



Assessment of Rice Assistance Program for Institutional Development in Selected Municipalities of Bohol, Philippines

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Received 1 November 2013 Accepted 9 July 2014 (*Corresponding Author)

Abstract This study evaluated the performance of the Rice Assistance Program for Institutional Development (RAPID) in selected municipalities of the province of Bohol, Philippines. There were 240 farmer beneficiaries of the program who served as respondents for the normative survey conducted. Seed was commonly availed by the beneficiaries and respondents revealed that delivery of inputs was on time and repayment was also on time. During the implementation of the program beneficiaries observed problem which is the failure of the Community Organizers to visit farmer's field. With regards to the performance of the farmer beneficiaries, majority affirmed that their attendance to meetings and involvement in the activities have increased after the program was implemented. There was also an observed increase of members in the organization. On the impact to the environment majority affirmed that the project resulted to having increased soil fertility and fewer pest incidences in their crops. On the economic aspect, respondents revealed that there was an increase of their yield and income after the program. The results of the study made the researchers to recommend the following: 1) the project should be institutionalized in the Municipal Local Government Unit. This means the local government must allocate funds for its sustainability especially for the travelling expenses of the technicians who will do the monitoring and evaluation of the project. Once institutionalized, 2) the project shall not be confined to the irrigated and compact areas so that farmers with small landholdings and those in rainfed areas can also avail of the assistance of the project.

Keywords community organizers, respondents, sustainability, compact areas, landholdings

INTRODUCTION

Rice Assistance Program for Institutional Development (RAPID) was a project of the province of Bohol, Philippines which was implemented in 2008-2011 in response to the food crisis by providing high quality rice seeds to the farmers as a strategy to increase production. RAPID was designed to strengthen the campaign for farmers to use hybrid or certified seeds, empower such farmers in the management of the business of their accredited association and strengthen the rice seed system in the province (Bohol Rice Industry, 2005).

For decades, agricultural science has focused on boosting production through the development of new technologies. It has achieved enormous yield gains as well as lower costs for large-scale-farming. But this success has come at a high environmental cost. Further, it has not solved the social and economic problems of the poor in developing countries, which have generally benefited the least from this boost in production (Sundstrom, 2013).

Various studies on different Rice production Programs have been conducted to discuss the factors that affect implementation of these programs (OPA, 2006). The national programs were the local version of the Green Revolution which had been promoted in many developing countries in

the early part of the 1970s. Farming modernization created ecological, economic and socio-cultural impacts (Quirog, 1994).

A study revealed that during the implementation of the Rice Action Program (RAP) in Bohol, rice yield increased from 2.60 tons per hectare to 3.48 tons per hectare. This was primarily brought by the increase in fertilizer usage and the use of high quality seeds (Quirog, 1994).

This study was done to assess the performance of the Rice Assistance Program for Institutional Development (RAPID) in the province of Bohol.

METHODOLOGY

This study was conducted in 2012 in the ten (10) selected municipalities of Bohol province where RAPID was implemented in the year 2008-2011. The sites included the towns of Balilihan, Alburquerque and Catigbian (first district); Dagohoy, Trinidad, San Miguel and Ubay (second district); and Alicia, Batuan, Bilar (third district). There were 240 randomly selected farmer beneficiaries who participated in the research process using the normative survey method which collect the information through the knowledge of individual members of the farmer group with the aid of the questionnaire, interview and observation techniques. The questionnaire was translated into the dialect to facilitate easy understanding by the respondents. Research protocol was properly observed before the data gathering was done. This means necessary permits were secured at the provincial and municipal levels to ensure coordination and assistance of concerned agriculture officials in the study sites. Questionnaires were distributed and retrieved personally by the researchers to ensure that all items are properly answered.

RESULTS AND DISCUSSION

Farming Socio-Demographic Profile of the Respondents

Profile of the respondents in terms of area of rice farm, tenurial status, and number of years in farming, trainings and seminars attended related to rice farming and availment of the assistance of RAPID was documented.

Area of rice farm: Survey proved that 190 or 79.2% of the farmers owned 0.25 to 1 hectare of riceland, 39 or 16.3% owned 1.1 to 2 hectares and 11 or 4.6% of the farmer beneficiaries owned a 2.1 to 3 hectares of riceland.

Tenurial status: A total of 140 or 58.3% respondents were owner-operators, 108 or 45% were tenants while 35 or 14.6% were part-owners and 13 or 5.4% were leases.

Number of years in farming: Survey showed that of the total respondents 129 or 53.8% have experienced 11 to 25 years in farming, 46 or 19.2% has an experience of 1 to 10 years in farming while 46 or 19.2% have experienced 26 to 40 years in farming, 17 or 7.1% have experienced 41-55 years in farming and only 2 or 0.8% have an experience of 56 years and above. Survey showed that the average year of farming experiences for most of the respondents was twenty-two (22) years.

