Preparatory Survey for BOP Business on Finance and Information Infrastructure Using E-Money Technology in Mozambique Final Report

October, 2017

Japan International Cooperation Agency

NEC Corporation

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OS JR 17-079

Background and Objectives of the Survey and Consistency with Development Issues

Having a poverty rate of 54.7% (2008/9), the Government of Mozambique has made resolving poverty one of its most pressing issues. In the Poverty Reduction Action Plan (PRAP 2011/2014), as the central strategy, it proposes to improve the poverty situation through agricultural development and comprehensive economic growth. In the Strategic Plan for Agricultural Development 2010-2019 (PEDSA 2010/2019), which is the central national policy document concerning agricultural development, it is aimed to "promote production and productivity of small-scale farmers and attain competitive and sustainable food supply," through intervention measures in areas of agricultural technological enhancement, transfer of technology, and supply of agricultural materials. Furthermore, this plan stresses the role to be played by the private sector in facilitating such solutions, for example, agricultural extension activities by NGOs, investment in the agricultural sector by private sector enterprises, etc., and the government intends to establish a legal framework and prepare the policy environment, etc. for supporting and promoting such private sector activities.

It can thus be seen that there is policy recognition regarding the potential for contribution to agricultural development by the private sector and, as is conducted by Nippon Biodiesel Fuel (NBF), private sector operators that conduct agricultural business in rural communities based on partnerships with BOP farmers can play an extremely important role and impart a major impact in rural development. Meanwhile, the realization of business extension by the private sector targeting BOP farmers in rural communities is confronted by the following obstacles.

[Issues on the side of business operators]

- Management costs: In rural communities, where cash is almost the only means of settling payments, management costs are large due to the geographical conditions and capacity of personnel.
- Insufficient information: The lack of information in rural communities makes it difficult to invest in business.

[Issues on the side of farmers]

- Insufficient access to agricultural technology: Due to insufficient access to agricultural knowledge and materials, yields are low.
- Insufficient access to markets (retail channels): Farmers have no price negotiating power because they are not organized.
- Insufficient funds: It is difficult to make business investments, hence there is little opportunity to improve productivity

- Insufficient means for managing funds: It is difficult to save funds for investment in the absence of any formal cash saving options.

It should be noted that the issues straddle the sides of both business operators and farmers and constitute an inter-related loop. Accordingly, in order to resolve such issues, it is necessary to i) simultaneously resolve issues rather than deal with separate issues, and ii) establish a win-win framework for the rural communities and business operators so that the issues on both sides can be addressed.

In this project, it is intended to launch a finance and information platform business with a view to approaching the above issues from the dual aspects of access to information and access to finance in rural communities, triggering a shift towards a virtuous circle, and thereby contributing to the improvement of poverty in rural communities.

2. Outline of the Survey

2.1. Target Area

In the Survey, a business plan was compiled for the first stage of a finance and information infrastructure project targeting Cabo Delgado Province, Manica Province, and Nampula Province. For this purpose, a survey and pilot project were implemented in the villages of Ngeue and Bilibiza in Cabo Delgado Province, where NBF is conducting activities via its local subsidiary Agro-Negocio para o Desenvolvimento de Mocambique, Lda. (ADM).

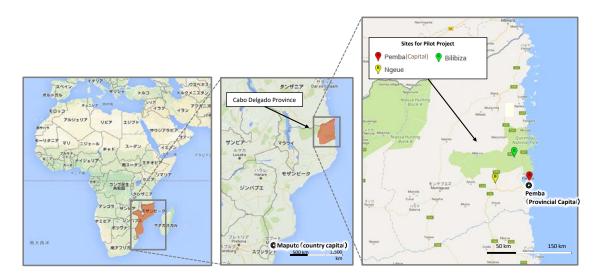


Figure 1 Survey Target Area

The target area is generally described below.

Bilibiza and Ngeue are typical rural communities of Mozambique, where the people conduct self-sufficient farming characterized by low technology, low inputs, and low productivity, and NBF has conducted activities here since 2012. In terms of the economic level, in 2009, Cabo Delgado Province ranked ninth out of 10 provinces in the country excluding Maputo in terms of per capita GDP, and the value of GDP was 7,577 MT (approximately USD 126), compared to the national average of 12,615 MT (approximately USD 210), making it one of the most impoverished regions in the country.

