Sekolah Tinggi Agama Islam Al-Mawaddah Warrahmah Kolaka

JURNAL EKONOMI BISNIS SYARIAH

Asset Based Community Driven Development Method For Agrotourism Development On Integrated Farming

Muhammad Ridwan Syah[1], Muhammad Askari Zakariah[1*], Muhammad Zakariah[2], Muhammad Asra[2]

[1]Islamic Economic and Bussiness Faculty, STAI Al-Mawaddah Warrahmah Kolaka
[2]Islamic Education Faculty, STAI Al-Mawaddah Warrahmah Kolaka
Jalan Pondok Pesantren No.10 Kolaka, Sulawesi Tenggara
*corresponding author: m.askari.zakariah@gmail.com

Received 21 August; Accepted 21 September 2017
Available online 21 December 2017

ABSTRACT

This community based research aim to determined effect asset based community driven development (ABCD) method for agrotourism development on integrated farming system were done in Mowewe district, East Kolaka Regency. Qualitative method were used participant observation developed. Approach stage of ABCD method for agrotourism development on integrated farming system are: discovering strengths, organizing and mapping, lingking and mobilizing, community driven initiatives and sustaining the process. Simulation model agrotourism development were tested during one week, with Student group from Islamic Boarding School and Integrated Islamic School Al-Mawaddah Warrahmah to done *Rihlah Ilmiah* (Programs to support agrotourism development). Concluded that ABCD method can accelerate agrotourism development on integrated farming system.

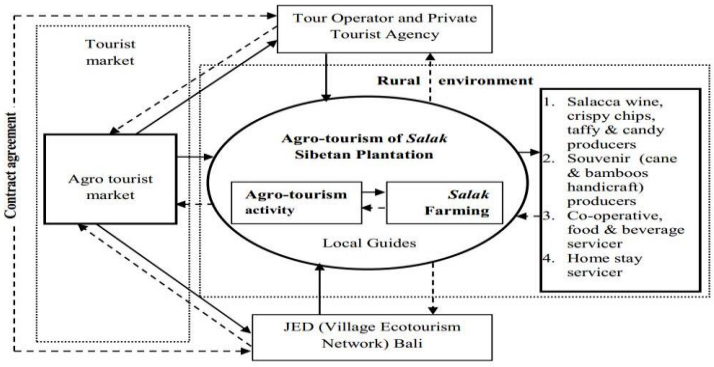
Keywords: Asset based community driven development, Agrotourism, Integrated farming system, Mowewe district.

ISSN 2599-1191 © Production and Hosting by STAI Al-Mawaddah Warrahmah Kolaka
DOI: 10.5281/zenodo.1067694

INTRODUCTION

Mowewe district is oldest district in East Kolaka, Kolaka and South Kolaka. However its condition left behind than another district. Number of pauper is highest in East Kolaka (Badan Pusat Statistik Kolaka Timur, 2014). Agrotourism program were applied and directed based on asset based community driven development (ABCD) method, its aim are rural community. Brooks (2016), stated that nothing power to change greater than community power, except they are realize what they have. Asset Based Community driven Development (ABCD) made rural community to be consider as most important a potency on their own as competency. Approach stage of ABCD are: discovering strengths, organizing and mapping, lingking and mobilizing, community driven initiatives and sustaining the process.

Main program to build region of agrotourism in agriculture processing based on integrated farming system. However, community impowerment directed to health, education, and public facility sector. Budiasa dan Ambarawati (2014),stated that community impowerment based on agrotourism on Salak Sibetan during 18 year, seek so slowly, limited community competency to handle agrotourism program. Concept of community impowerment based on agrotourism, Please see on picture 1.



Gambar 1. Konsep agrowisata (Sumber: Budiasa dan Ambarawati, 2014)

Mowewe district being the center of rice (become a granary), vegetables and fruit, one of main centers of cattle development (breeding and fattening), and honey product of mowewe is famous in Sulawesi (Badan Pusat Statistik Kolaka Timur, 2014). Local potency is various on agriculture sector in Mowewe district (Zakariah, 2016), with the result that community impowerment are serious program. The purpose to increase income of rural

Jurnal Ekonomi Bisnis Syariah. 1(1): 9-21

community, and alleviate poverty. Focused program to optimalize community impowerment based on integrated farming system, because this time current needs to build living and alleviate poverty

RESEARCH METHODOLOGY

Research was done on Agustus – December 2016 in Mowewe district, East Kolaka Regency, Southeast Sulawesi. To get achievement from main purpose of agrotourism program based on integrated farming system were designed methodology community based research by asset based community driven development. First stage are fundamental development by working team between agrotourism team and rural community.

