

Performance of the United States Agency for International Development Rice Project Phase One in Anambra and Ebonyi States, Nigeria

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Abstract: *The study assessed the performance of United States Agency for International Development (USAID) rice (*Oryza sativa*) project phase one in Anambra and Ebonyi States of Nigeria. The population of the study included all staff of USAID rice project phase one in both states. All the 27 project staff in both states was used which formed the sample size of the study. Primary and secondary data were used to collect data for the study. The primary data were collected through validated questionnaire for project staff while the secondary data were retrieved from the project's publications and reports. Data were analyzed using percentage, mean score and factor analysis. The results of the study showed that majority of the project staff were extension agents that would transfer the rice value chain to farmers. The project had a hundred percent performance index (P.I. = 100.0%) in both states for number of farmers trained on improved rice production practices and management, sustainable farmer/ producer associations assisted by USAID, improved technologies introduced by USAID, technology demonstrations organized by USAID, sites established and credible processors linked with. Major challenges in implementing the project included; high cost of privately sold agro-input such as fertilizers (M= 2.78), poor remuneration of staff (M= 2.70), incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company (M= 2.67), inadequate and late supply of agro-input by the service providers linked (M= 2.63), poor logistic support for field staff (M= 2.59), land fragmentation nature of farmers (M= 2.52), inadequate and untimely release of funds (M= 2.44). Major challenges factored in implementing the project were poor staff funding, poor services and social unrest challenges. The need for the project management to intensify effort to widen their geographical area of coverage for more farmers to benefit from the project was recommended.*

Keywords: *Assessment, performance, USAID rice project, Nigeria*

I. Introduction

The process of project evaluation is concerned with assessing, in a retrospective sense, the performance of a project after it has been implemented and completed. The measurement of project or programme performance may be undertaken using quantifiable and non-quantifiable indicators (performance indicators) [1].

An indicator according to Daane, Francis, Oliveros, and Bolo [2] is a measure that provides information on a characteristic of a system at a given time (e.g. the traded volumes of the products of a given value chain in existing markets) or of the change in a characteristic over time (e.g. growth of value added and profit margins in a given value chain). A performance indicator is a simple statistic recorded over time, to inform managers of the success of some aspect of programme performance. Examples of indicators in agricultural extension might be the number of farmers contacted by extension agents per year, or the number of members participating in discussion groups [3]. Asian Development Bank (ADB) [4] noted that performance indicators and targets, the tools for gauging performance, are the quantitative and qualitative measurement basis for output, outcome and impact.

Rice (*Oryza sativa*) is the most important staple food for about half of the human race [5, 6]. Rice is cultivated in virtually all of Nigeria's agro-ecological zones, from the mangrove swamp ecology of the Niger Delta in the coastal areas to the dry zones of the Sahel in the north. Many rice varieties are being grown in these different agro-ecologies [7, 8]. The country has a potential land area of between 4.6 to 4.9 million hectares suitable for rice production, but only 1.7 million hectares or 35% is being cropped [7]. Nigeria's annual rice consumption on average is 32 kilograms per person, with annual consumption in urban areas amounting to an average of 47 kilograms per capita. Nigeria is simultaneously one of the largest producers of rice in Africa, and is also one of the largest importers of rice in the world – Nigeria produces approximately two million metric tons of milled rice annually, yet imports an additional three million tons [9].

Nigerian rice farmers are not able to meet quality standards and are unable to produce enough rice to feed the country because they lack some key resources available to farmers in more developed nations [10]. Nigeria's rice sub-sector is dominated by weak and inefficient producer-market linkages due to poor

infrastructure including lack of improved processing facilities, low rice productivity, poor post-harvest handling and storage, expensive and poor access to inputs (high quality seed, fertilizer, and crop protection products), inadequate market information, lack of transparency among players, low capacity to meet quality standards, and limited efficiency of distribution networks [8]. However, various efforts have been made to improve rice production in Nigeria by federal government of Nigeria with collaboration of national and international organizations [11]. These involve establishment of projects and programmes in which the United States Agency for International Development (USAID) Maximizing Agricultural Revenue and Key Enterprises in Targeted Sites (MARKETS) was one of them [12].