2.2. Survey Methods, Targets and Period

The Survey was implemented over 29 months from April 2015 to August 2017.

(1) Information and analysis concerning the local investment environment and business environment

Literature review was conducted and information was collected from the central bank, the Ministry of Finance, the Investment Promotion Center, licensing agencies, and enterprises that have experience with implementing similar projects. Information concerning the licensing system, tax system, preferential measures, etc. was collected, and the necessary preparatory items for compiling the project plan and launching the project were sorted.

(2) Survey of similar (competing) services

In addition to reviewing literature of previous undertakings related to finance in rural communities, the situation regarding implementation of similar services previously implemented such as M-pesa (including Kenya and other nearby countries) was surveyed and the pertinent conditions and methods for constructing the business model were reviewed.

(3) System design and manufacture

The system and software for introduction in the following pilot project were designed and constructed, and the system was improved to better reflect actual conditions based on the results of introduction in the pilot project.

(4) Pilot project implementation

The pilot project was implemented in the model villages of Ngeue and Bilibiza. This entailed introducing the system designed in (3) to five stores and targeting 992 users.

(5) Examination of potential customers

The potential for extension of the system was examined through introducing it and hearing needs for the finance and information platform among potential customers.

(6) Examination of the business model

Based on the results of the above $(1) \sim (5)$, the business model was created upon examining the service contents, charges and setup for providing services that are consistent with the local needs.

(7) Examination and verification of development effect

Using the data acquired in the pilot project, the potential for realizing development effects through project implementation was analyzed. Moreover, a development effect indicator was configured and used to examine the anticipated development effects. Baseline data concerning the development effects were grasped through conducting interviews with the targets in the pilot project.

(8) Potential for cooperation with JICA

The method of cooperation with JICA projects currently being implemented or scheduled for implementation was examined upon holding discussions with JICA headquarters and the local JICA office.

(9) Examination of finance techniques

The feasibility of raising funds was examined upon holding discussions with local financial institutions, potential investors, banks, funds, etc.

(10) Formulation of the draft business plan

The business plan was compiled based on the findings in the above $(1) \sim (9)$.

(11) Evaluation of business viability

Business viability analysis and sensitivity analysis were implemented on the business plan compiled in (10).

3. Survey Outputs

As a result of the Survey, through collecting basic information and confirming the verification items via the pilot project, the necessary information for compiling and examining the business plan was collected.

The contents confirmed in the pilot project are described below.

(1) Verification of preconditions for the business plan

From the empirical data acquired through the pilot project, the numerical basis, i.e. realistic user charges, frequency of use, and forecasted earning and expense of a standard store, for the project plan was acquired.

(2) Verification of service acceptability

The acceptability of the service was confirmed. Specifically, in the two model villages where the pilot project was implemented, 992 users conducted 35,172 transactions generating a cashflow of USD 164,090. Moreover, it became clear that the "actual goods come first" principle represents the competition to E-money services in rural communities.

(3) Verification of promotion methods

Approximately 10 kinds of promotional measures were tried, and the effectiveness of each was confirmed. In particular, patiently explaining the service was shown to be important. Also, it was found that current savings behavior is often based on the "actual goods come first" principle and that it will take a long time in order to encourage farmers to change their behavior and use Emoney. Accordingly, in order to secure business viability, it is thought that the first priority is to provide a diverse assortment of services offering merits that are easy to understand and have people first become accustomed to using E-money on a regular basis.

(4) Verification of operation methods

It was confirmed that the local personnel have the capacity to operate the system and train operators. Also, introduction of the E-money system simplified operations locally and made it possible to also introduce complex services that are difficult to manage manually. It was also found that handling of E-money services is attractive for member stores.

(5) Verification of local compatibility of the system

Based on the results of confirming compatibility of the system with the business environment in rural communities, improvements were made to the system and application. It was confirmed that the improved system could be operated with the infrastructure (telecommunications, power) and human resources capacity in rural communities.

