



Food Security in Disaster Risk Reduction (DRR)

Newsletter for DIPECHO / ECHO DRR Food Security Partners

GOAL Malawi: Experiences and Lessons Learned in Food Security and Agriculture DRR

In parts of Malawi, including Nsanje district in the south, 80-100% crop failure is not uncommon due to climate shocks experienced at critical crop growth stages. As a result, farmers not only lose their main source of food but also their main source of income.

In response GOAL Malawi, with partners such as FAO, government departments and other NGOs, have for the past year been implementing the ECHO funded Disaster Risk Reduction Food Security pilot project.



Riverbank stabilisation by sandbanks and concrete, *Charlie Kabanga/GOAL, 2011*

Project Activities

Project activities have included mitigation works along river banks and agriculture and nutrition with households. Mitigation works focused on re-enforcing the banks of six flood-prone rivers in the area, (Thangadzi, Nyamphembere, Chimbwimbwi, Nyachipere, Ndamela and Phanga); land reclamation in order to manage soil and water erosion and the replenishing of community nurseries and reforestation of the river banks.

Agriculture activities included distribution and cultivation of cereals (millet,

sorghum), vegetables (carrot, onion, garlic, mustard, Chinese cabbage) and tubers (sweet potato and cassava); training lead farmers on sustainable agricultural practices and promoting the construction of flood-proof seed storage facilities.



Lead farmer (middle) shows his cassava field, *Chikondi Chikalimba/GOAL, 2011*

Achievements and Lessons Learned

It is important to promote short cycle and flood and drought tolerant crops such as sorghum, millet, cassava and sweet potatoes, to reduce overdependence on maize as the main food and income source. Due to uneven distribution of rains in the last agricultural season, many farmers did not meet the expected maize harvest but realized higher production from millet and sorghum.

The promotion of specific species of trees and vegetables with nutritional and medicinal value is expected to begin to address issues of malnutrition and stunting in the district. In the short term, communities have also benefitted from training on food preparation methods and protecting shallow wells to access clean water.

Cash for work for small scale mitigation work has proved to be a good approach to reduce vulnerability related to floods and to lean hunger periods by re-enforcing river banks and at the same time providing a source of income with which to buy food.

The cash for work programme was designed to complement agricultural activities by allowing workers to first work on their fields before attending to the mitigation work. The programme also made use of machinery where possible, for example in river dredging, to relieve the drudgery that is sometimes associated with community work.

Through the seed multiplication based on the pass-on-model, communities have been able to save seed for next season. The seeds are stored in 21 community seed storage facilities that were built during the project with materials provided by GOAL and the communities themselves. Conditions set on the distribution of agricultural inputs, including that beneficiaries pay back seeds after harvest have ensured that communities value the inputs and are motivated to succeed.



Farmer displays millet harvest in Ndamera village, *Chikondi Chikalimba/GOAL, 2011*

Stemming Postharvest Losses: A Critical Step Towards Increasing Food Security

Postharvest losses (PHL) have a critical impact on food security for vulnerable communities in southern Africa. According to a recent World Bank/FAO publication, *Missing Food: The Case of Postharvest Grain Losses in Sub-Saharan Africa* (2010), physical grain losses experienced before processing range in Sub-Saharan Africa between 10-20% of overall production weight, and in east and southern Africa food losses alone account for 13.5% of the total grain production. The document identifies two broad causes of PHL, namely '**Technical causes**' including harvesting methods; handling procedures; drying techniques; availability/appropriate storage; contamination; pest attacks; and infestation by food-borne pathogens and **governance-related causes**, including issues around markets and their accessibility; policy environment, lack of access to micro-credit and financing; mismanagement of stores or related funds, storage management, among others. The document advances four categories of recommendations to address these issues, as listed below. See the full document on the DRR in southern Africa website http://www.disasterriskreduction.net/southern_africa

Related Publications

Global Food Loss and Waste, SIK/FAO January 2011 http://www.fao.org/ag/ags/ags-division/publications/publication/en/?dyna_feffuid=74045

FAO/World Bank workshop on reducing post-harvest losses in grain supply chains in Africa: Lessons learned and practical guidelines, March 2010 <http://www.fao.org/ag/ags/post-harvest-management/en/>

Useful References

See the FAO Rural Infrastructure and Agro-Industries Division (AGS) website <http://www.fao.org/ag/ags/en/> and the Information Network on Post-harvest Operations (INPhO) <http://www.fao.org/inpho/en/> for useful information and references on the topic.

See also the AGS post harvest management section <http://www.fao.org/ag/ags/post-harvest-management/en/> for information categorised by food group, including cereals, roots and tubers, fruits and vegetables.

