



Special Emergency Programmes Service
Emergency Operations and Rehabilitation Division

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

BACKGROUND

Aid and foreign investment remain below the levels that the Democratic People's Republic of Korea requires to revive key sectors of the economy, in particular agriculture. The Food and Agriculture Organization of the United Nations (FAO) has adopted the collective goal of the United Nations (UN) Country Team to assist the Government in its efforts to improve the quality of life for all of its citizens.

The effects of the mid-1990s' natural disasters, chronic input problems, scarce arable land, short growing seasons and intermittent power supply have led the country into a state of severe food shortages. Although the food security situation has improved significantly since 2001, largely as a result of the humanitarian assistance provided by the UN, bilateral agencies and non-governmental organizations (NGOs), the country still faces serious food shortfalls and the agriculture sector requires considerable support.

FAO'S FIELD PRESENCE

The country office is located in Pyongyang, under the FAO Representation which is based in Beijing. The presence of the Programme Coordinator in Pyongyang has enabled FAO to increase contact and collaboration with operational and policy personnel in Government line ministries. The Coordinator represents FAO in the UN Country Team and acts as the focal point for the agriculture/food security theme group, overseen by the UN Resident Coordinator, *ad interim*. A national Assistant FAO Representative is also based in Pyongyang, as part of the FAO Representation structure.

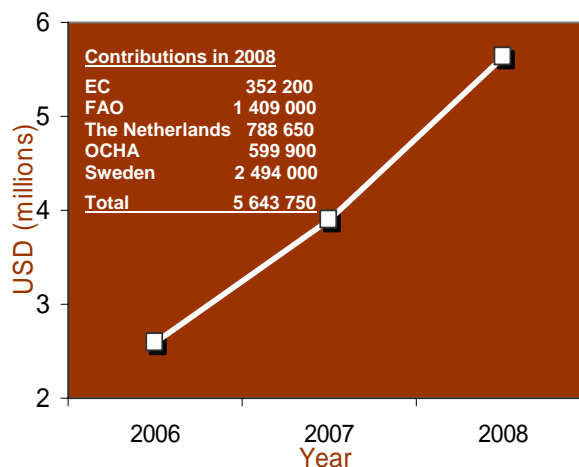
RESOURCE MOBILIZATION AND DONORS

Funding from donors continues to play a vital role in safeguarding and promoting the well-being of the population, especially children and women, in the priority areas chosen. The Government recognizes FAO as the lead agency in the agriculture sector and has endorsed the Organization's contribution in responding to priorities by developing compact short- and medium-term projects for implementation.

Upon request of the Government in 2004 to link humanitarian programmes to longer-term recovery and development, a transition was made towards rehabilitation and more sustainable development. This was accomplished by linking emergency and rehabilitation operations to the ongoing core-funded FAO programme, which concentrates on technical assistance, in-country training and capacity building, and by gradually diversifying the content and scope of project interventions.

Programme reviews, intensive consultations with partner line ministries (agriculture, lands and environment, fisheries and forestry) and an examination of previous assessments made at the cooperative farm level resulted in the annual formulation and implementation of the FAO rehabilitation programme. Donor assistance to this programme has helped to overcome constraints to food security for some of the most vulnerable people in the country.

Donor Contributions in 2006-2008



BENEFICIARIES

Agricultural land in the country is organized and cropped through approximately 3 900 cooperative farms and 100 state farms. FAO has mobilized resources to assist cooperative farms with a range of agricultural inputs, machinery and associated spare parts. Assistance has been focused on the plains areas of the main cereal crop-producing region, known as the 'cereal bowl', comprising parts of Pyongan, Hwanghae, Kangwon and Hamgyong provinces and Pyongyang.



FAO'S FOCUS

Alleviation of flood damage

Torrential rains in August 2007 followed by a typhoon in September caused severe damage to the agriculture sector throughout the country, with the greatest impact on the southern provinces that include key agricultural production regions, particularly of grains and rice. The summer season crops, normally harvested in September and October, account for some 87 percent of the country's annual production of cereals, the main staple crops.



