

Final Report

Mid -Term Review

“Pilot Project to Support Socio-Economic Development of Rural Areas in the DPRK” (SED)

Unryul, Unchon Counties (South Hwanghae Province),
Hoechang County (South Pyongan Province)



September, 2017

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Project:	Pilot Project to Support Socio-economic Development of Rural Areas in DPRK (SED)
Award ID:	00074805
Project ID:	00087041
Start date:	June 2013
End Date:	July 2018 ¹
Implementing Agent:	UNDP/DIM
Total Project Budget:	USD 5,240,309 ²
2017 Planned Budget:	USD 2,285,450

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Acknowledgements

The evaluator would like to express his gratitude and appreciation for the support provided both by the SED Project Team and UNDP-DPRK Country Office.

He would also like to thank all national stakeholders and beneficiaries, who allowed access to their production facilities and training centers, and agreed to provide their comments and feedback during the course of in-country mission (11 – 22 September 2017) - the information and opinions shared have been crucial to the preparation of this Mid-Term Review.

¹ A two-year extension was approved for the project (from end of July 2016 to July 2018).

² USD 912,000 was added for the two-year project extension.

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Abbreviations and Acronyms

APR	Annual progress report
AWP	Annual work plan
BRH	Bangkok Regional Hub
CBS	Central Bureau of Statistics
CCfST	County Committee for Science and Technology
CNTDA	County New Technology Dissemination Agency
CO	Country office
CPC	County Peoples' Committee
CPD	Country Programme Document
DIM	Direct implementation modality
DNF	Daily necessity factory
FAIS	UNDP agricultural projects
FPF	Food processing facility
GMP	Good Manufacturing Practice
HQ	Headquarters
INGO	International non-governmental organizations
IP	Implementing partners
KPW	National currency, the Won
LFF	Local foodstuff factory
LOA	Letter of Agreement
MDG	Millennium Development Goals
MoA	Ministry of Agriculture
MoFCGI	Ministry of Food and Consumer Goods Industry
MoM	Minutes of meeting
MT	Metric ton
MTR	Mid-term review
NCC	National Coordinating Committee
NEG	National Experts Group
NTC	National Training Coordinator
POPP	Programme and Operations Policies and Procedures (UNDP)
PMT	Project management team

RBAP	Regional Bureau for Asia and the Pacific
RCA	Root cause analysis
RMB	Raw material bases
RRF	Rapid Response Fund
Prodoc	Project document
PSC	Project Steering Committee
QOL	Quality of life
SAQM	State Administration for Quality Management
SCoST	State Commission of Science and Technology
SDG	Sustainable Development Goals
SED	Support to Socio-Economic Development of Rural Areas in DPRK
SES	Sustainable Energy Solutions
SME	Micro, small and medium enterprises
SPA	Senior Programme Advisor
SPC	State Planning Commission
SRED	Sustainable Rural Energy Development
TA	Technical assistance
ToR	Terms of reference
UNCT	UN Country Team
UNIDO	United Nations Industrial Development Organization
UNSF	United Nations Strategic Framework

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Executive Summary

The *Pilot Project to Support Socio-economic Development of Rural Areas in DPRK* (SED) was launched in June 2013 after two years of consultations, review and approval process. The project is implemented by UNDP in direct implementation modality (DIM) in cooperation with UNIDO, for specific components, through a UN Agency to UN Agency Contribution Agreement signed in November 2016.

Being designed as a development intervention, SED also had a strong humanitarian dimension the project addresses the evolving priority needs of people in DPRK through an integrated intervention aiming first of all at improving nutritional security and overall reducing poverty alleviation in rural areas of the country. In line with national development priorities and the 2017-2021 United Nations Strategic Framework (UNSF), the SED's objective is to improve the living standards of people in three pilot counties in DPRK by way of revitalizing food and daily necessity production units, expanding raw material bases, as well as strengthening local capacities needed for such development.

The SED's outcome is formulated as follows: "Increased standards of living and sustainable livelihood".

The project is implemented in partnership with local counterparts at the local/county level targeting communities (Ri) in rural/semi-rural areas of DPRK³ under overall coordination of the National Coordinating Committee (NCC) and technical guidance of line ministries.

The project outputs include:

Output 1: Employment and income generation in rural community industries improved for more productive activities, improved standards of living and livelihoods including convenience food processing by local household cooperatives in rural areas:

1.1 Production improvement of selected local food processing factories.

³ Namely Unryul, Unchon counties in South Hwanghae province, and Hoechang county in South Pyongan province.

1.2 Wild fruit and edible plant processing for nutrition improvement and food security in the mountainous areas of DPRK.

1.3 Enabling the production and processing of protein rich plants.

Output 2: Household food security improved and income generating activities enhanced for rural population:

2.1 Capacity Building of Local Raw Material Bases for Soap and Paper (Clay) Production.

2.2 Production revitalization of Daily-Necessities Factories (DNF) based on their own raw material bases.

Output 3: Rural production systems and institutions strengthened for efficient utilization of livelihood:

3.1 Capacity Building of Community Organizations for More Productive Activities and Improved Income Generation.

3.2 Support to Community Capacity for Knowledge Dissemination for Local Sustainable Production.

The experience, best practices, and lessons learned from implementation of SED could be applied later on in other rural areas of DPRK and possibly expanded to a wider range of sectors and industries to meet the local humanitarian and development needs.

The pilot project, with a budget of USD 4,328,309, was initially expected to be completed by July 2016. Slow progress was however recorded from the start, resulting from various administrative and technical difficulties encountered, which were beyond control of the UNDP PMT and CO. With approval from UNDP HQ in December 2015, the project was extended for two years till July 2018, its total budget being increased by USD 912,000 to a total of USD 5,240,309. Progress under the SED project was however further negatively affected by a series of additional challenges, ranging from general geopolitical tensions at the regional and international level, and newly introduced regimes of sanctions, to increasingly restrictive procedures for financial transactions and procurement. The cooperation between UNDP and UNIDO has also been marked with difficulties and frustrations, in view of the changing environment and inherent constraints, notably the lack of banking channels, UNDP's stringent

internal control framework, and remote management by UNIDO, UNIDO being a non-resident agency in DPRK.

Under these circumstances, as per UNDP Programme and Operations Policies and Procedures (POPP) requirements, an external mid-term review of SED was initiated by the UNDP CO with the following major purposes:

- to assess progress in the project implementation and analyse reasons for delays and deviations;
- to identify successes and failures, major bottle-necks and to formulate the lessons learned; and
- to provide recommendations to the project management on any necessary adjustments and corrections for the remaining part of implementation.

This mid-term review was launched on 11 August 11 2017 with the desk study of project documents, reports, and other information related to the implementation of activities under the project. The international consultant travelled to DPRK and from 11 to 22 September 2017 conducted in-country consultations and interviewed key SED international (UNIDO) and national stakeholders. The three target counties (Unryul, Unchon, and Hoechang) were visited for verification of results and collection of feedback and comments from the local counterparts and beneficiaries.

The key findings presented below were made on the basis of the above mentioned documentation review, consultations and interviews with stakeholders and beneficiaries, as well as observations from the various site visits.

The in-country Project Management Team (PMT) consists of professional and dedicated experts, who are well aware of the project management arrangements and specific technical details related to the project implementation.

Good working relations were established with the key stakeholders and beneficiaries both at the national and local level; except for the frustrations expressed by some of the local actors at the slow pace of implementation of some components, the implementation of SED activities are overall welcome and supported in all the three

target counties.

Despite continuing efforts of the PMT supported by the UNDP Country Office senior management to accelerate the implementation of the SED activities to realize the planned outputs and contribute to the project Outcomes, the overall progress is however still limited: vast portions of the interventions anticipated in target communities are seriously delayed, which has led to increasing disappointment among stakeholders and beneficiaries, to the point that it has become a reputational risk for UNDP DPRK.

While interventions that are under the control of the PMT and supported with needed resources are in progress or already completed, limited progress was achieved to date in the implementation of a whole range of other SED planned activities.

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The analysis suggests that the delays have been mainly related

- the requirement for vetting and clearance of items by the UN SC established Committee in New York for any international procurement;
- the closure of banking channels has led to cash conservation mode measures in most of 2016,
- Increasingly restrictive procurement policy for DPRK, which severely limits the ability of the UNDP Country Office to procure goods and services, whether international procurement or in-country procurement. Procurement policies were being revised from February to April 2017, the DPRK Country Office's delegated authority for procurement and threshold for international procurement was drastically reduced to USD 25,000 on 27 April 2017, the Country Office being also advised to undertake international procurement off-shore (e.g. from UNDP Procurement Support Office in Copenhagen, or UNDP China) as a standard practice.

It should be noted that the delivery of specific components of the SED project, notably the procurement of un-sophisticated construction materials for the rehabilitation of facilities, or the design and manufacturing of wild fruits and plants processing equipment, are best achieved through national procurement, to ensure sustainability of the investment (spare parts, maintenance, etc.)

Increased paper-work and transaction costs, and back and forth communication with the UNDP Bangkok Regional Hub (BRH) have significantly hampered progress towards expected results.

UNIDO interventions are *de facto* limited to technical assistance and advice provided by international consultants⁴.