The USAID is the United States government agency primarily responsible for administering civilian foreign aid (Wikipedia, 2010). The agency's recent intervention in food and agriculture production is known as MARKETS [8]. Baseline data were collected based on USAID MARKETS pre-specified indicators, project states and target commodities. MARKETS uses a demand-driven, value chain approach starting with agro-processors that provide a market outlet for small-scale producers. The value chains are focused on targeted agricultural commodities that are predominantly small farmer crops with available end markets that have high growth potential [10]. USAID MARKETS operates in 24 states of Nigeria and the federal capital territory (FCT). The rice project covered only four states for rice commodity value chain. These include Anambra, Benue, Ebonyi and Kwara. MARKETS' core strategy to develop the rice sub-sector is to encourage competitiveness along the value chain, by strengthening identified markets and encouraging the use of commercially-led technologies to meet demand requirements. Improved package of practices for rice production were introduced to rice farmers by USAID for adoption purposes. List of performance indicators set up by USAID MARKETS before intervention in 2005 include number of new jobs created such as the total number of on-farm and non-farm in excess of 2 weeks created as a result of MARKETS assistance, number of clients networked into MARKETS, etc [13].

The USAID-funded MARKETS project phase one, however came into south east zone, specifically in Anambra and Ebonyi States in 2005 with a mandate to work along the entire rice value chain in order to improve on-farm productivity and sales and income. It is partnering with some credible rice processors and the public sector to develop an efficient commercial rice industry model that benefits smallholder farmers, while introducing best farming and processing practices, which aim to make Nigerian rice compete with imported rice. After more than five years of operation, the assessment of the performance of USAID MARKETS project phase one become pertinent and the foregoing questions become imperative. To what extent has the project achieved its target in improved rice production and processing practices with respect to training of farmers, promoting access to credit and agro-input supply to farmers through linkages with service providers in Anambra and Ebonyi States? What are the challenges in implementing the project?

II. Objective Of The Study

The overall objective of the study was to assess the performance of United States Agency for International Development (USAID) rice (*Oryza sativa*) project phase one in Anambra and Ebonyi States of Nigeria. Specifically, the study was designed to:

1. identify socio-economic characteristics of the project staff;
2. assess the extent of performance of the project with respect to provision of farmers' training, access to credit and agro-input supply; and
3. identify major challenges in implementing the project.

III. Methodology

3.1 The Study Area

The study was carried out in Anambra and Ebonyi States in the south-east zone of Nigeria. The two states participated in the first phase of USAID MARKETS project. Anambra State of Nigeria is made up of 21 Local Government Areas (LGAs) and four Agricultural Zones (AZs) - Aguata, Anambra, Awka and Onitsha. It is located in the South-East region of Nigeria between longitude $6^{\circ} 36'E$ and $7^{\circ} 21'E$ and latitude $5^{\circ} 38'N$ and $6^{\circ} 47'N$. The State is bounded in the north by Kogi State, in the west by River Niger and Delta State, in the south by Imo State and on the east by Enugu State. Anambra State occupies an area of 4,416 sq. km and has a population of 4,177,828 out of which 2,117,984 are male and 2,059,844 female [14]. The number of farm families is 338,721 with an average size of 6 persons per farm family or household. The climate is typically equatorial with two main seasons, the dry and the rainy seasons. Major crops grown in the state among others include rice, cassava, yam, maize, okra, cocoyam, melon, cowpea and pigeon pea. The first phase of USAID-MARKETS project in the state covered 2 LGAs. Twenty-two rice farmer cooperatives with a total population of about 440 farmers were registered under the project [15].

Ebonyi State is made up of thirteen LGAs. It lies on latitudes $5^{\circ} 40'N$ and $6^{\circ} 45'N$ and longitudes $7^{\circ} 30'E$ and $8^{\circ} 46'E$. It occupies an area of about 5,935 km², which is approximately 5.8 per cent of the total land

area of Nigeria with a population of 2,173,501 people [14]. The State is semi-savannah with seasonal variations of hot, mild cold weather and mixed grid vegetation with all eastern prototypes including agrarian, forestry and swamp which are ideal for rice production. The climate is a tropical hot humid type characterized by high rainfall, high temperature and sunshine with two marked seasons: the rainy and dry. The major occupation of the State is farming with a population of 145,109 rice farmers and 202 public extension agents. The first phase of USAID-MARKETS project in the state covered 12 LGAs. Sixty-eight rice farmer cooperatives with a total population of about 1,360 farmers were registered under the project [16].

