workers who are supported by Phaphamang as a facilitating agent. Government provides support and supervision. The NGO works in partnership with well-established organisations that assist in capacity building. The project links to a four country action research project on community-based worker systems which includes Uganda, Kenya and Lesotho. The innovative idea, developing a community-based extension system, will be shared and replicated widely in South Africa.

Case study – rethinking forestry extension in Uganda

In Uganda trees provide a very important ingredient to livelihoods, particularly for the poor. They provide food (eg fruit), fodder, fuel, wind protection, building materials amongst others. Khanya supported the Forestry Secretariat (now Forestry Inspectorate Division) to analyse people's livelihoods in 10 districts, see what their preferred outcomes were, and how forestry could assist their livelihood strategies to address these outcomes. A set of services were identified, including the use of community forestry workers, provision of information on prices of forestry-related products, specific technical inputs, and these were piloted in a number of districts, eg Masindi. In Masindi BUCODO a local CBO used community forestry workers to support local producers in their activities. For further details see Harrison et al (2004).

Case study – promoting small stock and preventing avian flu in Lesotho

Khanya has just started a project on responding to avian flu in Lesotho, which aims to build a community-based approach to enhancing small stock production and reducing the vulnerability of small scale producers and vulnerable households in particular to the threat of avian flu, working closely with the Ministry of Agriculture and Food Security.

The project will use community-based workers and is based on community-based participation and empowerment to respond to avian flu and build livestock support throughout the villages of Lesotho, as well as providing a capacity to diagnose avian flu and some other key diseases of small stock. The project is in the design stage, and is funded by Irish Aid. This builds a successful CARE project that Khanya was involved in designing, the Livelihoods Recovery through Agriculture Programme (LRAP), which used various models of community-based services, focused on homestead production, but did not apply this to small-stock.

Case study - the Regional Hunger and Vulnerability Programme (RHVP)

In this programme, Khanya is involved in promoting the use of social protection, integrating flexible responses to food crises into regional systems, working with 6 SADC countries (Malawi, Mozambique, Zimbabwe, Zambia, Lesotho and Swaziland). These include supporting the strengthening of existing regional hunger and vulnerability information systems (VAA), identifying the various possible responses (including emerging practices based on longer-term developmental approaches as opposed to short-term humanitarian crisis approaches), and trying to situate response within a sustainable livelihoods analysis framework that takes into account the unintended impacts of various interventions. Khanya has provided support on the policy influencing component, and is currently focusing on providing a Network (Wahenga) which disseminates information. Khanya also provides the Lesotho Country Coordinator. There are a wide variety of publications available from www.wahenga.net including policy briefs, newsletters and comments. In addition the website has

6 Food security-related projects Khanya-aicdd has undertaken

Table 2: Projects Khanya-aicdd has undertaken related to food security and natural resources

| Year | Project |
|---------------|---|
| 2006 | Promotion of smallstock and prevention of avian flu in Lesotho, funded by Irish Aid |
| 2005+ | Provision of Network and Lesotho Country Coordinator for Regional Hunger and Vulnerability programme, funded by DFID |
| 2005 | Assessment of suitable modalities for funding a regional programme of agricultural research, for DFID |
| 2004 | Development of participatory planning methodology for use in Landcare projects in South Africa and training of 5 provinces. |
| 2004 | Facilitation of design workshop for DFID Protracted Relief Programme in Zimbabwe |
| 2003 | Design of Livelihoods Recovery through Agriculture Programme, Lesotho |
| 2003 | Facilitation of development of design for DFID support to land reform in South Africa |
| | Secondment of Acting Rural Livelihoods Advisor, Pretoria |
| 2002 | Member of the Project Monitoring and Review Group for the AusAID supported project: South Africa/Australia Institutional Strengthening of the Department of Agriculture (ISDA). The ISDA project is providing capacity development for implementation of Land Care in South Africa, AusAID. |
| 1999 and 2002 | Review of the operations of the TEAM project, an innovative community-based extension system using experiential and adult learning principles. CARE Lesotho |
| 2001-3 | Management of the training and short studies component of Lesotho's Agricultural Policy and Capacity-Building Program, Ministry of Agriculture, Lesotho. |
| 2001-3 | Developing new ideas for transforming service delivery for forestry, using livelihood |

| Year | Project |
|--------|--|
| | analysis to see how forestry can contribute to the livelihood of poor people, design of pilots, review of progress, Uganda Forestry Sector Coordination Secretariat. |
| 2001 | Facilitation of a Strategic Workshop for SADC Fisheries Project in Namibia, DFID. |
| 2000-3 | Support in the design of Sustainable Coastal Livelihoods Projects, Department of Environmental Affairs and Tourism, SA |
| 2000 | Development of Business Plan for Allanridge Commonage Project (2000). Department of Land Affairs, Free State |
| | Review of the Lefika, S'bongile land reform projects and proposals for rescue, Department of Land Affairs, Free State |
| | Facilitation of workshop on Aquaculture Research and Sustainable Livelihoods, Vietnam, Overseas Development Institute, London. |
| 1999 | Review of the Kopano Farmworkers Equity project and proposals for rescue, Department of Land Affairs, Free State |
| 1998 | South African partner on international research programme on Policies That Work for Sustainable Agriculture, International Institute for Environment and Development, UK |
| | Institutional reform component of Pre-Appraisal and Appraisal for Lesotho Agricultural Policy and Capacity-building Programme, Ministry of Agriculture, Lesotho |
| | Participatory evaluation of the transformation process over the last four years with recommendations for the future, Free State Department of Agriculture, South Africa |
| | Facilitating workshops to redesign field operations of the Free State Department of Agriculture, Free State Department of Agriculture, South Africa |
| | Developing pilot approaches for new models of client-focused extension, including use of outsourcing, Northern Cape Department of Agriculture, South Africa |

