



United Nations Development Programme
Country: Democratic People's Republic of Korea
Project Document

Project Title:	Improved Seed Production for Sustainable Agriculture
UN Strategic Framework (UNSF)	
Strategic Priority Area:	Area 3: Nutrition
UNSF Outcome(s):	1: Improved Nutritional Status of targeted populations to enable them to lead healthy lives; 2: Sustained Household food Security
Expected CP Outcome(s):	Increased access of people to diversified range of foods as well as farmers increasing agriculture diversification and productivity
CP Outputs:	1.1. Agriculture production and diversification strengthened through integrated farming; increase in urban vegetable and potato agriculture and enhancing seed production,
Expected Project Output(s):	1. Standard technologies and management in seed production and processing introduced in project farms; 2. Seed quality control system improved; 3. Seed policy and ordinance issue addressed
Executing Agency:	FAO

Brief Description


The Democratic People's Republic of Korea has had mixed experience in its quest to achieve food security. One of the factors constraining the country's efforts has been poor quality seeds. The seed multiplication sub sector is faced with weak research and extension culture, low level of awareness among farmers and poor technology applications. All these have affected efforts to increase agricultural productivity and rural livelihoods in a sustainable manner. To address this, UNDP and the government of DPRK have collaborated to design and implement interventions to support quality seed multiplication (improved quality and variety), capacity enhancement at the farm level, providing appropriate technology and seed management skills and policy review and, reform with a bid to increase productivity and food availability in an ecologically sustainable manner for sustainable rural livelihoods.

This project was initially approved and signed in November, 2006, but never started implementation due to suspension of all UNDP programme in DPR Korea in March 2007. In line with Executive Board directives the project is to be resumed starting with a reformulation and re-approval.

Programme Period:	<u>3 years</u>
Key Result Area (Strategic Plan):	<u>Nutrition</u>
Atlas Award ID:	_____
Start date:	<u>March 2011</u>
End Date:	<u>February 2014</u>
PAC Meeting Date:	_____
Management Arrangement	_____

Total resources required:	<u>USD 1 822 455</u>
Total allocated resources:	<u>USD 1 822 455</u>
• Regular	_____
• Other donor	_____
○ Donor	_____
○ Donor	_____
○ Government	_____
Unfunded budget:	_____
In-kind Contributions:	_____

Agreed by (Government):  Acting Secretary General, NCC
23 MAR 2011

Agreed by (Executing Entity): 
VINCENT MARTIN, FAO R a. i.

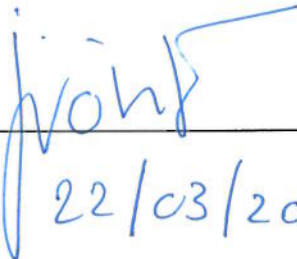
Agreed by (UNDP): 
22/03/2011

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LIST OF ACRONYMS

APR	Annual Project Report
AREP	Agricultural Recovery and Environmental Protection Programme
APSA	Asia Pacific Seed Association
CGIAR	Consultative Group on International Agricultural Research
CTA	Chief Technical Adviser
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
IC	International Consultant
MDG	Millennium Development Goals
MoA	Ministry of Agriculture
NCC	National Coordinating Committee for the United Nations Development Programme, the Democratic People's Republic of Korea
NPD	National Project Director
NSC	National Seed Corporation
PAU	Pyongyang Agriculture University
PB	Project Board
SDC	Swiss Development Cooperation
TCP	Technical Cooperation Programme
ToRs	Terms of Reference
UNDP	United Nations Development Programme
UNOPS	UN Office for Project Services

I. Situation Analysis

Average crop yields in the Democratic People's Republic of Korea, are substantially less than yields achieved in the other countries of this region. The main reasons for this are poor quality of soil (which lacks organic matter and soil nutrients due to continuous mono-cropping), inadequate supply of fertilizer, and poor quality seeds of inappropriate varieties.

Poor quality of seed is reflected in the use of almost twice the normal quantity of seed per unit area used by farmers to grow rice and maize, perhaps to compensate for low germination percentage. With the successful double crop technology recently introduced in the country, maize and wheat are getting popular with the farmers as a second crop in addition to rice based mono-cropping farming. Among the limitations to expand double cropping, however, is inadequate supply of high quality certified seed.

To feed the current population of around 23 million inhabitants¹, the Democratic People's Republic of Korea requires about six million metric tons (MT)² of food grain annually. Against this demand, as per estimates provided by the Ministry of Agriculture (MoA), production is estimated to be 5 million MT³ (2009). This food grain production is largely contributed by rice (2.3 million MT⁴), maize (1.7 million MT⁵), and potato (0.55 million MT⁶) cereal equivalent.

The total seed requirement, excluding potato, is estimated to be 227 000 MT⁷ calculated on seeding rates presently used by farmers, which are about twice the seeding rates used in other countries. If the germination quality of seed is improved and farmers are advised to economize on seeding rates, the effective demand for quality seed will be approximately 170 000 MT. The Seed Department of the MoA through its 240 co-operative seed farms is annually producing 156 000 MT⁸ of certified seed under the seed certification system. At present it may not be possible to raise the quality of seed due to absence of appropriate seed rules, seed testing facilities in the regional crop inspection centres, and lack of trained professionals with knowledge of modern seed and seed health testing procedures. Furthermore, the seed production farms are not properly equipped for seed production, seed conditioning and storage. Before imposing seed certification, it is necessary to first improve the quality of seed during production stages. There is lack of appropriate early maturing varieties suitable to promote double cropping. Variety breeding aspects, including variety maintenance and regular source of high quality breeder seed also require improvement.

Of the above-mentioned 156 000 MT, the percentage of seed supplied of acceptable quality according to international standards is estimated at 13 percent. Due to the lack of appropriate cleaning and processing facilities, seed farmers fail to meet the international standards in terms of rate of germination, moisture

¹ 2008 Population Census conducted with supports from UNFPA estimated at 23.349 million.

² DPRK Ministry of Agriculture and FAO's figure

³ FAO's estimation

⁴ FAO's estimation

⁵ FAO's estimation

⁶ FAO's estimation

⁷ FAO's estimation

⁸ DPRK Ministry of Agriculture's figure

and impurities. The Project will increase national seed production by 5 to 6 % which means that less than 10 % of the entire cooperative farms will directly benefit from the implementation of the project. However, the main impact of the project is to set up model seed multiplication and breeding farms and to disseminate the related technology to other seed farms. This will enhance the capacity of many other seed farms thus providing better opportunities to the agricultural production of the DPR Korea as a whole.

Institutional setup for seed supply in DPRK

DPRK has in place the required institutional setup for seed multiplication and supply. To produce and distribute certified seed to farmers, Governmental Order Number -44 is in force with some basic rules and standards for seed certification along with a provision for compulsory variety release. For bringing improvements in the overall seed supply system, there is a need, however, to review and readapt improved seed regulation, seed rules and seed policies.

Seed Variety Breeding

The Academy of Agricultural Sciences, through the five crop research institutes, is responsible for breeding of superior varieties of seeds.

Breeder and Foundation Seed Production

For multiplying seed of varieties officially released by the Seed Committee, the Seed Department of the MoA organizes seed multiplication on its 240 cooperative seed farms located in different regions of the country. Breeder and foundation seed is multiplied on 25 specialized farms. Annually 600 MT breeder and 5 400 MT foundation seed is produced for different crops.

Seed Certification

Under the MoA there is a separate Central Seed Inspection Centre, which is responsible for verification of seed fields for genetic purity, isolation requirements and testing of seed in laboratories. The Central Crop Inspection Centre in Pyongyang has a well-equipped laboratory supported by the Swiss Agency for Development and Cooperation (SDC). There are 10 provincial seed inspection centres with seed testing laboratories. Most of the provincial seed inspection centres are not adequately equipped. Seed and field standards set for seed certification requires to be established on more efficient and systematic basis.

In order to develop a sound seed supply system the Democratic People's Republic of Korea requires, as a first step, there is need to develop a seed policy framework with a vision for future development of a seed supply system. . To achieve this, certain amendments will be required in existing seed ordinances and rules.