3.2 Population And Sampling Procedure

The population of the study included all staff of USAID-MARKETS rice project phase one in both Anambra and Ebonyi States of Nigeria. The total number of MARKETS I project staff in Anambra and Ebonyi states are 8 and 19, respectively. All the 27 project staff in both states were used and involved in the study. This formed the sample size of the study

3.3 Instrument For Data Collection

Primary and secondary data were used to collect data for the study. The primary data for the study were collected through validated questionnaire for project staff. The secondary data needed namely; target and achievements of the project with respect to rice production and processing activities in Anambra and Ebonyi States were retrieved from the project's publications and reports from the project state offices in Awka and Abakaliki.

3.4 Measurement Of Variables

To examine the extent of performance of the project in Anambra and Ebonyi States with respect to farmers training and access to credit and agro-input supply, a performance index was used. The information on target and achievement of the project with respect to rice production and processing activities were collected in both states. These were retrieved from the project's publications and reports. These included the number of: farmers trained on improved rice production practices and management, farmers trained on improved rice processing technologies, farmers that acquired improved rice variety seeds, fertilizers, herbicides and insecticides at subsidized rate assisted by MARKETS, etc.

The performance index (P.I.) was computed as: $\frac{\text{Actual}}{\text{Expected}} \times 100$ or $\frac{\text{Achievement}}{\text{Target}} \times 100$

When $P.I. \geq 0.50$ or $\geq 50.0\%$ shows that the performance is on the average or high.

To identify the major challenges in implementing the project, the staff were asked to indicate on a 3-point Likert-type scale, how serious each of the various shortlisted problems/challenges militates against effective implementation of the project. Their response categories were: very serious (VS) = 3; serious (S) = 2; and not serious (NS) = 1. These values were added to obtain a value of 6 which was divided by 3 to get a mean score of 2.0. The respondents' mean were obtained on each of the items. Any mean score ≥ 2.0 was regarded as a serious problem/major challenge; while any mean score < 2.0 was regarded as not serious problem/minor challenge. Data were subjected to exploratory factor analysis procedure, using the principal factor model with varimax rotation in grouping the constraint variables into major constraint factors. However, only variables with loadings of 0.40 and above (10% overlapping variance) were used in naming the factors.

3.5 Data Analysis

Data collected on socio-economic characteristics of the respondents (Objective 1) were presented using percentage and mean score, while data collected on Objective 2 assessed the extent of performance of the project and were achieved using percentage (performance index). Objective 3 identified the major problems/challenges in implementing the project and was analyzed using mean score and factor analysis.

IV. Results And Discussion

4.1 Socio-Economic Characteristics Of The Respondents

Table 1 shows that majority (55.6%) of the USAID staff were between 40-49 years of age, while their mean age was 45.07 years, implies that the staff were still at their middle and productive age hence would be able to carry out the project's activities effectively. Majority (66.7%) of the USAID staff were male, while 33.3% were female. Majority (96.3%) of the USAID staff were married, while the remaining 3.7% of them were single. Majority (55.6%) of the USAID staff was HND/First degree holders, 3.7% had secondary school completed, 18.5% obtained OND/NCE certificate, while the remaining (22.2%) obtained higher degree certificates such as PGD/M.Sc./Ph.D, implies that all the project staff are literate. Majority (66.7%) of USAID staff had household sizes of 6-10 persons, while the remaining 33.3% had household sizes of 6-10 persons and the mean household was 6 persons. All (100.0%) of USAID staff had less than 10 years of work experience in

the project, while the mean working experience was 5.67 years. The few years of working experience by the project staff is an indication that some staff joined the project at the inception in 2005 (about 9 years ago), while some joined at some years after the inception. However, experience, they say, is the best teacher. Thus, the longer a person stays on a job, the more likely the person acquires the relevant experience to perform better.

Table 1 also shows that majority (63.0%) of the project staff were the projects' extension agents, while 14.8% each of them were zonal coordinators and ADP supervisors. The remaining 7.4% were the lead coordinators (3.7% each from the 2 states under study). The finding implies that the project had reasonable number of staff especially extension staff that would transfer the rice value chain to farmers.