Against this frustrating background, the establishment and operationalisation of the Model Centers for Pistia Production in Unryul and Unchon counties may be considered as a success of the SED: equipment provided by UNDP is in use and well maintained; both centers produce enough Pistia to meet their own needs and to distribute as seeds to other farms and households within and outside target counties. Relevance, effectiveness, sustainability and impact of this intervention are obvious, and this model can be recommended for further replication within and outside the target counties.

Promotion of use of wild fruits and plants in Hoenchang county may be considered as a partial success: knowledge about their nutritional value was disseminated and accepted in the target communities. Due to delays in the procurement of industrial lines for wild fruits and plants processing, local households have not had the opportunity to supply local food processing facilities (FPF) with wild fruits and herbs, therefore not benefitting from more and varied products and also from income generation, even though the gathered wild fruits and plants were used to meet household needs.

Other SED activities are in the early stages of implementation (like support to Spirulina production, upgrading and development of local FPF, capacity building of local skills

⁴ UNIDO has no opportunity to transfer money to DPRK and therefore cannot execute national procurement of goods and services (UNDP could make payments on behalf of UNIDO but the funds currently available to UNDP-DPRK are limited due to closure of money transfer channels); international procurement of goods and technology by UNIDO should be approved by the UN Sanctions Committee, what requires time exceeding the lifespan of the project; etc.

development institutions) or are not launched yet, and therefore it is too early to provide their comprehensive analysis.

Overall, SED activities have proved relevant, especially as they have been planned/modified in consultation with local stakeholders and beneficiaries, and their implementation was anticipated by local communities, which has contributed, inter alia, to the preparation of premises of factories for equipment to be supplied (both for production lines and capacity building).

Whether the activities are to be implemented by UNIDO or UNDP (depending on the component concerned), the feasibility of the planned interventions (and consequently – their sustainability) requires however additional attention taking into consideration the following key factors:

1. Scarcity of energy resources to support the planned activities; and
2. Lack of funds in the target counties to conduct construction/renovation works in line with standards of Good Manufacturing Practice (GMP), which should precede an installation of production lines.

The anticipated contribution of the activities under consideration to the improvement of nutrition of targeted population, and to employment and income generation should also be taken into account, and if possible estimated, so as to measure the success of the interventions.

An additional factor which needs to be taken in to consideration as it may impact on future decisions related to the SED project, is the uncertainty that still surrounds the future of the UNDP Country Programme: the Country Programme Document (CPD) for UNDP in DPRK expired at the end of December 2016, and its extension, or a new CPD was not approved by the Executive Board. In the absence of formal extension of the CPD, only existing projects may continue (based on the SBAA and the signed project documents), but new investments or expansion may not be considered by UNDP.

Currently, also depending on the future of the UNDP CPD and progress registered

during the upcoming months, the management of the SED project is faced with three scenarios:

1. To complete the project and related planned/approved activities within timeframe allocated by the extension document (till July 2018);
2. To seek a no-cost extension of the timeframe of the project beyond mid-2018 (taking into account that two other projects will continue)
3. If the CPD is formally extended or renewed, to consider the extension of the timeframe of the SED project together with allocation of additional budget.

Under scenario 1, the PMT should prioritize and focus on activities that have registered most progress to date (Spirulina production), while trying to accelerate the national procurement of equipment for food processing factories (in all three counties) and most feasible daily necessity factories (e.g. soap factory in Unchon), as well as equipment provision for training and skills development centers.

The revision of the project plans till July 2018 may release additional funds which could be allocated to the replication of the successful model of Pistia production in the target counties.

The completion of the majority of activities as foreseen in the Project Document does not appear feasible in the remaining months, however. Moreover, 6 to 9 months will not be sufficient for the required capacity building, further undermining sustainability and impact of the SED intervention.

Under scenario 2, whereby a no-cost extension would be sought, there would be of course more time for the implementation of planned activities but in this case the management of the SED project will be dangerously stretching an already tight budget potentially compromising the full the implementation of activities as anticipated by the target communities. To make a no-cost extension more effective and feasible, it is advisable to reassess priorities within the already planned SED activities, and to focus on those interventions with the highest relevance and impact (therefore reallocating both time and money).

Although possibly more hypothetical at this stage, the third scenario is probably the

most desirable one from the perspective of ensuring an effective contribution to the SED outcomes and ensuring lasting and sustainable impact. Such an approach to the SED finalization would allow SED to reach major goals but also provide an opportunity:

- to support replication of the most successful models within or beyond target counties,
- to introduce new products with rich nutritional values, and
- to contribute to the improvement of the access to energy sources (ideally based on the results or in cooperation with other UNDP project, which is currently under implementation in DPRK – Sustainable Energy Solutions (SES)).

In any case, regardless of decisions made by UNDP with respect to the future of the SED project beyond mid-2018, the management of the SED projects should take every measure, and seize every opportunity, and not spare any effort to accelerate the rate of delivery.

From this perspective the following steps may be recommended:

1. To re-assess a feasibility of delivery of the tasks currently allocated to UNIDO by the UNDP PMT and the additional resources (if any, both in terms of time and money) needed for this purpose, taking into account experience to date as well as recent changes in the working environment of the project
2. Based on the above assessment, to revise the current agreement with UNIDO with appropriate tasks and budget being reallocated so as to increase the responsibilities of UNDP in the implementation at county/ri level, thus also reducing transaction costs, and to restrict UNIDO's contribution to the provision of international technical expertise.
3. In the process of procuring goods, both materials and equipment, rely as much as possible on resources available and/or produced locally, which not only helps expediting delivery, but also saves transportation costs and, even more importantly, simplifies provision of after-sale maintenance and support, and therefore sustainability.
4. Under current circumstances, the UNDP Country Office, while ensuring due diligence and compliance, should continue exploiting every opportunity to simplify administrative procedures and cut corners, e.g. accelerate approvals for procurement, rely on UNDP China, and develop other effective strategies.

Other key recommendations include as follows:

1. To further discuss, through the Project Steering Committee (PSC), the possibility of obtaining support from the Government of DPRK in the replication of SED successful models within and outside target counties (currently – Pistia centers but other activities may be added to the list later on).
2. To carry out internal reviews and identify the most feasible activities with the biggest impact on nutritional status, employment and income generation, to be considered for further replication.
3. To reassess planned intervention with consideration of limited access to the energy supply (for the small-scale operations - foresee use of tools operated manually, possibility to use solar, thermal sources (especially in case of Unchon county), provision of generators for the bigger scale operation, etc. - with eventual contribution from the SES project).

1. Introduction

Under UNDP Country Programme 2011-2016⁵, the *Pilot Project to Support Socio-economic Development of Rural Areas in DPRK* (SED) was launched in June 2013, and is currently going through implementation by UNDP (in direct modality - DIM) in cooperation with UNIDO⁶.

Being a pilot project, SED has a rather complicated structure and a more “programme” based approach, and targets varied integrated activities in three geographically separated rural counties of DPRK, namely:

- Hoechang county (South Pyongan province);
- Unryul county (South Hwanghae province); and
- Unchon county (South Hwanghae province).

In line with national development priorities, UNSF, and Country Programme Document (CPD), the SED aims to improve the living standards of people in three pilot counties in DPRK and strengthen food and nutrition security of the final beneficiaries, through employment and income generation, and improvement of rural production systems and local institutions for more efficient utilisation of communities’ livelihoods and available natural resources.

From these perspectives, SED has a strong humanitarian aspect and could be considered as an intervention supporting local humanitarian needs through strengthening of local economic agents ensuring basic needs of local communities.

To meet national development goals and UNSF objectives, a special attention is paid to the gender aspects of programmatic activities: SED is expected to lessen gender imbalances, improve nutritional status for women in pregnancy, increase women’s

⁵ A one-year extension was approved for UNDP Country Programme in DPRK (end year from 2015 to 2016).

⁶ The UN Agency to UN Agency Contribution Agreement between UNDP and UNIDO was only signed in Nov. 2016 due to existing differences in Agencies policies and administrative procedures and time consuming consultations and negotiations.

employment and income generation opportunities, enhance their skills and empower them economically and socially.

The project is implemented in partnerships:

- *At the national level*, under the overall coordination of National Coordinating Committee (NCC), UNDP collaborates with the Ministry of Food and Consumer Goods Industry (MoFCGI) as the key government counterpart. Other national government organization e.g. State Commission of Science and Technology (SCoST), Ministry of Agriculture (MOA), Central Bureau of Statistics (CBS) are also among key SED national stakeholders. The engagement of central level government helps ensure the project's responsiveness to national development priority, and increase opportunities for replication of pilot initiatives and thus bigger impact on the betterment of people's lives. Quarterly PSC meetings and regular / periodical working meetings are employed for the multi-sectoral consultation, coordination, and cooperation. DPRK academic expertise also is engaged to provide technical support and contribute to knowledge dissemination whenever / wherever possible.
- *At the local level*, County People's Committees (CPC) are the major organs to coordinate the implementation in the pilot counties, whilst the targeted factories, community organizations, vocational training intuitions, etc. are the direct participants and beneficiaries of the project.

Initially, the pilot project with a budget of USD 4,328,309 was supposed to be completed by July 2016. Given slow progress resulted from various administrative and technical difficulties encountered, with approval from UNDP HQ in December 2015, the SED was extended by two years till July 2018 with its total budget increased to USD 5,240,309 (USD 912,000 incremental). However, with some old difficulties continued or re-happened, and new challenges occurred, the project progress has been further restricted after the extension.

