## 4. PRESENT POLICIES, PROGRAMMES AND ACTORS

#### 4.1. RELIEF AND DEVELOPMENT

International NGO assistance to Malawi started in earnest in the mid-1980s, when the Mozambican refugee crisis forced Dr. Banda to seek help from both the UN and NGOs. Malawi, with its desperate poverty, is a target country for many relief agencies. These agencies focus initially at providing a response to a very difficult humanitarian problem, and then build in longer-term development into their programmes as resources permit. Today there are numerous community-based organisations and international and local NGOs. They typically specialize in areas such as HIV/AIDS, child rights, population, women's empowerment, governance and human rights, food aid and relief, water development, community development, and food security. The Council for NGOs in Malawi (CONGOMA) was established in 1992 and is active in coordinating sectorwide projects, sharing information, and facilitating collaboration. It has approximately 175 member agencies. Few NGOs are strong financially or have substantial skilled staff (Cammack, 2004).

NGOs have played a major role in helping alleviate some of the worst effects of food insecurity in Malawi. Food shortages and the continuing threat of famine dominate much of the agenda. When severe food shortages became apparent in Malawi in late 2001 and intensified at the beginning of 2002, it was the NGOs who collected evidence from detailed field studies while civil society and the churches raised the alarm. The NGOs have also been particularly innovative in working together (and with partner institutions) to develop coordinated programmes. The best example is the 2001/2002 food crisis. The Appeal of the National Food Crisis Task Force to the donor community on the 20<sup>th</sup> March 2002 outlined the need to provide humanitarian assistance to the population without food – over 3 million people. It also intended to expand cash for work, food for work and supplementary feeding for malnourished children, pregnant women, lactating mothers and under-five children and to expand the school-feeding programme. This was a massive endeavour requiring extensive coordination between a whole range of agencies and individuals. In April 2002, a "town meeting" (convened by the United States Agency for International Development) proposed an NGO Consortium<sup>4</sup> to deliver food aid and a Joint Emergency Food Aid Programme (JEFAP)<sup>5</sup> was established.

JEFAP was a new partnership that strengthened collaboration between the Malawi Government, all cooperating partners, the World Food Programme, NGOs operating at the district level and the district authorities. It proved crucial to the success of the humanitarian relief programme. Typically in the past, NGOs involved in humanitarian interventions tended to work outside Government structures, and it was difficult to put together a nationally coordinated programme. By

<sup>&</sup>lt;sup>4</sup> The NGO Consortium was chaired by Care International: each district had a lead NGO and District Assisting Partners. The following NGOs were lead in the different districts: Africare operated in Mzimba, Nhhata Bay, Likoma and Ntcheu; Care Malawi operated in Lilongwe and Dowa; Save the Children US operated in Balaka and Mangochi, Save the Children UK operated in Mchinji and Salima, World Vision Malawi operated in Chikwawa, Nsanje, Mwanza and Thyolo, Catholic Relief Services operated in Kasungu and Zomba, Oxfam operated in Mulanje, Emanuel International in Machinga, Concern Universal operated in Dedza, Goal operated in Blantyre and Chiradzulu while the Salvation Army operated in Phalombe (Alexander Phiri, Assessment of the Malawi Government strategy used to address the 2001-02 Food Crisis. First Draft Report, Emergency Drought Recovery Programme, Lilongwe, Malawi.)

<sup>&</sup>lt;sup>5</sup> JEFAP's objectives were to prevent severe food shortages that could lead to starvation at the household level, safeguard the nutritional status of vulnerable groups, preserve productive and human assets from liquidation and distress selling, and prevent distress migration from affected areas to urban centres.

contrast, under JEFAP, all participating NGOs worked within a common structure using formal, agreed guidelines.

Two key mechanisms were introduced that were central to the success of the humanitarian relief operation. Firstly, the targeting of districts and households for the humanitarian relief operations was done through JEFAP on the basis of objective criteria and in a fully transparent manner. Secondly, there were regular reviews of the programme with representation from government departments, WFP, collaborating partners, participating NGOs and the Civil Society Agriculture Network (CISANET). In addition, a Parliamentary Committee was appointed to monitor the implementation of JEFAP in the field. The Department of Poverty and Disaster Management Affairs appointed field emergency monitors in every district with the support of UNDP. The WFP also placed food aid monitors at distribution points. Where problems arose and were referred to the political level, these were immediately investigated by the Chair of the NGO Consortium in collaboration with government officials. They reported back to the National Food Crisis Task Force, and action was taken to address problems or to improve communication at the district level.

This was no small exercise. In July 2002, just over 600,000 beneficiaries received food rations. By February 2003, the numbers had swelled to 3.1 million. Each beneficiary family received a food ration of 50 kg of maize grain, 5 kg of soya flour, 5 kg of legumes (mainly beans and peas), and 2 litre of cooking oil every month<sup>6</sup>. The general food distribution was conducted in a professional manner. While there were inevitable problems, there was excellent collaboration between the government and the private sector transporters, combined with competent logistical support from the World Food Programme. Phiri (2004) noted:

"The major positive attribute that should be learned, and if possible replicated in future programmes, is the high level of commitment and dedication from all the stakeholders that were involved at various levels. Government officials, NGOs and donors worked together tirelessly to ensure success of the programme. Against all odds and immense challenges, the programme still managed to achieve remarkable success in averting what would have been a major humanitarian crisis. The JEFAP experience in Malawi is generally regarded as the most successful response to the food crisis in the southern African region".

It was not just a relief exercise. A number of seed multiplication exercises were set up. These mainly involved improved, higher yielding open-pollinated seeds that farmers can save for themselves for 3-4 years before needing to renew it with fresh seed. This makes the cost of seed substantially less than with hybrid seed – although generally, even under poor management conditions, open-pollinated seeds will produce a smaller yield than hybrids. Common beans are a popular food crop and widely grown by the poor. There are several improved varieties available but few are found in formal markets. An innovative bean improvement effort involving both national and overseas participants pulled together a range of existing groups - women groups, church groups, savings and credit groups, vegetable growers. Both men and women were actively involved in these groups and improved agricultural technology interventions were linked to ongoing development activities so as to create a coordinated focused programme of change. This has enabled the strengthening of ongoing farmer empowerment efforts, while at the same time addressing a major constraint to an important food crop. NGOs with expertise in market

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<sup>&</sup>lt;sup>6</sup> The ration was intended to meet the consumption requirements of an average family of 5.5 individuals. Although this was the agreed nutritionally balanced ration, it was not always possible to provide it.

<sup>&</sup>lt;sup>7</sup> Hybrid seed loses much of its extra vigour if the seed is saved and replanted and thus fresh seed is recommended each year. It is also more expensive to produce and to buy.

and other development areas are encouraged as active partners so as to enhance outputs and benefits to farmers.

The humanitarian response to the 2002 and 2003 food crises show that where there is political will and commitment from all stakeholders, programmes will be implemented successfully. At the outset, all stakeholders recognised that Malawi was facing a serious and urgent emergency that needed action on a broad scale. Government, donors and stakeholders collectively addressed the issue of how to implement a relief operation for two to three million Malawians. Government and donors explored options to work with lead NGOs in each District, and the NGO Consortium was established. Then a focused analytical effort was deployed constructively to determine how to make the programme work. Capacity constraints were recognised and addressed. Three factors contributed to the success of the humanitarian response:

- An exceptional degree of collaboration between all implementing partners: NGOs, government ministries, district authorities and community leaders. Everyone involved worked with in a dedicated manner to respond to the humanitarian emergency.
- Decisions were taken on the basis of objective criteria both in terms of targeting the most vulnerable areas and targeting households at the community level.
- Strong mechanisms for monitoring, transparency and accountability from the Food Crisis Joint Task Force, civil society and from Parliament.

The humanitarian relief programme was viewed as a national exercise to which everyone contributed. It demonstrated that it is possible to "build a virtuous cycle" when there is genuine collaboration and all actors involved have a common goal. This was a remarkable achievement that has laid the foundation for more effective collaboration between all partners to address problems of national and household level food insecurity in future provided that the principles of transparency and accountability are maintained.

#### 4.2. TECHNOLOGY DEVELOPMENT AND DISSEMINATION

#### 4.2.1. The World Bank Agricultural Services Project

The main technology development and dissemination effort of the Bank (probably the major donor to the agriculture sector) in the late 1980s and through the decade of the 1990s was the Agricultural Services Project (ASP). Under this project, farming systems methodologies were introduced (with technical assistance provided by USAID) and the extension service developed on regional lines through semi-autonomous agricultural development divisions (ADDs). Each ADD had a programme manager responsible for the agricultural development activities within his or her geographical area. Extension efforts were based around the 'training and visit' (T+V) system, and there was a major research station in each ADD.

The research agenda was subject to annual review (mainly by co-researchers). Funding of research prioritised on-farm, adaptive research. A farming systems research team was based at each ADD, under the control of the ADD programme manager. The farming systems research teams belonged to the then Department of Agricultural Research.

A competitive small grants programme was created under this project, but the major funds were available through the priorities approved at annual agricultural research planning meetings.

These last were mainly organised around commodity clusters (maize, sorghum and millet, farming systems, and so on). Extension workers and ADD management did attend the meetings, which were intended to provide a strong linkage between research and extension. Extension workers and the farming systems teams provided the major 'farmer' input to the agenda setting.

