



Policy and Socio-ecological Assessment of the Integrated Social Forestry Program after 25 Years of Implementation in St. Bernard, Southern Leyte, Philippines

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Abstract The implementation of Integrated Social Forestry (ISF) program involved huge investments from the government and donor agencies. Considering these investments, is ISF program effective enough in attaining its objectives? In view of this question, an in-depth analysis of the Panian ISFP model site was conducted. The study was conceptualized to assess the policy implementation status and socio-ecological impact of ISFP to the Certificate of Steward Contract (CSC) holders after 25 years from project implementation. The results of the study showed that CSC holders considered reforestation and agroforestry activities successful due to the increase in biomass and litter production that considerably enhances soil fertility. Likewise, the CSC holders had noticed that the water yield in the community significantly improved and there is a reduction of harvest losses because of reforestation and agroforestry interventions. However, site assessment revealed that most of the CSC holders have not planted 20% of the area with trees as required in the contract. In fact, it is common to find CSC areas fully planted with coconuts. This manifests that the government recognition of forest claims further enhance the conversion of forest land into agricultural plantations. On the other hand, the result indicated that policy concerning delegation of responsibilities within ISFP devolution was unclear and confusing since LGUs' responsibilities on forest land are still under the supervision, control, and review of DENR. The LGUs pointed out that financial problems, lack of capability, deficiency in the management and cooperation, and lack of personnel were the factors that deter them to continue the support for Panian ISFP model site.

Keywords community forestry, devolution, tenurial security, forest policy

INTRODUCTION

Philippines has lost a substantial portion of its forest (Era, 2005) which arose in the 1960's to 1970's (Harrison et al., 2004) due to high domestic and export demand for tropical timber, intensive practice of the traditional slash-and-burn or kaingin farming (Weerd et al., 2002), and urbanization (Era, 2005). The forest degradation contributed to an alarming problem in the country such as drought, flash floods, soil erosion, siltation, and sedimentation to water bodies (Dolom, 1986).

In response, the Philippine government through the Department of Environment and Natural Resources (DENR) has implemented various forestry programs to minimize the denudation of the forestlands. However, continuous conversion of forestland into agriculture driven by the influx of people that have low economic opportunities in the lowlands is an incessant challenge of the government. Hence, the government adopted the community-based forest management approach on the premise that sustainability of managing forest resources necessitates building around communities living within the forestlands and adjacent barangays. This was realized through the implementation of Integrated Social Forestry Program (ISFP) that was launched in 1981 through

the Bureau of Forestry Development (BFD), now the Forest Management Bureau (FMB) of the DENR pursuant to the Executive Order 192 and Letter of Instruction (LOI) 1260.

ISFP aims to uplift the socio-economic condition of the upland dwellers through improved incomes from the use of appropriate upland technologies while protecting the environment within 25 years duration and renewable for another 25 years as stipulated in the Certificate of Stewardship Contract (CSC). Implementation of the program involved investments (i.e., labor, supplies and financial resources) from donor agencies, such as the World Bank-funded Central Visayas Regional Project (CVRP), the Ford Foundation-funded Upland Development Program and the USAID-funded Rainfed Resources Development Project (RRDP) (Guiang et. al., 2001). Considering the abovementioned investments, is ISF program effective enough in attaining its objectives especially upon reaching the expiration date of each beneficiary's contract? In view of this question, an in-depth analysis of the program implementation was conducted in Barangay Panian, St. Bernard, Southern Leyte.

OBJECTIVE

This study was conducted to assess the policy implementation status and the socio-ecological impact of ISFP on the CSC's holders and to the model site after 25 years of implementation. Likewise, factors that facilitates the success of the program and problems were documented and could be used as basis to revisit and improve the policies of upland development projects in the country.

METHODOLOGY

Selection and location of the study site: The existence of an ISF model site, the availability of the secondary data and accessibility of the area were the major criteria considered in the selection of the study site. The study site is located in Brgy. Panian, St. Bernard, Southern Leyte along longitude 125° 07'05.9" and latitude 10°17'13.1" under the supervision of Community Environment and Natural Resource (CENRO) San Juan, Southern Leyte (Fig.1).

