



Developing Agro Science and Techno Park to Accelerate Technology Disemination and Promote Agribusiness in Indonesia

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Introduction

As stated in the Midterm Development Plan of 2015-2019, the current Indonesian administration has set a target to establish 100 Science and Techno Parks in all provinces of the country by 2019. As part of this national program the Ministry of Agriculture (MoA) has established five units of Agro Science Park (ASP) and 16 units of Agro Techno Parks (ATP) in 2015. In 2016, additional four units of ASP and 10 units of ATP are under construction.

The purpose of this brief is to review the concept and design of both ASP and ATP, progress to date and emerging challenges.

Concept and design

The function of Both ASP and ATP are: (a) to be the center for advanced science and technology; (b) to be the center for the creation of new entrepreneurs on new technologies; (c) to be the center for services of new technologies in businesses and industries.

Agro Science Park (ASP)

The function of ASP are: (i) to serve as new knowledge for lecturers from the local universities, researchers from government research centers, and technology experts who are ready to make new applications on various economic activities; (ii) to serve as technology solutions to be applied in ATP; (iii) to be the center for developing technology application supporting the local economy. The scope of ASP is on one province and focuses on 1-2 priority commodities based on the agriculture potential of the province and scientific mandate of the coordinating research center. The ASP is managed by a research center located in the corresponding province. In conducting its activity, the ASP collaborates closely with the local university, local government and the private sector. Elements of the ASP activities are presented in Table 1.

a) Agro Techno Park (ATP)

The main function of ATP are: (i) to be the center for technology application on agriculture, which include processing of agricultural products that has been assessed by the research center, university, and private sector; (ii) to be the center for training, internship, technology dissemination, and business incubation for the general public. The scope of ATP is on one district. ATP center resides in an area of 2-5 hectares which consist of physical facilities (offices, green/screen house, warehouse) and pilot plot areas to demonstrate any new technology which will be scaled up to wider areas in the district. Management of the ATP at the early stage consists of manager (private sector) and personnel representing coordinating research centers and other local government offices.

The choice of technology is a whole package relevant to the whole supply chain which are able to promote economic growth, competitiveness, and considered feasible from the economic, social, technical, and environment point of view. The choice of priority commodity is based on: priority program of the corresponding district, good market prospect, and in accordance to the agroecosystem and the local community.

Table 1. Elements of the ASP activities

Element	Expected output
Innovative research	Research results are successfully commercialized
Innovation expose	Industry, new entrepreneurs, and general public are informed about new technologies
Mediation	Develop partnership between farmers and other actors with investors and the private sector
Capacity buiding	Increase competence of management staff, farmers, and other actors
Dissemination of technology	Businessmen and the general public know how to apply new technologies
Facilitation	Industry and businessmen conduct activities in ASP
Facilitation of IPR	Inventor received patents or other rights
Internship	Increased competence of new business entrants
Incubation	Innovation-based new business entrants

Progress to date

To date, all units of ASP and ATP established in 2015 have completed the physical infrastructures construction such as offices, green/screen house, warehouse and demonstration plot sites. These facilities are mostly built at the land belong to local government. Even though the progress varies across sites, common features are as follows:

- a) Grand design has been developed but still needs some improvement;
- b) Dissemination of the concept to stakeholder has been implemented, but some units need to continue this process;
- c) Land status of the ASP/ATP mostly belong to the local government (established by decree), but some units still face some problems regarding this matter;
- d) Sense of ownership and commitmennt of the local government has been created but its level varies across sites;

- e) Participation of universities on ASP's/ATP's activities is still limited;
- f) Partnership between farmers and private sector is not yet implemented;
- g) Personal of ASP's/ATP's management mostly originated from coordinating center;
- h) Communication of the ASP/ATP with other research centers is still limited;
- i) Technology dissemination (through training and internship) is still limited and business incubation is not yet implemented;
- j) Intensity of the new technology exhibition in the field varies across sites and does not represent a unique character of the ASP/ATP.

Conclusion

ASP and ATP are expected as one model that will accelerate dissemination and commercialization of new technology supporting agribusiness development in the local community. However, there are still some missing elements based on the current progress reports. As a way forward, management of the corresponding ASP/ATP needs to identify the gaps and intensify the efforts accordingly.

References

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