But the hierarchical nature of technology and development that existed in Malawi made it very difficult to create the change in approach needed to create a farmer responsive system. The procedures were present in the Agricultural Services Project; their implementation fell far short of the ideal. In 1986, The Rockefeller Foundation opened a programme in Malawi. The focus was on the major food cropping system (maize and associated crops). As a small donor, the Rockefeller Foundation had an explicit policy of developing complementary activities to those of major donors. In particular, it sought to harmonise its efforts with those of the World Bank as both agencies had a common focus on maize-based cropping systems and on developing a farmer-focused research agenda. In collaboration with the World Bank and the international agricultural research centres (IARCs), the Rockefeller Foundation worked to analyse the major constraints to reducing poverty amongst the majority rural poor through a comprehensive investigation of the options available to improve maize-based cropping systems.

# **4.2.2.** International Agricultural Research Centres as change agents Mother-baby trial methodology

The 'mother and baby' trial design<sup>8</sup> was developed in Malawi to enhance farmer empowerment in research. The design comprises 'mother' trials that test a number of different technologies, and 'baby' trials that test a subset of three (or fewer) technologies, plus one control. The design makes it possible to collect quantitative data from 'mother trials' managed by researchers, and to systematically cross-check them with 'baby trials' on a similar theme that are managed by farmers. The design is very flexible. Mother trials are located on-farm at central locations in villages, but they could as easily (depending on need and logistics) be located at nearby research stations. Farmer participation in baby trial design and implementation can vary from consultative to collaborative.

Relatively simple 'one-farmer, one-replicate' trials are managed by farmers as satellites or 'baby' trials. These are linked to a central 'mother' trial managed by researchers that have "within-site replications." A trial design with a maximum of four plots and no replication within the farmer's field fits a limited field size. It simplifies the design and makes it easier for farmers to evaluate technologies. Having many replicates across sites makes it possible to sample wider variations in farm management and environment. However, replication within a site and intensive, uniform management improves research on biological processes.

Data collected from trials includes such quantitative information as planting date, emergence date and population density at emergence, early weed cover, and dates when plot was weeded. The farmers provide quantitative feedback on their evaluation of technologies to researchers through surveys, paired matrix ranking and by rating technologies. Qualitative feedback can be obtained from meetings between farmers and researchers, and comments recorded at field days. The 'mother trials' can be evaluated more informally during discussions held during field days. This makes it possible to integrate the farmers' assessment and improve research priority setting. Meetings are also held with senior stakeholders, conducted as part of an iterative process to

<sup>&</sup>lt;sup>8</sup> The terminology is, in fact, the farmers' who were delighted to have responsibility for their own trials.

maintain support and inform priority setting at every level. This includes policymakers, supervisors of extension and NGO staff, senior researchers and industry representatives.

By facilitating hands-on experience for farmers, the clustered 'mother and baby' trials provided a relatively rapid approach to developing 'best bet' options. The linked trial approach provides researchers with tools for quantifying feedback from farmers, and generates new insights, such as (in the case of Snapp's own work on soil fertility) the need to widen the research focus beyond soil fertility to include secondary benefits such as weed suppression (Snapp *et al*, in press).

In the late 1980s and early 1990s, The International Maize and Wheat Improvement Center (CIMMYT) developed breeding methods that enable efficient development of improved varieties for abiotic stresses such as drought, and low-nitrogen and acid soils (Bänziger and Cooper, 2001). National breeders have been trained in these new methods, which now allow them to select maize under stress conditions, instead of just focusing on increasing yields under agronomically well-managed conditions.

CIMMYT breeders adopted the "mother/baby trial" methodology to allow the evaluation of the performance and acceptance of new crop varieties under farmers' real conditions. A partner organisation (extension, NGOs, schools) grows the mother trials, containing all varieties under evaluation, in the centre of a farming community using both recommended and farmer-representative crop management practices. Several farmers in the community grow the baby trials, (in this case, sub-sets of four varieties per farmer) under farmer-managed practices. Both performance and farmers' assessment are recorded.

This methodology allows all stakeholders - farmers, international and national research programmes, extension workers, NGOs, agricultural teachers – to contribute directly to the selection process. It greatly helps to empower non-researchers in the direction and focus of the research process. It also helps provide feedback to seed companies and other relevant organisations on the potential demand for new varieties. In 2000, CIMMYT scientists adopted the method and conducted over 1000 mother-and-baby trials in six countries in southern and eastern Africa.

Scientists from other agencies and countries in Africa are either currently using the mother-and-baby trial design or in the process of adopting it – with adaptations to local circumstances (Morrone and Snapp, 2001). The primary reason cited for interest in the approach was the ability to involve many farmers systematically and to rapidly elicit evaluation of technologies and varieties.

A recent study compared 41 hybrids from CIMMYT's stress breeding programme with 42 released and pre-released hybrids produced by private seed companies in 36-65 trials across eastern and southern Africa. Hybrids from CIMMYT's stress breeding programme showed a consistent advantage over private company check hybrids at all yield levels, with selection differentials being largest for yields between 2 to 5 t/ha. This new approach has been shown to increases maize yields significantly in the variable stress-prone environment typical of many smallholder-farming areas, and at yield levels most relevant to resource-poor farmers.

## 'Best bet' technologies

The potential gains in maize productivity possible from improved crop management, especially soil fertility management, are substantial, but largely unrealised amongst resource-poor farmers. This limited impact is related to structural, policy and socioeconomic issues, combined with the risks involved in adoption under uncertainty. Furthermore, too little effort has been made to gen-

eralise what are often highly site-specific crop management options into robust, economically viable farmer recommendations.

CIMMYT in southern Africa has used a collaborative approach to confront the challenges of soil fertility and water deficit in maize-based systems by engaging in crop and resource management research through a regional network – the Soil Fertility Network or SoilFertNet (a similar network exists in eastern Africa). SoilFertNet has worked for nine years to help smallholder farmers in southern Africa maintain and improve soil fertility of their dominant maize-based cropping systems through the development and promotion of farmer-use of improved soil fertility technologies and economics and policy support to help farmers access the technologies.

The Network has emphasised the adoption of a 'best bet' approach. The Network sponsors a regular set of field tours during which researchers and farmers review ongoing technologies in the field. The aim is to encourage a rigorous process of peer review, with inputs from scientists and farmers, of research as it moves from a researchable idea towards a potential adoptable technology. The process is very open, consultative and inclusive. It is intended to provide a challenge to the best scientists and a learning process for the younger entrants, as well as a way of bringing farmer voices into the exercise in a continuing, rather than a one-off, manner. Information from the field tours and the research analyses are used to select potential 'best bets.' These are technologies, which are deemed to have particular value for identified farming environments or groups.

One example is improving the profitability of fertiliser use. Fertiliser is expensive – some 12 kg of maize are needed to pay for 1 kg of nitrogen fertiliser. The agronomic efficiency use of fertiliser is low – as little as 5 kg of grain per kg of fertiliser in some situations. Moisture and soil fertility work both with and against each other. The climate of southern and eastern Africa means that moisture is a frequent constraint on maize yields and yield response to fertiliser. The efficiency (measured through grain production) of both water use and fertiliser use is raised when both are in adequate supply. The high risk of poor response to fertiliser in dry years is a major reason why most farmers in semi-arid areas use little or no fertiliser.

## **4.2.3** International Agricultural Research Centres products in improving livelihoods in Malawi

#### **Crop improvement**

The improved maize varieties available in the 1970s and 1980s were derivatives of those developed for large-scale farmers in Zimbabwe. However, they did not suit the circumstances of the majority of smallholders in Malawi. Of particular significance was the fact that the grain type was too soft for household processing and allowed the harvest to become quickly infested with weevils. The conventional wisdom amongst maize breeders was that hard endosperm maize was inherently low yielding and thus unsuitable for maize improvement programmes. In 1985, CIMMYT started to develop two improved maize hybrids (MH17 and MH18) and these were released in Malawi in 1990. These hybrids had a harder, semi-flint grain type with good storage and household processing characteristics<sup>9</sup>.

International agricultural research centers made important contributions to other food and cash crop improvement programmes, which underlie efforts to reduce poverty in Malawi. Groundnut

<sup>&</sup>lt;sup>9</sup> Although these advantages were quickly lost if the farmer recycled the seed – a fact ignored in extension messages for smallholders.

production crashed in the 1980s under the weight of distorted price regimes and lack of attention to markets. The SADC/ICRISAT Groundnut Improvement Project spearheaded the development of improved groundnut varieties in Malawi and throughout the SADC region. There has been widespread adoption of these materials. Similarly, long season improved pigeon pea have enabled the development of cropping systems based around maize and pigeon pea intercrops which provide cash and nutrition to farm families as well as helping the necessary shift to more sustainable cropping systems based around biological nitrogen fixation and the use of deep rooting crops to break hoe pans and improve water infiltration to the soil.

## The Maize Productivity Task Force (MPTF)

The Maize Productivity Task Force (MPTF), consisting of concerned scientists, economists and policy makers in Malawi, were formed in 1996 to pool their skills and efforts to address the country's increasingly severe and chronic food crisis. It liaised with key donor agencies and drew on external expertise and advice as appropriate. This unique initiative in self-help and self-reliance – the development of a concerted and broad-based Malawian led effort to develop a national consensus on policy to address probably the most important problem facing the country – was a chance that could, and should, have been sustained. While it had strong support from the Malawi Government, most of the donor community (including the World Bank) did not take the effort seriously.

The first task of the MPTF was to review options for change. The conclusion of the MPTF was that for the next decade at least (until around 2010), population growth would exceed growth in food production by 1 % or more annually. There was a current annual structural food deficit in Malawi of some 300,000 ton of maize. On productivity trends measured for the 10 years preceding 1995, this would result in a deficit of some 2 million ton by the year 2015.