An external mid-term review of SED was initiated by UNDP CO with **the following major purposes**:

- to support accountability of the implementation and provide information about implementation's progress and deviations from the action plans;
- to analyse SED's activities to identify successes, failures, and major bottle-necks, and to formulate the lessons learned; and
- to provide recommendations to the project management on any necessary adjustments and corrections for the remaining part of implementation.

The **main aspects** the mid-term review (according to the ToR for the assignment) is to assess are the project's:

1. *Relevance* (extent to which the objectives of UNDP intervention are consistent with local beneficiaries' requirements);
2. *Efficiency* (measurement of outputs – qualitative and quantitative – in relation to inputs);
3. *Effectiveness* (extent to which interventions attain its objectives – results achieved, progresses and impacts of the project so far).
4. *Recommend* specific measures for further improvement of project relevance, efficiency, and effectiveness and ways to overcoming the challenges in the remaining period.

The mid-term review under planning was **focused** on all the activities under SED initiative and covered the implementation period from Jun. 2013 till Sep. 2017, all geographic areas, and all types of beneficiaries targeted by the project.

The SED mid-term review was designed around evaluation criteria provided in the TOR for assignment (**see Annex 1**) and key evaluation questions (**see Annex 2**), which were supported with additional questions to clarify the results achieved by date and the project's perception by beneficiaries, counterparts and other stakeholders (with respect to SED effectiveness, relevance, efficiency, sustainability, and impact).

The methodology used for the MTR included the following major steps:

1. Information gathering/data collection;
2. Information/data analysis;

3. Development of recommendations (in consultations with the PMT).

The mix of data collection methods and analytical approaches was applied to the SED MTR to meet the requirements reflected in the TOR. The data collection was based on the following key methods:

- a. Desk review of SED-related documentation (presented in **Annex 3**);
- b. Interviews and/or group discussions with the PMT and selected stakeholders and SED counterparts at the national and local levels; interviews and group discussions with direct beneficiaries;
- c. On-site observations and visual data collection (field/project sites visits) to record accurate information on-site.

The following challenges and mitigation measures were considered to obtain reliable mid-term review's results:

- *Early stage of transition of SED from inception to scaled-up implementation* (especially with respect to Outputs 1.1; 1.2; 2.1; 2.2; 3.1) limiting number of activities and results to be reviewed: this challenge was mitigated with the detailed analysis of the implemented activities and the review of activities under implementation/activities planned for the near future.
- *Modification of the initial SED design and lasting delays with implementation of redesigned activities*: clarification of changes in SED programmatic activities and timeframe over the implementation period provided by PMT and key stakeholders were helpful for adequate evaluation of SED's relevance, effectiveness, and efficiency within the changing development context.
- *Limited access to finale individual beneficiaries for interviews and group discussions*: this constrain was partially mitigated by the way of inviting SED individual beneficiaries to join meetings with local counterparts at the community level and contribute to the site visits of production and training facilities supported by the project.

To ensure consistency and comparability of data collected in all the areas of the project implementation, semi-structured standardised questionnaires (discussion points) was used, allowing to catch the broad range of opinions regarding SED relevance,

effectiveness, efficiency, as well as its sustainability and contribution to the general development impact.

The qualitative information/testimonial evidence was supported with the documentary evidence (quantitative data, obtained as a result of a desk study, and specifically during site visits).

All the three target counties were visited during MTR including all the counterparts and institutional beneficiaries. Individual beneficiaries were approached in the local communities based on their availability and accessibility.

Data collected during mid-term review will be analyzed with the application of key methods of quantitative and qualitative analysis.

Development of recommendations and action points was done on the basis of analysis of collected data/information, successes stories and lessons learned in consultations with the Project Management Team (PMT).

The chapters/sections below reflect key findings and recommendations made as a result of SED MTR, including:

1. Project description and background context.
2. Key findings with respect to:
 - a. Project strategy and assessment of the SED relevance;
 - b. Progress towards results and assessment of the SED effectiveness;
 - c. Project implementation, adaptive management and assessment of SED efficiency; and
 - d. Risks and opportunities and assessment of SED sustainability.
3. Conclusions and Recommendations for further improvement of project relevance, efficiency, and effectiveness and ways to overcoming the challenges in the remaining period.

2. Project Description and Background

2.1 Context of Mid-Term Review

With overall consideration of human development and social welfare enhancement, the SED initiative aims at improving living standards of rural population by the way of livelihood strengthening, particularly rural women, youth, and vulnerable groups, through mutually complementary multi-sector interventions and technical assistance in improving existing farm and agri-business initiatives at the local level. Off- and on-farm diversification (including crop diversification and rural industry diversification) is piloted as a strategy for food security, and income and livelihood expansion.

Specifically, the SED targets revitalization of county and village (Ri) level enterprises, including food and daily necessities factories (FDFs), household organizations as well as raw material bases (RMBs) for daily necessities factories (DNFs) in the soap production and ceramics sectors.

The project also assists in improvement of the production chain from cultivation and/or harvesting of raw materials to processing in factories and production facilities. In addition, the project supports the local cooperatives producing garments and other basic needs products from locally available materials.

Through a series of technical analyses and training/mentorship programmes, the project also aims to strengthening of existing human and social resources for the efficient utilization of livelihood opportunities.

Cross-cutting themes such as gender, environment and improved access to international good practices and technical know-how applicable to the country have also been taken into account to ensure a sustainable rural development.

The needs assessment and development of initial project's documents was done in 2011 in line with the approved UNDP Country Programme Document (CPD) for DPRK and the project was supposed to directly contribute to the achievement of the outcome

3 (*Increased standards of living and sustainable livelihood*) as was defined in the CPD.

Through the livelihoods improvement, the project contributes to the food and nutrition security for rural population targeting both farm and off-farm activities, what corresponds to the United Nations Strategic Framework (UNSF) for 2011 – 2015 - strategic area 3. Nutrition, with the following Outcomes:

1. Improved nutritional status of targeted population to enable them to lead healthy lives; and,
2. Sustained household food security.

The importance of this strategic area was reconfirmed in the UNSF for 2017 – 2021, where Food and Nutrition Security are identified as priority 1, which corresponds to the SDG 2: *"End hunger, achieve food security and improved nutrition and promote sustainable agriculture."*

From these perspectives, the SED project is important for improvement of humanitarian situation in the vulnerable communities of DPRK and should receive a special status among UNDP interventions in the country.

In line with country's priorities as well as the key areas of UNDP intervention, the SED project focuses on revitalization of county level small food and daily necessities factories, village (ri) level or household organizations, and raw material bases for livelihoods and daily necessities factories. Concurrently, the project proposes interventions for capacity building and skills development that are necessary for the effective functioning of the farms and rural enterprises.

An experience acquired during the pilot stage of the project could be applied later-on (with an adaptation as needed) in other sectors of economy and geographic areas of DPRK.

Implementation of the SED project takes place in a very complicated context seriously affected by the growing geo-political tensions around DPRK, series of restrictive measures for international movement of goods and people (including national

restrictive measures for combating Ebola but mostly related to the international sanctions aimed at the prevention of nuclear proliferation), as well as of limitations to the international financial transactions. Under these circumstances, procurement of goods and services by the PMT is often delayed if overall possible.

2.2 SED Key Features

Background Information

The SED project is implemented by UNDP (in DIM) in cooperation with UNIDO.

According to the Prodoc, the SED can be considered as a pilot project aimed to validate the effectiveness of proposed activities and of the overall approach to strengthen capacities at the local level to increase food production and diversification, to support employment creation and income generation, and to increase living standards and resilience of local communities.

From the geographical perspective, the project is focused on three selected counties, specifically: Unryul and Unchon counties in South Hwanghae province, and Hoechang county in South Pyongan province. These counties were selected as pilot areas considering their status of comparatively underdevelopment, energy sufficiency, landscape diversity, raw materials availability, geographical accessibility (for project management and monitoring), and local authorities' commitment to the project.

The project was initiated in 2011, launched in 2013, extended in 2016 till 2018 but due to a series of organisational and administrative delays, the SED is currently at the transition stage from the inception stage to the scaling up implementation.

Due to different challenges encountered since the project formulation such as the late recruitment of project team (PM in particular), frequent occurrence of funds transfer's issues, national restrictive measures for combating Ebola, and the repeated delay in signing of the UN Agency to UN Agency Contribution Agreement with UNIDO, the project was not able to be implemented and completed by July 2016 as planned in

the Prodoc, therefore a project extension of about 2 years was requested and approved (in the end of 2015) with incremental budget revision. Some initial indicators of the project were simplified and streamlined.

Project Description

To achieve the overall project's outcome, which is formulated as follows: ***"Increased standards of living and sustainable livelihood"***, the SED targets support to the **local communities** in the following areas:

- Raw Material Bases (RMBs) - expanding RBMs and supporting crop diversification, including gathering of wild plants (herbs, fruits, berries) and cultivation of protein rich plants, such as spirulina and *pistia stratiotes*;
- Local Foodstuff Factories (LFFs) – supply and installation of industrial processing lines for wild and raw food resources, such as wild fruit and herb processing with relevant capacity building;
- Daily Necessities Factories (DNFs) - supply and installation of industrial lines for manufacturing of basic necessities as soap, clay/earthenware production, etc., and related capacity building;
- Local household organisations - promoting income generation activities for housewives, including foodstuffs and daily-necessities production such as garment processing, pottery and bakery activities (which are common productive enterprises in the target counties and *Ris* and are in need of support)
- Knowledge management and local training institutions/vocational training centers - capacity building of local personnel and equipment provision to enhance employment and income generation in the target counties, to improve skills and management practices in agriculture and agro-industrial units.

