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SHORT COMMUNICATION

## **A Community Extension Framework for Philippine Higher Education Institutions: A Model Developed from Small-Scale Climate Change Adaptation Projects of Central Mindanao University**

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### **ABSTRACT**

Higher education institutions in the Philippines today are pushed to intensify university-community engagement through extension activities. This is not just for accreditation purposes but more specifically to facilitate sustainable development in poor communities. However, among the fourfold functions of universities in the country (instruction, research, extension, and production), extension is the least acted upon by faculty members probably due to any or all of the following factors: a) lack of the necessary skills in community development, b) lack of time for such endeavors, or c) lack of understanding on what extension really is. In this paper, a model for designing college extension activities is proposed based on previous community engagement projects of the College of Forestry and Environmental Science of Central Mindanao University (CFES-CMU). Based on documentary evidence, interview data, and personal observations supplemented by literature review, essential features/characteristics of prior successful projects were analyzed and developed into an operational framework for designing future university facilitated community development projects for ensuring a higher probability of success. The above analysis also provided a workable definition of community extension which can assist interested faculty members in understanding the objectives of extension work.

**Keywords:** University extension, community partnership, environmental education, Climate change adaptation

## **1. INTRODUCTION**

It is an understanding among higher education institutions (HEIs) that not all knowledge and expertise should dwell inside the four corners of the academe. In fact, both expertise and learning opportunities also reside in non-academic settings (Fitzgerald et al 2012). As a response to the disconnection between the academe and the public, higher education institutions are now becoming more creative to address this issue of communicating with the public, working for the public good, as well as generating knowledge from them (Barker 2004). To date, higher education institutions advocated a renewed relationship between the academe and the public it serves. This effort is often referred to as “engagement” (Sandmann and Weerts 2008).

Although not all academic institutions are yet readily able to develop such engagements with the community, it is necessary that each of them have to conduct a self-assessment of their capability to address their weaknesses and thus effectively jump into such endeavor in the future (Curwood et al 2011). In the recent years, the College of Forestry and Environmental Science (CFES) of Central Mindanao University (CMU) with the primary goal to reach out to communities have willingly jumped into the university-community engagement bandwagon. CFES is composed of faculty members with different levels of experience in extension work and community development. Although majority of the faculty are junior members with practically no experience in development work, they are mentored by senior faculty members with previous experiences in extension activities. With the meager resources of the university, CFES established several programs in the past such as ICE CREAM or “Integrated Community Enhancement through a Climate Responsive Extension and Management”. The program is a response to the call for addressing the local effects of climate change specifically in Dologon, Maramag, Bukidnon, a village located within the vicinity of CMU.

ICE CREAM is composed of 3 subprojects which the CFES faculty members felt would address the needs of the community specifically in terms of climate change mitigation and adaptation. Such needs were assessed through a Training Needs Assessment (TNA) conducted by the CMU Extension Office in which several sectors were consulted primarily through key informant interviews, focus group discussions and a community survey. The objectives of the program are: a) to increase the awareness of the residents of the community regarding natural resource conservation, b) to encourage waste management at the household level, and c) to advocate flood risk reduction and management among residents in the flood prone areas of the village.

The first project is called MANGO or “Management of Natural Resources by Grassroots Organization”. This component is somewhat an alternative scheme based on the National Greening Program of the country in which the aim is to capacitate the village residents to implement their own greening programs within their area. Skills based trainings were conducted specifically on such topics as tree seedling propagation and small scale nursery establishment. The second project is called SAGO or “Solid Waste Management as Green Opportunities”. The aim of this project is to encourage recycling at the household level.

Skills related to recycling of common household waste into house decors was conducted with women as target participants. The third project is called DURIAN or “DRRM through the Utilization of Research, Information, and Networking”. This project aims to capacitate the residents in the flood prone areas of the village to reduce the risk of their households from flood. Seminars on flood awareness, preparedness, and response were conducted in this part of the project.

Though adoption of the technologies promoted in the trainings was not actually validated at the household level, the proponents observed the following outcomes attributed to the projects specifically at the institutional level: 1) development of the village tree park, 2) establishment of a community forest nursery, 3) a volunteer workers recycling center, 4) several projects on community greening and solid waste management, and 5) development of a community assisted flood hazard map. The project was conducted on January to December 2014. With the above experience, this paper wishes to document its success features so that it can be used in improving its future community engagement activities. This paper attempts to condense the features of the project into a viable model of university-community engagement in the hope of developing a tool to better facilitate future development initiatives. It is also hoped that this paper will help other academic institutions in providing suggestions on how to effectively implement community activities on a smaller scale especially for organizations still starting out with their community outreach programs. According to Harkavy and Hartley (2012) “institutionalization occurs when organizational structures are established to support local engagement, and when a critical mass of colleagues embrace the value of this work”. With this, it is hoped that this paper will provide additional motivation for faculty members as well as academic departments in improving their institutions through community engagements.

Basically this paper will try to answer the following research questions: 1) What are the main success features of the ICE CREAM program that would serve as models for future community engagements?; and 2) What roles in the ICE CREAM PROGRAM did the faculty extensionists play that will serve as an alternative definition of university-community engagement?