The MPTF review concluded that the widespread adoption of the available maize seed and fertiliser technology was an essential component of a food security strategy. Low cost input strategies such as the use of organic manures should be attractive in a poor country such as Malawi but the evident and serious decline in unfertilised maize yields simply could not be reversed by an organic strategy alone. On the other hand, Malawi farmers did not have enough cash to afford sufficient fertiliser, nor enough land to supply sufficient high-quality organic materials to crop yields much beyond subsistence levels at best. However, by the efficient use of small amounts of inorganic and organic materials, they should be able significantly to increase their maize productivity.

The MPTF proposal consisted of several interlinked and complementary elements:

- Providing <u>all</u> smallholders with small packs of improved seed and fertiliser. These they could use to learn (and appropriately modify for their own circumstances), on their own fields, the new area-specific "best bet" recommendations from the work of the MPTF. They could also learn improved management techniques to realize yield, cash, and soil fertility benefits from legume rotations.
- Ensuring that *supplies of small bags of improved seed and fertiliser* (1-3 kg) were readily available for purchase in all rural markets at a price comparable, per kilogram, to those of existing large bags.
- Supporting the drive to improve productivity with both traditional extension work and an extensive radio campaign reinforcing the extension messages included in the packs. The European Union provided thousands of "wind-up" radios to assure that farmers everywhere could listen to these messages.

- Providing opportunities for able-bodied individuals to increase their purchasing power for seed and fertiliser through a *structured fertiliser* (and seed) for work programme implemented during the dry season.
- Building an effective savings-club movement tied to the purchase of agricultural inputs along the lines of the proven successes in Zimbabwe.

The MPTF focused initially on the small pack programme, but the intention always was to work with the wider development community to implement the comprehensive programme outlined above. The programme was intended to be developed and modified over time as a way to encourage the introduction of new and more diverse cropping systems as proven options become available.

While the programme has continued (as a 'targeted input programme' or TIP) in various forms, unfortunately its focus shifted to a safety net and the development components have been entirely lost. The essential complementary measures recommended by the MPTF were lost in protracted debates about whether the programme should be universal or targeted, and whether it reinforced a maize-dominated agricultural economy. Some members of the donor community are (not unreasonably) concerned that a large-scale populist agricultural programme, based on controversial targeting procedures, would be used to favour the governing party rather than promote food security and avoid food crises. Annual struggles over reauthorisation resulted in changes and delays that substantially undercut its potential impact on productivity. The contents of packs have become what are administratively and financially convenient to include, and have lost the 'best bet' focus of the original proposal.

In fact, the original starter pack programme proved more successful than the MPTF had dared to estimate. The effort appears to have contributed 499,000 ton to a total production of 2.15 million ton in 1998-99 and 354,000 ton to a total production of 2.21 million ton in 1999-2000. National food security was achieved, maize prices were stabilised and there was no food crisis<sup>10</sup>. But there was a real concern that the programme represented an attempt to "reintroduce fertiliser subsidies through the back door" (which violated structural reform agreements with the donor community). Ironically, what became a targeted safety nets programme worked increasingly against household or national level food security. In 2000-01, 1.5 million smallholders were targeted and the pack size and composition was altered significantly. The inputs were delivered late and as a result, the TIP contributed only 75,000 ton of maize to a total maize harvest of 1.49 million ton. The programme was scaled down in 2001-02 to one million beneficiaries and contributed only 40,000 ton to a total maize production of 1.3 million ton.

Today, as a direct result of donor reluctance to support a 'free input' programme, the TIP has become just that – a free-input system without a clear development objective to enable those receiving the inputs to break out of dependency. The implementation of the TIP is an annual struggle between donors and the Malawi Government as to the size of the pack and the size of the distribution. The contents of the pack have lost all relation to evidence-based decision making. They do not reinforce the productivity focus of the initial concept and, indeed, serve to undermine serious attempts to transform smallholder agriculture in Malawi. Discussions on the size and distribution of the packs mean that the packs are delivered late (so their effectiveness is even further reduced), they do not reach farming leaders (and thus have minimal impact in cre-

<sup>&</sup>lt;sup>10</sup> The additional yields would give a family of six cultivating one hectare of land approx. 160 and 90 kg maize for sale, respectively, beyond minimum subsistence as a result of the starter pack programme.

ating needed change), and the effort actively disrupts the national market for seed and fertiliser as the demand for packs is not known by suppliers in time for them to place orders in advance.

Several international agricultural research centers (as will be outlined shortly) are implementing aspects of the MPTF smallholder development strategy, but the focus and momentum of the MPTF have been lost. The present Starter Pack Programme no longer reinforces a consistent and coherent national extension programme message and objective. The crop diversification component (particularly the legume part) has been particularly badly affected by poor and inappropriate procurement procedures. Much of the legume seed has been of unknown origin with little attempt to source farmer-preferred varieties that have been developed by research. These legumes (pigeon pea, groundnut, bean) play several important roles; they are nutritious foods, they do not require expensive fertiliser inputs (with the possible exception of P and K), and there are ready local, regional, and international markets with few impediments to trade.

## 4.3. LESSONS FROM THE AGRICULTURAL SERVICES PROJECT FOR NORWE-GIAN SUPPORT TO TECHNOLOGY DEVELOPMENT AND DISSEMINATION

The Agricultural Services Project (ASP) lacked focus. It was a generalised agricultural research and technology dissemination exercise, albeit with the building blocks necessary for a farmer-focused endeavour but without the momentum necessary to create change in a system highly resistant to change. The farming systems technical assistance provided under a complementary programme by USAID was top down, poorly accepted within the Malawi system, and had serious problems of leadership.

By contrast, the rather less formal collaboration with the Rockefeller Foundation and the international agricultural research centres worked more effectively. The Rockefeller Foundation had a clear focus on maize-based cropping systems. It is these systems that have to change if poverty is to be addressed within Malawi. Furthermore, the focus on a critical farming system provided opportunities for new thinking and new methodologies to emerge from within the legumes, maize, farming systems and soils commodity groups within Malawi's research service – and the IARCs were critical in providing leadership and direction. The highly successful 'mother-and-baby' trial system was a direct innovation of the MPTF effort. The widespread verification trials served to engage every extension worker in the land and to start the much-needed dialogue on economically viable (rather than yield maximising) farmer recommendations. It also made explicit the need for area specific rather than national recommendations.

In the scaling up components – both for the nationwide verification trials and for the subsequent starter pack effort – the support of the World Bank was essential. What was missed was the opportunity to hold together a unique collaboration of scientists and policy makers to follow up, enhance, and modify the limited initiative that eventually became the Starter Pack Programme.

The Malawi Poverty Reduction Strategy has been designed in the light of the severe poverty situation in Malawi and the lessons learnt from past experience. As noted previously, in the 1970s, there was significant economic growth, but this was centered in the estate and large-scale sectors and did not benefit the poor. In the 1980s, structural adjustment programmes succeeded in achieving relative economic stability, but this was not translated into economic growth - in part due to a lack of national ownership and poverty focus. In the 1990s, there were periods of equitable growth driven by the smallholder agricultural sector, but this growth was not sustained as a result of external shocks and policy reversals. The starter pack programme, which was in-

tended as a component of a comprehensive smallholder development strategy, actually was implemented as a stand-alone exercise and lost its development focus.

Agricultural transformation is a central component of Malawi's poverty alleviation strategy through providing farmers with the necessary services and conditions for them to increase their incomes. This will involve expanding and strengthening access to agricultural inputs; improving research and extension services, introducing smallholder friendly technologies, improving access to local and international markets; reducing land shortage and degradation; increasing investment in irrigation; and developing farmer co-operatives and associations. But the generation of technology is not sufficient in itself. The technologies have to reach – and be adopted by – large numbers of those who have been bypassed by previous efforts. They have to be appropriate for an environment in which human disease, especially HIV/AIDS, is a major cause of poverty. And they need to address the very real problems that women face in breaking out of the poverty trap.

Fundamental to the success of this strategy are agricultural research and outreach institutions that are able to work with farmers – across gender, age and wealth barriers – to increase the productivity, profitability, and sustainability of agriculture in Malawi. This will require demand-driven pluralistic research and outreach services, allowing farmers to determine the information required, and involving a wide range of partners in the technology development and uptake processes. Strong linkages to markets are essential to help farmers break out of the poverty trap in which they find themselves.

The IARCs and other regional and international centres of excellence have a potentially valuable role in the successful implementation of the Malawi Poverty Reduction Strategy as agriculture will be a central focus of pro-poor growth for Malawi in the medium term. To meet the poverty reduction strategy objectives, a radical new approach to the challenges facing the agricultural sector is needed. Important emphases are the decentralisation of decision making to local levels and the direct involvement of farmers and other clients of research in setting and implementing the development (research and outreach) agenda. The aim is to move quickly and efficiently to a reformed research and outreach system with the following key characteristics:

- A demand driven research and outreach agenda with farmers effectively influencing the design of development projects and resource allocation.
- A diversified research and outreach system; both in terms of suppliers of technology (agricultural research institutes, the university, the private sector and others), and also in the demand for research output (not only public extension, but also farmer/ producer organisations, the private sector, agro-industry and NGOs).
- In the longer term (but realistically, given poverty levels in rural Malawi, not immediately), building improved financial sustainability of research through users of technology contributing at least part of the operating costs of the research and outreach systems.

The Malawi Agricultural Sector Investment Programme (MASIP) has identified the major constraints to agricultural productivity. Space does not permit full discussion of the full set of constraints, but the following are particularly relevant to the role of the IARCs and other regional and international development organisations.