Trainings and seminars related to rice farming: The findings showed that one hundred sixty seven (167) or 69.6% of the total population have attended trainings on rice production and, Farmers Field School (FFS) using palaycheck system; (12) or 5% attended Integrated Pest Management seminar; nine (9) or 3.8% have attended integrated farming system palayaman and technical briefing on rice production; twelve and; four (4) or 1.7% on System of Rice Intensification (SRI). Of the respondents, forty eight (48) or 20% have not attended any seminars or trainings. at all.

Availment of the assistance of RAPID: There were three components of assistance that the program provided. These include the following; seed assistance, fertilizer assistance and crop insurance assistance. Among the respondents, one hundred sixty seven (167) or 69.6% availed of the seed assistance only in RAPID; forty eight (48) or 20% availed of the seeds and fertilizer assistance while twenty three (23) or 9.6% availed of the three item assistance which is the seeds,

fertilizer and crop insurance and only two (2) or 0.8% farmers availed of the seeds and crop insurance assistance.

Significant Impact of the Program to the Environment

Fertility of soil: In the survey conducted, good/fertile soil was being rated by three categories namely fair, good and very good: at the rate of ten (10) where 10 was the highest five (5) was fair, eight (8) was good and ten (10) was very good. When asked to rate the fertility of their soils before RAPID was implemented, forty three (43) or 17.9% said that the fertility of their paddies was poor; One hundred fifty four (154) or 64.1% believed that their soil was fair; thirty four (34) or 14.1% stated that their soil was good enough and nine (9) or 12.8% affirmed that their soil was very good. After the implementation of the program, eight (8) or 3.3% said that their paddies were poor and not fertile; ninety six (96) or 40% pointed out that their paddies were fair in fertility; One hundred twenty one (121) or 50.4% claimed that their paddies were good in fertility and fifteen (15) or 23.1% asserted that their paddies were very fertile.

Occurrence of pest: Before the implementation of the program, study shows that six (6) or 2.5% of the total respondents have not experienced pest infestations in their rice farm; while one hundred fifty five (155) or 64.5% said that it seldom happens to have pests in their farm; on the other hand sixty nine (69) or 28.7% said that their farms were always infested by pests and fifteen (15) or 6.2% revealed that their farms were frequently attacked by pests. After the program was implemented, ten (10) or 4.1% revealed that there was no infestation of pests in their farm; One hundred fifty (150) or 62.5% said that their farm was seldom attacked by pests and eighty (80) or 33.3% proved that their farm was often infested with pests.

Occurrence of diseases: Survey showed that before the program was implemented, five (5) or 2.1% said that it never happens to have a disease infestation in their rice farm; one hundred fifty five (155) or 64.5% have experienced that their farm was rarely attacked by diseases; seventy (70) or 29.1% declared that their farm was always infested with diseases and ten (10) or 4.1% stated that their farm was frequently attacked by diseases. After the implementation of the program study revealed that of the total respondents ten (10) or 4.1% did not experience any occurrence of diseases in their farm; one hundred fifty seven (157) or 65.4% seldom experienced disease infestation in their farms; sixty five (65) or 27.1% stated that their farms have always experienced disease infestation and eight (8) or 3.3% said that they frequently experienced their farm being attacked by diseases.

Nutrient management: Before the program was implemented thirty (30) or 12.5% of the total respondents used animal manure as fertilizer to enhance the growth of rice while after the program was implemented a number of farmers using animal manure increased to thirty nine (39) or 16.2%. Using green manure as fertilizer was practiced by twenty eight (28) or 11.6% of the total respondents before the RAPID implementation and the practice was continuously done by thirty five (35) or 14.5% after the program. Usually farmers plowed back rice straws to their rice fields as fertilizer for the next crop and survey showed that before the program was introduced one hundred eighteen (118) or 49.1% of the total respondents do the practice and one hundred twenty eight (128) or 53.3% still continue to do the practice after the implementation of the program.

Survey revealed that of the total respondents two hundred thirty (230) or 95.8% applied commercial/inorganic fertilizers in their farms even before RAPID was implemented and two hundred twenty nine (229) or 95.4% applied the same after the program. Of the total respondents, there was one farmer who did not apply any fertilizers before and after the program was implemented.

Pests and diseases management: Before the implementation of RAPID, the farmers used different methods to manage pests and diseases in their farms. In the management of weeds, farmers have always appreciated the efficiency of the human factor to pull the weeds growing with the rice plants. One hundred eighty two (182) or 75.8% practiced hand weeding throughout the early vegetative part of the rice plants before the RAPID program was introduced and one hundred eighty six (186) or 77.5% do the same after the program was implemented. Use of herbicides was not encouraged in the introduced POT during the technical briefing prior to the delivery of inputs.

