



PROJECT IMPLEMENTATION PLAN

31 January 2019

- 1. Project Code** 18-IN-04-GE-DMP-C-3
- 2. Title** Development of Demonstration Companies: Transforming Chicken Litter into Value-added Commercial Product(s) in Future Farms Limited
- 3. Reference** Project Notification 18-IN-04-GE-DMP-C dated 11 December 2017
- 4. Timing and Duration** The duration of the implementation of the project will be eight to 12 months, including the dissemination period. The commencement date is scheduled for January 2019. Tentative details of the implementation schedules will be given later.
- 5. Implementing Organizations**

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- 6. Mission** The mission of an APO Productivity Demonstration Company is to enhance the productivity and competitiveness of organizations, companies, and businesses through building their capacity for adopting new technologies and innovative productivity tools and techniques. This is achieved by establishing demonstration-cum-productivity model companies/organizations to showcase the improvement in processes and results of improvements in productivity, quality, environmental performance, energy efficiency, innovation, utilization of smart technology, clean technologies, climate-smart agriculture, or innovative food-processing and safety systems in factories, farms, companies, or other organizations in a tangible, practical manner while assisting NPOs in building the capacity to provide consultancy and training services through their complete involvement in such projects.

7. Objectives

- a. The main objective of this demonstration company project is to enhance the capacity of Future Farms Limited so that it can manage chicken litter by transforming it into a resource, i.e., value-added commercial product(s). It will also build the Future Farms brand by showing that it is a good steward of resources and create tangible positive changes throughout the company by improving animal welfare and environmental management, reducing greenhouse gas emissions as well as water and soil contamination, recycling nutrients, and developing updated policies and ultimately strategic directions.
- b. The designated National Productivity Organization (NPO) and implementing organizations are expected to:
 - Showcase how an organization can successfully design and implement productivity improvement initiatives with the commitment and active participation of all stakeholders;
 - Demonstrate visibly and tangibly how productivity improvement initiatives lead to outstanding results for the organization;
 - Illustrate the benefits of productivity gain-sharing in boosting the motivation, morale, welfare, and overall achievements of workers; and
 - Disseminate results of the model organization to inspire other institutes, enterprises, workers, and all stakeholders to promote productivity more vigorously in their workplaces.

8. Background

In response to the Project Notification on the Development of Demonstration Companies dated 11 December 2017, Future Farms Limited submitted a proposal through the NTPC for a demonstration company project on transforming poultry waste into a valuable resource by modernizing the processing of chicken litter waste into value-added products.

Poultry manure is organic waste composed mainly of feces and urine. The mixture of poultry manure with spilled feed, feathers, and bedding materials like wood shavings or sawdust is referred to as poultry litter. Poultry litter is organic manure enriched with many major plant nutrients like nitrogen, phosphorus, and potassium, along with trace elements like zinc, copper, etc. In addition, poultry litter contains traces of arsenic, which is harmful to human and animal health and can contaminate water and soil. The composition and quality of poultry litter vary with the type of poultry, litter used, diet and dietary supplements, and litter collection and storage methods. Some benefits of using poultry litter as manure are: improved soil structure; organic, environment-friendly, pathogen-free fertilizing of crops; potentially odor-free composting process; the inclusion of no weed seeds; high moisture-absorbing capacity; negligible dust formation; high compost content; easy, accurate distribution; and applicability to any type of soil in any season provided that the soil is not frozen.

The fertilizing value of poultry litter is excellent, but it is less concentrated than chemical fertilizers, giving it a relatively low value per ton. This makes transport over long distances uneconomical, as it tends to lose its nitrogen value quickly. The proposed project will focus on managing chicken litter waste by transforming it into value-added commercial products. This will promote safe, environment-friendly, sustainable food production and increase the productivity and competitiveness of the demonstration company while showcasing effective waste management. The demonstration company is expected to share its progress in the development of waste management techniques and encourage other enterprises to undertake similar improvements in their farming and business operations.

The APO has organized various projects related to waste management, including face-to-face training courses and workshops, videoconferencing-based courses, and online self-learning e-courses. The APO is commissioning this project for the multiplier effects envisaged by the NTPC and Future Farms Limited as part of its continuing endeavors to promote productivity, quality, and innovation at the national level.