**Inadequate/inappropriate technology development and dissemination:** too few subsistence farmers use improved technologies that, for a variety of reasons, they are unable to access. Lack

of institutional capacity within the Ministry of Agriculture worsens the situation. Many skilled agricultural advisors and researchers have been lost. The research and outreach manpower base in Malawi needs to be retooled and re-skilled, while at the same time, bringing on stream the 'best bet' options quickly and effectively to enable the rural poor to lift themselves out of poverty. Thus, the extension approach has to be reoriented, with less emphasis on central screening of extension messages and more local adaptation of technologies and dialogue with end-users. The Norwegian support can play a significant role in bringing this about.

**Poor linkages, coordination and networking among stakeholders:** productivity in agriculture can be enhanced if linkages and coordination were improved. The stakeholders involved are farmers, extension agents, researchers, consumers, policy makers, traders, trainers, the private sector and the donor community. Strengthening coordination will involve developing institutional arrangements that bring together all stakeholders at the national level. There have been several impressive national programmes - the initial years of the Starter Pack Programme and in the various recovery exercises after the recent famine – where assessments have been coordinated, implementation guidelines developed, and effective monitoring and evaluation put in place. Open and effective collaboration between Government, donors, civil society and the NGOs has been shown to be crucial to the success of these exercises. A carefully focused programme of support from Norway can build on this experience to establish linkages, and to enhance networking and coordination.

Poor development of institutional structures and capacity building including farmers associations and cooperatives: the effective implementation of the proposed policies and strategies depends on the capacity of the public and private sector agencies involved, NGOs, and other central players. Crucially, at present, farmers do not have an effective voice. There is also poor coordination between the various agencies that can lead to duplication of efforts, confusion, misleading information, and wastage of resources. Norway has valuable experience in improving farmer empowerment so as to facilitate effective development and the efficient implementation of policies.

HIV/AIDS pandemic management: the HIV/AIDS pandemic is adversely affecting agricultural productivity because most of the affected people are the productive group. Others are involved in taking care of the sick or attending the increasingly frequent funeral ceremonies. Both impact severely on the available time for agricultural activities. Increasing numbers of households are headed by women, children or the elderly. Improved home nutrition can slow the onset of disease and is essential for the successful use of antiviral agents needed to keep the disease in check. New technologies to improve food security are needed to mitigate many of the negative impacts of HIV/AIDS<sup>11</sup>.

**Natural resource management:** environmental degradation is severe and, without a solution to the pervasive poverty in the country, further catastrophic natural resource decline is inevitable. By improving the productivity of agriculture and improving the livelihood options of small-holders (thus releasing them from the tyranny of resource exploitation as a survival mechanism), the destruction of ecosystems and landscapes can be halted and reversed.

It is incontrovertible that Malawi smallholders have to move beyond subsistence. While improving maize productivity is an important part of the answer, much more needs to be done. An ob-

<sup>&</sup>lt;sup>11</sup> This includes innovative interventions such as the promotion of 'antiviral diets' which may involve the use of goats' milk, amaranthus, and home grown soya products, for example.

vious solution, which has already been alluded to, is to open up new potential income streams that poor families can link into. The encouragement of cash cropping is one such stream.

The Malawi Economic Growth Strategy focuses on growth in production of traditional export crops as a strategy for economic development. It should be remembered, however, that there is still considerable scope for import substitution. In most years Malawi imports several hundred thousand ton of maize. Half of milk consumption is imported. Chicken feed is imported, just to mention some possibilities for import substitution. Moreover, there is considerable potential for non-traditional export crops, such as groundnut. An important task of agricultural research and extension will be to prioritise crops and products where market potential exists. For the traditional export crops there are important constraints relating to market development.

Box 4

#### A comment on cash cropping in Malawi

Tobacco accounts for about 60 % of Malawi's merchandise exports, 23 % of its total tax base and as much as 10 % of GDP (World Bank, 2003). Malawi is more dependent on tobacco for export and tax revenue than any other country in the world. Tobacco income is (and has been for many years) the major source of wealth in Malawi, and the performance of the sector is crucial to the economy and its economic vulnerability.

The commercial cultivation of tobacco in Malawi dates from 1890, and by 1920 tobacco was the principal export crop. Following independence, the tobacco industry expanded rapidly in the 1970s and 1980s and tobacco became the country's primary source of wealth, political patronage, private sector employment and foreign exchange earnings. Smallholders were precluded from growing burley tobacco, but were allowed to grow other tobacco varieties. Even so, they were not able to sell directly on the auction floor and received prices that were well below prevailing market prices.

Under the structural adjustment programmes of the 1990s, burley production was opened to smallholders. By 1996, 200,000 smallholders were growing the crop. This led to a substantial injection of income into the smallholder economy and savings in those communities that participated in tobacco cultivation. Total national production of burley tobacco increased from 71,000 ton in 1994 to 142,000 ton in 2000; with smallholders accounting for two thirds of the crop.

However, the future of the industry is in serious doubt. With increasing production, prices have fallen. Average prices in 2000 were nearly one third lower than prices in 1996/1997. The profitability of the crop is compromised by low productivity. Yields in Malawi are just less than one ton per hectare – the lowest in the world<sup>12</sup>. This makes Malawi's a high cost producer in terms of cost per kilogram<sup>13</sup>. Productivity and quality are falling. According to the Tobacco Control Commission, Malawi's average burley tobacco yields went from 1150 kg per hectare in 1990 to 922 kg hectare in 2001 – caused by poor soil fertility management, sub-optimal or incorrect fertiliser use, poor seeds, pests and diseases. Data from NASFAM show returns from smallholder tobacco declined by 50 % in 2000 and a further 50 % in 2001.

Malawi's other principal export crops include tea, sugar and cotton. Tea is principally an estate crop grown in Southern Malawi. There has been little effort (along Kenya and Tanzania lines) to involve small-holders in the crop. Total production has increased from 36,800 ton in 2001 to 41,700 ton in 2003. But due to falling prices total export revenue declined from USD 35.6 million in 2001 to USD 25 million in 2003.

Total sugar production amounted to 259,878 ton in 2003. Of this, domestic consumption amounted to 119,000 ton and the balance was exported. Just over 50,000 ton was exported to Europe with an average price of £ 397 per ton and 72,000 ton were exported within the African continent at USD 345 per ton. Total export receipts from sugar were USD 60.8 million in 2003.

<sup>&</sup>lt;sup>12</sup> Comparable data on yields for the United States are around two to two and a half ton per hectare, and most of the other producers (China, Argentina, India and Brazil) range around 1.5 ton per hectare.

<sup>&</sup>lt;sup>13</sup> The cost of producing a kilogram of burley tobacco is USD 0.72 for smallholders and USD 1.27 for estate growers. Comparable data on production costs per kilogram for Malawi's competitors are USD 0.6 in India, USD 0.7 in Brazil, USD 0.86 in Thailand and USD 4.14 in the United States of America. Presumably the United States can only compete in the world market because of the high levels of subsidies on agriculture.

Malawi used to be a major producer and exporter of quality groundnuts but the market for chalimbana groundnuts (Malawi's principal conventional variety) has declined over the past ten years. ICRISAT are promoting increased production of quality groundnuts and legumes (especially pigeon peas) for which there are reasonable market prospects internationally. Increased production of all pulses would make a major contribution to food security as they improve household diets and are an especially important weaning food for infants. First, however, seed supply constraints must be overcome. Recently, smallholder farmers have started to diversify successfully into paprika production and export with the support of NAS-FAM. Total export value was just over USD 150,000 in 2003.

But, as both the MPTF and the management of the 2001 food crisis showed, even a poor country like Malawi has a body of competent technicians who need to be brought into the policy formulation to the benefit of all. It is almost unbelievable that the careful analyses of the MPTF in Malawi have been allowed to disappear almost in their entirety. The MPTF had a solid foundation of respectable science upon which to base its recommendations. The results from implementing these recommendations are, on unbiased examination of the evidence, impressive. If this foundation had been developed and enhanced, Malawi could today be starting its long haul out of poverty into a more prosperous future. Similarly, the close cooperation for common purpose that drove the famine relief efforts can surely be focused to deal, in a similarly comprehensive and coordinated way, with the long-term development needs of the poor in Malawi.

#### 4.4. INPUT AND OUTPUT MARKET DEVELOPMENT AND ACCESS

With increasing population density, decreasing landholding per person, and large-scale land degradation a growing share of peasants find that their arable land is too small to provide food security through subsistence agriculture – that is cultivation methods based on local resources alone. In order to produce sufficient food they need to increase productivity through using fertiliser and improved seeds. To pay for these they will have to produce a surplus that they can sell. This requires that they have access to the required inputs at low cost and access to markets for their produce. Low transport costs are crucial in this regard.

Currently efforts are underway to improve harbour capacity in Nacala and improve the capacity of rail and road transport through the Nacala corridor. Within the country there are efforts to improve rural infrastructure through the Malawi Social Action Fund (MASAF) and other donor funded initiatives. We have not had the opportunity to review the status of rural road network, but reports indicate that traders are reluctant to send trucks to many areas from fear of damage from bad road quality and also that the vehicle will get stuck. Market access will thus be improved through improvements in the road network – new roads and improvement in existing roads.

Market access is not only a question of physical infrastructure, but also of developing the institutions and skills needed for efficient markets. During the 1960s to 1980s ADMARC undertook these tasks. With the liberalisation of markets and removal of ADMARC monopoly it was expected that private traders would step in as market intermediaries. But developing trade has been a slow process. Markets are thin and poorly integrated and marketing margins have been high. In many areas a trader may have a virtual monopoly and thus be able to offer farmers very low prices. Several organisations, NGOs and others, have thus stepped in to develop more efficient and competitive markets for inputs and produce.

