



# Democratic People's Republic of Korea and FAO

## *Partnering for sustainable food and nutrition security*

Over the past three decades, FAO has cooperated with the Democratic People's Republic of Korea, providing agricultural technical assistance ranging from agroforestry, fruit and crop production and marine aquaculture to transboundary pest and disease control. Emergency support has been a major feature of cooperation in the past, while more comprehensive programme approaches to development have been adopted since the second half of the 1990s, including an increasing focus on issues such as food safety.

### Improving productivity with quality seed

Agriculture accounts for approximately 20 percent of the DPR Korea's GDP and 36 percent of its total workforce. It is the mainstay of the national economy, playing a crucial role in ensuring food and livelihood security and socio economic well-being. However, the agriculture sector faces a number of challenges, an important one being a shortage of essential agricultural inputs, including quality seeds. The seed multiplication subsector is hampered by a weak research and extension culture and low levels of technology. In addition, a lack of appropriate cleaning and processing facilities prevents seed farmers from meeting international standards for germination, moisture and impurity rates.

To help overcome some of these constraints and contribute to sustainable agricultural development overall, an FAO seed project was recently implemented with the target of increasing national seed production by 20 to 25 percent. Support included the introduction of standard technologies and improved management in seed production and processing. Particular emphasis was put on capacity building, with farmers and cooperative farm managers being trained across the board in seed management, production, processing and testing. Farmers' understanding and applied knowledge concerning the use of certified quality seed has increased as a result, while facilities for seed production, conditioning and seed certification have been upgraded. Another notable project achievement has been an increase – from 13 to 20 percent – in the amount of locally produced seed that meets international quality standards.

*Project: Improved Seed production for Sustainable Agriculture.  
Funded by UNDP.*

### Matching FAO's expertise to DPR Korea's development priorities

FAO assistance in DPR Korea is shaped by the 2012-2015 FAO Country Programming Framework (CPF), which was recently extended to 2016 in line with the United Nations Strategic Framework (UNSF) for the country. The CPF is centred on five priority areas for technical cooperation:

- **Strengthening national food and nutritional security**, by attaining self-sufficiency in food supply through increased food production
- **Improving natural resource management**, with a particular focus on land protection and environmental rehabilitation
- **Improving rural livelihoods**, intensifying and diversifying productive activities in the rural sector with the aim of increasing and diversifying income generation and raising conditions in rural communities
- **Coping with climate change**, with a focus on mitigating the impact of natural disasters on agriculture
- **Strengthening institutional capacity for agricultural research**, extension and administration, with an emphasis on technological innovation to boost development of the agriculture and rural sector

Jointly developed with the Government and other partners, particularly with the National Committee for FAO and DPR Korea, the CPF reflects relevant priorities in key national development policies. It also contributes to the National Millennium Development Goals, the UNDP Country Programme 2011-2015 and the FAO Regional Priority Framework for Asia and the Pacific 2010-2019.

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## Reducing post-harvest losses

Post-harvest losses adversely affect DPR Korea's agriculture productivity – which in turn threatens national food security. To tackle this issue, joint Government-FAO efforts have focused on enhancing capacities for post-harvest handling of grains by introducing, testing and optimizing improved, new and appropriate post-harvest technologies. Training has also been provided to improve skills in the management, maintenance and repair of equipment at the country and farm levels. As a result, six demonstration farms have seen substantial reductions in post-harvest losses. In some cases, losses have been cut by 50 percent from pre-intervention loss rates which were 15.56 percent in rice, 16.65 percent in maize and 16.35 percent in wheat and barley.

In the light of these successes, improved post-harvest technology and management interventions are being promoted to reach the broader agricultural community.

*Project: Reduction of Post-harvest Losses for Food Security. Funded by UNDP.*

## Supporting family farming

As part of the country's drive to increase food production and given the importance of potato in the food supply, targeted assistance has been provided to 20 food-insecure farming families for increased potato production. Twenty net houses for the multiplication of seed potato have been constructed and a seed storage facility built in cooperative farms, including a total of 1 200 plastic crates for potato storage. Each cooperative farm involved has benefited from training in seed multiplication and improved storage practices, and guidelines on seed multiplication have been developed.

This initiative has proved beneficial in various ways: the seed storage facilities have allowed for an average reduction in seed storage losses from 25 to 5 percent, while the use of net houses has increased seed multiplication rates by an average of 50 to 60 percent. Overall, in 2014 potato production in the project sites increased by 50 percent.

*Project: Multiplication of Seed Potato and Improved Storage Facility. Target areas: Pyongyang, South Pyongan, North Hwanghae, South Hamgyong and South Hwanghae Provinces. Funded by Italy.*

## Promoting conservation agriculture and double cropping

To address the problem of limited land for agricultural production in DPR Korea, targeted support has been provided through the FAO Conservation Agriculture programme. Thanks to this initiative, Conservation Agriculture techniques have been successfully adopted in five cooperative farms, with 430 ha of land being used for double cropping and Conservation Agriculture practices.

As part of project activities, high-yielding and early-maturing varieties of winter wheat, barley and potato have been introduced along with five types of vegetable seed that have high nutritional values, thereby contributing to the

*"Agriculture and food security are the entry points for growth and development strategies in many countries."*

**José Graziano da Silva**  
FAO Director-General

diversification and nutritional value of diets. In addition, the project has introduced 13 types of cover crops to prevent soil erosion and increase fodder production. In fields where Conservation Agriculture is practiced, not only have yields increased and labour and fuel been saved, but increased productivity has been coupled with a reduced soil erosion.

*Project: Enhanced Food and Nutrition Security through Conservation Agriculture and Double Cropping. Funded by the European Union.*