Improvement in seed quality and variety begins with awareness among the farmers and cooperative farm managers on the links between good quality seeds and seed programme management and productivity. To this end, focus of the capacity building will be training of farmers and cooperative farm managers (farm level) on the relevant seed management skills. Most of the seed multiplication farms lack facilities for threshing, seed drying, moisture testing, cleaning and safe storage. The regional crop inspection laboratories are not equipped to properly test seed for moisture, germination, seed health and impurities.

Seed and field standards needs to be studied to determine if these are appropriate. Skills of the large number of farm managers, and extension technicians engaged in planning of seed production, maintenance of varieties, seed multiplication, seed conditioning for safe storage, field inspection for certification and seed analysts in laboratories need to be upgraded. They need to acquire proficiency in using the latest available technologies and procedures, application of international standards within a conducive policy environment.

To address issues relating to improve seed production, FAO support was provided under a Technical Cooperation Programme (TCP) arrangement during 2001 and 2002. One unit each of seed cleaning and seed testing equipment was supplied to one of the seed farms of MoA. The Swiss Development Cooperation (SDC) is currently supporting the potato seed testing laboratory of the Central Seed Inspection Centre at Pyongyang. (In order to avoid overlapping of activities, this project will not undertake activities for improvement of potato seeds). The SDC has supported establishment of a seed testing laboratory at central seed inspection centre at Pyongyang. During 2007-08, a Non-Governmental Organization (WELT HUNGER HILFE) has established a Maize seed processing plant which is now producing about 7000 MT maize seed per annum with funding from the European Union. Thus, beneficiary selection was predicated on the relevant policy and strategy of the sector that has been developed by the Government; consultation between government and UNDP in the early days of project identification and findings of assessment done by Government/the key stakeholder institutions.

II. Strategy

The Government of DPRK places high priority on the use of high quality seed of superior varieties. It has been realized that 15-20 percent yield gains can be achieved through the use of good quality certified seed of high yielding varieties and hybrids which are adapted to the local agro-ecology and compatible with recently introduced double cropping practices.

There is recognition that food security in the country will require efforts to promote efficiency and more sustainable techniques in agriculture and in the exploitation of natural resources. To this end, UNDP supports initiatives that contribute towards increasing the efficiency and sustainability of food production and consumption, and improving rural livelihoods in general.

The project outcome is to contribute to achieve food security through raising productivity of food crops by way of supplying good quality seed of high yielding varieties to farming communities, building farmers knowledge and skills, introduce efficiency through small scale mechanization, reduce the backbreaking chores among the farmers, increase household food intake, improve nutritional status, health and livelihoods. This will be achieved through improvements in the quality of seed in terms of both genetic and physical purity. To this end, the project will promote the adoption of modern techniques of seed variety breeding and maintenance. Systemic seed production of all classes of seed will be undertaken covering all aspects of seed quality, introduction of latest technologies of hybrid seed production (of rice and a wide

range of vegetable crops) and handling of modern seed conditioning and testing equipment. For disseminating seeds to farmers, the project will organise farmers' field demonstrations and field days. Selected farmers will be sent on a study tour to China. The training strategy will also ensure that study tours serve as a basis to gain further insight on country experience and practices in strengthening the nexus between gender and agriculture development.

Considering the size of the seed programme in the Democratic People's Republic of Korea, the emphasis of the project is to enhance management of seed programmes at farm level as well as planning and policy guidance of seed programmes; of seed production and certification technicians in best practices and techniques in their areas of responsibility, and consistent with local conditions; of farmers and cultivators in the productive use of high yielding seeds through improved farming practices. In this regard, review of the current government policy and regulation will be undertaken with a view towards improving the framework to better position the seed industry in line with international standards.

Greater localization of training will be achieved through the preparation of training manuals for seed production, seed conditioning and seed certification including seed testing in the Korean language. Regular in-country training and workshops will be organized. For training of field staff in various aspects of seed production, adequate facilities are required where staff can learn by doing. With this objective, adequate funding has been earmarked for the provision of farm machinery and seed cleaning, testing and storage equipment. Training for seed testing will be organized at Central Seed inspection centre established by the SDC. As this laboratory is in the close to PAU, the necessary training hall, hostel accommodation and some of the resource persons required will be mobilized from University. Since the SDC seed testing laboratory is fully equipped with modern seed testing equipment, UNDP funding will not be used for any additional equipment there.

Seed production activity will be started on one foundation seed farm (Maekjon foundation seed farms and two certified seed farms (Daesong foundation seed farm, Unpa certified seed production farm). These pilot scale activities will provide opportunities to train human resources and systematize the seed programme. On the basis of pilot scale achievements, the Government of the Democratic People's Republic of Korea may gradually undertake modernization of the seed industry with a modular approach, making it easy to expand activities to additional seed production farms, based on the availability of resources. Though work teams at cooperative farm levels are not disaggregated on gender lines, it is expected that improved productivity will enhance women's lot as mothers, those responsible for welfare of children and as preparers of food in the homes.

Many external assistance programmes are incorporating lessons learned in earlier interventions and in the process of shifting towards a more "development-oriented" approach and away from relief, rehabilitation responses. Such programmes support the agricultural production/sector, improving food security for vulnerable groups, and have an environmental dimension on issues impacting on the agricultural sector such as deforestation, erosion and watershed management. External assistance strategies are directed toward community-based approaches, introducing innovative resource-efficient technologies on farms, environmental protection, diversification of crops and crop systems, post-harvest losses and processing, integrating with sustainable employment and household income diversification, and recovery and resilience strategies against natural disasters and economic hardship. More detailed analysis of lessons learned and best practices will be incorporated at the Inception Stage of the project.

To reinforce sustainability of the project at its conclusion, the project will have an inbuilt sustainability strategy involving continual skills and knowledge transfer during project implementation. A sustainability strategy and plan will also be present at the inception, regularly updated and incorporated into its final report. The project will throughout the life of the project identify relevant stakeholders and individuals and put in place and describe a system of incentives comprised of techniques, technologies, training modalities that ensures practices are adopted, behavioral change enduring, and knowledge products and services effectively disseminated and shared. These will form part of the project exit strategy.

III. Results and Resources Framework

<p>Project title and ID (ATLAS Award ID): Improved seed Production for Sustainable Agriculture</p>
<p>Intended Outcome as stated in the country Programme Document 2011-2015: Increased access of people to diversified range of food, including cereals, vegetables, fruit, potatoes, meat, fish and dairy products, as well as increased incentives for farmers in increasing agriculture diversification and productivity; Intended Output as stated in the Country Programme document: Agriculture production and diversification strengthened through integrated farming; increase in urban vegetable and potato agriculture; enhancing seed production in alternative cereals, wild fruit processing and protein-rich production</p>
<p>Indicator baselines: 1. Low levels of knowledge and physical facilities at all levels of the seed supply system. 2. Poor quality seeds in inadequate quantities available for agriculture.</p>
<p>Outcome indicators:</p> <ol style="list-style-type: none"> 1. Enhanced capacity of professionals engaged in planning and implementation of a coordinated seed improvement programme 2. Enhanced Capabilities of professionals in production, processing and testing of seeds 3. Enhanced capacities of professionals and improved facilities for seed production and conditioning 4. Enhanced capacities of professionals and improved facilities for seed certification 5. Farmers' awareness and knowledge for use of certified quality of seeds of recommended varieties improved 6. Availability of quality seeds in higher quantities that are suited to the agro and ecological conditions of the Democratic People's Republic of Korea
<p>Indicator baselines:</p> <ol style="list-style-type: none"> 1. Low levels of knowledge and physical facilities at all levels of the seed supply system 2. Poor quality seeds in inadequate quantities available for agriculture
<p>Applicable Key Result Area:</p>
<p>Partnership Strategy UNDP will provide the financing required to obtain the external inputs for the implementation of the project. The Government of the Democratic</p>

People's Republic of Korea will make available other inputs in kind including office space and essential facilities for operational purposes and the professional and technical staff to support training efforts and establish and monitor demonstration farms. The Government will also provide required access for monitoring and evaluation. The project will be executed by FAO with MoA as the implementing partner. UNDP/the Democratic People's Republic of Korea will monitor the project and provide administrative support to FAO.