ADMARC remains a burden on public budgets. Transfer of funds to the parastatal is justified by reference to its "social services" in providing trading points in localities where there are no other, but it has been very hard to quantify the importance and value of these services, and to separate these from the commercial activities of ADMARC.

There are areas where ADMARC markets were closed and people were left with literally no alternative and produce prices are terribly low. Keeping ADMARC markets open in remote areas appears to be a necessary service that the government should continue to provide. Presently, ADMARC is under reform.

NASFAM, IDEAA and IFDC have established a market information system for collecting and making public information about prices and quantities of inputs and produce at various locations in the country. This information is conveyed to the public through radio programmes, through printed media, and through an SMS service. The system is still in the developing stages though. IFDC has supported the development of a network of fertiliser dealers in the country and provided training to these. It has also worked to improve legislation for quality assurance in the fertiliser distribution system. IFDC will be continuing its market information systems work, although funding from USAID may be reduced.

One of the priority tasks of NASFAM is to organise smallholders for improving their access to output markets through bulking their produce and enabling them to bargain for better prices. Although the organisation has grown rapidly, it only has about 100,000 members. It was initially primarily an organisation for smallholder tobacco growers, but has expanded to also include paprika, chilli, groundnut and rice. It has also assumed the role of trade union for smallholders, lobbying for reduced overheads to various intermediaries in the marketing chain and has recently achieved an important success in removing withholding tax on smallholder tobacco sales.

The Government of Malawi is currently considering fertiliser subsidies as a replacement for the Targeted Inputs Programme for making fertiliser more cheaply available to farmers. We do not think such subsidies are a particularly good idea, for a number of reasons:

- Likely problems in securing the funding for such subsidies will most likely create uncertainties in the fertiliser market about prices, qualities and volumes, thus increasing risk to commercial traders in the sector and disrupting their plans for supplying fertiliser in a timely fashion.
- Fertiliser will mostly be used by the richer farmers. The distributional profile of the subsidy is thus likely to be regressive, with most of the transfer going to the richest farmers, and none going to those so poor that they will be unable to buy even subsidised fertiliser.
- A subsidy does not make the fertiliser any less costly to Malawi, only to the individual farmers.
- A fertiliser subsidy will be very expensive if it is going to more than a symbolic gesture, and will tend to increase the budget deficit.

It is also characteristic that, as of present, no decision has been made on the implementation of such a subsidy: how big it should be, possible rationing or targeting, what it would cost, and other aspects of its implementation, even if importers need to start arrangements very soon for fertiliser to arrive on time for next season.

Currently Malawi is dependent on food aid on an annual basis. It may be argued that it would be more efficient and more growth enhancing to give out inputs to farmers rather than giving food. By giving inputs the same amount of aid would provide for more food available. In that case a

system of rationed gifts, such as those in the early starter packs, would do more for securing food to the vulnerable than a blanket fertiliser subsidy, which would primarily benefit the big users.

#### 4.5. INSTITUTIONS AND DECENTRALISATION

Malawi is heavily dependant upon aid – but this support has had disappointingly little impact in creating the broad-based economic growth needed to lift many out of poverty. With the introduction of a democratically elected government in 1994, the focus of national policy moved explicitly and strongly to 'poverty alleviation' – defined as improving directly the livelihoods of working people and the poor by funding education, health and other social sectors through the focused use of donor resources. Agriculture was confirmed as the centrepiece of the nation's development, though it initiated far-reaching changes through deregulation. The repeal of the Special Crops Act in 1995 opened burley tobacco production and sale to smallholders. Fertiliser and input markets were deregulated and the Starter Pack programme (later TIP, the targeted-inputs programme) was used to transfer resources to subsistence farming families.

But the longer-term development (and poverty alleviation) objectives of these reforms have not been met. The problem appears to be not bad policies; rather it is delayed and poor implementation. Malawi's Poverty Reduction Strategy Paper (PRSP) notes that benefits from reforms to smallholders were offset by input prices increasing faster than producer prices. Importantly, there was an evident pattern of public funds allocated to poverty related activities not being used efficiently, or in ways that effectively reach the poor. In agriculture, the PRSP comments that the largest share of the budget is

"spent on administration, with headquarters receiving a significant proportion of this, partly because all donor funds are channelled through Headquarters and because of the centralised structure of the Ministry. Expenditures on agricultural research and extension as a percentage of GDP have fallen, with extension spending declining from 0.6 percent in 1995/96 to 0.3 percent in 2000/01..... Although Government has reallocated funds to those Ministries that have direct impact on poverty reduction, these funds were not always directed within the Ministries to those particular sub-sectors and activities that directly benefit the poor. This would explain why the overall reallocations in expenditures have had a limited impact on poverty reduction in the 1990s".

The outcome has been that social and economic indicators have continued to decline (despite the substantial external assistance provided). Malawi is increasingly being perceived by international donors as a typical 'poorly performing country'. The causes are many and complex (Cammack, 2004) but include:

- national policy is created within a system that inhibits meritocracy, equitable growth and nation-building
- poor natural resources, high levels of inequality (and with the elite often capturing resources intended to foster broad based development
- reliance on rainfed agriculture, under high population densities, with degraded soils, and poor technology
- low levels of public and private investment in productive sectors and supporting institutions

- a critical shortage of human capacity and with heavy losses to existing capacity from disease (malaria, HIV/AIDS especially) and emigration
- weak rule of law, and weak civil society
- poor policy advice

Cammack (2004) in a well-argued and sympathetic analysis of the causes behind the failure of both the Malawi Government and its international donors to create change, focuses on the lack of incentive for service delivery in a public sector where resources are typically captured by the rich and powerful. In Dr. Banda's era, fear of appearing too prominently greedy limited the extent of the abuse (and confined it to a very select elite). Just as the collapse of the credit system for agriculture (similarly built on fear) has devastated national food security, so the collapse of a fear-based discipline in the public sector has left public services at the mercy of those who chose to seek personal advancement.

Under donor pressure, the government has attempted to restructure the public service, reducing its size and improving the wages of those who remain. 'Management by objectives' has been introduced, training is related to client needs, and monitoring and evaluation introduced. A Medium Term Expenditure Framework form of government-wide budgeting has been introduced and a performance management contract scheme for Principal Secretaries and other senior servants has been introduced. However, dynamic and effective implementation of the principles (as opposed to the letter) of these reforms is muted. Cammack (2004) observes that donor follow-through has been weak and poorly monitored. The outcome has been an unreconstructed public service where good policies can be devised, and resources (funds and technical assistance) can be made available at the center. But these policies do not result in better public service at the grass-roots level because the technocrats (skilled, motivated, well-paid, and independent of political pressure) are largely missing.

Lack of capacity, weak institutions, leaders' self-interest, a weak civil society, and repeated donor bail-outs have permitted even the best policies and programmes to be ignored, subverted or delayed to the point of their being ineffective. The entry point, therefore, has to be to help civil society to hold government accountable. A focus on supporting the mechanisms that will lead to effective decentralisation is an essential component of such a move. In previous sections, we have shown how, within the agriculture sector, well-planned collaborations between international centres of excellence (such as the IARCs), local NGOs (NASFAM), and other agencies have produced remarkable results. This strategy needs to be developed and reinforced – together with a more broad-based and coordinated effort across the donor community as recommended by Cammack (2004).

Box 4

#### Recommendations to the donor community (Cammack, 2004)

Strengthen the institutions of civil society. This process can be supported by donors by funding development and democracy projects (capacity building, capitalisation, programme development, etc). Especially important are the media. Involvement of civil society in economic discussions should be insisted upon by donors. Civil society institutions should vet their own people, and learn more about the people leading NGOs and about their agendas. This is necessary in Malawi where some leaders of NGOs purport to represent the public interest, but actually speak for political parties, including the ruling party.

**Donor consistency and coordination.** While some amount of coordination already exists in Malawi, donors should form multi-agency teams which analyse and report regularly on the political economy of Malawi, so that all donors (each with its limited institutional memory) can plan in an informed environment, and can evaluate new decisions in light of past practices. Reform and programme goals should not be readily re-

laxed. Multi-donor quality assurance teams are needed to check up on all programmes, emphasising the substance of projects and programmes.

PRSP process renegotiated. Government and donors need to review the PRSP process, and more importantly, the development strategies and goals outlined in it, to ensure that there is common understanding and agreement – by donors, government and civil society – about its priorities. Key civil society institutions should be closely involved in the process.

**Public sector restructuring and reform.** Civil service reform has stalled. Politically independent and professional technocrats are needed to write and implement policy. Public sector human resource restructuring should be prioritised and funded. 'Centres of excellence' need to be developed that demonstrate enthusiasm, creativity, and a 'national' consciousness.

## **4.5.1 Implications of Decentralisation Policies**

Malawi developed a decentralization policy in 1998 aimed at bringing on board grassroots' participation in decision-making and the management of their own affairs.

Specifically the policy aims:

- To create a democratic environment and institutions in Malawi for governance and development at the local level, which facilitates the participation of the grassroots in decisionmaking.
- To eliminate dual administration (field administration and local governance) at the district level with the aim of making the public service more efficient, more economic and cost effective.
- To promote accountability and good governance at the local level in order to help government reduce poverty.
- To mobilise the masses for socio-economic development at the local level.