Table 1: Percentage distribution of respondents according to their socio-economic characteristics (n=27)

Variable	Percentage (%)	Mean (M)
Age (years)		
20-29	03.7	45.07
30-39	14.8	
40-49	55.6	
50-59	25.9	
Sex		
Male	66.7	
Female	33.3	
Marital status		
Single	03.7	
Married	96.3	
Educational level		
Secondary school completed	03.7	
Tertiary education (OND/NCE)	18.5	
HND/First Degree holder	55.6	
Higher degree (PGD/M.Sc./Ph.D)	22.2	
Household size (number)		
1-5	33.3	6.00
6-10	66.7	
Work experience (years)		
0-9	100.0	5.67
Present rank		
Lead coordinator	07.4	
Zonal coordinator	14.8	
ADP supervisor	14.8	
Extension agent	63.0	

Source: Field survey, 2013

4.2 Performance Indices Of USAID-MARKETS Project Phase One Based On Secondary Data, 2005-2010

Entries in Table 2 indicate that In Ebonyi State, the project met its targets in number of farmers trained on improved rice production practices and management, number of farmers trained on improved rice processing technologies, number of farmers that gained access to herbicides and insecticides assisted by MARKETS and number of service providers linked with, each having 100% performance index. Other areas of high performance indices in Ebonyi State included, number of farmers that acquired fertilizers at subsidized rate assisted by MARKETS (P.I. =56.3%) and number of farmers that gained access to herbicides and insecticides assisted by MARKETS (P.I. =70.4%).

In Anambra State, the project had high performance index for number of farmers trained on improved rice production practices and management (P.I. = 100.0%), number of farmers trained on improved rice processing technologies (P.I. = 50.0%), number of farmers that acquired improved rice seeds assisted by MARKETS (P.I. = 74.0%), number of sustainable farmer/ producer associations assisted by MARKETS (P.I. = 100.0%), number of improved technologies introduced by MARKETS (P.I. = 100.0%), number of technology demonstrations organized by MARKETS (P.I. = 100.0%), number of sites established (P.I. = 100.0%) and number of credible processors linked with (P.I. = 100.0%). Further analysis of the findings reveals that the project performed very well in 10 out of the 12 performance indices assessed in Ebonyi State, while in Anambra State, 7 out of the 12 performance indices were achieved. This implies that the project got pass marks in the two states, thereby succeeded in achieving greater number of the targeted objectives, especially in training and aided access to agro-input supply.

Pooled data (combination of the two states under study) in Table 2 show that the project performed excellently in both states with 100% performance index (P.I.). These areas included: number of farmers trained on improved rice production practices and management, number of sustainable farmer/ producer associations assisted by MARKETS, number of improved technologies introduced by MARKETS, number of technology demonstrations organized by MARKETS, number of sites established and number of credible processors linked with. Other areas with high performance index were number of farmers trained on improved rice processing

technologies (P.I. = 75.0%) and number of farmers that gained access to herbicides and insecticides assisted by MARKETS (P.I. =63.8%).

The findings are in line with USAID [17] which noted that the first year of the USAID/Olam partnership provided more than 10,000 farmers with secure markets where they could sell their rice, have access to commercial finance, and technical assistance to produce high quality rice. This resulted in productivity increases of almost 260%. More importantly, farmers’ net income more than doubled. The success of the programme encouraged First Bank, a Nigerian commercial bank, to become a major stakeholder with a smallholder farmer commercial credit programme, providing \$2.5 million in credit to more than 8,000 farmers.

Table 2: Performance indices of USAID-MARKETS project phase one based on data available at USAID offices, Awka and Abakaliki , between 2005-2010

