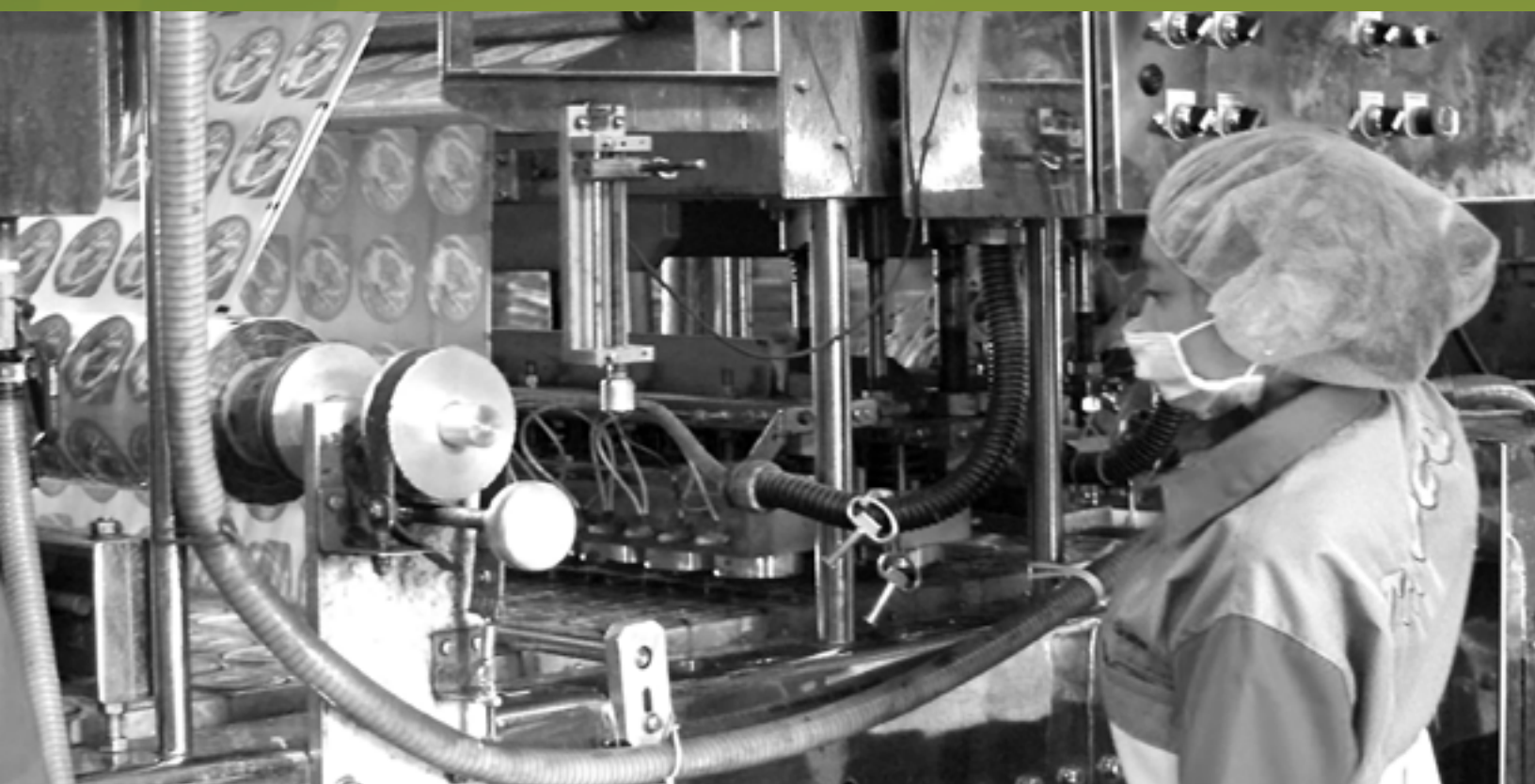


Bogor Agricultural University Agri-business and Agroindustry Incubator

INDONESIA CASE STUDY



 **infoDev**
Agribusiness



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BOGOR AGRICULTURAL UNIVERSITY AGRIBUSINESS AND AGROINDUSTRY INCUBATOR, INDONESIA CASE STUDY

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1. SUMMARY

The Incubator for Agribusiness and Agroindustry at Bogor Agricultural University, Indonesia (IAA-IPB) assists during three stages in the incubation process: early incubation (mentoring creative ideas, assisting in evaluation of market prospects, defining and outsourcing technology needs); incubation (helping production begin); and post-graduation (consulting on business plan revision and facilitating access to financial resources and a market network for new products and new technology implementation).