Project title and ID (ATLAS Award ID): Improved Seed Production for Sustainable Agriculture				
Intended Outputs	Output Targets For (Years)	Indicative Activities	Responsible Parties	Inputs
<p>Output 1: Seed policy and seed ordinance issues addressed and capacity enhanced in planning, implementation and monitoring seed programmes.</p> <p>Baseline : <i>policy needing review and revision</i></p> <p>Indicators: <i>Approval and adoption National agriculture-first policy and relevant ordinance.</i></p> <p>Targets: <i>High yielding and fast growing seed varieties</i></p> <p>Related CP Outcome: <i>Increased access of people to diversified range of food, including cereals, vegetables, fruit, potatoes, meat, fish and dairy products, as well as increased incentives for farmers in increasing agriculture diversification and productivity</i></p> <p>Output 2: <i>Appropriate technology in seed production, processing, quality control</i></p>	<p>Year 1</p> <ul style="list-style-type: none"> o Review and Adoption of new seed ordinances, laws and policies o Training plan for extension and farm-level team leaders and technical staff for MoA Seed Department; 	<p>2.1 Review of current seed legislation and policies</p> <p>2.2 Study tours and/or local and training for MoA professionals</p> <p>2.3 Agreement on seed development priorities and plans for DPRK</p> <p>2.4 Drafting of proposed seed legislation and submission to appropriate authorities</p>	<p>UNDP,FAO, MoA</p>	<p>-Training (International)</p> <ul style="list-style-type: none"> ◆ Study tour on multi crop seed programme planning: USD 49 000 <p>- Training (In-country)</p> <ul style="list-style-type: none"> ◆ Seed Seminar: USD 1 032
	Year 1, Year 2, Year 3	3.1 Develop ToRs for Resource persons in	UNDP,FAO, MoA	-Personnel(International)
				◆ Consultant Maintenance breeding and

<p>introduced.</p> <p>Baseline: rudimentary technology that is inefficient and needs replacement</p> <p>Indicators: Basic technology for seed production in use</p> <p>Targets: Seed production upgraded with appropriate technologies and practices</p> <p>Related CP Outcome: Increased access of people to diversified range of food, including cereals, vegetables, fruit, potatoes, meat, fish and dairy products, as well as increased incentives for farmers in increasing agriculture diversification and productivity</p>	<ul style="list-style-type: none"> o Introduce modern Seed Technical knowledge o Use of modern, efficient knowledge and Practices 	<p>Maintenance breeding, Breeder seed production, Seed multiplication of cereals Vegetables and seed quality control</p> <p>3.2 Develop ToRs for the visit of in-country team to Foreign countries to acquire Knowledge and information materials on modern seed technology</p> <p>3.3 Implement study tours and/or local training</p>	<p>breeder seed production: USD 9 900</p> <ul style="list-style-type: none"> ◆ Consultant on Cereal seed multiplication: USD 9 900 ◆ Consultant on Vegetable seed production: US D 9 900 ◆ Consultant on Seed quality control: USD 9 900 <p>- Training(International)</p> <ul style="list-style-type: none"> ◆ Study tour on seed technology: USD 56 000 <p>- Training(In-country)</p> <ul style="list-style-type: none"> ◆ Training workshop on maintenance breeding and Breeder production: USD 1 104 ◆ Training workshop on cereal seed multiplication: USD 1 696 ◆ Training Workshop on Vegetable seed multiplication: USD 1 311 ◆ Training workshop on seed quality control: USD 1 104 ◆ 2 training workshops on maintenance breeding and breeder production(using handouts prepared in advance): USD 3 392 ◆ 2 training workshops on cereals seed production (using handouts prepared in advance) :USD 3 212
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<p>Output 3. Enhanced capacity of farmers in seed conditioning, seed certification for relevant farm managers and extension staff through hands-on use of model seed cleaning equipment and seed testing facilities (including those already established by SDC), and through training and study tours</p> <p>Baseline :</p> <ul style="list-style-type: none"> ◆ weak capacity among farmers and farm managers ◆ Provincial seed inspection centres not adequately equipped. Seed and field standards set for seed certification to be established <p>Indicators: Availability of know-how and skills among farmers and farm managers for managing good seed programme</p> <p>Targets:</p> <ul style="list-style-type: none"> ◆ Strengthened seed processing and quality inspection among farmers by project end 	<p>Year 1, Year 2</p> <p>Implemented training plan and study tours and/or local training for seed production and seed cleaning technicians and seed certification technicians at farm level;</p> <p>4.2 completed seed production and testing manuals</p> <p>4.3 Model facilities for seed storage, production, drying, cleaning, and testing established.</p> <p>Year 2</p> <ul style="list-style-type: none"> o Implemented training plan and study tours for seed 	<p>4.1 Identify substantive training needs and possible host institutes (including cooperation with SDC on their existing testing facilities)</p> <p>4.2 Finalize training plan and develop TORs for study tours and/or local training, including agreement on tour participants</p> <p>4.3 Implement training plan and study tours and/or local training</p> <p>4.4 Finalize equipment procurement list for establishment of seed facilities including seed testing facilities</p> <p>4.5 Carry out procurement and installation of equipment</p> <p>4.6 Develop training</p>	<p>UNDP, FAO, MoA</p>	<ul style="list-style-type: none"> ◆ 2 training workshops on vegetable seed production (using handouts prepared in advance): USD 3 392 <p>- Equipment</p> <ul style="list-style-type: none"> ◆ FAO project equipment-Seed cleaning: USD 153 920 ◆ FAO Project Equipment-Seed Testing: USD 133 960 <p>- Contracts</p> <ul style="list-style-type: none"> ◆ FAO Contractual Services - Construction: USD 537 000 <p>- Training(International)</p> <ul style="list-style-type: none"> ◆ Training-installation of seed cleaning equipment: USD 21 000 ◆ Study tour on seed certification and seed quality control system: USD 28 000 <p>- Local Training</p> <ul style="list-style-type: none"> ◆ 4 training workshops on field inspection and seed testing of cereals, vegetables and other crops: USD 6 776
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<ul style="list-style-type: none"> ◆ Provision of farm machinery and seed cleaning, testing and storage equipment. Training for seed testing will be organized at Central Seed inspection centre established by the SDC. <p>Related CP Outcome: Increased access of people to diversified range of food, including cereals, vegetables, fruit, potatoes, meat, fish and dairy products, as well as increased incentives for farmers in increasing agriculture diversification and productivity</p>	<p>at cooperative farm level</p> <ul style="list-style-type: none"> o Completed seed production and testing manuals 	<p>manuals on seed production and testing and translate into Korean</p> <p>4.7 Training of technical staff on use of equipment including seed certification staff</p>	<p>- Project Management</p> <ul style="list-style-type: none"> ◆ FAO Technical Backstopping: USD 35 600 ◆ Backstopping Missions: USD 12 200
<p>Output 4: Farmer's awareness raised in using quality seeds, certified seed of improved varieties; and exposure to regional experience in seed production systems for rice and vegetables, with emphasis on China as a model</p> <p>Baseline : low awareness levels of the criticality of high quality seeds and good varieties to increase productivity</p> <p>Indicators: upgraded skills of researchers, professionals and technicians engaged in planning of seed production, maintenance of varieties, seed multiplication and seed conditioning..</p> <p>Targets: Skills of relevant farm managers and professionals upgraded by project end;</p>	<p>Year 2, Farmers field demonstrations held (10 locations)</p> <p>Year 3</p> <ul style="list-style-type: none"> o Farmers study tour to China completed o Evaluation and feedback on farmers awareness and impact of field days collected, and a follow up demonstration programme 	<p>6.1 Develop field demonstration plan and brief and train partners in provinces on field days</p> <p>6.2 Develop literature and awareness material for field days (in Korean)</p> <p>6.3 Arrange seed, fertilizers and other material and equipment needed for demonstrations</p> <p>6.4 Carry out field demonstrations</p> <p>6.5 Secure feedback from farmers and evaluate data</p>	<p>- Training(In-country)</p> <ul style="list-style-type: none"> ◆ 3 Training workshops to strengthen counterpart capacity to implement selected project components: USD 462 ◆ 10 Farmer's field demonstration days: USD 7 360 <p>- Training (International)</p> <ul style="list-style-type: none"> ◆ Farmers' study tour: USD 30 000