The following outputs were established for the SED initiative:

Output 1: Employment and income generation in rural community industries improved for more productive activities, improved standards of living and livelihoods including convenience food processing by local household cooperatives in rural areas:

- 1.1 Production improvement of selected local food processing factories (Unryul and Unchon counties).
- 1.2 Wild fruit and edible plant processing for nutrition improvement and food security in the mountainous areas of DPRK (Hoechang county).
- 1.3 Enabling the production and processing of protein rich plants (Unryul and Unchon counties).

Output 2: Household food security improved and income generating activities enhanced for rural population:

- 2.1 Capacity building of local raw material bases for soap and paper production (Unchon and Unryul counties).
- 2.2 Production revitalization of daily-necessities factories based on their own raw material bases (Unryul and Unchon counties).

Output 3: Rural production systems and institutions strengthened for efficient utilization of livelihood:

- 3.1 Capacity building of community organizations for more productive activities and improved income generation (Unryul and Unchon counties).
- 3.2 Support to community capacity for knowledge dissemination for local sustainable production (Hoechang, Unryul and Unchon counties).

Cross-cutting issues (gender equality, women's empowerment, and social inclusion) are incorporated into SED programmatic activities. Women make up almost 80% of the employees of the targeted enterprises and cooperatives. Thus, the project is expected to lessen gender imbalances, improve women's employment and income generation opportunity, enhance their skills and empower them economically and socially. Requirement of minimum percentage of women's participation in the capacity building activities by the project has been institutionalized, for instance the in the training on collection and utilization of wild fruits and plants, women's participation accounts for over 60%.

Cross-cutting issues of rights, gender and environment were adequately considered at the project design, and were in the center of attention of the PMT.

SED Activities

SED activities may be summarized in the following categories:

1. Needs and opportunities assessments and relevant interventions' planning;
2. Advocacy and partnerships building at national, provincial and most importantly county and community levels;
3. Awareness raising, information/knowledge dissemination;
4. Support to establishing pilot demonstration facilities in the target areas of the project (including identification of needed technologies and equipment, site selection, procurement, construction and equipment assembling, operationalisation, etc.);
5. Capacity building of local technical and management staff of the County People's Committees (CPC), household organisations, and training institutions.

Stakeholders and Beneficiaries

The main stakeholders of the SED are:

- 1) Government and governmental organizations:
 - a. Special coordinating committee - National Coordinating Committee (NCC) responsible for the overall coordination of cooperation with UNDP in the country, which co-chair the SED project's steering committee meeting (PSC);
 - b. Line ministries - Ministry of Food and Consumer Goods Industry (MoFCGI) and Ministry of Agriculture;
 - c. Specialized agencies - State Commission of Science and Technology (SCoST), Central Bureau of Statistics (CBS).
- 2) Economic agents such as targeted factories and cooperatives, local households' and community organisations are among the direct participants and beneficiaries of

the project.

3) Relevant departments of the People's Committees in the project counties as well as academic and training institutions involved may be considered both as stakeholders and beneficiaries of the SED interventions.

Project Management Structure

SED project is managed by the Project Manager (PM), Mr. Yu Hua under the oversight of the Deputy Resident Representative (DRR), Mr. Stephen Kinloch Pichat and the Project Steering Committee (PSC).

The PM is supported by the Project Management Team, located at the UNDP-DPRK office in Pyongyang and consisting of:

1. Programme Analyst, Mr. Ri Kyong Il (responsible for quality assurance of the SED activities in line with the Project Document, as well as for a partnership development with the national and local counterparts);
2. National Training Coordinator, Mr. Jong Kwang Ho (providing assistance to the PM in all technical aspects e.g. preparation of technical part of procurement documentation for the SED activities); and
3. Project Administrative Assistant, Mr. Kim Byol Song (providing administrative assistance for the project implementation)

Administrative, financial and procurement support to the SED team is also provided by the Operations Team of UNDP Country Office.

Internal monitoring and evaluation of SED activities is carried out by UNDP-DPRK Monitoring and Evaluation Specialist Ms. Le Le Lan.

Partnership Strategy

SED PMT liaises closely with the country's institutions at the national, provincial and

local levels, and works in cooperation with UNIDO in the areas of UNIDO technical expertise (technologies, know-how, etc.).

To assure national ownership the SED activities are implemented in coordination with National Coordination Committee (NCC) through the mechanism of the Project Steering Committee (PSC), which includes representatives of key stakeholders / DPRK Ministries and Governmental organisations. At the local level SED works closely with CPCs which coordinate the project's implementation in the target factories, farms, production units within the respective counties.

Project Timing

Initially, the pilot project with a budget of USD 4,328,309 was supposed to be completed by July 2016. Due to different challenges encountered since the project formulation such as the late recruitment of project team (PM in particular), frequent occurrence of funds transfer's issues, national restrictive measures for combating Ebola, and the continued delay in signing of the UN Agency to UN Agency Contribution Agreement with UNIDO, the project was not able to be implemented and completed by July 2016 as planned in the Prodoc, therefore a project extension of about 2 years was requested. In December 2015 SED extension was approved with incremental budget revision (to USD 5,240,309, with USD 912,000 incremental); some initial indicators of the project were simplified and streamlined. However, with some old difficulties continued or re-happened, new challenges occurred e.g. UNDP's more stringent procurement measures, the project progress has been further restricted after the extension.

3. MTR Findings

3.1 Project Adaptive Management and Assessment of Efficiency

The SED project is implemented under unique circumstances, in the country under strict and increasing international sanctions, which seriously limit the PMT capacity to procure locally and internationally goods and services, as well as transfer funds in DPRK and to deploy international personnel in a timely and predictable manner.

SED is implemented by UNDP under DIM. Two UN Agencies – UNDP and UNIDO are involved into the project's implementation but their policies, implementation procedures and procurement rules differ, what causes additional difficulties and delays in the SED implementation.

Under these circumstance UNDP CO and PMT apply adaptive PM approach and use all available options to implement SED in the most effective and efficient way.

Under general supervision of DRR and overall oversight of PSC, all the SED activities are planned and monitored on a regular basis (PSC meetings take place quarterly with participation of all key stakeholders).

UNDP CO also supports active communication with UNDP Bangkok Regional Hub (BRH) ensuring as timely as possible processing of SED documents requiring approval of the HQ.

PMT is well organized and managed: reporting and communication lines are established, all the responsibilities and tasks are clearly distributed between team members; planning of implementation and revision of conducted activities are done in a regular manner; PMT internal and external reports are informative and timely.

M&E system foresees a regular reporting on progress, results, issues and deviations from the work plans, and lessons learned. UNDP DPRK M&E Specialist conducts field visits to verify results and to obtain an information for the SED activities update. Results of SED M&E are presented at the quarterly meetings of PSC and are included into regular CO reporting to BRH.

From the very early stage of SED implementation the project established good working relations with key stakeholders and counterparts at the national and local levels. SED team visits often target counties, it is well aware about local needs, expectations and provides all possible support to the activities in the work plan in cooperation with local counterparts.

Despite all these effective management arrangements, SED is behind an anticipated implementation schedule mostly because of:

- Difficulties in providing SED with needed funds and resources (due to the regime of sanctions), and
- Difficulties with implementation of inter-agency cooperation model foreseen by the UN Agency to UN agency Contribution Agreement signed between UNDP and UNIDO in Nov. 2016 (after 2.5 year of negotiations), internal clearance, and delays in decision-making by UNIDO and UNDP regarding distribution of roles, responsibilities, and budget within framework of SED project).

Because of internal UNIDO procedures and changes in the procurement and funds transfer rules under regime of sanctions, UNIDO cannot ensure national procurement of goods and services and is seriously limited (time-wise) in the international procurement of equipment, which is supposed to be supplied and established at the target enterprises in Unryul and Unchon counties. *De facto* UNIDO is currently capable to procure services of international experts only to provide in-country needs assessment, develop and recommend appropriate technical solution, provide needed training and advice on the operationalization of industrial lines to be established, as well to support capacity building of direct beneficiaries at the local and national levels.

While UNDP CO is working with the UNDP HQs on optimisation of operations under conditions of sanctions, the need to improve the SED effectiveness and at least partially mitigate a raising level of dissatisfactions with the SED progress among national stakeholders in Pyongyang and in the target counties calls for the urgent revision and amendment of current inter-Agencies arrangements, and to reallocate those not feasible activities from the UNIDO to UNPD (with respective redistributions of responsibilities and budget).

3.2 Project Strategy and Assessment of the SED Relevance

The needs assessment and development of initial project's documents was done in 2011 assisted technically by UNIDO with a purpose of improving living standards of rural population by the way of livelihood strengthening, particularly rural women, youth, and vulnerable groups, through support to existing farm and agri-business initiatives at the local level. Off- and on-farm diversification (including crop diversification and rural industry diversification) was chosen as a strategy for improved

food security, income generation and livelihood expansion. Specifically, the SED targets revitalization of county and village (Ri) level enterprises, including food and daily necessities factories, household organizations as well as development of raw material bases. The project also should assist in improvement of the production chain from cultivation and/or harvesting of raw materials to processing in factories and production facilities, as well as to support the local cooperatives producing basic needs products from locally available materials.