The utmost attention must be paid to incubatees during both the selection process and the incubation period, in order to ensure that they grow and are successful. Their success is the success of the incubator itself. One-to-one interaction with the incubatees is necessary to understand their problems and special needs and to help them find solutions.

In addition, incubators are advised to maintain relations with successful graduates. They will continue to need assistance, they will be able to assist the incubator by being role models to new incubatees, and they represent a potential source of income for the incubator through profit sharing or equity investment.

2. BACKGROUND

Bogor¹ Agricultural University (IPB) has been involved since 1963 in programs to increase farmers' income and to develop farmer cooperatives and small and medium enterprises (SMEs). The programs cover training, technology transfer, and management consulting in cooperation with government ministries and agencies,² the private sector, and international institutions.

Although IPB trained SMEs and individual entrepreneurs, its success in growing self-sufficient SMEs was very limited until 1994, when the United Nations Development Programme (UNDP) introduced the concept of incubating startup SMEs. IPB joined four other institutions in Indonesia in a pilot program to establish business and technology incubators. Its incubator later became one of the centers at IPB's Institute for Research and Development.

IPB later expanded the Incubator for Agribusiness and Agroindustry (IAA) beyond agribusiness, including SMEs involved in handicraft, leather, and information technology (IT), and promoted the additional idea of developing SMEs using innovations in "green energy" technology.

The Ministry of Cooperative and Small Medium Enterprises Development (MCSME) funded about 15 incubators with seed money from 1994 to 1996. The Ministry of National Education (MNE) later launched a program to start incubators in the universities all over Indonesia. IPB was nominated reviewer coordinator, and was assisted by two other incubators to evaluate proposals from new incubators and monitor program implementation.

¹ Bogor is a city in West Java, Indonesia, about 60 km south of the capital, Jakarta.

² Such as the, National Logistic Agency (BULOG) and National Coordination Agency for Family Planning.

The incubator facility at Darmaga campus near Bogor in 2011 inaugurated a new building with a pilot plant and space for 14 resident incubatees. New equipment was procured with funding from the government. Facilities include sharing of other IPB facilities such as a food processing plant, workshops, and laboratories.

3. STRATEGIC VISION, MISSION, AND TARGETS

Vision: to create strong, independent, and growing SMEs.

Mission: to provide incubation services to help startup agribusiness and agroindustry enterprises become strong, independent, and prepared to scale up to medium size.

The incubator changed its focus to include handicraft, leather, and IT SMEs in response to a request from Bogor's government, which indicated that SMEs in other sectors also needed incubating services, and that these services were not provided by any other organization in the area.

The **strategic mission** of the incubator in the next five years is to have a strong management team, to use new facilities (building and equipment) effectively, to improve IT facilities to support incubatees, to better remunerate IAA-IPB staff, and to help implement a forthcoming regulation on incubator development.

The vision for the next ten years is for IAA-IPB to measure up to other international incubators.

4. INCUBATOR'S DISTINCTIVE FEATURES

The four **distinguishing features** of IAA-IPB are:

- (i) Its focus on agribusiness and agroindustry.³
- (ii) Good networking with the central government, including the active involvement of its staff and management in formulating national policies related to incubator development.
- (iii) Its investment in successful graduates in order to obtain profit-sharing income.
- (iv) Its development of a post-graduate program for successful graduates.

The incubator's four **primary strengths** include:

- (i) Self-sufficiency and a minimal operating budget.
- (ii) Access to the pilot plant, labs, and workshops of the university to support technology services for incubatees.
- (iii) Its ability to serve as a role model for other emerging incubators.

³ Also initiate green technology program for incubatees.

(iv) A dedicated management team.

Its **primary weaknesses** include:

- (i) Limited space for incubatees.⁴
- (ii) A manager who is part-time, since he is also a member of the faculty.
- (iii) Limited support from regional government.
- (iv) Limited financial resources for incubator operations.

5. APPROACH TO SERVICE

Among the core services provided by IAA-IPB to incubatees are:

- (i) Office space and utilities for resident incubatees at moderate rental cost.(ii)Other office facilities, such as meeting and training rooms, at no charge.
- (iii) Free consultation for technology development, management improvement, and marketing plan.
- (iv) Free training, business meetings, and workshops.
- (v) Access to a processing plant and labs for amoderate fee⁵.
- (vi) Free consultation on business plans (required in credit application).
- (vii) Facilitation of the credit application. In particular, the incubator helps incubatees find low-interest credit offered by government programs. The amount of this credit varies according to the type of business, but most incubatees have been able to get loans of at least Rp 100 million (about \$11,000).