The policy, backed by the Local Government Act 1998, devolves the development functions, responsibilities, powers and resources to the District Assemblies. Specifically the policy:

- Devolves administrative and political authority to the district level.
- Integrates governmental agencies at the district and local levels into one administrative unit through the process of institutional integration, manpower absorption, composite budgeting and provision of funds for the decentralised services.
- Diverts implementation responsibilities from the centre and transfers these to the districts.
- Assigns function and responsibilities to the various levels of government.
- Promotes popular participation in governance and development of the districts.

For democratic decentralisation to take place, legal, institutional, fiscal and political instruments should be available at the lower levels. In order to implement the decentralisation policy, the government has provided the legal framework through the new Local Government Act, which became effective in 1999. In addition, it made a commitment to finance local governments and at the same time, mandated them to raise their own resources so as to make them independent. However, most district assemblies have limited capacity to raise their own funds because the devolvement of functions has been slow, and generally, the country's economic development has weakened. As such, District Assemblies depend on the subvention from government, which is also limited. The poor financial situation of District Assemblies undermines their ability to make decisions and deliver services effectively and make them lose credibility. Whilst the primary in-

stitutions for decentralisation are in place and capacity building in progress, the great challenge is to reconcile them with the public sector reforms. How do the Assemblies link up with the Ministry of Agriculture for example? In terms of political instruments, people must participate in electing their own councillors. The first local government elections were held in 2000, after 6 years without an elected body in local authorities. The second elections were due in 2005. Meanwhile the government has dissolved the assemblies. This does not bode well for the government's commitment to the decentralisation process.

The National Decentralisation Programme started in 2001 and progress has been slow, affecting the operations of district assemblies. The District Commissioner and Councils' offices have been merged into one administrative unit: the District Assembly. All sectors have prepared their sectoral devolution plans and are in the process of implementing them. The Ministry of Agriculture has realigned itself to the District Assembly structures. That is, the Rural Development Projects under the Ministry of Agriculture are now under the Assembly headed by a District Agricultural Development Officer. Each Assembly has produced district development plans prepared in a participatory manner involving people at different levels in the district. Attempts have been made to create structures at Traditional Authority and village levels. However, how well these structures are functioning varies from area to area. Since it started, the decentralisation programme has faced a number of challenges:

- 1. While the government has made efforts to decentralise to the district functions and responsibilities, there are growing fears that if not carefully managed 'centralisation' may occur at the district level, creating an elite similar to that at the central level (Sikwese, 2003). There is a need to transcend the decentralisation process beyond the district level structure and reach out to the lower levels.
- 2. In addition, the poor economic environment limits the ability of assemblies to raise their own resources for improved service delivery.
- 3. Coming from a culture of one-party rule, the majority of Malawians continue to be passive participants in planning and implementation of agricultural activities, unable to demand service.
- 4. In some cases, a high degree of political intolerance undermines the ability of the people to speak out, rendering them voiceless.
- 5. The government has defined the roles and responsibilities of chiefs, councillors and members of parliament who are all members of the district assemblies, but some do not follow them and conflicts between these groups are common. They three compete with each other and sometimes confuse their clients. This is largely due to the long absence of councillors during the one party system and the Malawian politics that perceive the MP as the source of development activities in the area.
- 6. Although the Assemblies are in place, deconcentration has not yet taken place. That is, the Ministry has not yet transferred functions from headquarters to the District Assembly to perform functions that otherwise the headquarters would be performing. For example, the Ministry of Agriculture continues to fund the agricultural activities and pay staff salaries. The Ministry is still inspecting meat and controlling diseases. In terms of land titling in the Ministry of Lands, Housing, Physical Planning and Surveys, the Commissioner for Lands and Surveyors sign every deed document. The argument is that the District Assemblies have no capacity to handle these activities. There are worries that Assemblies may not place agriculture as a top priority and may therefore divert agricultural funds to other activities. There are also worries about irresponsible spending and corruption. As such, there is reluctance to devolve budgets and resistance to devolve powers. The result is that staff implement agricultural activities and report to the District Assembly on a day-to-day basis but

remain accountable to their respective departments in the Ministry headquarters where the decision-making power and resources are.

In decentralisation, we want to get as close to where farmers are as possible as decisions taken at this level are expected to better reflect the needs of farmers, especially the poor. The important thing to note is that the decentralisation process has not taken root yet and capacity building in district assemblies continues. In addition, there is evidence to suggest that the capacities of all levels progressively increase as decentralised service systems mature. Support for decentralisation is therefore necessary and vital to enhance the participation of farmers and make delivery systems in research and extension demand-driven. Decentralisation process has created an opportunity for stakeholders to bring control of extension and research services closer to farmers and offer services that fit better with local situations. Future agricultural programmes should pay attention to the decentralisation process and allocate resources to the districts and strengthen their capacity to make decisions, mobilise resources, and provide services more effectively. Such programmes should also encourage and strengthen development of partnerships between the public sector and NGOs at district level. For example, the Department of Agricultural Extension and Support Services piloted a district agricultural extension service system in Rumphi, Mchinji, Mulanje and Dowa districts through an Agricultural Extension Services Project funded by GTZ (see box for details). The EU will support the Ministry of Agriculture through the Institutional Development across the Agri-food Sector (IDAF) programme (forthcoming) in making its agricultural services in the districts more responsive to the demands of various categories of farmers (EU, 2004). It will support capacity building for agricultural staff as well as farmers' organisations.

Box 3

## The District Agriculture Extension Services System (DAESS)

DAESS rests on four pillars:

- 1. Organisation of farmer demand use the participatory approach to enable farmers to demand service taking into consideration the needs of different categories of farmers: commercial, emerging commercial farmers and small-scale food security farmers.
- 2. Facilitation of service provider response both public and private sectors are providing extension service and coordination is necessary in order to improve efficiency and provide quality service. A stakeholder analysis is a prerequisite.
- 3. Agenda for agricultural development. Stakeholders in the district participate in the development of an agricultural development strategy in order to a have shared vision.
- 4. Funding for agricultural extension service to sustain provision of extension services, funding should not depend on the public service but also from the private sector. To sustain the extension service, district assemblies should explore various sources for funding including co-financing arrangements.

The implementation process involves sensitisation of all stakeholders in the district including the extension workers, farmers' organisations, and district assemblies, among others. Establishing and training change teams that assist various players in implementing the extension policy follow sensitisation. The focus is on leadership, participatory extension methods, and extension management skills, equipping them with skills to initiate process and management and evaluation. The decentralised extension system is implemented through the establishment of stakeholder panels at area and district level and an agricultural extension coordinating committee at district level.

Implementation in the four districts was encouraging particularly in Rumphi. Replication in other districts was not possible due to lack of funding as the project completed in 2004. The system has potential for development of partnerships among stakeholders and for supporting decentralisation at district level and is an opportunity worth supporting. (Source: District Agricultural Extension Services System Implementation Guide and the District Agricultural Extension Services System Manual).

## 4.5.2. Reforms and Restructuring of the Ministry of Agriculture

Government is undertaking a public sector management reform in order to improve governance. The major challenge for the public sector is to establish an effective incentive structure that will improve work ethic and productivity. In addition, government is reviewing the structure of the civil service so that it focuses on poverty reduction. In this regard, the Ministry of Agriculture undertook a functional review process and redefined its functions and staffing levels in 2001. However, implementation of this process was incomplete. The Department of Agricultural Extension and Support Services also benefited from the Agricultural Extension Support project that conducted another review of its core functions to support the decentralisation process. This review facilitated the development of a new extension policy that is based on pluralism, equalisation, coordination and decentralisation in the provision of demand driven extension services system. According to EU (2004), the project demonstrated that process facilitation and ownership of change agendas were crucial in getting management and staff in the department to engage with the problems and challenges confronting them. The EU's IDAF project seeks to apply this process to the other departments across the ministry. The Malawi Agricultural Sector Investment Programme will coordinate the implementation process.

The major constraints that have prompted the reform process include the declining financial situation, duplication of services particularly at district level, poor working conditions in the civil service and high diversity of demands. The aim is to assist the ministry to reduce its services and focus on public goods (regulatory, poverty alleviation and social extension services) and partner with private sector to implement the other services. The core functional analysis will focus on reassessment of the situation in the agriculture sector, rationalisation of functions (what is core and non-core and marginal), reorganisation of the functions, right sizing, and revitalisation. Revitalisation is a much broader reform and aims at keeping less people with good working conditions. It is expected that the ministry will then be able to improve input supply, extension service and markets. It will keep the mandatory functions and outsource the rest. To achieve this, capacity building is a must for the ministry to undertake its new functions at all levels. This involves testing new ways of doing things, formulating new policy framework, revisiting the legislative/regulatory framework and dealing with quality issues. The issue at hand is to decide which functions are public good and which ones are not. The process requires government commitment to the reform process as well as to decentralisation.

In the mid-1990s, a project was started to develop a Malawi Agriculture Sector Investment Programme (MASIP), intended to pool and coordinate the resources of donors, government and the private sector. Due to fundamental disagreement among donors about strategies, approaches, and priorities, as well as lack of donor confidence in the Ministry of Agriculture, the MASIP never gathered sufficient support to become reality. The current sense among donors interviewed seems to be that the time is not ripe for a sector wide programme in agriculture. Donors still lack confidence in the ability of the Ministry of Agriculture to manage such a programme.

The Ministry of Agriculture should ideally play a leading role in agricultural development, and one would think that Norwegian support should be channelled through this organisation. However, our informants pointed out disappointing experiences with this approach, notably in the World Bank sponsored ASP in the 1990, which was characterised as a fiasco. Most of the resources were spent in the centre, and the Ministry was deemed incapable of leading agricultural development. Consequently most donors currently work through project organisations or project implementation units outside the ministry, or they work with the District assemblies. However,

donor projects often draw on the resources of ministry field staff, co-opting extension officers by providing them with the operational resources needed to work effectively.