To achieve these goals SED pilots the following activities:

- In Hoechang county (all the activities implemented by UNDP):
 - Expansion of utilization of natural resources of wild fruits and herbs for improved food and nutrition security and livelihoods at community level;
 - Supply of 2 production lines for 2 local food processing factories (one – for processing wild fruits and another for processing wild herbs).
- In Unryul and Unchon counties:
 - Introduction and support in production and processing of protein rich plants (Pistia and Spirulina) – this component is implemented by UNDP;
 - Support in better development of local raw material bases (for soap production) – UNIDO;
 - Supply of production lines to selected local food processing factories - UNIDO;
 - Supply of equipment for revitalisation of daily necessity factories (soap, clay, garments, etc)- UNIDO.
- In all the target counties:
 - The project aims to strengthen existing human and social resources for the efficient utilization of livelihood opportunities through a series of training/mentorship programmes (jointly by UNDP and UNIDO).
 - Capacity building of community organizations for more productive activities and improved income generation (Unryul and Unchon counties - Output 3.1 - UNIDO).

- Support to community capacity for knowledge dissemination for local sustainable production through teachers/trainers' skills development and relevant equipment provision to the local educational/training institutions (Hoechang, Unryul and Unchon counties - Output 3.2 - UNDP).

Cross-cutting themes such as gender, environment and improved access to international good practices and technical know-how have also been taken into account to ensure a sustainable rural development process.

For more details, please refer to the SED Results Framework (***Annex 4*** to this report).

Overall, the SED's mutually complementary activities, foreseen by the project design in all three target counties, are relevant and based on the needs of local communities.

To ensure the relevance of the SED interventions, the detailed planning of in-county activities is organized in a transparent, consultative manner. For example, in case of Hoechang county, a specific workshop took place on 11-12 Apr 2017, with participation of over 20 people representing stakeholders and beneficiaries (UNDP project team, Ministry of Food and Consumer Goods Industry - MoFCGI, and Hoechang county CPC, pilot factories, and cooperative farms) to discuss and agree on the scope of work of SED in this county, as well as on the roles and responsibilities of different parties.

The relevance of the project's interventions is confirmed by UNDP-DPRK field monitoring reports, and was also reconfirmed during series of meetings with the national stakeholders (representatives of NCC, MoFCGI, SCoST on Sep. 12, 2017 in Pyongyang), stakeholders, counterparts and direct beneficiaries in Hoechang, Unryul and Unchon counties (for the list of meetings please refer to ***the Annex 5***).

To enhance the utilization (whilst conservation) of the natural resource of wild fruits and plants for improved food and nutrition security and rural livelihood at community level in Hoechang county, UNDP provided series of specialised training in Dec 2015 and Feb, Mar and May 2016, supported with information dissemination campaign in the target county. Leaflets and specialised brochure were designed, published in

Pyongyang and distributed among local institutions and general public. In the assessment of counterparts and direct beneficiaries, training materials and informational materials are relevant to the local needs and are used at the local level.



Picture 1: Leaflet developed by UNDP on display on a wall of a public building in Hoechang county.

Installation of **2 production lines in Hoechang county** (to be procured by UNDP) to process wild fruits (for juices) and herbs (dried and pickled) is also relevant for the local needs and capacities: CPC and factories management are ready to make needed pre-installation renovation of production premises (for this activity UNDP also plans to provide needed construction materials and the target factories shall provide labour). In anticipation of supply of the production line, the Food Processing Factory already purchased from the local residents various wild herbs, which are currently salted in barrels to be processed and packed later on, after the operationalization of production line.



Picture 2: Salted anise in barrels prepared to be processed, Food Processing Factory, Hoechang county

The two pilot **Pistia** production and processing centers established in Unryul and Unchon counties with support of SED already proved their relevance for the needs of the local population, who started using Pistia as an effective supplement to the animal feed, which helped 1) preserve grain for the human diet (in more than 40 Ris in both the target counties and also the neighboring counties e.g. Haeiju and Anak counties); 2) save labour previously needed for collection and preparation of feed for the cooperative farms; and 3) protect environment by reducing consumption of fire wood for preparation of animal's feed, because of the fermentation technology introduced in Pistia feed preparation.

"Pistia model center was established by UNDP more than 2 years ago, and we are very satisfied with the results. Pistia is very suitable for local conditions and due to its introduction into farms and households' practice, the county saved grains, labor and

fire woods to prepare animal feed" - *Kim Kwang Chol, Vice-Chairman, CPC Unryul County. Sep. 17, 2017*



Picture 3: Pistia production section in cooperative in Unryul county (solar system and mini-tractor is also provided within SED).



Picture 4: Kim Kwang Chol, the CPC Vice Chairman demonstrates construction of facilities for Spirulina production, Unryul County, Sep. 17, 2017.

Spirulina production and introduction as a supplement into the diet of local population (primarily women and children) to increase content of protein in it is very relevant to the current needs of the population in the rural areas of DPRK. This initiative (under implementation of UNDP) is welcome in the target counties. Both in Unryul and Unchon counties the CPC had initiated construction of facilities, where the equipment for spirulina growing will be installed.



Picture 5: Construction of the *Spirulina* Center in Unchon county, Sep. 20, 2017

The relevance of the developing local ***raw materials bases*** in both counties (led by UNIDO) is ensured by the transparent and inclusive manner of choosing specific bases to be supported: it was done in consultations with local CPCs. As a result of these consultations, in Unryul county initially planned expansion of raw material base and upgrading of an existing factory for paper production would be cancelled, and the budget planned for this activity would be re-allocated to support other components e.g. clay processing, food processing, etc. upon request of local authorities. In Unchon county SED is focused on expansion of raw base for both natural oil manufacturing (product of "oil-tree" or bee-bee-tree, rich in vitamin E) and for soap production.

UNIDO Consultants carried out in-country assessments in July 2017 and currently finalizing technical reports focused on ***revitalization of Daily Necessity Factories***,

namely - on establishment of pottery industrial line in Unryul county and on replacement of outdated soap production line in Unchon county.



Picture 6: Outdated soap production line in Unchon county to be replaced by SED.

An intervention targeting supply, installation and operationalization of small production **lines for food processing factories** in Unryul and Unchon counties (component implemented by UNIDO) are in line of the local development needs formulated by local CPCs. In Unryul, SED plans to install three production lines:

- For processing soy milk (replacement and expansion of current outdated line) – widely used for supply of local schools and kinder-gardens;
- For cold noodles production (replacement and expansion of current outdated line) – popular in local diet;
- For juice production (new production line, products may be used to increase vitamin content of the local diet).

In Unchon, support shall be provided to the local Soybean Paste Factory, which also produces natural oils: two presses and associated equipment should be provided for processing seeds of the bee-bee tree for nutritional purposes (after processing seeds

of bee-bee tree will be transported to the Soap Production factory to be used in its production cycle).

Training activities were already launched by UNDP (still pending with respect to UNIDO interventions), and will be further implemented in all target counties. For instance, the training on the use of wild plants was conducted in May 2016 in Hoechang county; familiarization with Pistia benefits, production and processing is organized in two demonstration centers in Unryul and Unchon counties. These activities were considered as “applicable to the local conditions” and “very useful” by respondents approached during MTR.

“Training on the use of wild fruits and plants was very useful, we learned more about fruits and plants in our forest, as a result, I collected more wild forest products and sold them to the local food processing factory, adding some money to the family's income” - *Ms. Ri Kum Ok, Farmer, Work Team 5, Sinsong COF Sep. 13, 2017-09-16*

National and local counterparts and beneficiaries support already implemented and planned SED activities and are looking forward to seeing full and speedy delivery of anticipated results.

While the **relevance** of the planned and implemented interventions is beyond any doubts, the **feasibility** of some of them, in the opinion of Evaluator, should be addressed in more details by the PMT to ensure their smooth implementation and sustainability (also discussed in the section focused on sustainability below).

In particular, the major limiting factors are related to the UNIDO anticipated activities, including the following major ones:

- Limited accessibility of energy to support operation of production lines;
- Lack of funds in the target counties to conduct construction/renovation work in line with standards of Good Manufacturing Practice (GMP), which should precede an installation of production lines.

The anticipated contribution of the activities under consideration to the improvement of nutrition of target population, and to employment and income generation also

should be taken into account to prioritize the importance of specific SED interventions. From this perspective, the support to introduction of plants with high nutritional value, to the food processing enterprises and related capacity building to support new skills dissemination and employment generation look more relevant to the local needs and the SED goals than support to development of local raw material base (specifically in the case of establishing pottery production line, which requires a lot of energy, will not increase employment (according the Factory Manager, the same 60 workers and employees will be working at this facility after eventual production line installation), and will not directly contribute to the nutritional security.

3.3 Progress towards Results and Assessment of the SED Effectiveness

Launched in 2013 and extended in 2016, the SED is still going from an inception phase to a scaled-up implementation due to an adverse impact of a series of factors, which are beyond control of the PMT and UNDP CO.

The major factors include:

- Introduction and tightening of the regime of sanctions aim at the limiting nuclear proliferation, including restrictions on movement of funds and goods;
- Related revision and tightening of UNDP procurement procedures, including decreasing of ceiling for national procurement from 100,000 USD to 50,000, and then to 25,000; the necessity to obtain the waivers to proceed with procurement under imposed sanctions, limited opportunity for the international procurement, including after supply maintenance, etc.;
- Restrictions on a movement of people imposed by the DPRK Government during Ebola outbreak in later 2014 and early 2015.

