

The Synergism of Regional Livestock Area Mentoring Program with Program from Local Government of East Nusa Tenggara

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ABSTRACT

Synergism study of mentoring program of the regional livestock development with the Government of East Nusa Tenggara had been done from 2015 to 2018. The purpose of the study was to improve the farmer's capability of adapting new innovation and technology which was supported by the local government. The study was used descriptive analysis based on the adaptive research to farmer's group and also survey or monitoring. The study led to several findings: (1) the support from local government with the given program is crucial to accelerate the adoption of innovation and technology and (2) The mentoring program of Food Crop Research Institute, especially the officer and local extension worker, is indispensable to accelerate the dissemination of innovation and technology.

Keywords: East Nusa Tenggara, regional livestock development, mentoring, synergism

INTRODUCTION

One of the strategic target of Ministry of Agriculture in the period of 2015 to 2019, which is written in Strategic Planning, are the rice, corn, and soya sovereignty and also the increase of meat and sugar production (Ministry of Agriculture, 2015). The increase of meat production and other livestock products is done by a regional approach to commodity development. Regional livestock commodity and health are the specialized area for livestock business and health activity and business which has several functions such as breeding, cultivation, feeding, healthcare, veterinary public health, and also post-harvesting) (Directorate General of Livestock and Health, 2015). In order to achieve the given agriculture development goal, Food Crop Research Institute has several responsibilities: (1) to create, to manage, and to develop agriculture innovation and recommendation for agricultural development decision based on the user's need; (2) to increase the efficiency and acceleration for dissemination and the utilization of feedback working channel for agriculture innovation; (3) to expand both national and international networking for innovation and technology and also to increase the role of Food Crop Research Institute in agribusiness and agriculture development; and (4) to improve the capacity of

institution to a better management and professional for research and development.

ASSESSMENT METHOD

The assessment was used adaptive research approach based on the farmer's group with using descriptive method and survey or monitoring which had been done in Kupang District, South Area of Central Timor (SCT), North Area of Central Timor (NCT), Belu, Malaka, East Sumba, Southwest Sumba from 2015 to 2018. Innovation Technology intervention was done by using participative mentoring through a farmer's group, involving a farmer who had been following the mentoring program for livestock regional development.

ANALYSIS METHOD

The Observed Primary Data consists of technology variation which was supported by the local government. The given data then analyzed descriptively.

RESULT AND DISCUSSION

The Development of Livestock Population in East Nusa Tenggara

The mentoring of technology to support regional livestock development is expected for its benefit to the farmer, business partner, and local government. For farmers, they can rear livestock

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better for breeding as well as for production. For both business partner and local government, they can make a good decision to solve the problem in animal husbandry sector which leads to optimum innovation technology development on the sustainability of rearing the livestock in the given area.

In the long term, it will improve livestock centers with technology-based which lead to the improvement of regional income because of livestock production. Further, table 1 will describe the development of livestock population data in East Nusa Tenggara for last five years.

Table 1. development of livestock population data in East Nusa Tenggara from 2013 to 2017

No	Livestock Commodity	Year (head)				
		2013	2014	2015	2016	2017
1	Cow	823,134	865,731	899,577	984,508	1,007,608
2	Buffalo	133,786	134,567	141,075	156,927	162,658
3	Horse	111,047	112,948	111,047	112,557	112,589
4	Goath/Sheep	656,242	674,012	691,852	704,853	741,806
6	Pig	1,739,481	1,755,058	1,812,449	1,845,408	2,073,466
	Total	3,463,690	3,542,316	3,656,000	3,804,253	4,098,127

Source: East Nusa Tenggara in number, 2018

There were increases in livestock development even though not optimal for overall livestock commodity because of the high case of mortality from non-intensive rearing in small scale farm. the prominent health problem was related to rearing model in the society which need responsible management for the medium term production period since the new business at least needs 5 years to settle. The strategic implementation is needed to improve beef cattle in East Nusa Tenggara which can accelerate the achievement of development goal based on both national and local strategic planning. Hopefully, mentoring can give a benefit to the farmer, business partner, and local government in order to solve the problem in the livestock sector.

Animal Husbandry Department support on Regional Livestock Development

The national strategic program from the government was the efforts to achieve beef self-sufficiency. This is based on the fact that the consumption of animal protein in Indonesian society is still supplied by import. The causal factors are technical and non-technical factors. These factors cause a decline in cattle population. Meanwhile, East Nusa Tenggara still has quite a big potential for making its own protein resources. In order to achieve protein sovereignty from the animal, there is a local program which synergized with the national program (Table 2).