Performance index	Ebonyi State			Anambra State			Pooled		
	T	A	Index %	T	A	Index %	T	A	Index %
Number of farmers trained on improved rice production practices and management	3550	3550	100.0	1000	1000	100.0	4550	4550	100.0
Number of farmers trained on improved rice processing technologies	12	12	100.0	12	6	50.0	24	18	75.0
Number of farmers that acquired improved rice variety seeds assisted by MARKETS	3550	1456	41.0	1000	740	74.0	4550	2196	48.3
Number of farmers that acquired fertilizers at subsidized rate assisted by MARKETS	3550	2000	56.3	-	-	-	-	-	-
Number of farmers that gained access to herbicides and insecticides	3550	2500	70.4	1000	400	40.0	4550	2900	63.8
Number of farmers’ group that had access to credit or obtained credit at low interest rate (Naira) assisted by MARKETS	60	10	16.7	-	-	-	-	-	-
Number of sustainable farmer/producer associations assisted by MARKETS	60	60	100.0	6	6	100.0	66	66	100.0
Number of improved technologies introduced	19	19	100.0	22	22	100.0	41	41	100.0
Number of technology demonstrations organized by MARKETS	3	3	100.0	2	2	100.0	5	5	100.0
Number of sites established	12	12	100.0	3	3	100.0	15	15	100.0
Number of credible processors linked/ partner with	12	12	100.0	6	6	100.0	18	18	100.0
Number of service providers linked with	1	1	100.0	-	-	-	-	-	-

Source: USAID-MARKETS, Ebonyi and Anambra States, 2010 Project Completion Reports

T = targeted; A= achieved; P.I. ≥ 50% = high performance index

4.3 Major Challenges In Implementing The Project

4.3.1 Responses Of Project Staff On The Challenges In Implementing The Project

Data in Table 3 reveal the major challenges in implementing the project based on the responses of the project staff. The serious problems identified included; high cost of privately sold agro-input such as fertilizers (M= 2.78), poor remuneration of staff (M= 2.70), incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company (M= 2.67), inadequate and late supply of agro-input by the service providers (M= 2.63), poor logistic support for field staff (M= 2.59), poor access to rice farm land (M= 2.52), inadequate and untimely release of funds (M= 2.44), inadequate support of the project by government (M= 2.30), poor extension farmer ratio (M= 2.26) and inadequate training of staff (M= 2.26). Also, entries in Table 2 shows that the standard deviation values were less than one in all cases, showing that the responses of the project staff on these problems did not vary much, signifying convergence of views with regards to these constraints.

The findings are similar to that of Okonkwo [18] which noted that Nigeria has passed through several notable agricultural programmes designed to improve agriculture and reduce poverty. Most of them according to him failed either due to funding, maladministration or misconception. However, Executive Agency for Health and Consumers (EAHC) [19] noted that key elements of project implementation include: managing the work plan, monitoring the time schedule, monitoring the budget, managing risk and managing issues. Singh [20] noted some limitations of agricultural projects in achieving the desired result. These include mismatch between actual demand and target; activities being spread too much without much focus; project not given adequate attention to natural resource management; and no much involvement of people in preparation of action plan.

Table 3: Mean distribution of project staff according to major problems/challenges in implementing the project

Problem	Mean (M)	SD
High cost of privately sold agro-input such as fertilizers	2.78	0.424
Poor remuneration of staff	2.70	0.609
Incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company	2.67	0.480
Inadequate and late supply of agro-input by the service providers linked	2.63	0.629
Poor logistic support for field staff	2.59	0.572
Poor access to rice farm land	2.52	0.643
Inadequate and untimely release of funds	2.44	0.641
Inadequate support of the project by government	2.30	0.669
Poor extension farmer ratio	2.26	0.656
Inadequate training of staff	2.26	0.656
Project dependency on its major partners, the agro-processors who are not reliable	1.81	0.921
Government distortions and impediments- Intervention by national and state governments in the agricultural input supply chains	1.81	0.736
Project mission and goal not clearly stated or understood by staff	1.26	0.526
Conflicts among the benefiting communities/LGAs	1.19	0.483

*= $M \geq 2.00$ = serious problem SD= Standard deviation

4.3.2 Staff Identified Factors Challenging The Implementation Of The Project

Data in Table 4 reveal the results of the rotated factor matrix indicating the extracted factors based on the responses of the project staff on the challenges in implementing the project. It is evident from the table that three major challenges were extracted based on the responses of the respondents. Factors 1, 2 and 3 were named poor staff funding, poor services and social unrest challenges, respectively.

Poor staff funding challenges as indicated in Table 4 included, inadequate and late supply of agro-input by the service providers (0.605), inadequate training of staff (0.679), poor remuneration of staff (0.649), poor logistic support for field staff (0.744) and poor extension farmer ratio (0.761). This implies that the project staff are not taken good care of in terms of their welfare and quality training. Also, shortage of extension staff and late supply of agro-input by the service providers are said to be very serious in the study area. This may hamper their performance thereby posing challenges in implementing the project. The findings are in agreement with Okonkwo [18] which recalled that the termination of the World Bank loan triggered off hard times in the ADPs resulting in some setbacks in extension system, such as acute shortage of experienced extension staff, inadequate logistics, inadequate training both for extension staff and farmers and lack of motivation of extension staff.