In the period since the first week of arrival, the team deployed to implement this approach. This approach is conducted as a preliminary stage which aims to analyze the assets owned by the local community, initiate and develop the program together with the community and relevant stakeholders, so that the village agrotourism program activities relevant to the local community.

The ABCD self-mobilization process has guidelines for achieving a strong level of community-driven development. These guidelines assist the participant in organizing a group as well as mapping the capacities of the community. Variations of this process exist for the use of different NGOs (Anonimous, 2002).

Step 1: Collecting Stories. Conducting informal discussions and interviews can provide a forum for citizens to express their experiences from past endeavors. This discussion has a dual effect; not only does it reveal unrealized assets, but it also helps build confidence in a person's personal abilities. This confidence will evoke the motivation to contribute to the sustainable community development process.

Step 2: Organizing a Core Group. As the process of collecting stories continues, certain participants will be distinguishable from the rest as leaders. These committed individuals may have shown leadership aptitude in the past, or they may currently be in a position of authority. Organizing the leaders of the group and compelling them to further explore the assets of the community is of importance. These leaders will network and build relationships with other individuals in the community.

Step 3: Mapping Completely the Capacities and Assets of Individuals, Associations, and Local Institutions. Mapping is an extensive process conducted by citizens themselves; the mapping process helps participants learn more about the talents of other community members and will identity links between different assets. Mapping is more complicated than merely collecting data; a large part of the mapping process is in developing new relationships amongst community members. During the mapping processes, one should have an outline to ensure the following:

> Identifying associations- These associations are the backbone of community action and are essential as assets. The associations should be listed by type and those most likely to work together for a common goal should be identified.
>
> Identifying individual gifts, skills, and capacities- Every participant should feel as if their gift has been realized and is appreciated. The capacities of each person is placed in categories such as "community-building skills", "teaching skills", "artistic skills." Other organizations may choose to categorize by skills of the heart, head, and hand.
>
> Identifying the assets of local institutions- Assets of institutions could be found in the services they provide, the equipment they have, or the communication links they may provide.
>
> Identifying physical assets and natural resources- Natural resources such as land, water, or other resources should be identified as either privately managed or community owned and managed.
>
> Mapping the local economy- How does the economy work? What resources can be realized for maximum community benefit. Could imported products be produced locally?

Step 4: Convening a Broad Representative Group to Build a Community Vision and Plan. In this step, the central organized theme is matched with different assets. The decisions should be made by those identified as leaders in the earlier steps.

Step 5: Mobilizing Assets for Community Development. In this step, the processes are initiated as the community assets are mobilized. Further associations are encouraged to

engage those with similar interests. Looking for common ground amongst participants and encouraging contribution is necessary.

Step 6: Leveraging Activities, Investments and Resources from Outside the Community to Support Asset-Based, Locally Defined Development. Before external resources are tapped, all local resources must be utilized. This would put the community in a position of strength for furthering the vision.

RESULT AND DISCUSSION

Mapping and Settling Assets owned by villagers agrotourism

Identification of the potential of the area was done to obtain data on the state of territories and ecosystems by using primary data and secondary data. Some assets are designed to be used as the object of agrotourism in District Mowewe namely paddy, rice processing plant, cocoa plantations, farms and stables.

Figure 1. Rice Community and Gardens boarding school in the village of agrotourism is the object stopped and campgrounds

Linking and Mobilizing asset community

This stage connect and mobilize all assets to be used as a community attraction, based on the tourist village of objects related to agriculture, plantations and farms can be used as an

object. The concept is based on a model of integration or commonly known as integrated farming system.