<p>Related CP Outcome: Increased access of people to diversified range of food, including cereals, vegetables, fruit, potatoes, meat, fish and dairy products, as well as increased incentives for farmers in increasing agriculture diversification and productivity</p>	<p>organised with agricultural extension agencies</p>	<p>6.6 Organize continuation of field demonstrations through national extension agencies 6.7 Identify substantive training needs and possible host institutions for study tours in China 6.8 Develop TORs for study tours, including agreement on tour participants 6.9 Implement study tours</p>	
<p>Project implementation arrangements</p>			<p>- Personnel (International)</p> <ul style="list-style-type: none"> ◆ Chief Technical Advisor: USD 354 600 ◆ UNDP Procurement Officer: USD 54 400 ◆ UNDP UNV IT Specialist: USD 24 000 <p>- Personnel (National)</p> <ul style="list-style-type: none"> ◆ National Consultant: USD 14 400 ◆ National M & E Officer: USD 3 200 ◆ Project Driver: USD 7 200 ◆ UNDP National Admin Assistant: USD 3 200 <p>- Travel</p>

<ul style="list-style-type: none"> ◆ International Travel: USD 22 500 ◆ In-country Travel: USD 17 000 - Equipment <ul style="list-style-type: none"> ◆ UNDP Training equipment: USD 1 500 ◆ FAO Training equipment: USD 6 120 5.9 FAO Project equipment(minibus): USD 18 000 - Project Management <ul style="list-style-type: none"> 5.9 Project support cost(PROJECT BOARD, equipment 7%, others 10%): USD \$157,214 5.10 Sundry: USD 7 000 5.11 Rental & Maintenance-Premises: USD 5 000 				
Project Total: USD 1, 822,455				

IV. 2011 Annual Work Plan

EXPECTED OUTPUTS And baseline, indicators including annual targets	PLANNED ACTIVITIES List activity results and associated actions	TIME FRAME				RESPONSIBLE PARTY	PLANNED BUDGET *		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description Amount (USD)	
Output 1: Seed policy and seed ordinance issues addressed and capacity enhanced in planning, implementation and monitoring seed programmes Baseline: out dated policy and ordinance Indicator: existence of reformed policy and ordinance Target: reformed policy by project end	2. Adoption of new seed ordinances, laws and policies, Awareness building for MoA Seed Department professionals implemented 2.1 Review of current seed legislation and policies. 2.2 Seminar for MoA professionals and Coop Managers		x			FAO	75700-Workshop-seed seminar	1 032	
				x					
	2.3 Agreement on seed development priorities and plans for DPRK				x				
Output2: Appropriate technology	<input checked="" type="checkbox"/> Introduction of modern seed technological knowledge, use of this knowledge and practices in DPRK seed development								

	4.8 Training of technical staff on use of equipment.			X	FAO	UNDP	75700-Workshops on field inspection and seed testing of cereals, vegetables and other crops	2 000
<p>Output 4: Farmer's awareness raised in using quality seeds, certified seed of improved varieties;</p> <p>Baseline: low level of awareness</p> <p>Indicator: existence of farmers and farm managers with high level awareness on links between quality seeds and varieties and productivity</p> <p>Target: high level of awareness built by project end</p>	5. Farmers field demonstrations carried out, Farmers study tour to China completed, Evaluation and feedback on farmers awareness and impact of field days collected and a follow-p demonstration programme organised with agricultural extension agencies							
	5.1 Develop field demonstration and train partners in provinces on field days			X				
	5.2 Develop literature and awareness material for field days (in Korean)			X				
	5.3 Arrange seed, fertilisers and other material and equipment needed for demonstrations			X				
	5.4 Carry out field demonstration			X	FAO	UNDP	75700- Trainings- farmer's field days	2,000
	5.5 Secure feedback from farmers and evaluate data			X				
	5.6 Organize continuations of field demonstrations through national extension agencies			X				
	5.7 Identify substantive training needs and possible host institutions for study tours in China			X				

5.8 Develop TORs for study tours including agreements on participants	5.12 Implement study tours	Project Management	X				X	FAO	UNDP	75700- Farmers study tour to china	30,000	
							FAO	UNDP	71200 Chief Technical Advisor	236,400		
							UNDP	UNDP	71500 UNV IT specialist	24,000		
							UNDP	UNDP	71300 UNDP Admin Assistant	3,200		
							FAO	UNDP	71300 National Consultant	9,600		
							FAO	UNDP	71300 National M&E officer	3,200		
							FAO	UNDP	61200 Project Driver	7,200		
							FAO	UNDP	71600-Travel-international	7 500		
							UNDP/FAO	UNDP	71600-Travel-local	5 500		
							UNDP	UNDP	71200-UNDP International Procurement officer	54 400		
						X	UNDP	UNDP	72200-Equipment -office and training	1 500		
							FAO	UNDP	72200-Equipment -office and training	6 120		
							FAO	UNDP	72200-Equipment -minibus	18 000		
						X	FAO	UNDP	73100-Rental	2 000		
						X						
						X						
						X						
			X									
			X									
				FAO	UNDP	74500-Sundry	2 500					

UNDP/DPRK Project Document "Improved Seed Production for Sustainable Agriculture"

												71600-FAO missions	Backstopping	15 000
												75100-FAO Cost (equipment 7%, other budget 10%)	Project Support	125 558
												72100-FAO Technical	Backstopping	5 000
Project Total														
													1 467 230	

V. Management Arrangements

Execution Arrangements

The project will be executed by FAO. Project implementation will be undertaken in accordance with Agency Execution guidelines. It is, however, expected that the UNDP Resident Representative and the National Project Director (NPD) will endeavour to gradually transfer responsibility and accountability to the Government upon completion of the project. The Government will ensure unhindered access to project sites and timely issuance of entry visa to persons visiting under the project.

A Project Board (PB) with representation from the Government of the Democratic People's Republic of Korea, the UNDP, and the various national stakeholders, will be responsible for overseeing and advising on the execution of the project and will be chaired by UNDP/the Democratic People's Republic of Korea. In line with corporate policy, the PSC will transition into (or its functions taken over by an Project Board during the CPD period (see below for CPD and Project Board)

As Executing Agency, FAO has the overall responsibility for project implementation. It will execute the project in close co-operation with UNDP, MOA and PAU of the Government of the Democratic People's Republic of Korea and will be responsible for ensuring prompt delivery of all services.

The project implementation will also be coordinated with the DPRK Government through the National Coordinating Committee (NCC), which will provide guidance on policy matters, strategic priorities of the Government and appropriate supporting measures.

The project CTA will be responsible for day-to-day project management, timely field implementation of project outputs and activities, coordination of Individual consultants and their specific assigned tasks, under the overall guidance of FAO and Resident Representative of UNDP or his/her designate.

Procurement

For the implementation of procurement aspect of the project and bearing in mind the special regime under which the UNDP country office has to operate vis-à-vis assets acquisition and maintenance the following shall apply:

The executing agency (FAO) is expected to follow its own rules and regulations for its procurement activities under this project and shall ensure that procurement risks are mitigated.

In particular, the executing agency shall pay special attention to the following specific requirements for export licensing.

The executing agency should ensure that its contractors must comply with all laws, ordinances, rules and regulations bearing upon the performance of its obligations under the terms of its contract and must obtain at its own expense any necessary export licenses for the machinery, equipment and supplies procured by the agency and machinery, equipment, and supplies used for civil works under the project.

The executing agency should provide the selected contractors with all necessary information in order for the contractors to make export license application in a timely manner.

The executing agency should obtain from the contractors all licensing conditions attached the item and strictly follow the licensing conditions.

The executing agency should maintain the list of procured items and their location.