9. Collaborating Partners

This project is to be implemented in close collaboration with the following parties:

- a. The APO Secretariat (referred to as the APO);
- b. NTPC; and
- c. Future Farms Limited, Fiji (referred to as the demonstration company).

10. Roles and Responsibilities

The collaborating parties will perform the following duties:

The APO

- a. Coordinate communication among the overseas resource person(s), NTPC, and demonstration company to ensure smooth implementation of the project;
- b. Identify, select, and assign an appropriate overseas resource person(s) to the demonstration company to implement poultry waste management and activities aiming at setting up an effective poultry litter management system; and
- c. Advise the NTPC and demonstration company on planning and organizing a dissemination workshop for local participants and, if applicable, a multicountry observational mission for overseas participants enabling them to learn directly from the experiences of the demonstration company.

The NTPC

- a. Appoint a coordinator from the NTPC who will serve as the focal point for communication and coordinate the overall schedule for implementation of the project in the country;
- b. Provide, in addition to a coordinator, the necessary number of local resource persons from the NTPC to work as counterparts to the overseas resource person(s) assigned by the APO;
- c. Monitor closely the process of implementation, particularly the key performance areas;
- d. Measure the productivity improvement progress at the demonstration company using quantitative and qualitative data and analyses;
- e. Coordinate and supervise the company in the production of a multimedia record such as video/DVD demonstrating its experiences;
- f. Assist and supervise the demonstration company in preparing an interim report and comprehensive final report for submission to the APO;

- g. Organize a dissemination workshop upon completion of the project to enable experience sharing and learning by the local public and/or international participants following the advice of the APO;
- h. Compile the overall activities of the project in a practical, easy-to-follow manual/ guidelines so that similar exercises can be replicated by other enterprises in the country; and
- i. Prepare a final report, stressing analysis of the impact of the demonstration project on poultry waste management activities and productivity promotion in the region in general, as well as suggestions/recommendations for replication in the country with emphasis on the utilization of local talent, local networks, and local resources.

The Demonstration Company

- a. Accept and facilitate consultancy services conducted by the overseas resource person(s) assigned by the APO and counterpart local resource persons from the NTPC;
- b. Designate a coordinator and necessary team members to work closely with the APO and NTPC team of resource persons;
- c. Arrange all logistical requirements relating to the project (such as local transportation, discussion rooms, etc.) for both the APO overseas resource person(s) and counterpart local resource persons from the NTPC;
- d. Submit an interim report at midterm to review the progress of implementation and identify corrections and adjustments as necessary;
- e. Record on video from the start of the process of implementation activities to produce a multimedia record such as video/DVD upon completion of the project in association and consultation with the NTPC;
- f. Announce, publicize, and prominently display the APO's presence and involvement in the demonstration company throughout the duration of the project;
- g. Share the experiences of the demonstration company with local and overseas parties who are interested in learning about poultry waste management techniques;
- h. Present the experiences in a dissemination workshop to be organized upon completion of the project; and
- i. Prepare a comprehensive final report for submission to the APO explaining the initiatives and technical details of the project, overall analyses of the benefits, impact of the waste management system established, and competitiveness gained by the demonstration company upon completion of the project.

11. Expense Sharing

The APO

- a. All expenses for assignment of the international resource person(s), including honorarium, airfare, daily subsistence allowances, and overseas travel insurance;
- b. Total of up to USD10,000 as the local implementation costs, including production of a practical manual and a multimedia record for replication of the experience (to be prepared by the NPO) and holding a dissemination workshop(s)/seminar(s) for the local public (to

be arranged by the NPO); and

- c. Fifty percent of the above-mentioned local implementation costs can be advanced to the NPO to cover the expenses soon after the Project Implementation Plan is issued, if necessary; the remaining 50% will be paid after receiving the training manual, multimedia record, and final project report with the submission of necessary supporting documents under the applicable APO rules and regulations for the disbursement of project expenses.

The disbursement of expenses will be made at the appropriate times corresponding with the specific activities undertaken and following submission of the necessary supporting documents under the applicable APO rules and regulations for disbursement of project expenses. Please also refer to clause 14c of this document.