Table 2. The District Animal Husbandry Department Synergy with regional livestock development

Program/Activity	Location/District	Year	Goal
Livestock disease prevention program	Belu District West & East Tasifeto Sub-District Raihat Sub-District	2016	6800 head
Program to increase livestock production	Belu District West Tasifeto Sub-District Livestock Area in Sonis Laloran and Fahinuan Nuadato	2016	10-hectare Forage garden
Program for saving productive cows	East Sumba District	2016	Giving a reward such as 5,000 IDR per livestock for the farmer who owns a pregnant productive female
Livestock Social Assistance Program (Cattle, Buffalo, Horses, Goats, and Pigs)	Sumba Barat Daya District	2015	190 farmer's group
Forage garden infrastructure program	North Central Timor District Noemuti Sub-district	2018	Each package consist of a waterpump, casing, and two water bucket inside the garden
The People's Business Credit	Kupang District	2018	80 farmers

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Program for livestockfattening			
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Source: *Processed Primary Data, 2018*

Based on table 2, Synergism between local government programs and agricultural area development programs has an important role in the process of adopting technological innovations. Therefore, program synergism is very important and beneficial for farmers and in line with the main tasks and functions of the agriculture research institute. The agriculture research institute serves as a representative of the central government in the region, which provides location-specific technology and assists in designing agricultural development policies/strategies according to the biophysical and socio-cultural conditions of the community.

Technology Support that Synergizes with Regional Programs

The implementation of assistance for technology is carried out through coordination with the local Livestock Service Office. In addition, adjustments are made to the environmental conditions and groups of farmers who will implement the program. because not all technological innovations offered can be applied equally to different areas in the same region. For further information, table 3 tells about the support for mentoring about technology in East Nusa Tenggara

Table 3. *Technology support for mentoring in East Nusa Tenggara*

Technological innovation	Activities
Breeding Technology	<ul style="list-style-type: none"> • Repair for maintenance systems through the communal stall
Fattening Technology	<ul style="list-style-type: none"> • Repair for rearing through the communal stall • Feeding with 60% forage and 40% legume or local concentrate • Feces utilization for compost and alternative energy resource (biogas)
Feeding quality improvement through the introduction of legume trees	<ul style="list-style-type: none"> • Planting legume tree inside a communal garden as feed and seed resources
dissemination of technology	<ul style="list-style-type: none"> • Development of information media (poster, leaflet)

Sumber: *primary data 2018*

Table 3 describes four kinds of technologies which are introduced in each of the mentoring areas. The implementation during the activities is synergized with local government' program which shows good cooperation and also avoids double implementation program. Many technologies have been produced by research institutions, but not all of these technologies can be accepted by society as users. This is due to difficulties in applying this type of technology not only because it is expensive but also not match with the local culture. The technology is called participatory technology if it can meet the following requirements: (1) The technology is needed by farmers; (2) The technology can be assembled with the active participation of the community as potential users; (3) it is sustainable; and (4) it can improve the user's welfare.

TECHNOLOGY MENTORING

The local government's role is not separated with the technology mentoring from Agriculture Technology Research Center for developing regional livestock area and also local extension worker. The Technology Mentoring activities

consist of socialization, scheduled meeting, and field implementation. The Research Center of East Nusa Tenggara as the technical implementation unit from East Nusa Tenggara Research center has roles: (1) as the bridge between study system and extension work; (2) as the effective partner of research centers and national agriculture research centers ; (3) as the partner of local government in planning of agriculture development area; (4) as the specific technology provider based on location for various user especially farmer. In the implementation of the animal husbandry area development program in East Nusa Tenggara, there have been synergies or partners with the local government which is manifested in several tangible results. For instance:

- There have been 5 units of communal stall built from 2015 to 2018
- The partnership with Animal Husbandry Department of Kupang and NTT Bank (Local Bank) branch Kupang, microbusiness loan in the form of fattening bull as much as 120 and also the *Leucaena leucocephala* seed for 10 hectares

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- The partnership with Animal Husbandry Department of North East Timor in the form of infrastructure (two water bucket, water pump machine, and its casing) to support 4 hectares communal forage garden.

CONCLUSION/SUGGESTION

Based on the study, it can be concluded that:

- The support of the local government, synergized with a regional development program, has a big role in the adoption process of innovation technology in East Nusa Tenggara.
- Technology mentoring from Agricultural Agriculture Technology Research Center and local extension worker is highly needed in order to accelerate innovation technology dissemination.

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