The executing agency should advise UNDP any changes to the procurement plan in a timely manner.

Government's Obligations

The Government of *the Democratic People's Republic of Korea* shall ensure the smooth implementation of the project, allowing unhindered access to project sites and timely issuance of visas for persons visiting under the project.

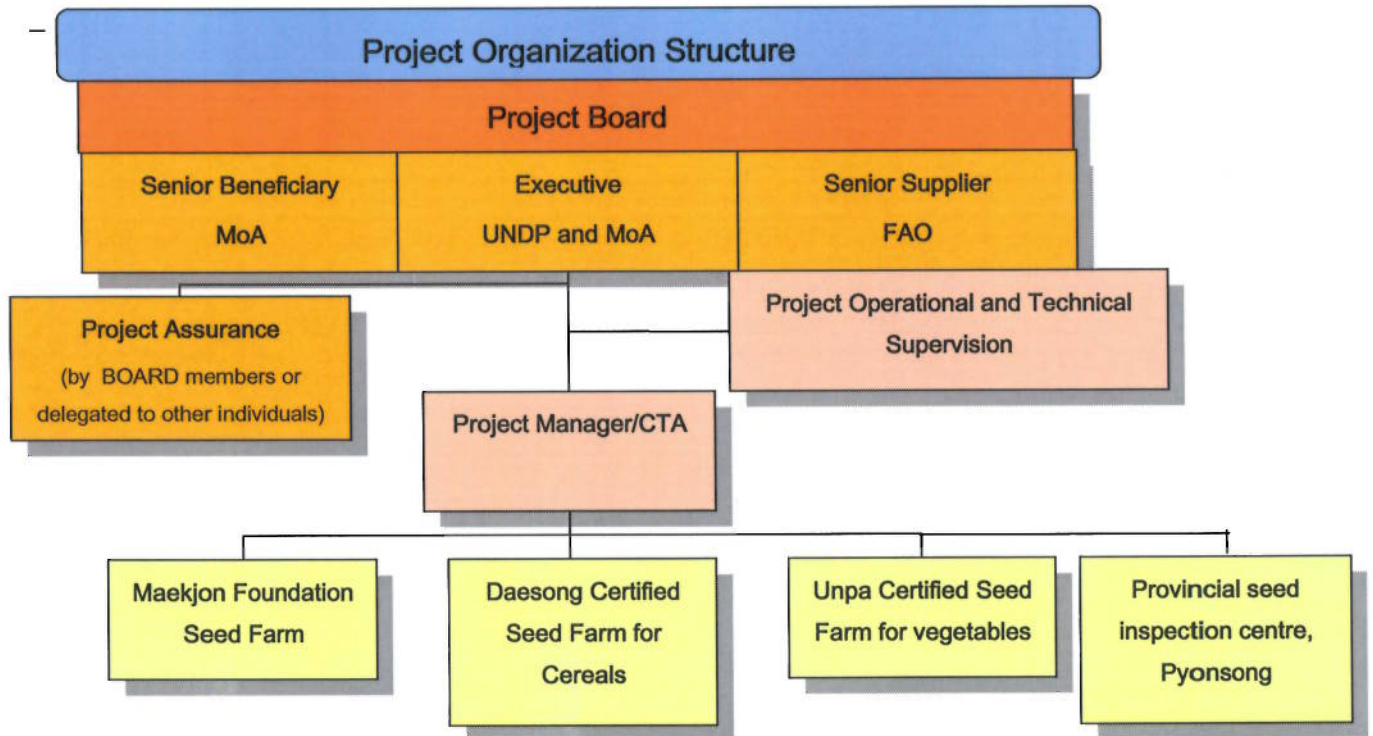
There will be an NPD who will work in close collaboration with CTA for overall implementation of the project. He/she will assist CTA in arranging Project Board meeting, reviewing seed policy, preparing training module, identifying institution for foreign training, finalized nomination of trainees, preparation of detail specification of equipments and any other activities required for successful implementation of the project

The Programme will be executed in close coordination with relevant government partners, who will provide the technical and operational support to the Programme, and liaise with the authorities and stakeholders in the target provincial seed inspection center and the three seed farms under the project.

The representatives of the above national stakeholders, together with the Project personnel consisting of the Chief Technical Adviser, the National Project Director will comprise the Project Board .

- 6 An effective seed multiplication system in DPRK is a component of the drive to improve security and rural livelihood. Food security and rural livelihoods are therefore both a programme and an outcome of the UNDP Country Programme Document (CPD). In line with corporate policy and practice, Project Boards will be established for each programme cum outcome of the CPD. During CPD implementation, the Project Board for food security will take over the functions of the PSC. The Committee or Board (whichever is in operation) will consist of the NCC, UNDP, MOA, FAO, NPD and other key stakeholders. It shall be co-chaired by UNDP and NCC. The CTA shall serve as Secretary to both PSC and Project Board.

The following diagram shows the above implementation and reporting arrangements.



VI. Monitoring Framework and Evaluation

The following Monitoring and Evaluation activities are an integral part of the broader programme monitoring and evaluation arrangements established by UNDP that include provisions stipulated in Executive Board Decision 2009/1, which states that "UNDP will have unhindered access to project sites, as necessary for the implementation, monitoring and oversight of its programmes. UNDP will verify delivery of all equipment to project sites and will ensure that international personnel conduct an annual physical verification of project equipment against inventories".

M&E Activities	Frequency /Timing	Aspects to be Monitored & Evaluated/ Description	In-charge of Activity	Approval
Detailed Quarterly Work plan	Beginning of every Quarter	Quarterly Work plan produced with detailed activities, schedule, milestones, deliverables, manpower inputs for the next quarter	CTA	Project Board
Annual Work plan and budget	Beginning of each year	AWP produced with detailed activities, budget, milestones, deliverables, manpower inputs for the next year	CTA, NPD	Project Board
Quarterly Progress Report	Quarterly	Quarterly report produced detailing quarterly accomplishments, lessons learned/problems faced during the execution of the activities, remedial action taken and planned activities for the next quarter. <i>As per the ICF location, utilization of select physical and other resources will be verified on a quarterly basis through specially designed M&E tools.</i> ¹⁰	CTA, NPD SPA	Project Board
Activate and Regularly Update of Activity, Issue and Risk Logs in Atlas	At opening of project in ATLAS	ATLAS M&E logs activated to Update Output progress, activity performance (quality log) risks and issues in ATLAS.	CTA, PSU, SPA	SPA, SM, IP
Annual Progress	Annual (at end of	Annual progress report produced for annual accomplishments; expenses	CTA, NPD, IP	Project Board, UNDP

¹⁰ M&E template/guidelines developed and be agreed upon with Project Manager

M&E Activities	Frequency /Timing	Aspects to be Monitored & Evaluated/ Description	In-charge of Activity	Approval
Report	Year)	for the year completed; update of Project work plan; lessons learned, recommendations and suggestions for re-orientation of activities (if necessary). The APR will also be used to verify the appropriate use of physical assets and their contribution towards outputs		
Mid-Term evaluation (if necessary)	Once at midterm	MTR (if applicable) conducted and a report produced that reviews strategy and accomplishments; Expenses for the period completed; update of Project work plan; lessons learned, recommendations and suggestions for re-orientation of activities (if necessary). MTR will also report on progress towards outputs and the use and location of assets	SPA	Project Board
Mission reports	After each mission	Mission reports produced on relevant aspects of the mission (according to defined template). These missions could include Senior Programme Advisor and other CO staff for verification of use of physical and other resources	Individual experts	CTA, Project Board
Other reports and deliverables	After each TA or subcontract	Reports and deliverables produced vis-à-vis the TOR of the TA. These reports will also include reports on field visits by programme staff. The reporting will be in such format as to comply with CO ICF reporting obligations	Individual experts	CTA, PROJECT BOARD
Progress Steering Committee or Project Board meetings	Every Three months or as determined by body.	Report and/or minutes of Project Board/Project Board produced on project progress towards outputs; existing and/or emerging issues and risks; approve work plans and reports; provide policy guidance on implementation; budget and analysis of expenditure;	CTA; SPA	PROJECT BOARD, UNDP
Financial recording & reporting	Throughout the Project; continuous	Regular financial reports produced on monitoring and control of project expenditures; financial management & reporting; Project resource data	CTA;SPA	UNDP