Other factors affecting timely SED implementation may be summarized as follows:

- Complicated harmonization of procedures between the cooperating Agencies – UNDP and UNIDO in implementing the project;
- Serious limitation in the UNIDO capacity to:

- Implement national procurement of goods and services due to restrictions on the money transfer to DPRK
- Organize international procurement of goods due in a timely manner to the necessity to obtain relevant clearance from the UN Sanctions Committee
- Have an easy and access to the stakeholders and target communities, as organization has no full presence in DPRK
- Lack of the PMT control over the use of funds and resources: difficulties with money transfer to the UNDP-DPRK account; time consuming approval procedures for international and national procurement under the sanctions regime.

As a result of impact of these factors, the project implementation is overall behind the schedule; in a generalized way the SED progress (as for the mid-September, 2017) is presented in Table 1 below.

Continuation of delays in obtaining tangible results anticipated already for several years not only undermined trust in the UNDP capacity and willingness to provide support to the DPRK esp. in the eyes of the project's local counterparts, but also has an adverse impact on the regular operation of enterprises selected for technical assistance by the project. For example, in Hoechang county, the Food Processing Factory did not apply for the subvention from the state budget in anticipation of the SED assistance. Moreover, the management of this factory, based on the SED work plan, made a decision to purchase a seasonal herbs from the local households to process them at the equipment to be installed. With a highly probable further delay in the provision of the wild plants processing line, the management of this factory is facing a possibility of financial losses. During site visits, strong dissatisfaction with a slow SED progress was expressed also by the Vice Chairman of the Unryul county.

Table 1. Progress towards Outputs (as for mid-September 2017)

Output	Responsible	Status of Implementation	Status of Results/Deliverables
Output 1: Employment and income generation in rural community industries improved for more productive activities, improved standards of living and livelihoods including convenience food processing by local household cooperatives in rural areas			
1.1 Production improvement of selected local food processing factories (Unryul and Unchon counties):	UNIDO	Launched	Field assessments completed by International Consultants; report should be finalized by the end of Sep. 2017
<i>1.1.1 Strategy for the revitalization of FPFs in rural areas prepared</i>	<i>UNIDO</i>	<i>In progress</i>	<i>Report finalization - in progress</i>
<i>1.1.2 Appropriate techniques and equipment for the diversification, quality improvement and production increase in the target enterprises introduced</i>	<i>UNIDO</i>	<i>In progress</i>	<i>Pending report finalization</i>
<i>1.1.3 Demonstration units for technical application and socio-economic service improvement established and replicated</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
1.2 Wild fruit and edible plant processing for nutrition improvement and food security in the mountainous areas of DPRK (Hoechang county):	UNDP	Partially implemented	See below

1.2.1 Improved daily diet and nutritional status of mountainous area population through increased availability, diversification and quality improvement of processed wild fruits and greens	UNDP	Launched	<p>Some wild plants are already used at the level of households; result could be achieved after operationalization of equipment for processing of wild fruits and plants</p> <p>An international consultancy with input from national specialists was completed targeting an assessment of national capacity in designing and manufacturing machines for the processing of wild fruits and greens; potential design identified for the procurement</p> <p>Lists of needed construction materials and equipment prepared for the HQs approval; pending installation and operationalization of equipment for the processing of wild plants</p>
1.2.2 Enhanced awareness of gatherers, producers and consumers about wild fruits and greens	UNDP	Awareness raised, dissemination of knowledge to be continued further	<p>Seven one-day long training sessions on the collection and utilization of wild fruits and plants were conducted in Dec. 2015 - May 2016: 134 representatives (more than 60% female) from 6 selected communities with richest natural resources in Hoechang county have attended them; overall more than 400 people (including family members) benefited in terms of nutrition improvement through in-take of more diversified nutrients.</p> <p>Design, printing and dissemination of information materials (leaflet, poster and brochure) was organized in the county.</p>
1.2.3 Income generation of mountainous area population through domestic marketing of wild fruit, etc.	UNDP	<p>Limited progress at the households' level; currently local factories cannot increase purchase of wild fruits and plants due to unavailability of operational processing equipment</p> <p>Scaled-up implementation will be possible after operationalization of processing equipment</p>	Some households increase domestic consumptions of wild plants as a result of training and information campaign dissemination, certain households sold wild greens to the local Food Processing Factory (about 3 tones were purchased) in 2017
1.3 Enabling the production and processing of protein rich	UNDP	Partially completed (Pistia); in progress (spirulina)	Implemented with respect to Pistia model centres; Spirulina demonstration units shall be completed after procurement of equipment to be supplied (waver for a national procurement to be obtained hopefully in mid-Sep. 2017)

plants (Unryul and Unchon counties):			
<i>1.3.1 Local strategy for contributing to nutrient supplements for vulnerable groups of population (in particular children) and for diversified animal feed production developed</i>	<i>UNDP</i>	<i>Partially completed, in progress</i>	<i>Local strategy developed for nutrition promotion for vulnerable groups and diversification of animal feed production;</i>
<i>1.3.2 Model protein rich plants (e.g. Spirulina and Pistia) production and processing centre with appropriate technologies and equipment established</i>	<i>UNDP</i>	<i>Partially completed, in progress</i>	<i>Completed with respect to Pistia; spirulina centers are pending finalization of procurement of the equipment and its operationalization</i>
<i>1.3.3 Necessary skills for the development of a protein rich plants pilot production and processing center developed</i>	<i>UNDP</i>	<i>Partially completed, in progress</i>	<i>Completed with respect to Pistia; spirulina centers are pending installation of the equipment and organization of the on-site training and technical assistance</i>
<i>1.3.4 Strategy for development of protein rich plants production established</i>	<i>UNDP</i>	<i>Completed</i>	<i>Strategy for development of protein rich plants (Pistia and Spirulina) established and partially implemented (with respect to Pistia)</i>
Output 2: Household food security improved and income generating activities enhanced for rural population			
2.1 Capacity Building of Local Raw Material Bases for Soap and Paper (Pottery) Production (Unryul and Unchon counties).	UNIDO	Launched	Field assessment completed by International Consultants; reports should be finalized by the end of Sep. 2017
<i>2.1.1 Demonstration RMBs which provide raw materials for rural industry established and replicated</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
<i>2.1.2 Community focused research and development capacity for</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>

<i>effective exploitation of local raw material resources enhanced</i>			
<i>2.1.3 Public awareness about sustainable natural resource management enhanced</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
<i>2.1.4 Foundation of local strategy for effective exploitation of locally available raw material resources strengthened</i>	<i>UNIDO</i>	<i>Launched</i>	<i>Assessment conducted. Reports finalization - in progress</i>
2.2 Production revitalization of Daily-Necessities Factories based on their own raw material bases (Unryul and Unchon counties).	UNIDO	Launched	Assessment conducted. Reports finalization - in progress (expected by the end of Sep. 2017)
<i>2.2.1 Preparation of local strategy for capacity building and production revitalization of local daily-necessities factories (LDFs)</i>	<i>UNIDO</i>	<i>Initiated</i>	<i>Assessment conducted. Reports finalization - in progress</i>
<i>2.2.2 Introduction of efficient technical processes for diversification, quality improvement and production increase of daily necessities</i>	<i>UNIDO</i>	<i>Initiated</i>	<i>Assessment conducted. Reports finalization - in progress</i>
<i>2.2.3 Demonstration unit of low cost, small scale technology introduction and socio-economic service improvement established and replicated</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
<i>2.2.4 Accumulation of information database, nation-wide dissemination and exchange of knowledge and</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>

<i>information, experience and lessons learned</i>			
Output 3: Rural production systems and institutions strengthened for efficient utilization of livelihood			
3.1 Capacity Building of Community Organizations for More Productive Activities and Improved Income Generation (Unryul and Unchon counties).	UNIDO	Pending	Pending
<i>3.1.1 Local strategies for capacity development and production revitalization of community organizations prepared</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
<i>3.1.2 Techniques and equipment for diversification, quality improvement and production increase developed</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
<i>3.1.3 A training facility on garment processing, pottery production and baking as part of income generation activities of the model community organizations established and replicated</i>	<i>UNIDO</i>	<i>Pending</i>	<i>Pending</i>
3.2 Support to Community Capacity for Knowledge Dissemination for Local Sustainable Production.	UNDP	In progress with some activities pending	See below

3.2.1 Community capacity for dissemination of information related to rural socio-economic development strengthened	UNDP	In progress	Assessment of local capacities carried out in Nov. 2016 by UNDP international and local experts and the relevant strategy was developed; the report " Local Capacity Development Strategy of Knowledge Generation and Dissemination in Agriculture and Industry for Promoting Livelihoods " was published in Jan. 2017; selection and recruitment of local experts for capacity building in target educational and training institutions is in progress; development of curriculum and training materials to be started
3.2.2 Improved possibilities for practical training for students through improved conditions for experiment and trial	UNDP	Pending	Lists of the equipment to be provided to the target local capacity building/training organizations prepared; pending the approval of equipment for international and local procurement
3.2.3 Cooperation and collaboration mechanism among related institutions strengthened at various levels	UNDP	Pending	Pending beginning of implementation of capacity building programme
3.2.4 Local Industry Management Information System (LIMIS) established	UNDP	Pending	Pending progress with establishment of local FPFs and DNFs

As can be seen on the Table 1, the progress achieved by two cooperating Agency is uneven: UNDP with a strong in-country presence is able to achieve bigger progress in implementation of activities in its portfolio; UNIDO with delayed signing of the UN Agency to UN Agency Contribution Agreement and a limited in-country presence is still at the early stage of SED activities implementation due to the sanctions-related difficulties with in-country procurement of goods and services (due to the absence of the legally acceptable ways to transfer money into DPRK) and international procurement of goods (as the supply of industrial equipment is considered as technology transfer and should be approved by the Sanction Committee at the UN HQ in New York, USA).