To rectify the situation, one of the centrepieces of EU support to agriculture is a programme for institutional reform within the Ministry, in creating a leaner and more efficient organisation, better able to fulfill its role and responsibilities. The process seems to be making little headway. The reform programme is sufficiently funded (€8 mill.), however, and we believe that the ministry should show tangible results from the reform programme before Norwegian support is channelled through the ministry.

#### 4.6. OVERVIEW OF PAST, PRESENT AND PIPELINE DONOR PROGRAMMES

The field of donor projects and programmes is rather complex. Many projects have short or irregular life cycles. Many are co-financed by several donors. Some are implemented jointly by government and nongovernmental agencies. To classify projects and programmes can, therefore, be a bit difficult. The following summary may only provide a partial outline of the Malawian 'world of programmes.' A summary of donor activities in agricultural, food security and natural resources management is presented in table form in Appendix 1. Below are some highlights:

**The World Bank** has been a major contributor to agriculture. Evaluations of past efforts have not been entirely favourable, however. The ASP completion report noted that in this major project 70 % of the funds were spent in the centre, and very little reached the intended beneficiaries.

The World Bank supports the following projects as of January 2005 in Malawi to a total of USD 336.8 million:

| Project Name  | MUSD | Status | <b>Approval Date</b> |
|---|------|--------|----------------------|
| Education Sector Support Project 1                        | 32.2 | Active | 2005                 |
| Health Sector Reform Project                              | 15   | Active | 2004                 |
| Community-Based Rural Land Development Project            | 27   | Active | 2004                 |
| Fiscal Management and Accelerating Growth Program Project | 50   | Active | 2004                 |
| Development Learning Center project                       | 4    | Active | 2004                 |
| Multi-Sectoral AIDS Project (MAP)                         | 35   | Active | 2003                 |
| Third Social Action Fund (MASAF III)                      | 60   | Active | 2003                 |
| Financial management and Accountability Project (FIMTAP)  | 23.7 | Active | 2003                 |
| Mulanje Mt. Biodiversity Conservation Project             | 0    | Active | 2001                 |
| Regional Trade Facilitation Project - Malawi              | 15   | Active | 2001                 |
| Privatization and Utility Reform Project                  | 28.9 | Active | 2000                 |
| Road Maintenance and Rehabilitation Project               | 30   | Active | 1999                 |
| Secondary Education Project                               | 48.2 | Active | 1998                 |

(Source:

http://web.worldbank.org/external/default/main?menuPK=355904&pagePK=141155&piPK=141124&theSitePK=355870

The following programmes are in the pipeline:

| Project Name   | MUSD | Status   | Approval Date |
|--|------|----------|---------------|
| Irrigation, Rural Livelihoods and Agricultural Development Project (see below) | 30   | Pipeline | N/A           |
| Rural Infrastructure Services  | 40   | Pipeline | N/A           |
| Urban Water Supply Project   | 30   | Pipeline | N/A           |

The World Bank is also supporting the Community-based Rural Land Development Project. This project is part of a drive for market-based land reform, where large landholders are stimu-

lated to sell unutilised or poorly utilised land through an increase in land rent. The project provides grants to selected landless people to buy land and provides loans for their initial operating expenses.

The following project is of particular relevance in the present context:

## Irrigation, Rural Livelihoods and Agricultural Development Project

Region: Eastern and Southern Africa

Nature of project: Irrigation and agricultural development

Project cost: USD 41.8 million Proposed terms: Highly concessional Stage of project cycle: Under appraisal

Next step in project development: Loan negotiations scheduled for third

quarter of 2005

Tentative date for consideration by the Executive Board: December 2005

Project duration: Six years

Tentative project start: March 2006

Implementing agency: Ministry of Agriculture, Irrigation and Food Security

Anticipated funding: World Bank USD 29.5 million, IFAD USD 8.0 million, the Malawi Govern-

ment USD 3.2 million and beneficiaries will contribute USD 1.2 million (= 41.8).



The European Union is probably now the biggest donor to agriculture. It provides macroeconomic support and aid to sectoral projects and programmes in support of the government's poverty reduction strategy. EC support is focused on two sectors – agriculture/food security/natural resources and transport infrastructure as well as on macro-economic support, especially in the social sector in education and health. On-going programmes in non-focal areas will be restricted to continued assistance for the micro-projects programme, for civic education to support the democratisation process, for good governance activities as well as for non-state actors. The EC provides budgetary support to government.

The EU programmes include growth and development activities, as well as measures to ensure short-term food security. Notable interventions are support to capacity strengthening in government, support to the National Food Reserve Agency and the Strategic Grain Reserve, Small-holder seed multiplication, credit in kind scheme for fertilser and seed for smallholders, NGO project to increase food security (extension, irrigation, livestock development, etc.), STABEX to encourage crop diversification for export crops, tea research and replanting, smallholder coffee production.

**JICA** is among the major donors to Malawi. Within agriculture JICA supports *i.a.* institutional capacity building in the Ministry of Agriculture, a small scale irrigation programme, the Bwanje Valley irrigation scheme (800 hectares/2000 households), a crop diversification project (sweet potatoes and fruit trees), the Lobi Horticultural Appropriate Technology Extension Project in Dedza West (an extension is in the pipeline), an animal husbandry promotion project, and a programme for support to fish production increase (aquaculture and fisheries). An important component of JICA projects is the provision of expatriate experts.

**USAID** promotes Malawi's sustainable development through market-based economic growth and support for democratic governance, which are seen as closely linked. Its activities concentrate on aspects of policy and institutional change to enhance the efficient delivery of goods and

services, to foster continued democratic progress and to address health and social problems. It supports agricultural, reproductive health, HIV/AIDS, environmental, basic and girls' education projects. Its democracy programme aims to increase participation of civic society in economic and political decision-making and debate; works with parliament to promote its role as an independent, accountable and responsive institution; supports the electoral commission to ensure that elections are conducted in a free and fair manner; and helps the legal system to strengthen the rule of law in Malawi.

Notable interventions in agriculture are support to market development through NASFAM and IFDC, development of the dairy sector through Land O' Lakes, and support to the I-LIFE consortium of NGOs.

The market development efforts in NASFAM centres round a project to develop a regional commodity exchange, providing brokerage services to buyers and sellers of agricultural produce. The organisation is also about to set up a system of warehouse receipts. NASFAM also cooperates with IFDC and IDEAA in developing a market information system for farmers and traders.

IFDC is primarily concerned with improving the performance of the fertiliser market. It has supported the development of an association of rural fertiliser traders and distributors. Members have been provided with training and advice. IFDC is also working to make market information more accessible to government and market participants. As a consequence marketing margins have been considerably reduced over recent years. IFDC has also been working with the government to improve legislation and regulations of fertiliser and other inputs trade.

Land O' Lakes supports the development of the dairy sector through providing extension and improved breed cows. The cows are provided through a heifer-loan scheme, where the recipient repays the loan by returning to the scheme the first heifer borne from the one received. There is evidently a large commercial potential for developing dairy production, as Malawi currently imports 50% of the milk consumed.

A USAID project (I2) produces vaccine for animals that are less sensitive to high temperature. The project will close in October.

**DFID** supports the four pillars of the PRSP. Budget support is potentially DFID's primary financial instrument; the programme is being revised to include technical support and to set benchmarks to improve pro-poor budgeting and expenditures. DFID aims to improve government's financial management and accountability through technical assistance, including support for anti-corruption measures, progressing the MTEF, and conducting expenditure tracking studies. It also supports food security, livelihood, health, education and access to safety/justice/security programmes. It intends to increase aid to programmes that promote civil society involvement and voice, government accountability and civil service performance.

DFID has been one of the biggest donors to agriculture in Malawi, funding a large share of the Targeted Input Programme. Following the dismal results of the TIP in the 2004/05 season DFID has decided to withdraw from the TIP, and indeed to reduce on its support to agriculture altogether

**GTZ** has focused on decentralisation, health and basic education in its assistance to Malawi. In addition, GTZ promotes cross-sectoral projects such as HIV/AIDS prevention and control, a forum for dialogue and peace, prevention of gender-specific violence and the provision of macro-

economic advice to the Ministry of Finance and Economic Planning. In addition, a project (Technical Education Vocational and Entrepreneurship Training, TEVET) is being executed to promote employment-relevant vocational training and upgrading (Photo: GTZ).



**FAO** is preparing a plan for food security in 70 countries. A team arrived in Lilongwe in early May to prepare a plan for Malawi. A proposal will be presented in June 2005. FAO finds the development programmes in Malawi too donor driven. Government should hold a leadership role in the development process. NGOs operate too independently in the country. Malawi should adopt the granary concept of growing sufficient food where it is cost-effective. FAO sees the following gaps in which to focus development:

- 1. There is lots of water—get it to the field
- 2. Diversify crops and grow them where they are best suited
- 3. Develop fisheries
- 4. Develop livestock
- 5. Organize farmers
- 6. Value addition and marketing

FAO funds and coordinates the Special Programme for Food Security (SPFS) which is a programme for 86 'low-income food-deficit countries' least able to meet their food needs with import. The programme includes "ensuing enabling environment, improving access to food, producing food, increasing the role of trade, dealing adequately with disaster, and investing in food security." The committed fund for Malawi was USD 2,191,000 (date not specified).

FAO observes that small-scale producers collapse in times of glut while medium to large—scale producers survive. Assisting medium-size producers for export will probably be cost-effective.

Government and NGOs need to cooperate better. FAO notes that many smallholders receive at least three starter packs—one from government and two from different NGOs.