M&E Activities	Frequency /Timing	Aspects to be Monitored & Evaluated/ Description	In-charge of Activity	Approval
		tracking inputted in and regularly accessed from, the Atlas system		
Terminal Report	End of Project	Terminal report produced on project accomplishments especially as regards output achievement; Project expenses and financial report; Records and evidences of all outputs; verification of the existence/location of physical assets and their utilization; Lessons learned and recommendations for future actions	SPA	PROJECT BOARD, UNDP
Project Evaluation	End of Project	Project evaluation report produced on accomplishments vis-à-vis targets set out in the project document and identification of areas of comparative advantage for follow-up	SPA	PROJECT BOARD

Quality Management for Project Activity Results

OUTPUT 1: Seed policy and seed ordinance issues addressed and capacity enhanced of professionals engaged in planning of coordinated seed programme, its implementation and monitoring	
Activity Result (Atlas Activity ID)	Framework setup Start date: February 2011 End date: June 2011
Purpose	To set up modified seed regulatory framework
Description	Adoption of new seed ordinances, laws and policies, awareness building for MoA Seed personnel implemented.
Quality Criteria	Quality Method
Modified seed policy and regulations are in place, capacity of the professionals engaged in planning and coordination enhanced	Assessment by PROJECT BOARD 3 rd Project Board meeting Date of Assessment
OUTPUT 2: Modern Technology in seed production, Processing, Quality control is introduced.	
Activity Result (Atlas Activity ID)	Technical Knowledge Start date: February 2011 End date: January 2014
Purpose	To introduce modern seed technology for improved efficiency
Description	Introduced modern Seed Technological Knowledge, Use of knowledge and practice in DPRK seed development
Quality Criteria	Quality Method
The input of international resource persons are	Submitted report verified by Project Board and accepted Date of Assessment At the end of each programme

completed and visit of in-country team to foreign countries completed		
OUTPUT 3: Enhanced capacity of professionals and technicians engaged in seed conditioning through hands-on use of model seed cleaning equipment and through their participation in training and study tours		
Activity Result (Atlas Activity ID)	Capacity building of farmers and cooperative Professionals	Start date: March 2011 End date: December 2013
Purpose	To enhance capability of farmers, cooperative managers and professionals on seed multiplication, processing, seed certification (field inspection and seed testing)	
Description	Implemented training plan and study tours for seed production and seed cleaning technicians and professionals, completed seed production and testing manuals, model facilities for seed storage, production, drying, cleaning, and testing established	
Quality Criteria	Quality Method	Date of Assessment
Completed report on training, recruitment list finalised and manuals prepared	Reports and manuals verified by Project Board	At the end of each activity and Project Board meeting
OUTPUT 4: Farmer's awareness raised in using quality seeds, certified seed of improved varieties; and exposure to regional experience in seed production systems for rice and vegetables, with emphasis on China as a model		
Activity Result (Atlas Activity ID)	<i>Short title to be used for Atlas Activity ID</i>	
Purpose	Built awareness on the strong links between good quality seed and increased agricultural productivity among farmers and cooperative managers	
Description	Develop field demonstration plan and brief and train partners in provinces on field days, develop literature and awareness material for field days (in Korean), arrange seed, fertilizers and other material and equipment needed for demonstrations, carry out field demonstrations, visit of farmers to China	
Quality Criteria	Quality Method	Date of Assessment
Field demonstration arranged,	Report on field demonstration, copy of the awareness material land field	In all the Project Board meetings (3 rd on wards)

awareness material prepared and in place, visit to China completed	visit by the farmers verified in Project Board meeting	
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VII. Legal Context

This project document shall be the instrument referred to as such in Article 1 of the SBAA between the Government of the Democratic People's Republic of Korea and UNDP, signed on 8 November 1979.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999).

The project shall be executed in line with the rules and regulations of UNDP.

VIII. ANNEXES

Annex 1 Risk Analysis

No	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response	Owner	Submitted, updated by
1	Non-availability of suitable and good foundations seeds	July 2010	Operational	P=1, I=4	NPD, UNDP and MoA will take care to select appropriate varieties	CTA, NPD	UNDP
2	Labor market yet to conform to international standards	July 2010	operational	Narrow HR market could affect quality of project support; P= 1 I= slow project implementation	NCC, TWG and UNDP working with national government to ensure facilitation;	UNDP, NCC	UNDP
3	Approvals for M&E visits and access to project sites	July 2010	Operational	P 1. Unhindered and unfettered access to project sites at short notice is needed. Approval process may delay restrict this.	CO, UNDP maintaining close contact and work relations	UNDP, NCC	UNDP
4	Translation requirement of forms, reports, questionnaire etc	January 2010	Managerial	P2: translation requirements in terms of time and material input could delay progress of implementation	Proactiveness on part of EA and PM and NPD	FAO/NPD	UNDP
5.	Support and collaboration from government and seed farms and provincial seed laboratory	July 2010	operational	Facilitation is required from national and county governments for making available data required; slow project implementation (P=1, I=4)	NCC, Project Board and UNDP working with government to ensure facilitation;	UNDP,, NCC, CTA	UNDP
6	Extreme weather affecting implementation and M&E	July 2010	Environmental	Harsh weather could affect implementation and M&E activities (P=3, I=3)	Proper planning and execution to the extent practical and feasible	CTA, UNDP, NCC	N/A

Annex 2 Terms of Reference of Project Personnel and Backstopping Officer

Post Title: Chief Technical Advisor¹¹ Seed Technology and Post Harvest Management

Duty station: Pyongyang, DPR Korea

Duration of assignment: Three years (18 months each for seed project and post harvest loss project)

Responsibilities of CTA:

Under the overall operational and technical supervision of FAO and the guidance of Senior Programme Advisor/Head of Programmes UNDP and in close collaboration with the National Project Director and the Project Managers in the respective institutions, the CTA will supervise the overall implementation of the project. He/she will:

- Be responsible for the day to management of the project, drawing up and implementing the activities of the project for the achievement of the project outputs;
- Prepare work plan and lead their implementation with project team;
- Monitor the progress of the project through, amongst other, undertaking field trips and report accordingly;
- Work closely with NPD in the convening of Project Board meetings and prepare reports of all such meetings;
- Meet all project reporting guidelines.

Specific ToRs for Seed Project:

- Review related seed policy issues concerning seed ordinance, seed rules and seed policy. If necessary advise MOA to amend these instruments for better implementation of seed activities.
- Prepare in country training modules in association with National Project Director (NPD) and the concerned project managers.
- Provide technical support to the project as and when necessary
- In collaboration with NPD, Identify institutions and countries for study tours and assist NPD to submit nominations for suitable candidates.
- Develop detailed specifications for equipment to be procured by the project and assist FAO to arrange its timely procurement and use.
- Advice on installation of equipment, finalize location, advice on maintenance and use and arrange for the Government inputs in coordination with NPD.
- By establishing linkage with concerned institutions arrange for fielding of international consultants as per provision in the project.
- Assist in preparation of training manuals on seed related subjects.
- Additional responsibility is to manage the project-“Improved Seed Production for Sustainable Agriculture” according to its ToRs.

¹¹The CTA will manage both projects “Improved Seed Production for Sustainable Agriculture” and “Reduction of Post harvest Loss for Food Security” The two projects will finance the CTA for 18 work months each.

Qualifications:

The post requires high level of professional knowledge and capacity to technically support the project activity in close cooperation with national counterpart staff.

The following qualifications are required.

Post graduate level degree in agriculture with minimum 10 years experience in operating of seed development and post-harvest handling programmes, preferably in countries of Asia Pacific region. Having knowledge on post-harvest physiology will be desirable.