## **2. MATERIALS AND METHODS**

A case study approach was employed in answering the above research questions. The case studied is the implementation of the ICE CREAM program. Data gathering was done through document review, direct observations and interviews with the project beneficiaries as well as the faculty extensionists. The data gathering was done on December 2015. Consequently, grounded theory was used to analyze the gathered data by finding consistent patterns among the statements from the interviewed participants.

## **3. RESULTS AND DISCUSSIONS**

### **3. 1. Success features of the ICE CREAM program**

Following are the features of the ICE CREAM program that somehow leads to its success as provided by the project proponents:

1) Minimal Budgetary Requirement – the bulk of the ICE CREAM program’s expenses came from the snacks and meals of the participants. The local government unit of Dologon provides this part of the budget as their counterpart in the program. Transportation expenses were shouldered by the faculty extensionists. The transportation cost is however considered minimal given that CMU is situated within Dologon village. The trainings were conducted in the Village Hall, which is about 1.5 kilometers from the CMU premises. The faculty extensionists even used their own vehicles in going to the venue for every training activity as well as during the coordination stage of the project. Sometimes, the village officials also go to the College for meetings and briefing sessions.

2) The University Extension Office however granted honoraria for the faculty extensionists which are of minimal cost. When asked about this, the faculty extensionists believe that the honoraria is just a privilege, they still would have pushed through the project even without the said incentives as long as it’s considered as official time by the university.

3) Institutional impacts prioritized over individual impacts – Given that impact in the household level from the program is yet to be felt only after a period of time, the outcomes at the institutional level are noticeable within just several months of the program. This however can be attributed also to the support of the village officials during the implementation of the project.

4) The observed outcomes at the institutional level are the following: 1) development of the village tree park, 2) establishment of a community forest nursery, 3) a volunteer workers recycling center, 4) several projects on community greening and solid waste management, and 5) development of a community-assisted flood hazard map. No. 4 refers to the succeeding tree planting programs conducted by the Barangay in coordination with CFES which was implemented even after the termination of the program. Furthermore, a memorandum of agreement was also established between the Barangay and CMU with regards to the partnership in the intensification of an Ecological Solid Waste Management Program.

5) Close Distance to the University/College – As explained in the first item, the proponents considered transportation cost as minimal given that the project area is just within the vicinity of the university. The proponents emphasized that accessibility of a project area is one of the factors that determines the success of a project. Senior faculty extensionists gave examples of their previous engagements which were far from the university. From such past experiences they felt that these previous projects would have seen more successful if they have constantly followed up and coordinated with the beneficiaries, which is difficult to achieve due to the distance of the said previous projects to the university.

6) Responsive to Community Needs – Due probably to the results of a prior training needs assessment (TNA) conducted by the University Extension Office, the felt needs of Dologon Village was addressed by the said program. In fact, the Barangay Chairman (village leader) when interviewed said that the program is timely because the Department of Interior and Local Government (DILG) is implementing the “Clean and Green Program” in which they will be evaluated based on environmental criteria. From this they felt that the project is the answer to this need.

7) One Year Maximum Duration of Implementation – As a government agency, a state university like CMU adheres to a fiscal year budget which starts in January and ends in December. Thus programs granted by the university have to be proposed with a maximum duration of one year. Same is true with the local government unit of Dologon which is a local thus it has the same fiscal year. This leads to long term programs (more than a year) having a

difficulty to be implemented because approval is done annually. This is the reason why the ICE CREAM project has duration of only one year. Nevertheless, a short term project with at most one year duration is found to be more manageable than long term community programs as observed by the proponents. It encourages active involvement by the faculty because it leads to enthusiasm and motivation given that they have to utilize their time more efficiently given the hectic schedule and time pressured targets. On the part of the local government unit of Dologon a one year program is more convenient because it avoids projects being hampered due to political reasons especially if it falls during election period.

Though the above features of the ICE CREAM program is not unique to other types of community programs already conducted by the university, it has never been documented especially on how these characteristics can lead to the success of a program. This particular study dwells on this fact that it is the first time that the above features of a program are highlighted and given emphasis on how such factors were able to contribute to the success of a program. Being the first in this case, the author proposes to give it a name for the purpose of advocacy and easy recall. It is thus proposed that these program features be called MICRO (Minimal budgetary requirement, Institutional impacts prioritized over individual impacts, Close Distance to the University/College, Responsive to community needs, and One year maximum duration of implementation) as a collective definition/acronym for these features.

### **3. 2. Roles of the faculty extensionists in the ICE CREAM program**

Based on direct observation and interviews, the following emerged as the roles played by the faculty extensionists during the implementation of the project:

1) Partnership Developers – It is a fact that community development doesn't happen overnight and even in just one year. The project proponents as well as the main beneficiaries however observed that what is developed is the partnership between the two organizations. These partnership leads to the betterment of both entities and that it even leads to other programs being implemented even after the termination of the ICE CREAM program such as the tree planting activities as well as the recent agreement on the implementation of the Ecological Solid Waste Management Program. Consequently this manifested the features of university-community partnerships advocated by Amey et al (2007) which is captured by the implementation of the ICE CREAM program. In the future, it is hoped that this partnership with the community through time and several further projects later will be institutionalized and can provide an example of successful collaboration leading to the implementation of more innovative sustainability initiatives in the area such as in the case of Graci (2013). In this context it may not be the total development of the community that happened after the project but rather the development of the partnership between the two organizations that hopefully will lead to the community being developed in the end.