**IFAD** lists the following approved projects in Malawi:

| Project Name   | Total Project<br>Cost (USD<br>Million) | Loan Amount<br>(SDR Mil-<br>lion) | Project Type                          | Status  | Approval<br>Date |
|--|--|-----------------------------------|---------------------------------------|---------|------------------|
| Rural Livelihoods Support<br>Programme   | 16.56                                  | 10.70                             | Flexible Lend-<br>ing Mecha-<br>nism  | Ongoing | 12-09-01         |
| Smallholder Flood Plains<br>Development Programme                              | 15.47                                  | 9.25                              | Agricultural<br>Development           | Ongoing | 23-04-98         |
| Rural Financial Services<br>Project: Mudzi Financial<br>Services Sub-project   | 49.93                                  | 6.18                              | Credit and<br>Financial Ser-<br>vices | Closed  | 02-12-93         |
| Agricultural Services Pro-<br>ject: Smallholder Food Se-<br>curity Sub-project | 79.14                                  | 5.78                              | Agricultural<br>Development           | Closed  | 15-09-93         |
| Smallholder Agricultural<br>Credit Project                                     | 14.24                                  | 4.80                              | Agricultural<br>Development           | Closed  | 02-12-87         |
| Kasungu Agricultural De-<br>velopment Project                                  | 16.89                                  | 12.32                             | Rural Devel-<br>opment                | Closed  | 12-12-84         |
| Smallholder Fertiliser Project   | 29.77                                  | 8.49                              | Programme<br>Loan                     | Closed  | 21-04-83         |
| Dowa West Rural Develop-   | 9.47                                   | 7.65                              | Rural Devel-                          | Closed  | 08-09-81         |

| 8 projects for a total of: 231.47 65.17 | ment Project |        | opment |
|---|--------------|--------|--------|
|   |              | 231.47 | 65.17  |

(Source: (http://www.ifad.org/operations/projects/regions/PF/MW\_all.htm)

## The African Development Bank (AfDB) list only one project in Malawi:

| Project Name                          | ADF     | Status   | Approval Date |
|---------------------------------------|---------|----------|---------------|
| Support for Good Governance Programme | 18 MUSD | Approved | 08-DEC-04     |

Source: http://www.afdb.org/

Ministry of Agriculture, Irrigation and Food Security, Department of Agricultural Extension Service claim to have the following projects with AfDB:

- 1. Horticultural and Food Crops Cultivation Project
- 2. Small-holder Irrigation Project
- 3. Rural Income Enhancement Project

AfDB does not provide online list of projects in the pipeline.

## Malawi Union of Savings and Credit Cooperative (MUSCCO)

MUSCCO is a not-for-profit cooperative providing technical assistance to savings and loan circles. The 'circles' are local cooperatives consisting of from 120 to 3800 farmers. Each member should save 10,000 kwacha before being granted a loan. MUSCCO received support by USAID from 1980 to 1996. The Canadian Cooperative Association supported computerisation of circles. DIFID will support Lilongwe City Community Circle, designed for urban poor to start small businesses, for the next three years.

MUSCCO cooperates with NASFAM to allocate Norad grants to fund start-up loans and to fund capacity building of staff at circles and office supplies and buildings. The budget is NOK 4.6 million of which 2.2 million is for loans to agribusinesses. DANIDA left a fund of USD 500,000 for lending. MUSCCO's main limitation is its inability to reach out to a large number of circles due to lack of capacity. Presently, 51,000 persons are members in MUSCCO supported circles.

The average loan taken by circle members is 9200 kwacha at 27 % interest. Male circle members constitute 78 % and female 22 %. Members are both literate and illiterate.

## **Enterprise development projects**

The Enterprise Development and Employment Generation Programme aims to harness efforts at the national and regional levels to promote the development of an enabling environment for enterprise development as a means to increase incomes, employment creation and private sector activities (as of 2002). Under the programme, UNDP will provide support to develop capacities of service providers in relevant areas of enterprise development. Key areas of capacity building include policy and strategic analysis, programming and management, training and marketing, micro-financing and technological services.

**Business Expansion and Entrepreneurship Development** (BEED) is a local agent for CEFE International. It is Malawian owned and managed. It franchises the CEFE courses to Malawian trainers who have been through more than 2 months specialised training in CEFE courses and

methodology. BEED aims at the support of existing Micro, Small and Medium Enterprises and business starters through the supply of Business Development Services (BDS). The site has a compilation of literature and papers that deal with micro and small enterprise development.

#### Land tenure projects

The Ministry of Lands, Housing and Survey studied the land use sector in 1996-2000. Major problems are tenure insecurity, improper land use and poor access to land. A comprehensive land use policy was prepared in 2002. As a follow-up to the policy, a land reform programme has started in the Southern Region. With funds from the **World Bank**, the government buys up unused land from private estates and distributes to established groups of landless (Community Rural Land Project. Estate owners are increasingly willing to sell land as the land tax has been increased from 50 to 1000 kwacha per hectare. Funds are also available for farmers to set up homesteads and farming equipment.

A Customary Land Reform and Rural Livelihood Project is supported by **AfDB**. Permanent entitlement is given farmers through the traditional chief. The project also provides investment support.

**EU** provides funding for a capacity building project to facilitate the land reform programme. Trained staff is required to carry out field and office work as well as communication with farmers. The Natural Resources College provides training.

Funding is presently being sought from **UN-HABITAT** to provide land tenure and services to slum dwellers (roads, water and sanitation) in Malawi.

The Ministry is careful in its collaboration with **NGOs** regarding land tenure because some of them have misrepresented the issue in the past and created tensions. The Ministry prefers to handle the project themselves to ensure correct messages to the people.

The land tenure programme has not yet been decentralised. Surveying may, however, be decentralised soon. Presently, the Commissioner of Land must sign every single land deed.

## **Projects in livestock**

Donor funding in government livestock projects is not very popular despite the obvious needs for support in this field. Dairy plants operate at half capacity due to lack of animals. Farmers hesitate to invest in grazing animals due to theft. Most pork is imported. There is a substantial opportunity for increasing the number of goats and chicken. There is a need for educated extension officers in the field of animal husbandry and veterinary science.

#### **Projects in higher agricultural education**

**Bunda College of Agriculture** accepts 120 students each year, but should take 200 to meet the demand. The campus holds a total of 700 students although it is built for only 200. Norad has provided, *inter alia*, much-needed dorms, a cafeteria and computer facilities. IFAD supports a few undergraduate students. The Rockefeller Foundation supports two M.Sc. students. Some support is received from Ministry of Agriculture. Iceland supports aquaculture in the SADC countries, some of which goes to Bunda College. Some ministries complain that Bunda gradu-

ates do not hold the necessary technical skills. For instance, they do not have proper skills in aerial photo interpretation, mapping, and construction of soil conservation structures.

**Natural Resources College (NRC)** provides 2-year diploma courses in extension and irrigation technology. Full residential tuition fee for students is MWK 429,000 for a total of two years. The Ministry of Agriculture obtains some scholarships from donors to cover some students. The NRC campus was built by CIDA to educate extension workers. DANIDA supported the college until recently. This year, NRC has been in contact with The Norwegian Association of Local and Regional Authorities (KS), Vestfold University College, Akershus University College and Agder Research regarding education of graduates to facilitate the decentralisation process in Malawi.

## **Ministry of Trade and Private Sector Development**

The ministry has presently no donor-supported programme. Previous donor projects have been small, short and with too much conditionality. Assistance has also been too technical. Support is needed to develop agribusiness. New entrepreneurs have problems with collateral and interest rates. Donors tend to take the easiest and most secure path. Development of the private sector is difficult and risky despite the many opportunities.

## Norwegian support to agriculture in Malawi

Malawi has been a priority country for Norwegian development co-operation since 1997. The objective of the Norwegian support is to support Malawi's own endeavours towards sustainable economic, social and political development as outlined by the Malawi Poverty Alleviation Programme. The Norwegian support focuses on health, education, agriculture and good governance. In addition, a large proportion of Norwegian assistance is given in the form of budget support to reduce domestic debt. Presently, in the field of agriculture, Norway provides direct support to NASFAM and Bunda College of Agriculture.

**The Development Fund** operates through six organisations in Malawi: Oxfam Malawi, Centre for Environmental Policy and Advocacy (CEPA), Maleza, Mzuzu Agricultural Development Division, Southern Africa Root Crops Research Network (SARRNET), and International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). The fund supports three projects: 1) Rural Food Security, 2) New Crops in Agriculture, and 3) New Law for Biodiversity (Utviklingsfondet, 2005).

**Norwegian Church Aid (NCA)** focuses on health and nutrition programmes. The primary objective of the organisation is to support nurse education, health centres and hospitals (KN, 2005; pers. com.). Their efforts also includes food relief, nutrition, water and sanitation, and HIV/AIDS prevention. NCA assists mothers with malnourished children to improve their agricultural production through training and provision of seeds and establishment of irrigated communal vegetable gardens. NCA also provides fruit trees and provide training in their cultivation.

**Norwegian University of Life Sciences (UMB)** is involved in the support programme to Bunda College of Agriculture and coordinates of the NUFU project "Genetic diversity and rapid propagation of two important indigenous fruit." Partners are University of Malawi, University of Oslo.

**University of Oslo** coordinates the NUFU project "Lungwena health, Nutrition and Agricultural Multidisciplinary Project - Towards poverty reduction." Collaborating partners are University of

Malawi, Bunda College of Agriculture, Chancellor College, Kamuzu College of Nursing, Norwegian University of Life Sciences, University of Tampere, and The Polytechnic.