Terms of reference of FAO Technical Backstopping Mission (Senior Plant Production Officer)

1st Year

1st Mission (15 days)

- ◆ identify and select the international consultants;
- ◆ assist in arranging inception workshop;
- ◆ assist in developing project work plan and year wise budget breakdown;
- ◆ review the CVs on national consultants;
- ◆ review the specifications for the equipment and supplies for the project;
- ◆ coordinate the inputs from the CTA and other international and national consultants;
- ◆ provide technical support for the implementation of the project;
- ◆ assist in preparing annual progress report .

2nd Year

2nd Mission (10 days)

- ◆ assist the NPD to revise the project detailed work plan as and when necessary;
- ◆ provide technical support for the implementation of the project;
- ◆ review the specifications for the equipment and supplies for the project;
- ◆ advise on general organization of the training programme, including training needs assessment, the topics for the training courses and trainee selection;
- ◆ assist in arranging the international study tours;
- ◆ supervise the preparation of all project technical reports and field documents;
- ◆ ensure all technical manuals and extension materials have been translated into Korean.

3rd Year

3rd Mission (10 days)

- ◆ assist with evaluating project achievements;
- ◆ draft the terminal statement of the project;
- ◆ assist in arranging wrap-up of workshop.

IX. Appendices

Appendix 1

Training Plan and Costs*

Activity	No. of training	Total Participants	Resource Persons' Service Allowance	Participants' Per diem	Room Rental	Stationery	Snacks	Cost in USD
Training In-country - By international consultants								
Seed seminar: Seed Programme development, seed legislation, seed policy issues and planning of seed production. For technicians and extension of staff of Seed Department of MOA, Project Managers from institutions participating in project, selected managers of seed farms, in charge of Central Seed Inspection Centre and selected managers of Provincial Crop Inspection Centers. 15 participants for 3 days .Resource person- CTA and National Consultant - interpreter	1	15	108	585	195	36	108	1 032
Training workshop on maintenance breeding and breeder seed production for professionals from the 3 seed farms and provincial seed inspection centre. Participants trained for 2/3 days. Resource persons, international consultants and national consultants- interpreter	1	15	108	585	195	36	180	1 104
Training workshop on cereal seed multiplication. Train participants from the 3 farms and provincial seed inspection centre under the project for 5 days. Resource persons - international consultants and national consultants- interpreter	1	15	180	975	325	36	180	1 696
Training workshop on vegetable seed multiplication from the 3 farms and provincial seed inspection centre. Participants 10 for 5 days. Resource persons - international consultants and national consultants- interpreter	1	13	180	650	325	26	130	1 311
Training workshop on seed quality control (field inspection and seed testing) Participants 15 for 5 days. Participants from the 3 farms and provincial seed inspection centre under the project. Resource persons, international consultants and national consultants- interpreter	1	15	108	585	195	36	180	1 104

Training Workshop to strengthen counterpart capacity to implement selected project components	3	15	108	221	65	34	34	462
Sub Total	8	120	792	3 601	1 300	204	812	6 709
Two training workshops on maintenance breeding and breeders seed production of cereals and vegetable seeds using handouts prepared in advance in consultation with CTA and NPD. Two training of 5 days duration with 15 participants from seed farms and provincial seed inspection center in each training. Resource persons – seed personnel and cooperative farm technicians returned from study tour.	2	30	360	1 950	650	72	360	3 392
Two training workshops on cereals seed production (foundation and certified seed) using handouts prepared in advance in consultation with CTA and NPD. Two training of 5 days duration with 15 participants from seed farms and provincial seed inspection center in each training. Resource persons – seed personnel and cooperative farm technicians returned from study tour.	2	30	180	1 950	650	72	360	3 212
Two training workshop on vegetable seed production including hybrid seed production of vegetables using handouts prepared in advance in consultation with CTA and NPD. Two training of 5 days duration with 15 participants from seed farms and provincial seed inspection center in each training. Resource persons – seed personnel and cooperative farm technicians returned from study tour.	2	30	360	1 950	650	72	360	3 392
Four training workshops on field inspection and seed testing of cereals, vegetables and others crops in collaboration with central seed inspection center using handouts prepared in advance in consultation with CTA and NPD. Four training of 5 days duration with 15 participants from seed farms and provincial seed inspection center in each training. Resource persons – seed personnel and cooperative farm technicians, professionals returned from study tour.	4	60	720	3 900	1300	136	720	6 776
Farmer's field days will be organized on farmers' field demonstrations to be supported by project with one selected variety each from rice, maize, wheat, vegetable and soybean to be planted on 0.25 ha demonstration plot of cooperative farms at 10 locations. It is expected 50 farmers will participate in each field day.	10	500	360	5 000		1 000	1000	7 360
Sub Total	20	650	1 980	14 750	3 250	1 352	2 800	24 132
Overseas study Tours (Mostly in countries of South Asia and Asia Pacific Region)								

Study tour to Asia-Pacific region (China, Thailand, India) for viewing seed management system and collecting information on modern seed technology. 8 participants will undertake this tour. Asia Pacific Seed Association, Bangkok or National Seed Corporation, India may help.	1	8						56 000
Study tour to acquaint with the multi crop seed programme planning, seed production techniques for breeder, foundation and certified seed including post harvest handling of seed. For 7 seed production technicians from cooperative and extension staff of seed farms For 3 weeks each.	1	7						49 000
Study tour to learn techniques of seed certification and seed quality control system including field inspection procedures, seed testing techniques including seed health testing. For 4 staff of Central and provincial Seed Inspection Centers for 3 weeks	1	4						28 000
Training in installation of seed cleaning equipment, its maintenance and operation followed by visit to seed cleaning centers to acquaint with seed processing operation. For 3 seed Processing technicians from Seed farms where seed cleaning equipment procured by the project will be installed. Duration 3 weeks (Location seed cleaning equipment supplier to the project.)	1	3						21 000
Farmers study tour of People's Republic of China to learn crop and seed growing techniques specially hybrid rice, maize and vegetables. For 10 women and men farmers from cooperative farms producing seed and crops. Duration 2weeks.	1	10						30 000
Sub Total	5	32						184 000
Total	31	802						214 841

* The rates follow HACT agreed and applied by EXCOM agencies. The rates are; 1 300 Korean Won (equivalent to around USD 13 at current UN rate) per participant per day in Pyongyang and Provincial capitals and 963 Korean Won (equivalent to around USD 10) in counties and elsewhere. Meeting room charges in Pyongyang and Provincial capitals is around USD 65 per day and there is no room charge in counties and elsewhere. Stationeries cost 180 Korean Won (around USD 2) per participant, while snacks cost the same per day. Resource person's per diem is 1 670 Korean Won or USDF 18.

Appendix -2 Equipment List and Specifications

The procurement of the following list of equipment will be subject to a joint FAO- UNDP assessment described under Part V - Management Arrangements.

No.	Item	Specifications	Procuring Agency	Unit	Cost (USD)
Office Equipment					
1	Desktop Computer	Dell, Core Duo, 3 GHz/320GB	FAO	1	800
2	Printer	Laser Jet HP 1220	FAO	1	400
Training Equipment					
3	Laptop Computer	Dell, Core Duo, 2.5 GHz	UNDP	1	1,500
4	Screen with projector		FAO	1	800
5	Digital cam coder	6M Pixel with 2 memory cards	FAO	1	1,500
6	Generator -portable 3KVA	Honda-portable 3KV	FAO	1	1,420
7	Photocopier for printing training hand outs	Honda-Heavy duty	FAO	1	1,200
Seed Threshing & Cleaning Equipment					
8	Thresher	Vogal type cylinder30 cm and drum50cm.9HP engine or elect, motor	FAO	3	4,260
9	Corn Sheller	0.5 Capacity /hr,3HP motor with aspirator	FAO	3	4,260
10	Wet seed extractor	For fruit vegetables 0.5T capacity/hr	FAO	3	4,260
11	Seed cleaner	2 MT/hr Air screen cleaner	FAO	3	63,900
12	Bag closers	Portable Fishbin type	FAO	3	2,560
Field Equipment					
13	Knap sac sprayers	10 liter capacity	FAO	9	2,080
14	Tractor 75HP with Plough & Cultivator and trailer	Chinese make 75 HP	FAO FAO	3	72,600
Laboratory equipment					
15	4 sets of laboratory equipment: one for Provincial seed inspection centre and three for three seed farms	Set (comprising germinator with light, blower, divider, top loading balance three digit, universal moisture meter, portable moisture meter, stand with lens, set of hand screens, refrigerator, petri-dishes, trier and seed divider)	FAO	4	34,080