6 References and resources

- Chambers, R. 1997 *Whose Reality Counts? Putting the first last*. Intermediate Technology Publications, London.
- Conway, G. 1997 *The Doubly Green Revolution: Food for all in the 21st century*. Penguin, London.
- Devereux, S. 2001 "Sen's entitlement approach: critiques and counter-critiques." *Oxford Development Studies*, Vol. 29 No. 3
<http://www.sas.upenn.edu/~dludden/FamineMortality.pdf>
- Farrington, J. and A. Babbington 1993 "From Research to Innovation: getting the most from interaction with NGOs in farming systems research and extension." Gatekeeper Series No. 43, International Institute for Environment and Development, London
<http://www.iied.org/NR/agbioliv/gatekeepers/documents/GK43.pdf>
- Harrison, M, R Ssabaganzi, I Goldman and J Carnegie, 2004 "Reform of forestry advisory services: learning from practice in Uganda", Natural Resource Perspectives 93, Overseas Development Institute, London (available on www.khanya-aicdd.org)

Heemskerk, W. and B. Wennink 2004 "Building social capital for farmer innovation: experiences with farmer groups in sub-Saharan Africa in SSA." Royal Tropical Institute (KIT) Bulletin 368, KIT, Amsterdam
http://smartsite.kit.nl/net/KIT_Publicaties_output/showfile.aspx?a=tblFiles&b=FileID&c=FileName&d=TheFile&e=761

Neefjes 2000

Novib 2001 *Towards food security: Novib's position on food security and lessons learned*. Novib, The Hague.

Osborn, T. 1994 "Participatory agricultural extension: experiences from West Africa." Gatekeeper Series No. 48, International Institute for Environment and Development, London
<http://www.iied.org/NR/agbioliv/gatekeepers/documents/GK48.pdf>

Ramirez, R. 1996 Understanding farmers' communication networks: understanding PRA with agricultural knowledge systems analysis." Gatekeeper Series No. 66, International Institute for Environment and Development, London
<http://www.iied.org/NR/agbioliv/gatekeepers/documents/GK66.pdf>

Sen, A. 1981 *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford University Press, Oxford.

Sen, A. 1984 *Resources, Values and Development*. Basil Blackwell, Oxford.

Timmer, P. 2005 "Food Aid: Doing Well by Doing Good." *CGD Notes*, Centre for Global Development, Washington DC

UNESCO International Research and Training Centre for Rural Education (INRULED) 2001 "Global trends in reforming extension services." INRULED
<http://www.inruled.org/info/122.pdf>

United States Department of Agriculture 2002 "Exploring new opportunities for extension." USDA
http://www.csrees.usda.gov/about/white_papers/pdfs/exploring.pdf

Windfuhr, M. and J. Jonsen 2005 *Food Sovereignty: Towards Democracy in Localised Food Systems*. ITDG Publishing, Rugby, Warwickshire.

Separate page on extension

Historically agricultural extension has been a very top down process where technological choices and methods of application were developed by 'experts' and then the solutions were imposed on producers without choice ('transfer-of-technology methodology'). A slightly better version is where producers choose from a menu of options but then the 'expert' imposes methods for realisation or designs the plan for carrying out. The methods and plan are delivered as an inflexible package.

New, more participatory methodologies have begun emerging where producers discuss and select from menu based on what they want to achieve, and then extension workers/change agents and producers participate in designing a plan and process for carrying out ('farmer-first methodology'). A flexible basket of choices is offered where elements can be tested without having to take the whole basket or nothing. The table below compares the two methods:

Table A1: Transfer-of-technology and farmer-first compared

| Element | Transfer-of-technology | Farmer-first |
|--|--|--|
| Farming conditions to which applied or more applicable | Simple Uniform Controlled | Complex Diverse Risk-prone |
| Main objective | Transfer technology | Empower farmers |
| Analysis of needs and priorities by... | Outsiders | Farmers facilitated by outsiders or other farmers |
| Transferred by outsiders to farmers | Precepts Messages Package of practices | Principles Methods Basket of choices |
| The 'menu' | Fixed | A la carte (choice) |
| Farmers' behaviour | Hear messages Act on precepts Adopt, adapt or reject package | Wider farmers' choice Use methods Choose from basket and experiment |
| Outsiders' desired outcomes | Widespread adoption of package | Wider farmers' choice and enhanced benefits and adaptability |
| Roles of outsider | Teacher Trainer Supervisor Service provider | Convenor Facilitator Consultant Searcher for and provider of choice |

Source: Chambers 1997, p.202