An Introduction to Bogor Agricultural University

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Abstract

The Institut Pertanian Bogor (IPB) or Bogor Agricultural University, since its initiation in 1940 and its founding in 1963, has grown into a diverse, innovative institution for higher education in agriculture and related areas. IPB is now one of Indonesian most prominent state universities. In 2005, it has a student population of almost 25,000 and faculty member of 1,327. It currently consists of 9 Faculties, 36 Departments and offers Diploma, Undergraduate, MS and PhD study programs (13, 34, 47 and 26 respectively). With its wide range of contact and activities, supported by ample of facilities and an excellent campus environment, IPB has become a leading player in nation building, especially in the area of agriculture in a broad sense and the rural development.

Facing the challenges of globalization, IPB's organization is in need of revitalization. The approaches to be considered include changing the mindset of faculties, staff and all personnel throughout IPB, by altering concepts and structure and by applying multiple strategies for undertaking tasks. Most important of all is the need to increase IPB's capacity for innovation and change. This can be done by granting it the status of an autonomous institution. Government regulation (PP No. 154/2000) provides a suitable opportunity to independently explore all its available resources to better serve the goal of quality in education, research and community services.

In relation to the implementation of IPB's vision as a leading higher education of international quality in the development of science, technology, art and human resources with tropical agriculture as its core competence, IPB has established collaboration with foreign institutes of education, research as well as commerce. There are about 50 memorandums of Agreements spread in 15 countries in 5 continents (Asia, Africa, Europe, America and Australia). This is parallel with the concept that "knowledge knows No Frontiers", this means no boundaries of countries to improve, develop and transmit the knowledge, wisdom, and values. In addition, IPB has also declared to be a research based university starting in 2007.

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Background

Since its initiation in 1940 and its founding in 1963, Bogor Agricultural University (IPB) has grown into a diverse, innovative institution for higher education in agriculture and related areas. IPB is now one of the most prominent state universities in Indonesia. In 2005, it has a student population of almost 25,000 and faculty member of 1327. It currently consists of 9 Faculties, 36 Departments and offers Diploma, Undergraduate, MS and PhD study programs (13, 34, 47 and 26 respectively). Academic programs offered by IPB cover a wide range of agricultural sciences, from bio-resources, social-economics, management, mathematics and natural science, to technology and engineering. These programs try to provide competence currently required in the development of agricultural industries, marine and forest resources, and national sustainable development.

With its wide range of contact and activities, supported by ample facilities and an excellent campus environment, IPB has become a leading player in nation building, especially in the area of agriculture in a broad sense and rural development. In line with its research-based philosophy, IPB now maintains 13 research centers. The research activities should be in line with IPB's research umbrella. To support IPB's academic activities, IPB possesses a number of supporting units such as the central library which possesses a huge number of book collection and digital library system, University Farm, Education Forest, Animal Husbandry, Integrated Laboratory, Veterinary Hospital, Student Dormitory, and IPB Sport Center.

The development of IPB was determined by many factors. The external factors were influenced by national and international cooperation programs. The evidence of these was found that in the early history of IPB, many international linkages and cooperation programs played an important role in the establishment of IPB. All of theses can be an argument for the importance of continuous international linkages, collaboration and cooperation programs in developing of higher learning institution.

History and Development of IPB

Following the enactment of new higher education laws, in 1963, national universities were founded in each of the provinces. In this year, the faculty of Agriculture and the Faculty of Veterinary Medicine, was separated from the University of Indonesia. Besides these two faculties, three other faculties were established, namely the Faculty of Fisheries, Faculty of Animal Husbandry, and the Faculty of Forestry. These five faculties constituted a new university

Bogor Agricultural University Kampus IPB Darmaga, Bogor INDONESIA

establishment called the Institut Pertanian Bogor (IPB) or Bogor Agricultural University.

In the following year (1964) the Faculty of Agricultural Technology and Mechanization was founded and changed its name to be the Faculty of Agricultural Technology in 1981. IPB has also been well known as the pioneer of graduate program in Indonesia since Graduate School of IPB was found in 1975. In 1979, IPB started to offer Diploma Programs and has continued their improvement by founding Faculty of Mathematics and Natural Science in 1981. In 2000, IPB found the Faculty of Economics and Management, and in July 2005, IPB enriched its academic program by adding the Faculty of Human Ecology as the 9th faculty in IPB.

In 2005, IPB will celebrate its 42nd anniversary. IPB has planed this year as a full implementation year of IPB as an Autonomous University. As the best agriculture-based university in agriculture-based country (Indonesia), IPB always plays an important role in the national development. Higher education activities in IPB with its achievement (graduates, concepts of agriculture development and technology, community college) have contributed significantly to national development. This concept is embodied in the 'Three Functions" of higher education, which comprises education, research, and community empowerment. IPB plays an important role in improving the quality of human resources, which constitutes one of the primary assets in development activities. Higher education in IPB in particular, principally aims to prepare students to become members of society who are capable of dealing with various problems in society itself, and develop various concepts and operational systems to anticipate and overcome such problems. These education activities are also linked to research activities through collaboration with other national or international parties. In the other words, IPB plays a significant role in national development by increasing the number of high quality human resources and developing science, art, and advanced-technology.