(6) Verification of potential for contribution to development effect

The potential for contribution to the development effect was confirmed. Since the system has only just been introduced, it is mainly used for settling transactions in the local area, however, some ongoing users use it for such purposes as conducting planned savings and investing in business and agriculture and so on.

The following pages describe the project plan and the feasibility of its commercialization as a result of the above confirmation.

4. Business Outline and Feasibility of Commercialization

(1) Business outline

The business, which comprises the finance and information platform component and the E-money component, aims to realize financial inclusion for individuals living in rural communities of Mozambique, which have been excluded from access to financial services, through establishing a network of member stores in such communities, and to build financial infrastructure, in other words, finance and information platform, that can be utilized for business through attaching the added value of information.

NEC Corporation (NEC) intends to deploy the overall vision for the finance and information platform business through two approaches: i) extending system supply to the platform services by the private sector base to developing countries and emerging countries, and ii) separately deploying certain elements of the finance and information platform component for government agencies, United Nations institutions, etc.

The NBF/ADM business plan in Mozambique that is targeted in the Survey aims to become the first case under the approach i) above, in which NEC plays the role of "system supplier", providing the system according to the needs of the service operator (client).

E-money business will be operated by a new company to be established in Mozambique as an E-money institution, which NBF will take the initiative in establishing. The new company offer E-money services through utilizing the system infrastructure of the finance and information platform offered by NEC, thereby constructing the financial infrastructure in undeveloped rural communities. Moreover, examination is being conducted regarding the feasibility of forming a joint venture with Movitel for establishment of the new company.

(2) Business deployment plan

The business plans at the current time regarding the finance and information platform business, in which NEC will take the initiative, and the E-money business, in which the new company will take the initiative, are described below. In Mozambique, it is eventually planned to deploy the business throughout the entire country (10 provinces and Maputo City), where the intended joint venture enterprise (Movitel) is active, but first, the business will be consolidated in the three states (Cabo Delgado Province, Nampula Province, Manica Province) where ADM currently has its business base, and horizontally extend this basic model from there.

The business plan described below is intended for the said three provinces. The extension plan for the three provinces was compiled assuming the actual values obtained in the pilot project model villages to be the average earning and expense for member stores in the first year. Since

the project will be implemented in Africa, as the standard case, planning was conducted assuming sufficient scale to guarantee that investment is recovered in around three years.

The extension plan is indicated below. The first three years are defined as the extension phase. In the first year, 800 stores will be deployed and 160,000 users will be acquired in 400 villages; while in the third year, 3,050 stores serving 1,190,000 users will be established in 1,400 villages. From the fifth year onwards, the number of targeted villages will remain the same, but rather it is planned to have a net increase in the number of stores and the number of users per store. Also, it is projected that the unit sale value per user will increase by approximately $4\sim6\%^{-1}$ per year due to economic growth and the spread of services.

The standard number of stores per village will be no more than three, and it is planned to establish these based on the network of agents possessed by Movitel, which will cooperate with the new company. The term "agents" refers to the kiosk stores that are registered as Movitel service providers in villages. There are 28,146 agents throughout the country and 7,186 in the three provinces (October 2015). In the pilot project, it has been confirmed that obtaining revenue from commission and attracting more customers through handling E-money services are major incentives for kiosk stores to become member stores, so it is expected that the maximum number of stores (4,500) envisaged in the above plan can be comfortably attained.

Table 1 New Company Business Extension Plan

Project Year	1	2	3	4	5	6	7	8	9	10
Member stores	800	1,800	3,050	3,750	4,250	4,500	4,500	4,500	4,500	4,500
Target villages	400	900	1,400	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Users (10,000 people)	16	56	119	178	213	225	225	225	225	225
Unit sale value (USD/user)	4.3	4.5	4.7	4.9	5.2	5.4	5.8	6.1	6.4	6.8

(3) Prospects for commercialization

Business viability assessment and sensitivity analysis for the finance and information platform business and E-money business in Mozambique are described.

