

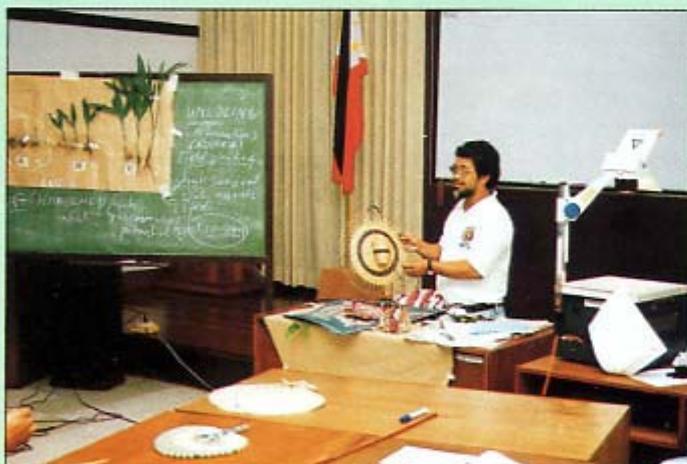
Agroforestry education and training

Study on the demand and placement of agroforestry graduates in the Philippines

By Leah P. Arboleda

1. Introduction

From May to July 2000, the Institute of Agroforestry (IAF) of the University of the Philippines Los Baños conducted a "Study on the Demand and Placement of Agroforestry Graduates in the Philippines". The study, sponsored by the Southeast Asian Network for Agroforestry Education (SEANAFE), was conceptualized to examine and evaluate the long-term development of agroforestry education in the Philippines. The issues addressed included the proliferation of agroforestry education programs, the preparation of graduates for future employment in agroforestry, and the minimum standards used in agroforestry education. These standards determine the relevance of agroforestry curricula and the quality of agroforestry graduates being trained. At the same time, the outlook for agroforestry education in the future was analyzed.



Agroforestry training at UP Los Baños

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The study analyzed the motivational factors of schools to offer these programs, agroforestry skills and competencies desired by employers, first jobs assigned to agroforestry graduates, the relative match of skills and competencies acquired by graduates with those expected by employers, and the final placement of agroforestry graduates. The study also elicited recommendations on how to ensure the quality of agroforestry education in the country. Data and information for the study were generated by surveying agroforestry graduates and their existing and potential employers.

Initial results show that the number of agroforestry schools and related educational programs are increasing. New agroforestry programs are being developed because of the increasing demand for agroforestry graduates. Although some agroforestry schools are still using the existing minimum standards stipulated in the Ministry of Education, Culture and Sports Order No. 4, Series of 1981, as reference in curriculum development, many schools view agroforestry as a distinct educational field that covers more than agriculture or forestry alone. They also believe that agroforestry education should be professionalized to produce more competitive graduates.

The study revealed that most of the students choose agroforestry because they are interested in this subject. Furthermore, it was found that most of the graduates of agroforestry schools and programs become employees while a minority chooses self-employment or remains unemployed. The study showed that the Philippine Department of Environment and Natural Resources (DENR) is the major employer of young agroforesters, followed by NGOs, Local Government Units, academic institutions and the Department of Agriculture. Other graduates are hired by private institutions. Self-employment becomes an option in areas where agroforestry is considered a profitable business.

On the part of employers, agroforestry graduates are needed most to plan, implement and maintain development projects. In this context, the most preferred candidates are graduates holding a B.Sc. degree in agroforestry, followed by those holding a B.Sc. degree in agriculture or a B.Sc. in forestry, both of which combined with a major in agroforestry. The employers stated that they expect agroforestry graduates to be able to integrate forestry practices with approaches in crop production and stock raising; to plan, implement, monitor and evaluate agroforestry projects; and to undertake research and technology development. Additional areas of expertise that agroforestry graduates are expected to be familiar with include problem analysis, community planning, community resource management, land-use planning, soil and water conservation, and communication.

2. Findings of the study

Presently, there are at least 31 schools offering six different agroforestry education programs. The programs lead to the following degrees:

- Bachelor of Science (Agroforestry)
- Bachelor of Science (Agriculture) with a major in Agroforestry
- Bachelor of Science (Forestry) with a major in Agroforestry
- Bachelor in Agroforestry Technology
- Bachelor of Science (Agroforestry Entrepreneurship)
- Bachelor in Agroforestry Entrepreneurship

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Initial results indicate that agroforestry graduates are often assigned tasks related to community organization and development; planning, implementing, monitoring and evaluating of agroforestry projects; nursery and plantation establishment and management; soil and water management, pest management, and biodiversity conservation; advocacy of agroforestry and related fields; and lecturer or trainer in agroforestry programs.

However, the study also revealed that the skills and competencies of agroforestry graduates are generally insufficiently developed in the areas of research and technology development, surveying and mapping, analysis and design of agroforestry projects, community organization and development, development of income-generating activities, communication, and extension.

The results of the study will be used to formulate guidelines for agroforestry curriculum development, assess

the current supply and demand for agroforestry professionals, and formulate policies that lead to demand-driven education and training of agroforesters in the Philippines. Not least, the results of the study were used to guide the development of a curriculum framework for the B.Sc. degree in agroforestry during the "National Workshop on Participatory Agroforestry Curriculum Development" (see article below) convened at Rizal State College, Tanay, Rizal, from 29 August – 2 September, 2000.