Seed Storage equipment					
16	Dehumidifier	Unidyn or Bry air cfm to be specified depending on insulation for 20 ton capacity stores-one at foundation seed farm	FAO	1	28,400
17	Industrial Air conditioner	5T capacity to cool up to 10 degree C for above locations.	FAO	2	7,200
18	Platform weighing scales	To weigh up to 100 kg. Avery or equal	FAO	3	1,280
19	Fumigation covers	To fumigate up to 5 T seed lots	FAO	9	1,000
20	Pallets (local make)	Made from well seasoned wood planks-local procurement	FAO	100	14,200
21	Some small equipment Local fabrication	Drum seed treater, simple seed cleaner,thresher,corn Sheller-Local fabrication	FAO	100	30,000
22	Plastic Drum for storing breeder seed	50 Litre	FAO	100	2,800
Transport					
26	Mini bus for training		FAO	1	18,000
27	Truck		FAO	1	15,000
Total					313,500

Appendix 3 Terms of Reference of Project Board

Overall responsibilities¹²: The Project Board is the group responsible for making by consensus management decisions for a project when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance to standards¹³ that shall ensure best value to money, fairness, integrity transparency and effective international competition. In case a consensus cannot be reached, final decision shall rest with the UNDP Programme Manager. Project reviews by this group are made at designated decision points during the running of a project, or as necessary when raised by the Project Manager. This group is consulted by the Project Manager for decisions when PM tolerances (normally in terms of time and budget) have been exceeded.

Based on the approved annual work plan (AWP), the Project Board may review and approve project quarterly plans when required and authorizes any major deviation from these agreed quarterly plans. It is the authority that signs off the completion of each quarterly plan as well as authorizes the start of the next quarterly plan. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems between the project and external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities.

Composition and organization: This group contains three roles, including:

- 1) An Executive: individual representing the project ownership to chair the group.
- 2) Senior Supplier: individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project. The Senior Supplier's primary function within the Board is to provide guidance regarding the technical and operational feasibility of the project.
- 3) Senior Beneficiary: individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries.
- 4) Project Assurance: this role supports the Project Board executive by carrying out objective and independent project oversight and monitoring functions. Project Manager and Project Assurance are distinct functions not be held out by same individual.
- 5) Project Operational and Technical Supervision: this involves project administrative, management and technical supervision to Project Manager as required by needs of individual project or Project Manager

Potential members of the Project Board are reviewed and recommended for approval during the LPAC¹⁴ meeting. For example, the Executive role can be held by a representative from the Government Cooperating Agency or UNDP, the Senior Supplier role is held by a representative of the Implementing

¹² Source: Guidelines on UNDP Implementation of UNDAF Annual Review Process

¹³ UNDP Financial Rules and Regulations: Chapter E, Regulation 16.05: a) The administration by executing entities or, under the harmonized operational modalities, implementing partners, of resources obtained from or through UNDP shall be carried out under their respective financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. b) Where the financial governance of an executing entity or, under the harmonized operational modalities, implementing partner, does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, that of UNDP shall apply.

¹⁴ Depending on its composition, the Project Board can fulfill the function of the Project Appraisal Committee (LPAC)

Partner and FAO, and the Senior Beneficiary role is held by a representative of the government or civil society. Representative of other stakeholders can be included in the Board as appropriate.

Specific responsibilities:

Defining a project

- ◆ Review and approve the Initiation Plan (if such plan was required and submitted to the LPAC).

Initiating a project

- ◆ Agree on Project Manager's responsibilities, as well as the responsibilities of the other members of the Project Management team;
- ◆ Delegate any Project Assurance function as appropriate;
- ◆ Review the Progress Report for the Initiation Stage (if an Initiation Plan was required);
- ◆ Review and appraise detailed Project Plan and AWP, including Atlas reports covering activity definition, quality criteria, issue log, updated risk log and the monitoring and communication plan.

Running a project

- ◆ Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- ◆ Address project issues as raised by the Project Manager;
- ◆ Provide guidance and agree on possible countermeasures/management actions to address specific risks;
- ◆ Agree on Project Manager's tolerances in the Annual Work Plan and quarterly plans when required;
- ◆ Conduct regular meetings to review the Project Quarterly Progress Report and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
- ◆ Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
- ◆ Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Outcome Board about the results of the review.
- ◆ Review and approve end project report, make recommendations for follow-on actions;
- ◆ Provide ad-hoc direction and advice for exception situations when project manager's tolerances are exceeded;
- ◆ Assess and decide on project changes through revisions;

Closing a project

- ◆ Assure that all Project deliverables have been produced satisfactorily;
- ◆ Review and approve the Final Project Review Report, including Lessons-learned;
- ◆ Make recommendations for follow-on actions to be submitted to the Outcome Board;
- ◆ Commission project evaluation (only when required by partnership agreement)

Notify operational completion of the project to the Outcome Board.

Appendix 4 Project Budget

Budget Line	Description	Period		Total USD
		from	to m/m	
FAO				\$1,729,355
Personnel (International)				394,200
71200	Chief Technical Advisor		18	354,600
71200	Maintenance breeding and breeder seed production		0.5	9,900
71200	Cereal seed multiplication		0.5	9,900
71200	Vegetable seed production		0.5	9,900
71200	Seed quality control		0.5	9,900
Personnel (National)				24,800
71300	National Consultant		18	14,400
71300	National M & E Officer		4	3,200
61200	Project Driver		12	7,200
Training				214,841
75700	International Training			184,000
75700	In-country Training			30,841
Equipment¹⁵				312,000
72200	Non-expendable			312,000
Contracts				537,000
72100	Subcontract for paving threshing yard ¹⁶			300,000

¹⁵ Seeds project is capital intensive (machinery and equipment component is relatively high) and hence the capital budget of the project has reached above 30 percent.

¹⁶ Plan to pave yards and install roofing at 20 threshing centres at the three project farms.

72100	Subcontract for construction of a seed storage ¹⁷				30,000
72100	Subcontract for Green House Construction ¹⁸				207,000
Travel					29,500
71600	International (Airfare+DSA)				22,500
71600	Local				7,000
General Operating Expenditure					12,000
74500	Sundry				7,000
73100	Rental & Maintenance-Premises				5,000
72100	FAO Technical Backstopping				35,600
71600	Backstopping Missions (DSA + travel)				12,200
	Total FAO (excluding support costs)				\$1,572,141
	FAO Project Support Costs				\$157,214
	Grand Total FAO				\$1,729,355
UNDP					93,100
Personnel(International)					78,400
71200	UNDP Procurement Officer			4	54,400
71200	UNDP UNV IT Specialist			4	24,000
Personnel (National)					3,200
71300	UNDP National Admin Assistant			4	3,200
Equipment					
72200	Non-expendable				1,500

17 Plan to construct a 50 Mt capacity store at a farm.

18 Plan to construct 20 green houses at the three project farms.

	Travel			10,000
71600				10,000
	Travel-Other (Monitoring & Evaluation cost)			
	Total			1,822,455

Appendix 5 Pre-Implementation Prerequisites

A major bottleneck that could impede smooth implementation of the project is the absence of adequately English-translated documents that are vital to the more informed understanding of the state of the food and agriculture situation in DPR Korea. To forestall this problem from occurring in the project, the Government should immediately take steps to effect the translation into the English language of all documents which should provide a clear description of the nature, processes applied and uses of existing agricultural information. Specifically, the documentation/English translation should focus on the following:

- a) input reporting forms;
- b) frequency of collection of information;
- c) description of the flow of data from the source agency to the Ministry of Agriculture's computer center;
- d) data processing and computer program algorithms used for data capture and report preparation; and
- e) type of reports including samples of report formats and contents.

All documentation processes should be completed and made available for use by the International Consultants prior to their arrival to the country for the first mission.