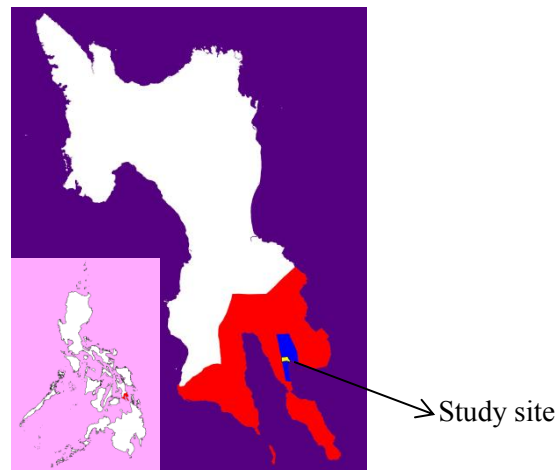


Fig. 1 Location of the study site

Formulation and pre-testing of survey instrument: A semi structured interview schedule was formulated in English and was translated into Cebuano dialect. The survey instrument answers the following objectives; namely: (a) social, economic, and demographic characteristics of CSC holders; (b) CSC holders' perceptions and opinions regarding the impact of ISFP; (c) problems encountered during project implementation; (d) factors that facilitate the success of the program; and (e) lessons learned of the CSC holders and project personnel during the policy implementation process. The survey instrument was pre-tested among 10 selected upland farmers in Inopacan,

Leyte. The purpose of the activity was to test the instrument on the following: a) comprehensibility of the instrument; b) respondents' sensitivity to questions; and c) appropriateness of terms used.

Calculation of sample size: The total number of respondents was calculated using the equation for sample size determination (Dargantes, 1996).

$$n = \left(\frac{Nz^2s^2}{Nd^2} \right) + z^2s^2 \quad (1)$$

Where n = number of respondents to be included in the survey; N = total number of respondents in the lists; Z = coefficient at 95% level of reliability; d = error level expressed in units of the normal variable; s^2 = sample variance of the normal variable. The sample variance used in the equation was attained using summative size (in ha.) of CSC farms per cultivator as normal variable. Forty-seven respondents were randomly selected out of the 81 CSC holders. Of the 47 respondents, 26 were original CSC holders, 20 were the next-of-kin and one was the successor of the original holder who was not physically capable of cultivating the land.

Data collection and focus group discussion: The data collection was conducted through the coordination with the CENRO-San Juan headed by CENR Officer (For. Alejandro Bautista); the Municipal Mayor (Hon. Napoleon Cuaton) and Panian Brgy. Captain (Hon. Ruperto Rafols). The data collection includes: gathering of the secondary information, key informants interview, and individual CSC holder's farm visit. The results of the key informant' interview (KII) were presented during the focus group discussion (FGD). The FGD participants were composed of representatives from all sectors that were involved during the implementation of the ISF program (i.e., CSC holder-beneficiaries, from CENRO and the Provincial Environment and Natural Resource Management Office (PENRMO), community organizer of the Panian Model Site, Brgy. officials and representative from Municipal Local Government Unit (MLGU)). The FGD was done to triangulate and validate the results obtained during the interview. Secondly, the FGD provided an avenue for the CSC holders to raise their concerns and listen to the plan of the PENRMO (local government) and CENRO-San Juan (national government) regarding the renewal of their individual CSC.

Data collating and statistical analysis: The data gathered during the interview and FGD were collated and tabulated using Microsoft Excel. Likewise, descriptive statistical analysis was conducted using the Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSION

Table 1 shows the duties and responsibilities of the CSC holders and their perception if each duties are done and implemented. Most of the CSC holders assumed and implemented their duties and responsibilities as reflected in the agreement. This manifest that the CSC holders are qualified to apply for renewal. As stipulated in Administrative Order No. 4 (dated Feb. 27, 1991), the issuance and renewal of CSC is the main responsibility of the CENRO. On the other hand, during the FGD, the representative from CENRO-San Juan Field Office revealed that the DENR is not anymore processing any issuance and renewal of CSC contract. The representative cited Executive Order 263 which states that forestland areas with issued CSC are included under the Community-Based Forest Management Program and a new tenurial instrument (CBFM Agreement) will be issued. Hence, he strongly recommended that the CSC holders should reactivate their organization to qualify and apply for the CBFM agreement. The expert advice of the CENRO representative and the information regarding the change in DENR policy on tenure instrument (from CSC to CBFMA) causes more confusion and even doubt of the holders to apply for the renewal of their CSC contract. Furthermore, Table 1 shows a considerable number of respondents opted to abstain in answering the questions during the assessment.

This was clarified during the FGD that those respondents who abstained were the next-of-kin of the CSC holders. The reason of abstaining was they have less information and no personal involvement during the project implementation since most of them were still very young and not qualified to attend and participate any of the program related-activity.