Poor services challenges as indicated in Table 4 included inadequate support of the project by government (0.437), project dependency on its major partners, the agro-processors who are not reliable (0.601), government distortions and impediments- intervention by national and state governments in the agricultural input supply chains (0.658) and incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company (0.438). According to Business Improvement Architect (BIA) [21], major issues increasing in importance over prior years that are facing organizations when managing projects include: a lack of project management skills; project not linked to organizational goals; loss of control due to lack of detail in project plan; conflict among project team members; lack of senior management support/buy-in; and project does not include all stakeholder needs.

Conflicts among the benefiting communities/LGAs (0.761), poor access to rice farm land (0.613) and high cost of privately sold agro-input such as fertilizers (0.484) were the social unrest challenges. In Ebonyi State, it was reported that Ishelu LGA did not participate in the USAID MARKETS project, due to incessant communal clashes and social unrest prevalent in the area. Also, the type of land ownership in the study area had made it impossible to increase land holdings in order to achieve commercial rice farming and adopt improved rice technologies introduced, hence majority of the farmers are still small scale holders scattered in different locations. Furthermore, due to the project's dependency on private partnership in supply of agro-input such as fertilizers, farmers had no full access to it due to high cost since it is not subsidized unlike government one. This still pose challenges to the project implementation in the area.

Table 18: Factor analysis of the challenges in implementing the project

Problem/challenge	Factor 1 Staffing challenge	Factor 2 Administrative challenge	Factor 3 Socio-economic
Inadequate support of the project by government	0.142	0.437	0.217
Inadequate and late supply of agro-input by the service providers linked	0.605	0.233	0.026
Project mission and goal not clearly stated or understood by staff	0.079	0.400	0.752
Project dependency on its major partners, the agro-processors who are	0.391	0.601	-0.092

not reliable			
Government distortions and impediments- Intervention by national and state governments in the agricultural input supply chains	-0.038	0.658	0.039
Inadequate training of staff	0.679	-0.213	0.362
Poor remuneration of staff	0.649	0.370	-0.133
Inadequate and untimely release of funds	0.535	0.545	-0.060
Poor logistic support for field staff	0.744	0.075	-0.123
Poor extension farmer ratio	0.761	-0.281	0.296
Conflicts among the benefiting communities/LGAs	-0.078	0.197	0.761
Poor access to rice farm land	-0.228	-0.369	0.613
High cost of privately sold agro-input such as fertilizers	0.173	-0.027	0.484
Incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company	-0.090	0.610	0.048

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

V. Conclusion

The project had high performance index for number of farmers trained on improved rice production practices and management, farmers trained on improved rice processing technologies, farmers that gained access to herbicides and insecticides assisted by MARKETS, sustainable farmer/ producer associations assisted by MARKETS, improved technologies introduced by MARKETS, technology demonstrations organized by MARKETS, sites established and credible processors linked with. The major challenges in implementing the project were issues related to poor services, poor staff funding and social unrest challenges.

The following recommendations are made:

1. Although the project had high performance index in some areas in both Anambra and Ebonyi, there is need for the project management to intensify effort to widen their geographical area of coverage for more farmers to benefit from the project.
2. The problem of incidence of strange species of rice among the improved seeds (FARO 44) supplied by the seed company should be on check in order to provide pure and high quality rice seed to all farmers. This is to say that FARO 44 seed rice being supplied by the seed companies in partnership with USAID MARKETS should be void of adulteration or mixed varieties. To achieve this, the project should institute a body to certify the seed before supply and also monitor the distribution.
3. There should be timely (before the farming season kicks off) and adequate supply of agro-input such as fertilizers, herbicides, etc. at about 20-50% subsidized rate by the service providers. This would discourage farmers from relying on high cost of privately sold agro-input such as fertilizers.
4. There should be adequate support of the project by top management or government, so that there will be good political climate for the project to operate effectively.
5. Project staff especially the field staff should be well mobilized and remunerated so that they can discharge their duties effectively.

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