IPB as an Autonomous University

In carrying out the responsibility as a higher learning institution and its role in national development, IPB has developed the strategic plan called RENSTRA 2020. This strategic plan embodies the vision, mission, objectives and strategies that have been defined. However, this plan has not been implemented due to a number of constraints, such as a management-as-usual culture, a lack of initiative, an attitude of waiting for orders from above, a lack of funding support and many rules, regulation and procedures that are determined by a central authority.

IPB will face difficulties in developing its organization and attaining its optimal capacity to turn itself into a strong morale force for guiding and leading the community at-large without making a serious effort to alter this state of affair. In IPB's self evaluation, there were many obstacles to run a qualified higher education. The running of higher education institutions in Indonesia was based on regulation. Regulation concerning higher education institutions was enacted from time to time and closely related to the development of government system, which in later years became very centralistic.

For example, before 2004 IPB had very gigantic organization structure, in term of personnel, distribution and the number of units, and their hierarchy. This profile caused unavoidable structural problems, which led to inefficiency and an ineffective span of control. Various problems also occurred in actuating the organization, in an attempt to improve performance and to introduce some necessary change. In the area of human resources, there are several weaknesses such as poor human resources planning of recruitment and of the career path system, lack of incentives and performance assessment, human resources competency development, staff deployment system, poor working ethos due to low salary and non-flexible formal rule and regulation; while in the financial management system, IPB has weaknesses in a low unrestricted revenue, income and donations and also an ineffective and inefficient financial management system due to the existing centralistic regulation.

However, several strengths such as good quality of academic staff with wide range of disciplines, good lab equipment, facilities and ventures, large area of farm, a number of research center, well recognized community service quality, closely linkage with government, international linkages and cooperation with the other institution of higher education in many countries, and many potential activities for revenue generating activities are valuable investment for IPB to become research-based university that is able to compete in the era of globalization. Facing the challenges of globalization, IPB is need of revitalization. The approach to be considered includes a change of the mindset of faculties, staff and all personnel throughout IPB, by altering concepts and structure and by applying multiple strategies for undertaking change. This can be done by granting a status of an autonomous institution for IPB which includes autonomies in the areas of university governance, human resources management, financial and facilities management, academic program, research program, community empowerment program, and national and international linkages and cooperation program.

Mission, Vision and Objectives of IPB as Legal Entity

IPB's basic philosophy is to develop higher education in agricultural science and technology in Indonesia. Moving through rapid growth of development in the last three decades, IPB has stated its vision as a center of excellent in the development of agricultural science and technology through its quality education, research and community empowerment. Having realized that IPB with its strengths has great opportunity to develop programs in a broader area, IPB's vision has been modified accordingly. Although agriculture is still the core competence, with the new vision

IPB has a more flexibility to develop its program based on present and future needs of society. IPB's vision now is:

"*IPB as a leading higher education institution of international quality in the development of science, technology, art, and human resources with tropical agriculture as its core competence*"

Missions to be accomplished are:

1. High quality higher education relevant to the present and future needs of society
2. Develop environmentally friendly science, technology, and arts through advanced research
3. Improve the welfare of human being through the application of developed science and technology
4. Establish civil society based on righteousness and right principle

Objectives to be achieved are:

1. Qualified graduate capable of developing and applying science and technology
2. Develop scientific and technological innovation for the improvement of national development and the welfare of human being
3. Enhanced university responsiveness to continuous and rapid changes of community
4. Established IPB as a moral force for Indonesian civil society

To accomplish its vision and mission as a higher education institution especially to prepare full implementation of IPB as a legal entity, IPB has set up the Work Plan 2003-2007. The goal in the year 2007 is the achievement of IPB as an embryo of Research University. The Program consists of reengineering the university governance, human resources management, financial management, facilities, academic program, research program, community empowerment program, control and accountability, setting up revenue generating activities, quality assurance system and determining performance indicators.

International Linkages and Cooperation Programs

The development and continuous improvement of IPB cannot be separated from the international linkages and cooperation programs. In 1960, prior to establishment of IPB, the US government provided assistance in implementing the concept of agriculture in higher education. The University of Kentucky (U.K) was selected as the lead university. The U.K. sent almost 50 staff during the period of 1960-1966. This was the first IPB collaboration at international level. Second collaboration was established with MUCIA for five year period 1975-1980. Following the MUCIA project, during the period of 1980-1985, a collaboration program between IPB and University of Wisconsin-Madison was developed. All these collaborations focused on faculty development, curriculum development and institution building.

In the early 1970's, IPB was selected by SEAMEO (South East Asia Minister of Education Organization) as the location for the South East Asia Regional Center for Tropical Biology. Soon afterwards IPB, together with Gadjah Mada University and some ASEAN-member universities (University of the Philippines Los Banos, University Putra Malaysia and Kasetsart University) founded SEARCA (South East Asia Research and Graduate Consortium on Agriculture) for the promotion of human resources and technology for agricultural development in the region. The SEARCA university consortium was developed in 1989 providing student and faculty exchange. The University of Queensland (Australia), the University of British Columbia (Canada), and George August University of Goettingen (Germany) joined as associate members. Several joint programs have been developed, for example Sustainable Agricultural Programs and Distance Education as can be seen in Table1.