In addition to the core services, IAA-IPB provides other services such as facilitation of international internships and attendance at exhibitions. Such services are provided according to each incubatee's needs.

The incubator's approach to providing services was inspired by the principle that service charges should be applied cautiously, particularly in the initial stages of a high-risk sector such as agribusiness. Management agrees that standard fees should be charged for space and utilities, but believes that consulting services should either be very low-cost or free. Equipment and lab analysis charges should be made on a service basis. Events such as training and business meeting can appropriately be charged on a service basis. Regular services should be charged as part of a standard package.

⁴ This was a constraint until recently. The new facilities inaugurated in 2011 will alleviate this constraint.

⁵ The service fees go to the plant and labs, not to the incubator.

6. BUSINESS MODEL

The business model of the incubator is based on three stages in the incubation process:

- (i) Early incubation: mentoring creative ideas, assisting in evaluation of market prospect, developing an early business plan, defining and outsourcing technology need.
- (ii) Incubation: helping production begin, consultation on business plan revision, facilitating access to financial resources and a market network.
- (iii) Post-graduation: consultation on business plan revision; facilitating access to financial resources and a market network for new products and new technology implementation.

In addition to funding from government and development partners, the incubator supports its operation through such programs as designing agribusiness terminals, preparing manuals for a packaging house, writing SME and other lending models for banks, investing in successful graduates; and renting space. Space rental provided Rp. 500,000/50m² per month in 2011. Small charges have been applied for consulting, training and workshops.

The IAA-IPB has been self-sufficient since 2000. Primary sources of funding in the last three years include:

- (i) Competitive projects related to SMEs: fluctuations in this income are dependent on successful proposals and implementation of project.
- (ii) Grants for the incubation program: these declined from Rp. 330 millions in 2009, to Rp. 150 millions in 2010, and Rp. 100 millions in 2011 (\$1 = Rp. 9000). Note there were no grants from 2000–2008.

The proportion of earned income and subsidies is not fixed. In 2008, the incubator received no grants; in 2009, the project/grant ratio was 1/6 and in 2010, the project/grant ratio was 5/3. The break-even level for operating expenses is Rp 100 million/year (about \$10,000).

Primary expenses in last three years include: (i) Salary for two permanent staff; (ii) Remuneration for part time staff involved in the projects; (iii) Travel for permanent staff; (iv) Building and facility maintenance.

The IAA-IPB owns the following assets used in the delivery of services to incubatees:

- (i) Offices and spaces for resident incubatees.
- (ii) Food-processing equipment (since 2011) and access to food processing equipment in the pilot plant of the university (since inception).
- (iii) Wooden toy workshop and access to workshops for manufacturing machinery in the university.
- (iv) Access to laboratories for analysis in the university.

The land where the incubator is located belongs to the university. From 1995 to 2011, the incubator was located in an old IPB building and had access to IPB's pilot plants and labs. The cost of new food-processing equipment purchased in 2010 was to Rp. 5.5 billion (about \$611,000) and the new building cost Rp. 2 billion (about \$222,000). Office equipment, accumulated over 1995-2005, cost Rp. 30 million. The incubator lobbied for 15 years to raise the capital for investment in fixed assets and equipment. In the future, the incubator will need vehicles to visit non-resident incubatees. It has been using private cars belonging to the manager and management team.

The major lesson for the incubator is that even with the difficulty of raising capital for investment in fixed assets (new building) and equipment, operations continued, albeit at a modest level. Networking with institutions that could share their assets with the incubator was essential.

Costs per incubatee per year fluctuate between Rp. 0.75 and 1.5 million (\$83 and \$163). The cost covers about 50 percent of training expenses, 30 percent of the cost of consulting with outside experts and/or travel expenses (in case of non-resident incubatees), and 20 percent of the cost of facilitating access to financial resources.

Cost fluctuations depend on the amount of funding the incubator can access in a given fiscal year. Whenever access to more funding is secured, more activities and costs are funded.

Other incubators in Indonesia may handle agribusiness and agroindustry, but it is not their major focus. A couple of agri-incubators emerged ten years ago at the University of Jember, East Java, and the University of Mataram, West Nusa Tenggara. These are no longer operating, possibly due to weak management.

7. MANAGEMENT AND STAFFING

Management describes its core team's style as collegial, flexible, and independent. The core team discusses tasks and problems among themselves and with the incubatees. Each person has a job description, and programs are implemented in an integrated manner. Management staff acts on its own initiative in the field, discussing decision later with other team members.

The primary competencies in the management team include: (i) agricultural processing; (ii) economics and (iii) entrepreneurship development. The competencies are the outcome of both formal education and practical experience.