However survey showed that before the program started it was found out that of the total respondents forty one (41) or 17.1% applied herbicide in their farms and thirty five (35) or 14.5% still continue to apply herbicides after the program was implemented. It is evident that the presence of insects and snails were most common in rice farming and one way to manage this was by handpicking of the pests and other diseased plant parts to control the spread of these diseases to the non affected plants. Study confirmed that that the practice of handpicking insects and snails were done before and after the RAPID program was implemented. Before the program was introduced it was practiced by one hundred fifteen (115) or 47.9% and one hundred sixteen (116) or 48.8% of the total respondents do the same after the program. Though using of chemical insecticides was not promoted by the POT introduced by the program but still it was widely used by most of the respondents before and after the program was implemented. One reason why they would still insists to apply chemicals was because farmers want to make things easy for them. Applying chemicals was for them the very easy way to control insects and diseases. Assessment showed that one hundred fifty seven (157) or 65.4% used chemical insecticides before the program was introduced and one hundred fifty three (153) or 63.7% after the program was implemented.

Social Performance of the Farmer Beneficiaries before and after the Program

With regards to attendance to meetings, 75%-100% attendance was done by 15 or 6.2% before RAPID and 50 or 20.8% after RAPID; 51%-75% attendance by 55 or 22.9% before RAPID and 128 or 20.8% after RAPID; 26%-50% attendance by 107 or 44.5% before RAPID and 47 or 19.5% after RAPID and a 0-25% attendance by 63 or 26.2% before RAPID and on the performance of the beneficiaries on every activities done by the organization, 100% involvement was made by 12 or 5% prior to the program and 50 or 20.8% after the program; 75% involvement by 57 or 23.7% prior to the program and 119 or 49.5% after the program; 50% involvement by 108 or 45% prior to the program and 59 or 24.5% after the program and a 25% involvement by 63 or 26.2% prior to the program and 12 or 5% after the program.

Increase in number of members and activities of the IA / FA. Findings of the survey showed that all the respondents affirmed an increase in the number of members and activities in their association after implementation of the program. Reason for this was the interest of the farmers to have privilege to avail of the benefits of the program.

Economic Performance of the Farmer Beneficiaries before and after the Program

It was found out that the average income of the farmers was 19,333.65 before the program and it increased to an average of P31, 503.70 after the program. This was attributed to an increase in yield from 1.57 tons per hectare before the program to 2.36 tons per hectare after the program

Statistical test revealed that there is a highly significant difference on the social performance of the farmer beneficiaries before the program and after the implementation of the program at 1% level of significance at computed T at 21.80 (attendance to meetings), 20.85 (participation to activities), 19.86 (increase in number of members) and 39.62 (increase in number of activities of the organization). This implies that the difference in the social performance of the farmer beneficiaries before and after the program is highly significant.

Statistical test revealed that there is a significant difference on the farm performance of the farmer beneficiaries on the environment aspect before the program and after the implementation of the program at 5% level of significance at computed T at 9.68 (soil fertility), 2.48 (pest infestation) and 2.04 (disease infestation). This implies that the difference in the farm performance of the farmer beneficiaries on the environment aspect before and after the program is statistically significant.

Statistical test revealed that there is a highly significant difference on the social performance of the farmer beneficiaries before the program and after the implementation of the program. This implies that the difference in the social performance of the farmer beneficiaries before and after the program is statistically highly significant.

Statistical test revealed that there is a significant difference on the performance of the farmer beneficiaries on the environment aspect before the program and after the implementation of the program at 5% level of significance. This implies that the difference in the performance of the farmer beneficiaries on the environment aspect before and after the program is statistically significant.

Statistical test revealed that there is a highly significant difference on the performance of the farmer beneficiaries on the economic aspect before the program and after the implementation of the program at 1% level. This implies that that the difference in the farm performance of the farmer beneficiaries on the economic aspect during and before the program is statistically highly significant.

CONCLUSION AND RECOMMENDATION

Majority of the farmer beneficiaries of RAPID were male whose age ranges from 46-60 years old and mostly owner-operators of their farm. Most of them were married, high school graduate and had 11-25 years of farming experience in an area that ranges from 0.25 to 1.0 hectare. Most of RAPID beneficiaries have attended seminars related to rice farming. Seed assistance was the RAPID component mostly availed by the farmers.

Majority of the respondents revealed that there was a timely delivery of seeds and fertilizers and farmer-beneficiaries paid their obligation on time. An increase on the attendance of meetings and their involvement on other activities of their association were observed after the program.

Majority of respondents revealed having fertile soil and fewer pest and diseases incidence after the program. Use of commercial fertilizer and hand weeding were common practices even after the program. Respondents revealed that they observed increase in average yield and income.

There was a highly significant difference on the economic, social and environmental performance of the farmers before and after the program.

One major problem identified by the respondents on the implementation of RAPID was the failure of some technicians to visit farmer's fields.

It is recommended that RAPID be institutionalized at the municipal level by allocating a yearly budget to include travelling expenses of agricultural technicians and shall be extended even to farmers with rain feed rice areas.

ACKNOWLEDGMENT

This research was made possible through the financial support of Agricultural Training Institute VII, Department of Agriculture, Philippines.

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