The IPB-Australia Project (1984-1990) was a joint government operation (Government of Australia [GOA] and Government of Indonesia [GOI]) based on assessment undertaken by the GOI that, at time, IPB was in need of assistance to strengthen its core basic sciences. The area of this project covered human resources development as well as teaching facilities.

International cooperation has been extended to Europe through a strong program (established in 1991) with the University of Goettingen. This program was the very first joint Master of Sciences in Agriculture and Forestry Sciences conducted in English. This cooperation developed to be joint research activities on the Stabilization of Tropical Rain Forest Margins Areas (STORMA).

Other important cooperation includes JICA, JSPS and Japanese Universities such as Tokyo University of Agriculture, Kyoto University, and Tokyo University of Fisheries. The cooperation covers a graduate program for staff development, faculty and student exchanges, technical assistance, joint research, physical construction (building) and the supply of equipment.

A strong collaboration in primate research program has

Table 1. IPB International Research Programs and Internship

No	Research Programs and Internship
1	Organic Agriculture Farming
2	Stabilization of Tropical Rain Forest Margins Areas (STORMA)
3	Food Safety, Quality and Nutrition
4	Plant Biotechnology
5	Tropical Fruits and Vegetables
6	Integrated Pest Management
7	Engineering Application in Tropical Agriculture
8	Primatology

been set up with the University of Washington-Seattle and Wake Forest University since 1990. The program covers staff exchange, graduate education and research collaboration. The cooperation enables IPB to become a world center in long-tailed monkey breeding naturally, and make these available for research.

Cooperation in biotechnology was also established between IPB and universities in various countries such as the University of Yonsei (South Korea), the University of Wageningen (Netherlands), the University of Arizona (USA), and the University of Monash (Australia). In the area of marine sciences cooperation was established between IPB and the University of Bremen, Germany and Rhode Island University, USA.

IPB offers various training programs for international communities as illustrated in Table 2. The trainings in biological resources and management are especially for international communities, some trainings for specific countries, such as training on Third Country Training in Agricultural Engineering for African countries, and some other trainings for regional (Southeast Asian countries).

To sustain competitiveness in teaching, research and outreach program, IPB consistently seeks to improve and expand its international programs. The mission of international programs is to create, support, preserve, transmit, administer, coordinate, and advocate on behalf of learning programs and services that have a global dimension.

Table 2. IPB International Training Programs

No	Training Programs
1.	Biological Resources and Management
2.	Third Country Training in Agricultural Engineering
3.	Entrepreneurship and Sustainable Agriculture
4.	Tropical Marine Ecology
5.	Regional Training Program on Food and Nutrition Planning and Management
6.	Training Course on Forest Formation Ecology
7.	Landscape Architecture and Park Management

Nowadays, the office of International Programs of IPB works directly with the faculty and students to support and facilitate international dimensions of teaching, research and services by: 1) Promoting international education and internship programs, 2) Initiating and managing international projects with the Office of Collaboration of IPB, 3) Maintaining and facilitating international networks through international exchange and participation in collaboration activities, 4) Providing support and services in the negotiation and implementation of international cooperation, and 5) Providing support services for international training and travel documents.

The Office of International Programs has promoted

Table 3. The Number of Student, Researcher and Expert from Japan Visiting Bogor Agricultural University, 2003-2004

No.	Name of University/Company	Total
1.	Ibaraki University	3
2.	Iwate University	1
3.	Kanazawa University	1
4.	Kyushu Kyoritsu University	2
5.	Kyushu University	2
6.	Sinshu University	1
7.	Tohokw University	3
8.	Tokyo University of Agriculture	2
9.	Tsukuba University	2
10.	University of Kyoto	2
12	University of Okayama	2
13.	University of Tokyo	11
14.	Utswnomiya University	7
15.	SHIGETA Animal Pharmaceutical Inc.	4
16.	Awaji Landscape Planning and Horticulture Academy (ALPHA)	10
17.	Others	5
	Grand Total	58

IPB as one of the destination for students and scientists also business entities to visit IPB and also to establish collaboration. So far, Japan is the only country that has established collaboration with IPB covering academic as well as business development. The number of student and researcher visit to IPB has increased in the last two years. Table 3 illustrates the number of student, researcher and expert from Japan visiting IPB.

Concluding Remarks

The development and continuous improvement of IPB and other education institutions cannot be separated from the international linkages and cooperation programs. To sustain competitiveness in teaching, research and outreach program, IPB consistently seeks to improve and expand its international programs. Considering the complexity of challenges and problems as well as the various limitations faced by the institution of higher education, many international linkages and cooperation programs need to be established with various parties, such as with other institutions of higher education, the government, non government organization (NGO), international agencies, and other institution in the community.

We believe a strong collaboration between many institutions of higher education from many countries will lead to significant effect on the improvement of each university.

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