Some on the management team have worked together for more than 10 years. The rest of the team has joined in the past three years. The former incubator manager (Hadi K. Purwadaria, Ph.D., a professor at IPB) recruited and trained an assistant manager. The current manager was appointed by the university in 2008, based on his track record of helping SMEs. The other assistant manager was a former collaborating partner of the incubator program.

The core management staff has only local (Indonesian) marketing experience. The staff-to-client ratio is one-to-five.

Strong leadership has been critical to the incubator's success in four areas: i) making critical decisions such as budget allocation and broadening the incubation focus to embrace IT, handicraft, and leather

SMEs;ii) providing direction to the management team;iii) lobbying university policy makers; andiv) providing a leader on whom incubatees can rely.

The IPB incubator has been fortunate to have had a single leader for most of its history (1995-2008). In 2008, a new manager was selected, and momentum is building around him. The previous manager serves as senior advisor.

The current management team describes leadership as: leading and directing a management team; listening to the team; caring for staff welfare within budget limits; facilitating staff access to training and education; lightening the team's frustration while hiding one's own; and occasionally evaluating team members' performance in an open forum.

The incubator has followed a few methods to develop leadership among incubatees:

- (i) Invite stakeholders beneficial to incubatees to meetings.
- (ii) Deliver on promises and services.
- (ii) Solve incubatees' problems.
- (iv)Manage internal conflicts among resident incubatees and between incubatees and their workers.
- (v) Indicate that the incubator is improving in knowledge and resources.

Two key leadership lessons learnedby the incubator's management team:

- (i) Don't promiseservices you cannot offer.
- (ii) Clearly define your overall incubation program. Start simply based on resourcesand make efforts to improve as quick as possible.

8. OUTCOMES AND CONCLUSIONS

IAA-IPB measures the result of its own work with one simple metric: The increase in incubatees' sales volume. Job creation is not considered a reliable parameter by incubator management, since this indicator varies with the type of business. For example, handicraft and shoe-making jobs increase with sales volume; jobs in essential oil and fresh vegetables might not increase substantially with increased sales.

The incubator has helped start 77 new businesses, of which 27 are still in incubation, 38 have graduated, and 12 have withdrawn from the program. The following table indicates the number of resident and non-resident incubatees, graduates, and those that have withdrawn.

	Incubatees Resident	Incubatees Non-Resident	Total	New incubatees	Incubatees from previous years	Graduates	Withdrew from Incubator
1995-2000	5	15	20	20	-	10	2
2000-2005	7	20	27	19	8	13	5
2005-2010	5	22	27	18	9	15	3
2010-2011	2	25	27	18	9	-	2

Source: Data obtained by IAA-IPB.

Distribution of Incubatees

Sales performance for a sample of 29 enterprises for which it was possible to collect information is illustrated in the following table. Agroindustry and agribusiness enterprises perform quite well, with average growth of over 20 percent, which compares favorably to overall average growth of 18 percent.

No. of Companies	Sector	2008 Sales	2009 Sales	2010 Sales	Average Growth 2008-2010 (%)
8	Agribusiness	2,265	2,705	3,185	20%
11	Agroindustry	18,145	21,805	26,315	23%
5	Handicraft	3,750	4,290	5,740	27%
3	Leather and Textile Industry	2,450	2,860	3,600	23%
2	IT	14,180	15,200	16,780	9%
29	TOTAL	40,790	46,860	55,620	18%

Source: Data obtained by IAA-IPB.

Note: For IAA-IPB, agroindustry refers to an enterprise with an agroprocessing plant (eg the juice factory, or the essential oil factory). Agribusiness is any agro-based enterprise without a processing operation (eg commercialization of fresh fruits and vegetables).

Total Sales of Sample of Incubatees between 2008 and 2009 (Rs. Million)

In terms of average size, agribusiness enterprises are relatively small, with sales of less than \$100,000 per year. IT and agroindustry enterprises are larger in size.

Sector	Average 2008 Sales (US\$)	Average 2009 Sales (US\$)	Average 2010 Sales (US\$)	Average Growth 2008-2010 (%)
Agribusiness	31,458	37,569	44,236	20%
Agroindustry	183,283	220,253	265,808	23%
Handicraft	83,333	95,333	127,556	27%
Leather and Textile Industry	90,741	105,926	133,333	23%
IT	787,778	844,444	932,222	9%

Source: Data obtained by IAA-IPB.