¹ In line with average growth in GDP (6.6%) in Mozambique over the past 10 years, it has been assumed that the frequency of use of charged deposit and withdrawal services will increase by 5% per year in comparison to the total volume of usage, and that the amounts handled in charged settlement, payment agency and transfer services will increase by 7%. The total revenue from commissions for such services will increase by 4~6% per year.

Since the source of revenue in NEC's finance and information platform business comprises system operation costs and maintenance costs paid by the new company, the viability of NEC's business is linked to the business viability of the new company. Accordingly, the business viability assessment and sensitivity analysis were conducted assuming the utilization factor (active user rate, i.e. the ratio of users who use the services more than once over a certain period) and unit transaction value to be common parameters for NEC and the new company.

⟨NEC's finance and information platform component⟩⟩

Revenue in the finance and information platform business, for which NEC will be the main proponent, will comprise the initial cost including system and software development and construction cost acquired from the new company, the software upgrading cost in the fifth year, the fixed system maintenance cost, and the specific system maintenance cost. Total revenue over 10 years will be USD 9.4 million.

Business revenue for NEC is structured in such a way that it is linked to revenue of the new company, however, since fixed charges account for 80~90% of revenue, even if the number of users and Unit sales value per user of the new company should fluctuate up or down by 10%, this would only cause the actual revenue to vary by approximately 4% and thus have only a minor impact on business viability. In addition, since the project basically entails providing a system that is based on pre-existing management resources and does not entail major additional investment, the business risk is thought to be relatively small.

⟨The new company's E-money component⟩⟩

The total sales turnover over 10 years is projected as USD 97.1 million, and it is predicted that the business will realize a single-year surplus and accumulated surplus in the third year.

Business viability assessment and sensitivity analysis are described below for the new company's E-money component. In the base case, the investment recovery period is 3.3 years and the IRR over 10 years² is 65.8%. On conducting sensitivity analysis assuming the Unit sales value per user and number of users to be the parameters, the investment recovery period and the IRR over 10 years are 3.8 years and 46.7% respectively when both parameters are minus 10%, therefore, when usage declines, it is still likely that the investment will be repaid during the fourth year.

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² IRR: Internal Rate of Return over 10 years

Table 2 Sensitivity Analysis (Investment Recovery Year)

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Investment		Unit sales value per user				
Re	Recovery -10% Base Case +			+10%		
Us	-10%	3.8 years	3.5 years	3.4 years		
Users per Store	Base case	3.6 years	3.3 years	3.1 years		
	+10%	3.4 years	3.1 years	2.9 years		

 Table 3
 Sensitivity Analysis (Business IRR)

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IRR		Unit sales value per user					
(10 years)		-10%	Base case	+10%			
Us	-10%	46.7%	60.2%	62.6%			
Users per Store	Base case	57.7%	65.8%	73.5%			
	+10%	62.6%	71.0%	79.1%			

Even if the Unit sales value per user and number of users per member store decline by 10% compared to the base case attained in the pilot project model villages, the IRR over 10 years (pretax) is still over 40%, indicating that the business can still be viable, however, the investment is not recovered until the latter part of the fourth year, which detracts from the desire to conduct such investment targeting rural communities in Africa. In the base case, it is possible to recover the investment by the first half of the fourth year. Moreover, since the number of users and Unit sales value per user at stores in cities are larger than at stores in rural communities, whereas the sensitivity analysis here is based on performance at pilot model villages, the preconditions here are set on the conservative side.

(4) Basis for deciding commercial viability

The business plan is deemed to be commercially viable. The basis for deciding on commercial viability is as follows.

Needs and acceptance for E-money services: Through the pilot project, it was confirmed that E-money services can be understood and utilized in rural communities. Specifically, 992 users in the model villages utilized the service to conduct 35,172 transactions generating cashflow of USD 164,090 (total of cash-in: USD 85,077, cash-out: USD 79,012).