Estimates provided by the Ministry of Agriculture (MoA) indicated that a total of 223 381 hectares of arable land cultivated with rice, maize and other crops was damaged. On average, domestic production accounts for 73 percent of total cereal consumption, suggesting that the damage will result in further aggravation of the country's food deficit. Furthermore, many of the farms lost their seed stocks of wheat and barley, as well as other agricultural inputs.



FAO provided emergency agricultural inputs, including fertilizer, plastic sheeting and barley seed to replace destroyed seed stocks, and developed a preparedness plan for response to future emergencies through distribution of agricultural inputs and pre-positioning of materials for timely response to flood damage.

Input supply to vulnerable populations

Due to the effect of the heavy floods, inclement weather in the 2008 spring season and low fertilizer applications, the winter wheat, barley and potato crops are likely to yield only modest results. As a result, and in spite of efforts to increase winter/spring production by double cropping, the total quantity produced is expected to be average. The consequences of this are possible food shortages and a potential humanitarian crisis.



Based on official Government data on 2007 spring and summer harvests, FAO recently projected a 2008 food shortfall of 1.66 million tonnes, the highest food gap since 2001. In the short-term, the provision of essential agricultural inputs for the 2008/09 winter/spring crops needs to be given the highest priority. The main constraint is the serious shortage of fertilizer. Although the Government has historically provided fertilizer to farmers in exchange for a quota of the harvest, it is increasingly unable to make any provision with the underlying economic problems.

To improve the production of the spring crops during the 2009 cropping season, FAO is assisting selected farming cooperatives under FAO's Initiative on Soaring Food Prices by providing urea fertilizer. This should improve plant growth of barley and potato, as well as food availability and security for the assisted populations.

Support to barley and vegetable crop production

In response to the deteriorating food insecurity situation due predominantly to the impact of heavy floods in 2007, FAO is assisting farmers to attain a secure and dependable supply of barley and vegetables. This support is expected to improve the diet of vulnerable groups, especially those living in urban communities. It will also extend cereal double cropping to increase food availability during the critical lean season, when household food stocks are at their lowest; diversify the dietary intake and improve the nutritional status, especially of young children and mothers; secure a supply of seed from vegetable harvest for the following season; and spread availability of vegetables throughout the year by using vegetables with different sowing and harvesting times.

Double cropping

Double cropping is one of the national policies adopted to utilize lands suited to consecutive food crop production in spring, summer and occasionally autumn. FAO has strongly supported this programme in agreement with MoA. It is perhaps the most significant contribution from FAO in its efforts to promote sustainable agriculture in the country.

The programme supports beneficiary households by providing cooperative farms with fertilizers, seeds and other agricultural inputs and machinery. Increases in crop yields have been achieved and were found to be

sustainable when a package was developed to include green manure, cover crops and improved rotations. FAO enhances plant protection measures in the country by supporting local biological-control efforts and promotes integrated pest management (IPM) to protect natural predators. Post-harvest losses were reduced by equipping cooperative farms with better harvesting facilities and improved storage. Dramatic yield increases were achieved following the launch of a conservation agriculture approach on several pilot cooperative farms.



The approach ameliorates tillage operations and enhances soil moisture retention leading to organic improvement, with a marked increase in the presence of earthworms. This facet of the programme has been welcomed by farming families as it has led to considerably reduced fuel and labour requirements.

The technical assistance provided by FAO under this programme includes in-country training, workshops and study tours. Several study tours on conservation agriculture have been organized in China and Italy (for cooperative farm technicians, senior MoA managers and other agricultural technicians). The conservation agriculture concept is evolving continuously and is having a positive impact on beneficiaries, with high demand for required equipment and training. FAO is implementing a project that integrates potato production into the conservation agriculture approach. The emphasis is on developing disease-resistant varieties and on improving the seed potato production system and post-harvest technology.



Soil fertility management

Within the double cropping programme, the promotion of soil fertility management is amongst the key needs identified. FAO has assisted MoA to promote a more sustainable organic approach by supplementing mineral fertilizers with green manures and nitrogen-fixing legume crops. Green manure seed was provided to selected cooperative farms in order to carry out on-

farm multiplication which aims to create more seed for distribution to other farms. The Academy of Agricultural Sciences also received seeds for multiplication under its Research and Development programmes. Two specialist soil-testing laboratories have been established to enable soil analysis throughout the four main 'cereal bowl' provinces, with laboratory technicians receiving training in China.