Average Sales of Sample of Incubatees between 2008 and 2009 (US \$)

The effect on farmers' income can be measured in some cases. One hypothesis is that as incubatees' sales volume increases, farmers' income also increases. For example, vetiver farmers' income increased from Rp 2500/kg to Rp 3000/kg over the past 3 years. Vegetable farmers have learned to do their own packaging, so not all the work is done in the cooperative packaging house and the farmers thus gain higher income. In the case of handicrafts, using a fiber called *mendongenables* farmers to realize an income several times higher than the alternative paddy production.

9. CRITICAL SUCCESS FACTORS

Four key success factors can be drawn from the experience of the past 15 years of IAA-IPB's experience. First, the utmost attention must be paid to the incubatees during both the selection process and during the incubation period, in order to ensure that they grow and are successful. Their success is the success of the incubator itself. One-to-one interaction with the incubatees is necessary to understand their problems and special needs and help them find solutions.

Second, the incubator must have the resources necessary to carry out activities and support its management and staff over the long term. Over-investment in activities and staff, particularly at the beginning of the incubator program, is not likely to be sustainable. The incubator has to prove itself with the limited resources it can muster over the medium term (at least three years).

Third, if additional resources are needed, strategic partnerships and networking need to be established. In the case of IAA-IPB, access to infrastructure, facilities, and technical services was obtained through linkages with the university; access to credit for the incubatees was made possible through participation in nationwide programs to support the growth of SMEs; exposure to international experiences through training and participation in conferences was sponsored by development partners and international networks; support from local government was obtained through collaborative linkages and networking with the municipality government; and support from the private sector was received through linkages with Chamber of Commerce and financial institutions.

Fourth, maintain relations with successful graduates. They will continue to need assistance, they will be able to assist the incubator by being role models to new incubatees, and they represent a potential source of income for the incubator through profit-sharing or equity investment.

10. LESSONS LEARNED AND IMPLICATIONS FOR AGRIBUSINESS INCUBATORS

The major lesson from IAA-IPB's experience is to put the incubatees' success at center stage. All the efforts of the management and staff of the incubator are warranted if the startup enterprises become sustainable businesses that can mature from micro/small size to medium and even large size.

Even though there will be failures among the startups and some graduates will not be able to move much beyond small size, it will be enough for the incubator to have a small number of highly successful startup become medium-sized enterprises.

In the case of agribusiness sector, the IAA-IPB has filled a gap in government and academia: the incubator is helping startup enterprises to grow in a relatively protected environment by reducing a number of risks (market, finance, climatic, biological).

The final lesson is that the incubator should not stop supporting incubatees immediately after graduation. Post-graduation activities are also important. A process of selection of successful graduates should be established and post-graduation incubation could also continue. This will benefit not only for graduates but also the incubator in terms of visibility and profitability.

Additional takeaways from the way the incubator has built up its strengths or compensated for its weaknesses that might have value to other emerging incubators include:

- (i) An incubator must have a dedicated, full-time, and capable management team.
- (ii) An incubator should develop good networking with stakeholders such as policy makers, financial institutions, and markets.
- (iii) Management must be confident of its ability to deliver successful incubatees.

11. FUTURE GOALS

Post-Graduate Affiliation

Graduates continue to be associated with the incubator even after graduation. They are expanding and need the incubator's services for new products, new technology, and new marketing systems. The relationship is also reciprocal. The incubator needs graduates for investment and to show examples to startup incubatees. Graduates have not yet formed any informal or formal business association to help themselves and fellow graduates. Incubator management is interested in actively promoting the idea of an association of graduates.

In some cases, graduates have attempted to associate with each other through clusters, mergers, shared distribution channels or supply chains. The two vetiver incubatees have established a vetiver farmer's association; one has the position of chairman and the other the position of vice-chairman. The association includes 5,000 farmers cultivating vetiver in Garut over 1,700 ha.

Expansion of Focus

Even though the main focus of the incubator will remain agribusiness, IAA-IPB also incubates startups in IT, textiles, leather, and handicrafts. Whether this expanded focus will dilute the comparative advantage of the incubator or will strengthen it through the acquisition of new skills and synergies remains to be seen.

Management Issues

As of 2011, the incubator was well positioned. It had a 15-year history, with its reputation and visibility high in Indonesia and increasing abroad. It had acquired a new building capable of hosting 14 tenants, and had new food-processing equipment and plant. With adequate human resources, it could capitalize on past achievements and experience and rapidly grow the number of incubatees it supports. One critical factor seems to be the availability of full-time human resources such as a CEO who is capable, committed, and motivated. Such a CEO would be employed full time and respond to the board of the incubator. Apart from his basic salary, his incentives could come from participation in the success of the incubatees through various mechanisms such as profit sharing (which the incubator already relies on) and equity sharing.

12. CONTACTS

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