The most obvious progress was achieved in implementation of activities, which are under better control of the in-country PMT (do not require sanctions-related waivers, could be procured locally, etc.).

The commitment and managerial/technical skills of local counterparts and beneficiaries are also playing a critical role in the successful implementation of the SED activities.

For instance, the establishment and operationalization of Pistia model centers in Unryul and Unchon counties may be considered as a SED success. UNDP provided critical construction material, equipment for Pistia processing, additional agricultural equipment, organized training and coaching of the center's personnel. As a result, equipment provided by UNDP is in use and well maintained; both centers produce enough Pistia to meet their needs and to distribute it to other farms and households within and outside target counties. Relevance, effectiveness, sustainability and impact of this intervention are obvious, and this model can be recommended for further replication within and outside the target counties.



Picture 7: Pistia growing and processing in Unchon county

Pistia Model Center in Unchon County

Operations launched in summer 2015, Model Center was officially opened on Dec. 27, 2015

Yearly production: 15 – 20 t of Pistia

Over the operations period, introduction of Pistia at this cooperative allowed to save thanks to easier animal feed preparation:

- 2482 man/days of labour;
- almost 5 t of grain;
- 1.4 t of coal, and
- 10 t of fire-wood.

Pistia production know-how is shared with:

- 4 agricultural units in other / neighboring county;
- 6 factories having the farms in the county;
- 20 *Ris* / cooperative farms in the county.



Picture 8: Pistia model center in Unryul county

Pistia Model Center in Unryul County

Operations launched in summer 2015

Yearly production: 20 t of Pistia in greenhouse and in the outside pond plus 60 t in the neighboring pond

Over the operations period, introduction of Pistia at this cooperative allowed to save thanks to easier animal feed preparation:

- 13,110 man/days of labour;
- 11,137 kg of grain;
- 9.4 t of coal, and
- 22.7 t of fire-wood.

In 2017 Pistia production know-how is shared with other agricultural units in the county and 2 neighboring countries – Haeju and Anak (overall more than 60 trainees, 10 of them women).

Promotion of a use of wild plants in Hoechang county may be considered as a partial success: knowledge about their nutritional value was disseminated and accepted in the target communities but due to a delay with a procurement of industrial lines for wild fruits and plants processing, the local households had no opportunity to supply local food processing factories (FPF) with more wild fruits, berries and herbs; gathered wild plants were used mostly for the household needs.



Picture 9: Poster presenting wild plants with nutritional and medical value.

Training on Wild Plants, Hoechang County

Seven one-day long training sessions on the collection and utilization of wild fruits and plants were conducted in Dec. 2015 - May 2016: 134 representatives (more than 60% female) from 6 selected communities with richest natural resources in Hoechang County have attended them; overall more than 400 people (including family members) benefited in terms of nutrition improvement through in-take of more diversified nutrients.

Design, printing and dissemination of information materials (leaflet, poster and brochure) was organized in the county, with technical support from UNDP national consultant recruited by the project.

Other SED activities are in the early stages of implementation (like support to Spirulina production, upgrade and development of local FPF, capacity building of local skill development institutions) or are not launched yet, and therefore it is too early to provide a comprehensive analysis of the related achievements.

3.4 Sustainability

A full and comprehensive assessment of risks and opportunities of all SED interventions is not possible during the MTR, as an initiative did not reach a scaled-up implementation and the majority of the planned activities are in a very early stage or not launched yet.

Overall, a high probability of interventions under consideration is supported by three major factors:

1. Relevance of planned activities to the local needs and capacities;
2. Good acceptance in the local communities, support from the side of national and local stakeholders;
3. Simple and replicable technical solutions supported with needed skills and capacity strengthening.

Key risks to the sustainability of the SED initiatives are related mostly to:

1. Impossibility to finalize project in line with the project Document due to the raising geo-political tensions affecting funds transfer to DPRK and procurement of goods and services;
2. Feasibility of the proposed technical solutions (specifically, limited access to the stable energy supply to ensure operations of equipment provided within the project's framework); and
3. Limited capacity of the national and local institutions to finance a replication of the SED models and disseminate further the SED good practices.

Some SED interventions are already proved to be sustainable, like for instance, use of Pistia for animals breeding. Pistia production is well organized and maintained at a model center at the agricultural cooperatives in Unryul and Unchon counties. Fermented Pistia is used in a mix with a corn flour for feeding of pigs, goats, ducks at cooperatives but also the seedlings of Pistia and the animal feeding technique are disseminated to other cooperatives, factories with the supporting farms, and local households in the target and neighboring counties.

The major risk to the sustainability of the Pistia use - preservation Pistia during cold months of winter - is mitigated by the provision of solar water heating system for the greenhouse, where Pistia is kept during winter. Two cold seasons of this system's operation proved its reliability and sustainability.

A brief assessment of probability of sustainability of interventions under the following Outputs is presented below:

Output 1.1 Production improvement of selected local food processing factories (Unryul and Unchon counties):

- An upgrade of the food processing factory in Unryul (UNIDO) foresees a supply of equipment for three production lines: production of soy milk, production and packaging of cold noodles, and production of juices from local fruits (pear, apple, apricot, etc.). The factory possesses needed expertise and capacity (currently this factory produces soy milk, cold noodles and ice cream). Premises are also available (current soy milk producing equipment and equipment for noodles' manufacturing will be replaced with the modern industrial lines) although the workshops require a renovation in line with GMP standards. Premises, where juice producing line will be installed, require substantial upgrade, and the County administration faces difficulties in funding this renovation, what may be considered a risk to operations' sustainability. Another risk – an existing limit to the supply of electricity through the national grid.
- SED foresees also an upgrade of Soy Paste Factory in Unchon county (UNIDO): installation of 2 presses is currently under consideration to extract oil rich in vitamin E from the seeds of bee-bee tree. The factory

possesses needed premises, expertise and capacity. The risk to sustainability is related with a limited supply of electricity: during the most busy production season, when the raw materials should be processed (from September to December) the factory receives electricity to operate its equipment just for 4 hours daily.

Output 1.2. Wild fruit and edible plant processing for nutrition improvement and food security in the mountainous areas of DPRK (Hoechang county):

- This intervention has a reasonable potential for sustainability due to a rich local natural base and anticipated incorporation of new production lines into existing operational production facilities with established system of supply of raw materials, as well as functional distribution system. Anticipated energy consumption of lines to be established should not affect the currently established limits of electricity supply.

Output 1.3. Enabling the production and processing of protein rich plants (Unryul and Unchon counties):

- Activities under this output are sustainable in case of Pistia. Production of Spirulina could be assessed after completion of demonstration centres in one or two target counties. However, the following risks may be currently assessed:
 - More complicated (in comparison with Pistia) technology of producing Spirulina, which requires specific skills and strictly observed technical parameters (temperature, pH balance, etc.);
 - Strong "fishy" taste of spirulina, which may limit its applicability to the children's diet.
 - High probability of interruption of energy supply, which should be mitigated.

Output 2.1 Capacity building of local raw material bases for soap production (Unryul and Unchon counties):

- Initially planned support to development of paper production in Unryul County was reconsidered following the CPC request to support an establishment of a pottery production line, which could use local clay resources. A small clay quarrel is located next to the clay processing facility in Unryul county *Up* (county's major city), and the local authorities had expressed interest in using this natural resource for the purpose of local development. Currently, the local clays are used for the production of a limited number of sun-dried bricks as well as cement bricks: clays are extracted manually from the small pit located in 120 meters from production facility, transported (also manually) to the premises of the factory, and are processed there in a small scale to prepare the homogenous mass and to form the bricks to be dry out in the facility's yard.
- Risks related to this raw material base include: a/ lack of geologically proved information about size of the clay reserve; b/ insufficient information about clay quality and suitability for the production of ceramics (according to the facility Manager, the factory makes tests of clay samples in the state laboratory but taking into consideration geological inconsistency of clay reserves it's difficult to obtain a comprehensive information for the whole mass of available clays); and c/ lack of mechanical equipment for the clay extraction and limited access to the centralised energy supply (6 months per year, 50 Watt).
- Raw material base in Unchon county is represented by oil-containing bee-bee tree, which will be used both for alimentary purposes and soap production. This variety of trees are currently planted in Unchon county and expansion of current plantation does not face any risks to sustainability.

*2.2 Production revitalization of Daily-Necessities Factories based on their own raw material bases (**Unryul and Unchon counties**):*

- Pottery production in Unryul county faces the following major risks: a/ unavailability of needed quantity of energy clay calcination; b/ absence of mechanical equipment to support the clay extraction,

and c/ lack of needed expertise and skills in the area of pottery production and capacity to develop factory's production/distribution plan. High risk of not sustainable operations.

- Soap production will be based on the small and outdated local facility; needed skills and expertise are in place; easily available locally wood/coal will be used for soap manufacturing. Overall risks for sustainability are considered low.