2) Facilitators in the Discovery of Opportunities – When we impose programs/projects in the communities, mostly we are not aware that these programs are not really needed by the community hence leads to the failure of the program right from the start. Although the ICE CREAM program was established based on the felt needs of the community through the conducted TNA, sometimes we still need to facilitate a process for them to realize this needs. An approach used in the ICE CREAM project is to create activities so that the project beneficiaries will recognize the need for the program by making them realize the

opportunities and benefits derived from the program. The MANGO project aside from being a natural resource conservation program is also a livelihood program especially those willing to venture into propagating and selling of seedlings. The SAGO project also can help augment the income of the households by selling their own recycled projects aside from helping the environment. The DURIAN project though not directly an income generating project somehow made the villagers realize that addressing flood risk when its already there is more expensive than conducting preparedness measures before flooding occurs.

**3)** It is a principle in the ICE CREAM program that the beneficiaries should be the one to discover these opportunities themselves through a process of awareness and information campaign. This is much like the concept of “discovery learning” in the field of student education (Dean and Kuhn 2007). Furthermore, as it is argued that for the “discovery to be effective, several strategies and approaches should be employed” (Mayer 2004), hence in the case of ICE CREAM some participatory approaches were utilized such as problem tree analysis, SWOT analysis, and stakeholder analysis to facilitate such discovery.

**4)** Promoters of Technology – Based on the extension concept of technology transfer, the ICE CREAM program deals with the promotion of the accepted scientific technologies in addressing natural resource degradation, waste generation, and flood risk reduction. Universities have been the prime mover in this type of development endeavor (Schoenecker et al 1989). This helps augment the over stretched extension services of other government agencies (Wellard et al 2013) such as the Department of Agriculture (DA) or the Department of Environment and Natural Resources (DENR). Furthermore, as a state university, CMU’s mandate of extension is manifested even in a small way by the ICE CREAM program.

**5)** Networking and Linkages Supporters – Along the course of the project implementation, the project beneficiaries expressed the need to ask for the help of the university to link them with other agencies as a support to their development programs. An example to this is during their tree planting activities where they need additional seedlings. The project proponents linked them with the University Forest Nursery to acquire seedlings with a special discount. Furthermore, other concerns such as the development of their Solid Waste Management Program, the proponents also linked them with the University Solid Waste Management Committee, which lead to the MOA between the university and the local government in implementing the Solid Waste Management Program.

Despite the fact that university-community engagement provides benefits to both sides of a partnership, there is evidence that these engagements are not ubiquitous among higher education institutions (Beere 2009). This could be due to the fact that some academic departments are not yet ready for such endeavor (Curwood et al 2011). Furthermore, it could also be attributed to the lack of framework for understanding engagements which leads to such roles being unpracticed in universities (Bender 2008). The above roles manifested in the study as played by faculty extensionists of ICE CREAM reveals a startup concept so that academic institutions can fast track their community engagement programs. It provides at the very least a suggested role of the faculty as proponents in a small scale community development program possibly in a form of an extension project. It is hoped that this provides a model for faculty extensionists to apply in their own departments.

#### **4. CONCLUSIONS AND RECOMMENDATIONS**

The experience in the ICE CREAM program provided an insight which suggests how community partnerships by universities can be initiated especially for organizations still starting their outreach programs. The features of the ICE CREAM program by CFES-CMU which more likely influenced its success are the following: 1) minimal budgetary requirement, 2) with institutional impacts prioritized over individual impacts, 3) within close distance to the University/College, 4) be responsive to community needs, and 5) with a one year maximum duration of implementation (termed as MICRO in this article for easy recall).

Observed roles played by the faculty extensionists of the ICE CREAM program (Partnership Developers, Facilitators in the Discovery of Opportunities, Promoters of Technology, Networking and Linkages Supporters) can provide insights on what faculty members wishing to do community development work is expect to do. Furthermore this will streamline the seemingly evasive definition of community engagement and community extension not only in the field of natural resources conservation and environmental protection. The above model (MICRO) can be utilized as criteria for evaluating future community extension project proposals for funding at the university level. Furthermore, the roles of faculty extensionists discussed above will serve as an operational definition of community extension programs to once and for all end the confusion among faculty members regarding their understanding of extension work.

Though several universities have yet to start reaching out to communities, it is imperative that they start with aligning their future projects with the MICRO Model. The case of the ICE CREAM program by CFES-CMU, suggests that for first time community engagements, programs should have minimal budgetary requirement, with institutional impacts prioritized over individual impacts, within close distance to the University/College, be responsive to community needs, and with a one year maximum duration of implementation.

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