- <u>Service operability:</u> Through the pilot project, a functioning system and method of operation could be established even under the business environment in the rural communities where telecommunications and electric power infrastructure, capacity of local personnel, etc. are limited. Concerning operational aspects, however, it will be necessary to construct the optimum management and operation methods and accumulate know-how, while actually extending the business over a larger scale, since the management and operation methods and know-how obtained up until now are derived only from the operation of basic units in the trial implementation in the two villages.
- Feasibility of service network deployment: In this business concept, it is vital to deploy efficient service windows (member stores). In the project, it is planned to efficiently secure the expansion of member stores through cooperating with the mobile phone service business operator Movitel, which already has a service infrastructure in rural communities. Basic agreement concerning the contents of cooperation has already been reached, hence it is judged that the base for deploying member stores is in place.
- Prospects for securing business viability: According to the results of business viability assessment of the business plan that was compiled based on the experience of previous cases and the pilot project, sufficient profitability to justify investment is attained in light of the Unit sales value per user and number of users per member store in the model villages where the pilot project was conducted. The model villages are typical rural communities of Mozambique in terms of culture and society, however, since they belong to one of the most impoverished regions in Mozambique, it should be possible to attain the actual figures achieved in the model villages in other villages too.

Following the Survey, the major issues to be confronted in the stage of full-scale commercialization will be related to the wide-area deployment (upscaling) of the services. Specifically, wide-area deployment will be realized through conducting the horizontal extension of the basic unit constructed in the above model villages, however, detailed examination will need to be advanced on methods for building a systematic human resources development and management structure, and administration such as signing contracts with the member stores.

(5) Mozambique E-money component business model

The business model for the component that the new company will implement in Mozambique is as described below.

 Strategy: The new company will provide an affordable financial service for the BOP population of rural communities that have scant access to financial services that is enabled through making use of ICT /E-money solutions and local networks. The BOP segment is targeted because such users will represent the volume zone of future financial services customers, however they have not yet been approached by commercial banks.

- Business structure: The new company will be the provider of E-money services, while NEC will act as the system supplier responsible for providing the system software and maintenance functions. Moreover, the new company will utilize the pre-existing infrastructure (physical window functions and USSD lines) of Movitel to provide the services.
- Extension method: Through cooperating with the local partner (Movitel), which has name recognition and service infrastructure (contract agents) in rural communities, existing infrastructure will be utilized to establish an efficient network of service windows in rural communities. The member stores will be paid commission fees corresponding to the amount of transactions they handle.
- Revenue structure: The main source of revenue in each store will be charges levied with each transaction, while the main expenditure will be commissions paid to each member store (approximately USD 140~175/year per store as the total of money reception and payment charges and account opening charges). From this difference, costs (system costs and equipment costs) and sale expenses will be paid, and the remainder will be revenue for the new company.

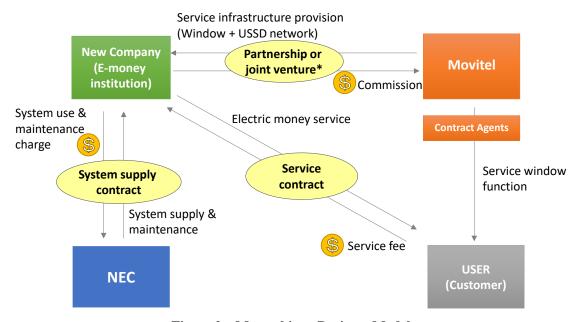


Figure 2 Mozambique Business Model

^{*} Negotiations are currently in progress regarding how to cooperate with Movitel. If the new company forms a joint venture with Movitel, it will be an associated enterprise, but if it doesn't form a joint venture, it will sign a partner agreement and be allowed to use infrastructure functions.

- (6) Business prospects regarding other targeted beneficiaries
- 1) FAO and the Mozambique Ministry of Agriculture

Based on the system that is introduced in this project, FAO Mozambique has implemented a voucher program – "Increased Access to Agricultural Inputs (seeds, fertilizers, herbicides) to Smallholder and Emerging Farmers" since 2015. In this program, which is planned for implementation by the FAO over five years from 2013, the FAO bears 50~70% of the cost of purchasing agricultural materials, while the benefiting farmers pay the remainder. The program is intended to achieve higher agricultural productivity while promoting the autonomy of the beneficiaries.

