

**Title:** Seedling Demand as a Consequence of National Greening Program and Its Impacts on Local Livelihoods: A case in Nueva Ecija, the Philippines

**Background:**

The Philippines had faced serious deforestation, but its forest cover recently turned to increase (FRA 2015). National Greening Program (NGP) started in 2011 is likely to make contribution, and according to the evaluation by the government, the target of 1.5 million ha reforestation with 1.5 billion seedlings by 2016 was successfully achieved (DENR 2017). However, it is unknown that who produced such large amount of seedlings and how local people were involved. If the producers were local people, completion of NGP might cause negative impacts on their livelihoods. There are few literatures about “how seedling business influence to economy in local area” and “seedling business network”. Therefore I would focus on the stakeholders in seedling business network and clarify whether or not local people were benefited.

**Objectives:**

There are two objectives in this research:

1. Clarify how stakeholders are involved in seedling production in local area and its network.
2. Clarify the economic impact of the seedling operators and local area.

**Methodology:**

This research focused on the case in Municipality Caranglan where forest cover is remarkable in Nueva Ecija province. For this research, I conducted following researches: 1) Collected and reviewed related literatures and local statistical data from Community Environment and Natural Resources Office (CENRO) 2) Survey was conducted in Commune C in Pucan village, Nueva Ecija Province. Household survey was conducted on households which engage in seedling business 20 and non- seedling business 20. Total number of the households in Commune C was 123. 41 households engaged in seedling business and 82 households didn't. 3) Interviewed with key informant including accredited nurseries and local officers.

**Results:**

There were four nurseries which were accredited by Department of Environment Natural Resources (DENR) in this commune C and rest of them were operating seedling individually in their backyard. 2/4 accredited nurseries were involved as respondents in this survey.

Table. Seedling business type

Type of Nursery	Frequency	(%)
Individual	18	90
Accredited	2	10

Annual income of seedling producers is ten times larger than non- seedling producers. It's needed to consider accredited nursery however it's obvious that seedling business is one of the main income sources in this area. Main customer of backyard nursery is accredited nursery. That accredited nursery is selling seedlings to government through bidding system. Although there are two accredited nurseries in respondents, another nursery isn't participating bidding. That nursery is building connection to PO directly. Also there are middle man who are agents of selling and buying seedlings. They are coming from Puncan village, other provinces and Visayas.

## Seedling Marketing Network

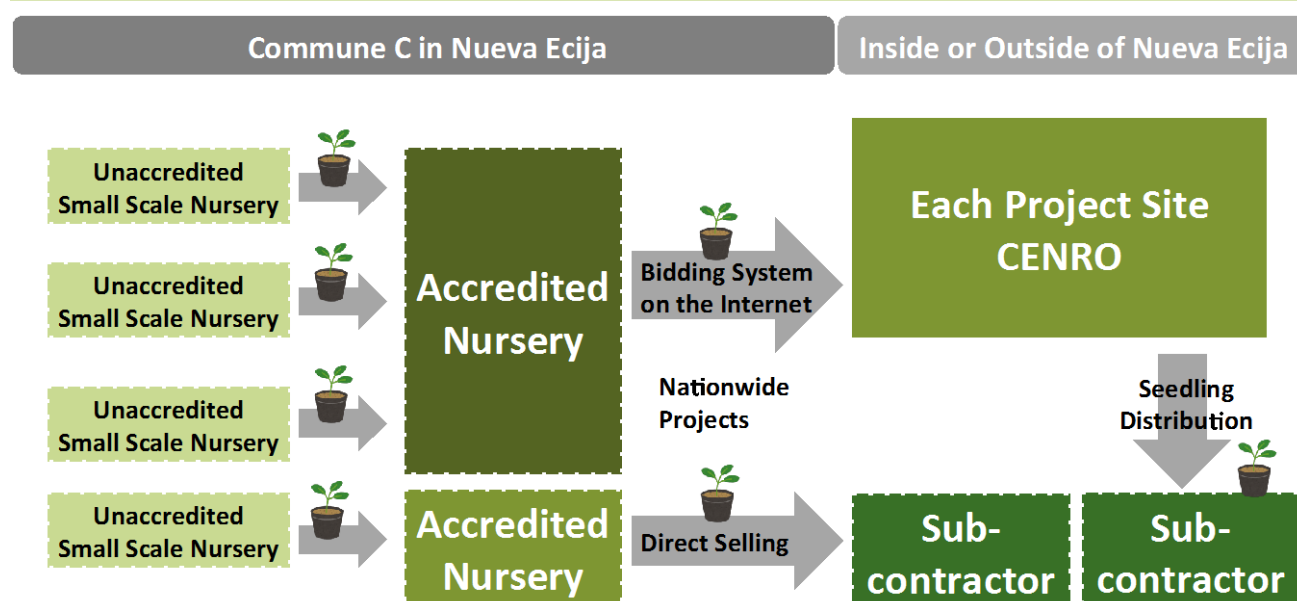


Fig. Stakeholders in local area who involved into seedling business and its network

### Discussion and future work:

Implementation of plantation projects in the Philippines produce large demand of seedlings. Although stakeholder who trades with government is accredited nursery, backyard nurseries support seedlings supply. I would like to compare with perceptions from seedling producers and non-seedling producers.