Table 1 CSC holders' compliance to the duties and responsibilities of the ISF Program (n=47)

Duties and responsibilities	Yes	No	Abstain
1. Participate in delineation of project area and parcellary surveys	36%	36%	28%
2. Develop the allocated lands to productive farms	70%	4%	26%
3. Devote at least 20% of the land within the project area to tree farming of suitable species	43%	17%	40%
4. Protect and conserve the forest growth within the project area	70%	2%	28%
5. Preserve monuments and other landmarks indicating corners and outlines of boundaries	57%	0%	43%
6. Prevent and suppress fires	62%	11%	28%
7. Protect and preserve trees and other vegetation within a 20-meter strip of land from the edge of the normal high waterline of river and streams with channel of at least 5-meter wide	53%	2%	45%
8. Abstain from cutting or harvesting naturally growing timbers within and adjacent to social forestry area	49%	19%	32%
9. Refrain from transferring or assigning their allocated land	55%	13%	32%

The study of Asio and Bande (2005) revealed that project sustainability and transfer of local knowledge can be attained through active involvement of the youth on association's project activities. In the case of Panian ISF program, the implementers failed to involve the youth sector. Hence, the social sustainability of the project was jeopardized specially that most of the original members were dead or physically incapacitated to perform their duties and responsibilities.

Impact Assessment of the Panian ISFP Model Site: Maximize Land Productivity and Ecological Stability

The area's terrain was rolling to steep (60 to 80% slopes) with elevations ranging from 100 to 500 meters above sea level (Tabada & Escasinas, 1993) which classified the areas under timberland. The beneficiaries were encouraged to adopt appropriate agroforestry technologies since it is the only way to harmonize productivity and conservation efforts. Contour canal and hedgerows were the intervention as part of the agroforestry activity. However, during ocular inspection, it was observed that contour canals and hedgerows were left unmaintained. Despite of this, the respondents indicated that the landslide and flooding were significantly minimized which considerably improved their harvest. Likewise, the holders pointed out that the soil-water conservation measures had significantly increased their on-farm income which could be one of the indicators that the agroforestry intervention was effective. According to Mr. Fredo Ramada¹, before the implementation program, the area was dominated by cogon (*Imperata cylindrica*) and carabao grass (*Paspalum conjugatum*). Cogon grass is one of the vegetative indicators that the area is aggravated by relative low pH, highly leached infertile soil, lack of surface organic matter and high evapotranspiration rate which causes water stress (Sajise, 1990). Other factor that exhilarated the beneficiary to participate in the reforestation was their area needs immediate rehabilitation because it is prone to landslide and flashflood due to the geologic characteristics of the site. Moreover, the result showed that CSC holders consider reforestation activity successful because of the following observations: (a) biomass and litter production considerably increased that enhances soil fertility on their CSC-issued farms, (b) water yield in the community was significantly improved due to watershed rehabilitation, and (c) reduction of harvest losses due to minimized flooding and soil erosion.

¹ Mr. Fredo Ramada - project leader of the Panian ISF model site from 1989 until 1992

Impact Assessment of the Panian ISFP Model Site: Improvement of Socio-economic Conditions of the Forest Occupants

Majority of the respondents depend on farming as their major source of livelihood wherein 71 percent of their total farm income was derived from the CSC-issued parcel. The agroforestry perennial crops [i.e., abaca (*Musa textilis*), coconut (*Cocos nucifera*), and fruit trees] that were distributed during the operation had significantly increased the on-farm income of the beneficiaries. Some of the respondents revealed that they had started harvesting the trees [i.e., yemane (*Gmelina aborea*) and mangium (*Acacia mangium*)] planted on their individual farm. According to the respondents, the income was used to finance the school expenses of their children. Presently, some of the project beneficiaries' children got decent and stable jobs because they finished a college degree. This was one of the manifestations of direct economic benefits of the project to the beneficiaries. On the other hand, self-confidence, trust of the local people, development of their leadership abilities, and establishment of good rapport with the local government units including DENR personnel were documented as positive outcomes in relation to the social impact of ISF program.