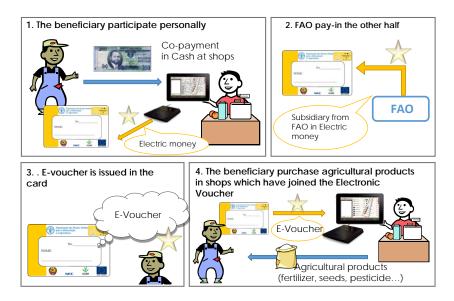


Figure 3 Conceptual View of the introduced FAO Service

In 2013, the FAO used paper-based vouchers to offer subsidies to individual farmers to help with purchasing agricultural materials, however, with a view to reducing the logistical burden and simplifying monitoring, it formulated plans to electronically process the vouchers and advertised for a service supplier. ADM and NEC offered a tender and won the order in 2015, with the former acting as the main proponent and the latter acting as the system supplier. In 2015, the system was introduced at 42 terminal points catering to some 10,000 beneficiaries, and in 2016 it was expanded to cover all 24,000 beneficiaries of the voucher program and 100 terminal points. In fiscal 2017, it is intended to continue implementing services for the same number of users via the same number of terminal points.

From 2018, when this five-year program is scheduled to end, it is scheduled for this system to be passed onto the Mozambique Ministry of Agriculture and to be continued as an NEC project. Moreover, FAO Mozambique says that it is considering introducing a similar initiative from FAO

headquarters, and it is intended to build system supply performance through actively responding to such activities in the United Nations and Mozambique.

2) Government of Mozambique

The Mozambique government organization INAS (Instituto Nacional de Acção Social; National Institution of Social Action) provides social security payments to approximately 310,000 people every year under the Government to Person Payment program. It currently makes cash payments at approximately 6,200 points all over the country, however, since logistics costs amount to almost 15%, it considers it an urgent necessity to improve efficiency and is examining plans to electronically handle the payments. NEC also views this program as a promising receptacle for the system and, as is also the case with the FAO, is aiming to become the system supplier while ADM acts as the tender proponent.

The Government of Mozambique views electronic processing of this program not only as a means of reducing logistical expenses but also as an important means of tracking use of the program as accurate information and visualizing it as data. Since NEC already has proven its ability in the FAO voucher program and it can provide total solutions based on its elementary technologies in the field of facial recognition, etc., it has a good reputation compared to rival companies.

3) SUSTENTA

The five-year SUSTENTA program, which started in 2016, is administered by the World Bank-financed FUND Invest based on Programa Nacional de Desemvolvimento Rural (National Program of Rural Development) of MITADEER (Ministry of Land, Environment and Rural Development). A number of projects are conducted within SUSTENTA, and currently talks are being advanced with a view to introducing the system to one such project, specifically the "Landscape Project". The project has three main stakeholders: a) the World Bank, which is the project owner and financer, and the MITADER-SUSTENTA team, b) Agro-Dealers (= agricultural materials retailers and large/medium farmers) that manage the service points, and c) small farmers who are the beneficiaries.

The Agro-Dealers already supply actual agricultural equipment and materials to small farmers out of pre-determined packages, however, there is need for proposal of an NFC-based solution in the transactions between the Agro-Dealers and small farmers and also in the later settlement process that is conducted between the World Bank, MITADER-SUSTENTA team, and Agro-Dealers. The service is scheduled to begin in November 2017 in a total of 10 districts in Nampula Province and Zambezia Province. NEC is regarded as a promising system provider for this

program too and, as with the two projects mentioned previously, it is responding in a joint effort with ADM, with NEC acting as system supplier and ADM as the tender proponent.

4.2. Remaining Issues, Countermeasures and Survey Policy Geared to Commercialization

The issues and countermeasures related to commercialization of the business plan are described in the following paragraphs.