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Philippines: Curriculum for B.Sc. (Agroforestry) developed

By Leah P. Arboleda

A "National Workshop on Participatory Agroforestry Curriculum Development" was convened at Rizal State College, Tanay, Rizal, Philippines, from 29 August - 2 September 2000, to formulate guiding principles and strategies to ensure the quality of agroforestry education in the country and the placement of agroforestry graduates. The workshop was facilitated by the Institute of Agroforestry (IAF) of the University of the Philippines Los Baños (UPLB) and financially supported by the Southeast Asian Network for Agroforestry Education (SEANAFE). Participants included representatives of agroforestry schools, the Commission on Higher Education (CHED), the Department of Environment and Natural Resources (DENR), local government units, and several agroforestry graduates.

The participants of the workshop jointly developed, and recommended formal adoption of, an agroforestry curriculum framework to guide agroforestry schools in the country to improve their education programs. Agroforestry became the main land-use option in community-based forest management and for Ancestral Domain areas resulting in an increased demand for highly qualified agroforesters. Although, since the first B.Sc. degree program in agroforestry was introduced in the Philippines in 1976, the number of agroforestry education programs has significantly increased, the quality of agroforestry training could not keep pace with this development.

The agroforestry curriculum framework developed during the workshop was specifically designed for the B.Sc. degree program in agroforestry. Workshop participants agreed about this program having the highest potential for creating required competencies and ensuring the placement of agroforestry graduates.

The agroforestry curriculum framework describes the training courses that should be included in a B.Sc. (Agroforestry) degree program to meet the qualification needs of future

agroforesters. Among the major courses recommended by the workshop participants are Community Organization, Planning, Management and Evaluation of Agroforestry Projects, Agroforestry Production and Post-production Technologies, Soil and Water Conservation, Enterprise Development and Management, Supportive Technologies and Income-generating Projects, and Communication and Extension. Furthermore, the framework encourages students to consider complementary subjects such as Geographical Information Systems, Environmental Impact Assessment, Sustainable and Ecological Agriculture, Multiple Cropping, and Aquaculture.

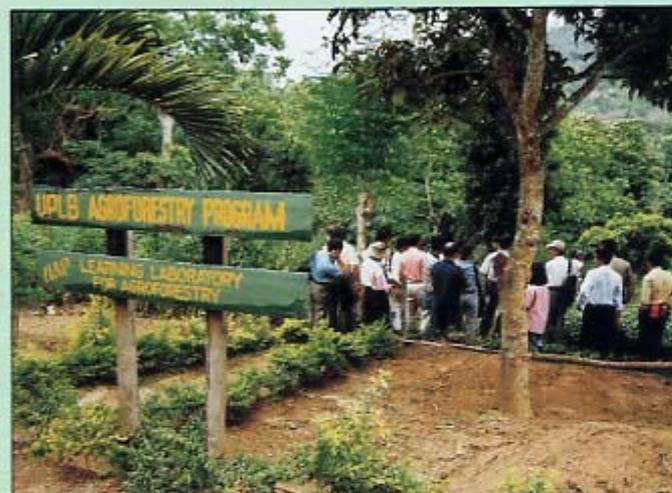
During the workshop, participants suggested the establishment of a "Committee on Agroforestry" as one of the technical committees of the CHED Technical Panel for Agriculture Education. They also recommended that procedures to be followed by schools to obtain permission to offer new agroforestry education programs be formally regulated. Moreover, workshop participants recommended the establishment of a Philippine Agroforestry Education and Research Network (PAFERN). The network would serve as an informal association of agroforestry schools and training institutions in the country. It is hoped that PAFERN would lead to closer linkages among the partners of the network and contribute to improving agroforestry education in the Philippines.

At the close of the workshop, a "Resolution on Agroforestry Education in the Philippines" was drafted and signed by all participants. This resolution contains all recommendations elaborated during the one-week workshop. Meanwhile, the resolution was endorsed by the Philippine Association of State Universities and Colleges and submitted to CHED. It is expected that the constraints currently facing agroforestry education in the country will be addressed in the near future.

Agroforestry education and training

Agroforestry training 2001 at UP Los Baños

As in previous years, also in the year 2001, the Institute of Agroforestry (IAF) at the University of the Philippines Los Baños (UPLB) will offer its widely known agroforestry training courses.



UPLB's agroforestry laboratory

S. Weidner

The IAF Agroforestry Courses will be given during the following periods:

Agroforestry Project Planning and Management:
18 – 24 March, 2001

Integrated Pest Management (IPM) for Agroforest Farms:
22 – 28 April, 2001

Agroforestry Seed Technology and Nursery Management:
20 May – 2 June, 2001

Soil and Water Conservation and Management for Agroforest Farms: 24 June – 7 July, 2001

Agroforestry Technology Verification through On-Farm Trials: 22 – 28 July, 2001

Agroforestry Production and Post-Production Systems:
19 August – 8 September, 2001

Sustainable Agriculture Initiatives for the People:
30 September – 6 October, 2001

Participation is open to managers of development projects, technical field personnel, researchers, trainers, community leaders and other interested persons from governmental and non-governmental organizations, local government units, people's organizations, academic and research institutions, and other concerned local and international institutions.

A registration fee is charged for each participant to cover the costs of food, accommodation, training materials, local travel and insurance during the training period.

Upon request, these regular courses can also be offered on-site. Special training courses are also developed and implemented to address capability building needs of technical personnel of local and international institutions working in agroforestry and related fields. IAF also arranges educational study tours for foreign participants to provide them with an overview on how agroforestry is practiced in the Philippines. To arrange on-site and special courses and study tours, please get in direct contact with IAF.



Conservation of medicinal plants at UPLB

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