Policy Assessment of Panian ISFP Model Site: CSC Implementation After Devolution

Based on the ocular inspection vis-à-vis CSC policy implementation assessment, the results showed that most of the CSC holders have not planted 20% of their area with trees as required in the contract. In fact, it is common to find CSC areas fully planted with coconut and banana. Hence, the community acceptance and government recognition (e.g. Certificate of Stewardship Contract) of forest claims enhances intensive cultivation of food crops or the conversion of forest land into agricultural plantations (i.e., coconut and abaca). On the other hand, it was mentioned during the FGD that there had never been support provided by the Municipal and Provincial government after transferring the responsibility of Panian ISFP model site to the LGU. Presently, the CSC holders are faced with problems of management, technical capability, and lack of knowledge about the change of government policy on natural resource management and renewal of stewardship agreement. During the FGD, it was pointed out by the Municipal Agriculturist that the minor involvement of the municipality in the monitoring of ISFP activities was because these are usually initiated in forest areas, and therefore, it is under DENR's authority. The formulation of the LGUs responsibilities within the Local Government Code on forest land is that they are under the supervision, control, and review of DENR. Hence, the LGU's responsibilities seemed to be barely recognized by DENR whose officials often claimed that forest lands are under DENR's authority exclusively (Groetschel et al., 2001).

Policy Assessment of Panian ISFP Model Site: CSC Renewal

A serious concern brought up during the FGD was the renewal of CSC. All CSC agreements issued during the implementation of Panian ISFP model site had expired in 2016. As stipulated in the contract, the CSC holder is qualified for a renewal for another 25 years provided that he/she complied with the agreement. However, the DENR has adopted and implemented Executive Order 263 (CBFM strategy) which resulted to non issuance or renewal of CSC. Considering this change on DENR policy, it indicates that the CSC holder will lose their legal claim over the land they cultivated and developed for 25 years. The results of this study indicated that the CSC holders were not informed about the CBFM program. This could probably lead to a conflict between the CSC holders and government agencies.

Policy Assessment of Panian ISFP Model Site: Delegation of Responsibilities within Devolution of ISFP

The results of this study indicated that policy concerning the delegation of responsibilities within ISFP devolution was unclear and LGUs were confused. One example was the DENR's responsibilities and the functions of the Environment and Natural Officers in the LGUs (both Provincial and Municipal). It becomes difficult to distinguish respective tasks, mandates, responsibilities, and authorities. It creates difficulties when some responsibility for ISF program should have been completely devolved but in fact still partly under DENR's authority. The Municipal Agriculturist of St. Bernard reported that beneficiaries under the devolved ISF sites are coming to their office with questions concerning stewardship renewal, demonstrating public confusion with respect to the continuity of the program and the responsible institutions.

Socio-ecological Factors that Influence the Panian ISFP Model Site

Majority of the problems encountered during and after the project implementation were not solved and even continued to create conflict among project participants and implementers. The major problems were identified, namely: (a) non-processing of CSC renewal which is inconsistent with the existing DENR policy as stipulated in the CSC contract; (b) no proper turn-over of project documents during the devolution of the program; and (c) failure to transfer the knowledge and information about the program to the *next-of-kin* which became a barrier in attaining social, economic, and ecological sustainability. However, the implementation of reforestation and adoption of agroforestry systems significantly improved the bio-physical and environmental conditions of the area. During the socio-ecological assessment, the success of ISFP as a strategy in community-based forest conservation was due to the following salient factors: a) security of tenure; b) environmental awareness; c) commitment and community empowerment; and d) external support. In addition, the upliftment of the community's general living conditions and change in attitude of residents towards forest conservation and biodiversity protection in relation to increase in on-farm income was the major achievement of the ISF Program. However, government recognition through the issuance of CSC over forest land claim further increases conversion of timber land into agricultural plantations.

CONCLUSION

Even with the policy in place to ensure covering at least part of the land with trees, these areas are still converted into agricultural plantations as many other cultivated areas (without CSC) in timber land. Hence, the CSC strategy to get commitment from, and time control over forest dwellers who are operating as *kaingineros* is not clearly established and implemented under the ISF guidelines. If the CSCs are to be renewed, there must be a strong commitment to comply with the rules and regulations. Noncompliance with the policy should lead to the cancellation of CSCs and reallocation of the land. Demonstrating the commitment to enforce the laws, combined with public awareness campaign will further enhance the motivation of the CSC holders to follow the stipulations in the contract for improvement and development of their individual land. On the other hand, the municipal and provincial local government units are the key players in all efforts to reach the rural population. Burdened by the devolution of offices and related tasks, and hit by weak economic activities within the boundaries and subsequently low tax revenues, the LGUs could sustain the basic services for their population through sound management of their assets. Hence, policy on increasing LGUs assets through communal forestry could be one of the major concerns of the ISF program right from the start of the implementation.

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