(1) Acquisition of license

Originally, work was advanced on the assumption that the commercial bank applications would be completed in August 2016 and the license enabling the business plan to be implemented would be acquired at the end of February 2017, however, following revision of the banking law, it became necessary to switch attention towards acquiring an E-money institution license. Currently, the new company is autonomously examining a way to acquire a new E-money institution license, while at the same time it is conducting negotiations geared to establishment of a new company based on joint venture with Movitel, which has already acquired the E-money institution license (strictly speaking, Movitel's E-money business subsidiary M-mola Inc. is the license holder). In the case where a decision is reached concerning establishment of the new company based on joint venture by the end of October 2017, it will not be necessary for the new company to acquire its own license. In the case where it is deemed necessary for the new company to independently acquire an E-money institution license, the application procedure will be promptly advanced based on the commercial bank license application documents that were submitted in August 2016 (the commercial banking license and E-money institution license basically require the same submitted documents, although they entail different degrees of harshness in the review process). However, since issuing the licenses entails an administrative procedure, the time it takes to issue (stated as 90 days or less under the bank law) is a major uncertainty; hence effort will be made to liaise closely with the central bank to avert risk of unnecessary delays in the review process. In any case, it is intended to lay the groundwork for acquiring the license during 2017 and launching the project in 2018.

(2) Targeting of extension areas

In order to maintain the project while expanding its scope, it will be necessary to prioritize extension to those areas where a certain level of profitability can be expected. Furthermore, it will be vital to conduct extension while paying attention to selection and concentration, in order to secure convenience and enhance availability for users. For this purpose, it will be necessary to collect information on villages and areas that have a certain level of population, economic activity

and proportion of residents who earn cash incomes, and compile a specific plan regarding which areas to deploy the services from.

(3) Materialization of the project structure

The basic agreement concerning cooperation has already been reached with Movitel, however, it is still necessary to finalize details concerning the specific methods of cooperation and agreement. Moreover, in the event where the business is expanded, it will be necessary to determine concrete contents regarding criteria for selecting individual member stores, documents that require confirmation, agreed items and contract methods. Contents agreed with Movitel at present cover the following areas: sharing of information between the Movitel contract agents and users, integration of the Movitel E-money and the new company's E-money, and renting of Movitel's store spaces when establishing the new company's windows.

(4) Issues related to expansion

In the pilot project, the system was introduced to ADM's two directly managed stores and three non-directly managed member stores in the rural communities. Success was achieved in building a model that makes it possible to smoothly operate services and train human resources for deployment to a small number of stores, however, when it comes to building a network of thousands of stores as is envisaged in the business plan, it will be necessary to compile concrete plans for construction of a systemized management system. It will be necessary to select the best method for resolving the issues that arise in the expansion process while actually advancing the commercialization. Also, as the system is expanded to more and more member stores, it will be necessary to sequentially review the project costs and correct the course of the business plan.

(5) Securing of human resources

For realization of the project, it will be necessary to secure and assign field managers who can explain how to use the E-money system and address troubles that will occur in each member store. Moreover, to adopt a setup that enables troubles to be handled immediately, it will be desirable to employ local human resources who live close to the member stores. In the pilot project, it was possible for junior high school graduates who are at least literate of Portuguese, to manage the member stores; hence there is not expected to be any great difficulty concerning human resources. Concerning human resources to work in headquarters, branch offices, and district window, recruitment will be advanced with a view to securing graduates from public universities and bank personnel training colleges in Mozambique.

4.3. Plans Geared to Future Commercialization

The project implementation schedule that is currently envisaged is shown below.

Table 4 Commercialization Schedule

Period	Project Contents	Fundraising
~2017: Project preparatory phase	 Negotiations with the local joint venture partner Start of new projects not only by FAO but also other international agencies, government agencies, etc. 	Fundraising Series A 0.5~1.5 billion yen
2018~2020: Project base construction phase	 Construction of the project structure in the three provinces (Cabo Delgado Province, Manica Province, Nampula Province). Establishment of 3,050 member stores serving 1,190,000 users. 	Fundraising Series B 1~2 billion yen
2020~: Project expansion phase	 Establishment and stabilization of the project model in the three provinces. Establishment of 4,500 member stores serving 2,250,000 users. Based on the project in the three provinces, introduce to joint venture recipients in all 10 provinces of Mozambique. Eventually aim to establish 100,000 stores serving 15,000,000 users. 	Fundraising Series C 4~6 billion yen
2021~: Extension to other countries	Extend the project model to Tanzania and other countries.	