3.1. Capacity Building of Community organisations for more productive activities and improved income generation (Unryul and Unchon counties):

- Low risk to sustainability.

3.2 Support to community capacity for knowledge dissemination for local sustainable production (Hoechang, Unryul and Unchon counties):

- Low risk to sustainability, especially if the planned upgrade of educational equipment will be provided timely.

One of the major risk to sustainability of SED interventions – limited centralized supply of energy may be mitigated by appropriate technical solutions (use of manually operated/powered equipment for the small scale operations (like Pistia processing); provision of diesel generators, use of solar and/or thermal energy, introduction of energy saving solutions (namely, for Spirulina production but also for other operations). From this perspective, SED's activities could be linked/coordinated with outputs of another UNDP project – SES, focused on promotion of sustainable energy use.

4. Conclusions and Recommendations

The in-country Project Management Team (PMT) consists of professional and dedicated experts, who are well aware of the project management arrangements and specific technical details related to the project implementation.

Good working relations were established with the key stakeholders and beneficiaries both at the national and local level; except for the frustrations expressed by some of the local actors at the slow pace of implementation of some components, the implementation of SED activities are overall welcome and supported in all the three target counties.

Despite continuing efforts of the PMT supported by the UNDP Country Office senior management to accelerate the implementation of the SED activities to realize the planned outputs and contribute to the project Outcomes, the overall progress is however still limited: vast portions of the interventions anticipated in target communities are seriously delayed, which has led to increasing disappointment among stakeholders and beneficiaries, to the point that it has become a reputational risk for UNDP DPRK.

While interventions that are under the control of the PMT and supported with needed resources are in progress or already completed, limited progress was achieved to date in the implementation of a whole range of other SED planned activities.

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The analysis suggests that the delays have been mainly related to:

- the requirement for vetting and clearance of items by the UN SC established Committee in New York for any international procurement;
- the closure of banking channels what led to cash conservation mode measures in most of 2016,
- Increasingly restrictive procurement policy for DPRK, which severely limits the ability of the UNDP Country Office to procure goods and services, whether international procurement or in-country procurement. Procurement policies were being revised from February to April 2017, the DPRK Country Office's

delegated authority for procurement and threshold for international procurement was drastically reduced to USD 25,000 on 27 April 2017, the Country Office being also advised to undertake international procurement off-shore (e.g. from UNDP Procurement Support Office in Copenhagen, or UNDP China) as a standard practice.

It should be noted that the delivery of specific components of the SED project, notably the procurement of un-sophisticated construction materials for the rehabilitation of facilities, or the design and manufacturing of wild fruits and plants processing equipment, are best achieved through national procurement, to ensure sustainability of the investment (spare parts, maintenance, etc.).

Increased paper-work and transaction costs, and back and fourth communication with the UNDP Bangkok Regional Hub (BRH) have significantly hampered progress towards expected results.

UNIDO interventions are *de facto* limited to technical assistance and advice provided by international consultants⁷.

Against this frustrating background, the establishment and operationalisation of the Model Centers for Pistia Production in Unryul and Unchon counties may be considered as a success of the SED: equipment provided by UNDP is in use and well maintained; both centers produce enough Pistia to meet their own needs and to distribute as seeds to other farms and households within and even outside target counties. Relevance, effectiveness, sustainability and impact of this intervention are obvious, and this model can be recommended for further replication.

Promotion of use of wild fruits and plants in Hoenchang county may be considered as

⁷ UNIDO has no opportunity to transfer money to DPRK and therefore cannot execute national procurement of goods and services (UNDP could make payments on behalf of UNIDO but the funds currently available to UNDP-DPRK are limited due to closure of money transfer channels); international procurement of goods and technology by UNIDO should be approved by the UN Sanctions Committee, what requires time exceeding the lifespan of the project; etc.

a partial success: knowledge about their nutritional value was disseminated and accepted in the target communities. Due to delays in the procurement of industrial lines for wild fruits and plants processing, local households have not had the opportunity to supply local food processing facilities (FPF) with wild fruits and herbs, therefore not benefitting from more and varied products and also from income generation, even though the gathered wild fruits and plants were used to meet household needs.

Other SED activities are in the early stages of implementation (like support to Spirulina production, upgrading and development of local FPF, capacity building of local skills development institutions) or are not launched yet, and therefore it is too early to provide their comprehensive analysis.

Overall, SED activities have proved relevant, especially as they have been planned/modified in consultation with local stakeholders and beneficiaries, and their implementation was anticipated by local communities, which has contributed, inter alia, to the preparation of premises of factories for equipment to be supplied (both for production lines and capacity building).

Whether the activities are to be implemented by UNIDO or UNDP (depending on the component concerned), the feasibility of the planned interventions (and consequently – their sustainability) requires however additional attention taking into consideration the following key factors:

- Scarcity of energy resources to support the planned activities; and
- Lack of funds in the target counties to conduct construction/renovation works in line with standards of Good Manufacturing Practice (GMP), which should precede an installation of production lines.

The anticipated contribution of the activities under consideration to the improvement of nutrition of targeted population, and to employment and income generation should also be taken into account, and if possible estimated, so as to measure the success of the interventions.

An additional factor which needs to be taken in to consideration as it may impact on future decisions related to the SED project, is the uncertainty that still surrounds the future of the UNDP Country Programme: the Country Programme Document (CPD) for UNDP in DPRK expired at the end of December 2016, and its extension, or a new CPD was not approved by the Executive Board. In the absence of formal extension of the CPD, only existing projects may continue (based on the SBAA and the signed project documents), but new investments or expansion may not be considered by UNDP.

Currently, also depending on the future of the UNDP CPD and progress registered during the upcoming months, the management of the SED project is faced with three scenarios:

1. To complete the project and related planned/approved activities within timeframe allocated by the extension document (till July 2018);
2. To seek a no-cost extension of the timeframe of the project beyond mid-2018 (taking into account that two other projects will continue)
3. If the CPD is formally extended or renewed, to consider the extension of the timeframe of the SED project together with allocation of additional budget.

Under scenario 1, the PMT should prioritize and focus on activities that have registered most progress to date (Spirulina production), while trying to accelerate the national procurement of equipment for food processing factories (in all three counties) and most feasible daily necessity factories (e.g. soap factory in Unchon), as well as equipment provision for training and skills development centers.

The revision of the project plans till July 2018 may release additional funds which could be allocated to the replication of the successful model of Pistia production in the target counties.

The completion of the majority of activities as foreseen in the Project Document does not appear feasible in the remaining months, however. Moreover, 6 to 9 months will not be sufficient for the required capacity building, further undermining sustainability and impact of the SED intervention.

Under scenario 2, whereby a no-cost extension would be sought, there would be of

course more time for the implementation of planned activities but in this case the management of the SED project will be dangerously stretching an already tight budget potentially compromising the full the implementation of activities as anticipated by the target communities. To make a no-cost extension more effective and feasible, it is advisable to reassess priorities within the already planned SED activities, and to focus on those interventions with the highest relevance and impact (therefore reallocating both time and money).

Although possibly more hypothetical at this stage, the third scenario is probably the most desirable one from the perspective of ensuring an effective contribution to the SED outcomes and ensuring lasting and sustainable impact. Such an approach to the SED finalization would allow SED to reach major goals but also provide an opportunity:

- to support replication of the most successful models within or beyond target counties,
- to introduce new products with rich nutritional values, and
- to contribute to the improvement of the access to energy sources (ideally based on the results or in cooperation with other UNDP project, which is currently under implementation in DPRK – Sustainable Energy Solutions (SES)).

In any case, regardless of decisions made by UNDP with respect to the future of the SED project beyond mid-2018, the management of the SED projects should take every measure, and seize every opportunity, and not spare any effort to accelerate the rate of delivery.

From this perspective the following steps may be recommended:

- To re-assess a feasibility of delivery of the tasks currently allocated to UNIDO by the UNDP PMT and the additional resources (if any, both in terms of time and money) needed for this purpose, taking into account experience to date as well as recent changes in the working environment of the project
- Based on the above assessment, to revise the current agreement with UNIDO with appropriate tasks and budget being reallocated so as to increase the responsibilities of UNDP in the implementation at county/ri level, thus also reducing transaction costs, and to restrict UNIDO's contribution to the provision of international technical expertise.

- In the process of procuring goods, both materials and equipment, rely as much as possible on resources available and/or produced locally, which not only helps expediting delivery, but also saves transportation costs and, even more importantly, simplify provision of after-sale maintenance and support, and therefore sustainability
- Under current circumstances, the UNDP Country Office, while ensuring due diligence and compliance, should continue exploiting every opportunity to simplify administrative procedures and cut corners, e.g. accelerate approvals for procurement, rely on UNDP China, and develop other effective strategies. .

Other key recommendations include as follows:

- To further discuss, through the Project Steering Committee (PSC) the possibility of obtaining support from the Government of DPRK in the replication of SED successful models within and outside target counties (currently – Pistia centers but other activities may be added to the list later on).
- To carry out internal reviews and identify the most feasible activities with the biggest impact on nutritional status, employment and income generation, to be considered for further replication.
- To reassess planned intervention with consideration of limited access to the energy supply (for the small-scale operations - foresee use of tools operated manually, possibility to use solar, thermal sources (especially in case of Unchon county), provision of generators for the bigger scale operation, etc. - with eventual contribution from the SES project).