The NTPC

- a. Expenses relating to the assignment of a coordinator(s) involved in this project.

The Demonstration Company

- a. Expenses relating to the involvement of NTPC local resource person(s) in this project;
- b. Expenses for logistical arrangements related to the implementation of the project, including local travel costs of the APO overseas resource person(s) and NTPC local resource persons for transportation between the demonstration company/sites/farms and the NTPC office/branch office;
- c. Costs associated with the purchase and installation of equipment and/or fixtures relating to the implementation of the project, if any; and
- d. All other expenses for the implementation of the project not covered by the APO and/or the NTPC.

12. Methodology

The project will be conducted in the following four stages:

- Planning;
- Implementation;
- Dissemination; and
- Postproject assessment.

The planning stage consists of a diagnostic survey regarding company's current production scheme, raw materials, volume of waste materials, market opportunity for by-products which includes understanding the operations of the demonstration company, identifying the challenges faced by it, collecting data and information, and developing a master waste management framework for the overall implementation of the waste management policy and methodology of the demonstration company. This stage will also involve the capacity building of all stakeholders engaged in the implementation. It is expected to be completed within two to three months.

The implementation stage involves setting up a poultry waste management framework and establishing a system in the demonstration company which effectively implements poultry waste management technologies to achieve the company's strategic objectives. This refers to practical, action-oriented, on-site activities that engage international and local resource persons, the NTPC, and all other stakeholders. This stage will be carried out by the demonstration company with the guidance of the resource persons and is expected to be

completed in eight to 10 months.

The dissemination stage evaluates the improvement efforts and initiatives implemented. It also extracts the main lessons learned to provide a practical guide and encourage other organizations to follow it in the future. Among the main activities expected in this stage are the finalization and production of a practical manual, a multimedia record, and the organization of a national dissemination workshop. This stage should be completed in two months.

The postproject assessment stage involves an external resource person to carry out a postproject review to assess the results and benefits derived by the company and overall impact of the project. The timing of the assignment is decided in consultation with the NPO concerned, implementing organizations, and the company(ies).

13. Project Schedule

It is expected that four visits of the APO overseas resource person(s) will be needed for this project, although the actual number and duration will be identified by the resource person(s), the demonstration company, and the APO after the first resource person visit in early 2019. Subsequent visits should tentatively be scheduled at intervals of two to three months such as in March, June, and September 2019. The duration of each visit should be approximately within one to two weeks, subject to the availability of the overseas resource person(s) and approval by the APO.

14. Accounting Procedures

- a. In regard to the expenses for the multimedia record and training manual production, 50% of the APO share can be advanced after the Project Implementation Plan is issued. The remaining 50% will be paid in exchange for the training manual, multimedia record, and final project report according to the proof of expense payment.
- b. If a local seminar/workshop is to be held, 50% of the APO share can be advanced before the seminar/workshop implementation and the remaining 50% will be paid after implementation according to the proof of expense payment.
- c. For the settlement of expenses, the NTPC is requested to provide all necessary proof of payment to the APO after completion of the program. The proof of payment, such as bills payment records, and receipts, should be issued by third parties and must be submitted to the APO altogether at one time. The proof of payment should be written in clear English or with an English translation if not originally in English. The final payment will be made based on the actual expenditure after the NTPC submits the proof of payment, training manual, multimedia record, and the final project report. In general, internal evidence is not accepted as proof of payment and the expenses claimed by it will not be reimbursed.
- d. The final payment will be made based on the actual expenditure after the NPO submits the proofs of payment and exchange rates applied, training manual, multimedia record, and the final project report.

15. Final Project Outputs

The Demonstration Company Project will be completed with the submission of the following:

- a. A final report prepared by the NTPC and demonstration company;
- b. Practical manual for replication (in soft copies and/or printed hard copies) prepared by the NTPC and demonstration company; and

- c. A multimedia record such as video/DVD of the experiences of the demonstration company prepared by the demonstration company.

The APO will issue a certificate of completion to the demonstration company upon completion of the project.



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Secretary-General