Improved postharvest grain management at the farm level and along the chain	Improved pest/fungi management and storage structures	Institutional arrangements for grain marketing	Communication and learning
<ul style="list-style-type: none"> • Proper harvesting • Careful transport from the field and along the chain • Proper drying, threshing & shelling (including proper equipment) • Monitoring grain humidity during drying to avoid mould growth • Sorting crop to remove damaged grain • Advanced planning on how much will be treated with insecticide, depending on its planned storage period • Careful purchasing of grain protectants (expiry, recommendation, adulteration) and knowledge on their use • Careful grain loading or stacking • Understanding of household food budgeting requirements • Accessing market information and understanding of seasonal price fluctuations to help decide when to sell 	<p><u>Insect control & prevention</u></p> <ul style="list-style-type: none"> • Shelling maize, threshing other cereals, and admixing grain protectants such as synthetic insecticides • Clean store before loading rodent proof store • Alternatives to synthetic insecticides (e.g. inert materials, sand, ash, biological products, etc.) • Solarisation • Breeding for resistance <p><u>For rodents</u></p> <ul style="list-style-type: none"> • Proofing storage structures • Trapping/poisoning to control • Hermetic storage in plastic bags or fully sealed plastic stores or metal drums that will suffocate pests • Cost/benefit analysis to work out how affordable/economic protectants are 	<ul style="list-style-type: none"> • Inventory credit: a means of offering stocks of cereals as guarantees for cash loans. They can operate with small volumes and micro-credit and based around producer or farmer groups • Warehouse receipting: similar to inventory credit but usually larger scale, more commercially oriented and market linked, more difficult to access for smallholders <p>Information in the table is a summary from <i>Missing Food: The Case of Postharvest Grain Losses in Sub-Saharan Africa</i> (2010)</p>	<ul style="list-style-type: none"> • Media, extension and education through different methods (e.g. training the trainers, farmer field schools), education curricula including PHL-related issues • Promoting learning alliances

Country Updates

GOAL **Malawi** has in the last two months reached 310 beneficiaries (138 men and 172 women) with vegetable seeds distributions. In addition, 7500 fruit trees, 3,000 mango and 1500 each of papaya, tangerine and orange trees, were distributed to beneficiaries in Nsanje District. In Salima District, COOPI has completed silo constructions. Demonstrations for basal dressing and fertilizer application, tomato production and seedling transplantation were completed. Community sensitisation on the importance of early land preparation were carried out in local meetings. Christian Aid/Evangelical Movement has identified and trained beneficiaries to receive guinea fowl as part of their livestock FS/DRR activities. A first round of guinea fowl and the final round of goats were distributed to Chikhwawa beneficiaries.

In **Madagascar**, beneficiaries throughout the country have been affected by the late onset of rains (which came 1.5 months late, in mid-August), followed with heavy rain that caused flooding and damage to rice fields. Harvesting of maize and bean crops is underway in the CARE intervention area of Antalaha. Matured yam crops are being harvested in some sites. The communities were trained on yam storage, preservation and processing techniques.

In **Mozambique**, the Oikos and FAO have established 36 Farmer Field Schools (FFS) in the three districts of Mossuril, Mogincual and Ihlá de Mozambique, benefiting a total of 2296 farmers. At each of the FFS at least three maize varieties were planted— two new short cycle varieties and one traditional variety. The National Consultative workshop for the DIPECHO/ECHO FS/DRR partners and stakeholders will take place in the last week of September.

Upcoming Meetings to Remember!

The SADC DRR Platform and Annual Preparedness Meeting is scheduled for 10-14 October, 2011. This meeting will bring together senior officers from SADC Country DRR/M Units and Ministries, SADC Secretariat Officials, UN and International agencies and donors. During this meeting the new SADC DRR Strategy and Plan of Action will be reviewed and National Frameworks for DRR shared and discussed. Sessions will cover DRR links with agriculture, climate change, early warning, health and water. The meeting will also focus on emergency preparedness and contingency planning in advance of the hazard season.

The ECHO FS/DRR & DIPECHO II Partners' Experience based DRR Workshop will be hosted in Johannesburg from 25 to 27 October, 2011. The workshop will bring together ECHO FS/DRR & DIPECHO II partners from across southern Africa. Experiences will be shared with a focus on best practices, lessons learned and technical innovations all leading to the updating and development of DRR advocacy strategies. This is an important forum to put DRR Food Security and Agriculture issues forward.

The Food Security Nutrition Working Group of Southern Africa (FSNWG) has been set up by a number of key actors in food security, both NGO and UN. The overall goal is to contribute to enhanced programming for improved Food Security, Nutrition and Livelihoods in the region. The Working Group seeks to reduce food insecurity and livelihood vulnerability and increase resilience of populations to natural and socio-economic shocks and hazards. The Working Group focuses on issues related to DRR and underlying causes of chronic food insecurity and malnutrition. The group is currently analysing the implications of the climate forecasts on food security and developing a FSNWG webpage as part of the DRR website www.disasterriskreduction.net_southern_africa. The FSNWG is meeting monthly. For more information, contact Alexandros Yiannopoulos, Alexandros.yiannopoulos@fao.org

Regular Meetings

Country project partners hold regular coordination meetings. Contact the Country ECHO FS Project Coordinators (FAO) for dates and details:

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About this Newsletter

This monthly newsletter aims to share information on activities, lessons learnt and information of interest to ECHO/DIPECHO project partners and stakeholders.

FS/DRR Southern Africa Partners Website

This newsletter can be accessed on the partners website as well as more information on the projects. Visit:

www.disasterriskreduction.net_southern_africa

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