Horticulture

FAO has supported fruit and vegetable production on cooperative farms with the assistance of the Pyongyang Vegetable Research Institute and, more recently, the Fruit General Bureau. Building materials and inputs have been provided by the programme for the rehabilitation of greenhouses and the construction of seed potato stores/bunkers.

Vegetables are generally grown in greenhouses in winter and early spring, and during other times of the year are cultivated in the field. They are also grown in household kitchen gardens. Support to orchard production of apples from nursery rootstock and grafting stages has been initiated. The assistance provided by FAO includes in-country training, workshops and study tours.

Avian influenza prevention

In early 2005, there was a reported outbreak of highly pathogenic avian influenza (HPAI) in three poultry production units. As a result, over 220 000 chickens were culled and strict biosecurity measures, movement control and enhanced surveillance were imposed. FAO has subsequently collaborated closely with the MoA Veterinary Service, the Ministry of Public Health and the World Health Organization on prevention measures.

FAO's emergency assistance for the control and prevention of HPAI has to date prevented the reintroduction of the virus by ensuring that the emergency preparedness plans, including diagnostic

laboratory facilities and technical expertise, are fully operational. FAO provides surveillance support and is assisting the Veterinary Service in strengthening its national and provincial network. A new cold room for the vaccine plant in Jongju in North Pyongan was designed and will be renovated and supplied with equipment. Training on epidemiology and vaccine quality control has been conducted, both in-country and through study tours to China.

Assistance for early detection, response and control of foot-and-mouth disease outbreak

A rapid assessment mission was fielded by FAO's Crisis Management Centre to evaluate the foot-and-mouth disease (FMD) outbreak that was reported by the Government in January 2007. FAO is now assisting in strengthening the capacity of the Veterinary Services to contain future outbreaks and to build the Central Veterinary Station's laboratory capacity to support these efforts through the early detection of FMD and for verification of the success of the control measures. A new upgraded biosafety laboratory is being installed and staff trained in China in FMD diagnostic techniques.



Coastal fisheries

Both inland aquaculture and marine fishing are vital food production components in ensuring national food security. In 2009, FAO will implement a project to support 40 fishing cooperatives in Kangwon province, through provision of inputs, training and capacity building in post-harvest techniques.



RAPID FOOD SECURITY ASSESSMENT

A Rapid Food Security Assessment (RFSA) was carried out by 14 international World Food Programme (WFP) and FAO experts with the support of national staff over a three-week period in June 2008 in 53 selected counties across eight of the country's ten provinces. Five U.S. NGOs covered the two other provinces. The objectives of the RFSA were to qualitatively assess the food security situation of particular population groups in terms of food availability, access and utilization and to determine food assistance requirements in relation to location, quantity, type and timing of assistance.

The RFSA concluded that the food security of vulnerable populations has deteriorated significantly over the past year both in terms of food availability, accessibility and utilization. Two successive years of flooding, crop losses and decreases in external food imports and aid have caused a sharp reduction in food availability across the country. The lack of sufficient chemical fertilizer assistance in time for the spring planting season is likely to have a negative impact on the main winter harvest. The country remains vulnerable to adverse weather conditions and natural disasters that can negatively affect domestic food production.

To complement the findings of the RFSA, an FAO/WFP Crop and Food Supply Assessment Mission is ongoing in October to forecast the 2008/09 harvests.

FAO'S OBJECTIVES FOR THE FUTURE

In order to reduce the food balance deficit, agricultural production should be boosted by expanding double cropping of both spring and winter crops, expanding vegetable production, continuing the existing trend of encouraging the breeding of high-yielding species relying on natural vegetation (goats, rabbits) while reducing the numbers of grain-consuming livestock (pigs, chickens) and expanding integrated agroforestry, conservation agriculture and IPM.

Activities for 2009 include a timely review of the agriculture sector and food security strategy in the context of rising prices for food and agricultural inputs, enhancing the double cropping programme and continuing horticultural production on cooperative farms and specialized fruit farms. In 2009, FAO also seeks to strengthen the recovery of both the fisheries and livestock subsectors, support the formulation of a national forest protection policy and strategy, manage watershed and agroforestry activities on sloping lands and continue coordination of the agricultural recovery and development programme.

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