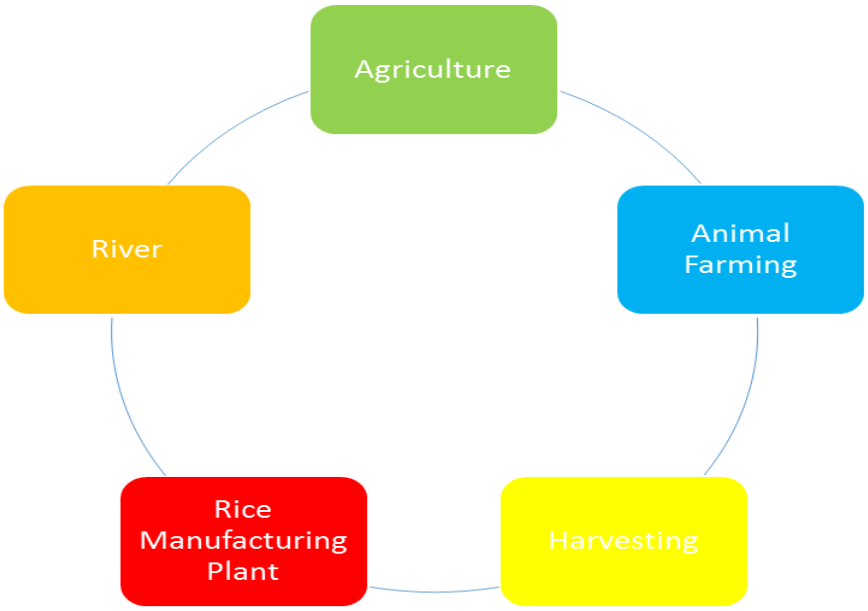


Figure 2. Linking asset community

Community driven iniatiative

Stages to initiate community is quite difficult, in a community can be divided into several groups, there are groups that want to move on if there is an incentive program, another group voluntarily without nothing.

Figure 3. Improvements object cage by community

The use of agricultural waste for animal feed and compost

Jurnal Ekonomi Bisnis Syariah. 1(1): 9-21

Agricultural waste rice and cocoa plantations that have not been optimized to be used as livestock feed and compost. Therefore, with the ABCD method will result in the knowledge of the community, will directly increase technology adoption community, in the hope of an increased level of adaptation by the public.

The technology of fermentation feed make the fraction of cell walls composed of cellulose, hemicellulose, pectin and lignin can be loosely so the digestive enzymes can penetrate. Beside that, by using certain types of microbes can reduces the level of anti-nutrients which founded in the cocoa pods such as *theobromine* and *tannins* that can decrease negative impact which generated when it giving to the livestock.

Basically cocoa consists of four parts, namely: skin, placenta, pulp and seeds. Cocoa fruit skin is part of the cocoa pods underutilized. Cocoa rind contain a crude fiber and high lignin which leads to the degradation feed to be low, the percentage of low levels of crude protein (CP) made improvement be very significant to the process technology for efficient and effective feed. Cheeke (2005), showed that residual result of the farm or plantation has a very slow of digestion in the rumen because it contains carbohydrates -which have ready to use- in low condition and the material of the cell wall which has lignification. The residual result of the farm or plantation has nitrogen content was not sufficient to support the growth of microbes contained in the rumen.

Many of reference showed cocoa pod fermentation can improve productivity ruminant cattle, such as bali cattle, and bligon goat. Saili *et al.* (2010), showed that tretament with *A. niger* resulted in increase in N content and decrease in ash-free NDF content of cocoa pod, furthermore diet containing cocoa pod 10g DM/kg liveweight has higher total intake, digestibility, and daily gain of bali cattle than feed native grass ad libitum as control, native grass *ad libitum* and unfermented cocoa pod 10 g DM/kg liveweight, and cocoa pod fermentation *ad libitum*. Guntoro *et al.*, (2006), showed that cocoa pod (was fermented *A. niger* for 3 days) 2 kg/anim/days was combined forage *ad libitum* has higher average daily gain of bali cattle (521 g/anim/days vs 292 g/anim/days repectively), and higher revenue cost ratio (1,11 vs 1,06 respectively) than feeding forage *ad libitum* without cocoa pod fermentation. Mastika *et al* .(2011), showed that fermentation of cocoa pod using *Aspergillus niger* significantly improved its nutrient content and quality of feed, furthermore fed 3 kg concentrate containing 50% of fermented cocoa waste on performance bali cattle has higher daily gain (0.66 kg/day vs 0.53 kg/day respectively), lower concentrate consumption (2.53 kg/head/day vs 2.70 kg/head/day respectively), lower grass consumption (2.97 kg/head/day vs

3.05 kg/head/day respectively), and lower feed convention ratio (8.92 vs 9.80 respectively) than cocoa unfermented.

Munier (2012), showed that highest dry matter consumption (25.76 g/kg BW/day), dry matter digestiblity (83.48% DM), feed convertion, average daily gain (51.85 g/head/day) and lowest *theobromine* content on blood and urine of goat on feeding cocoa pod fermentation (inoculation *A. niger*) 20% in feed ration was combined soya polished (10%) and king grass (70%) than other treatment feeding cocoa pod fermentation percentage (0, 40, and 60%). That is contrary fact with cocoa pod fermentation with inocolation *P. chyrososporium.* Suparjo *et al.* (2011), showed that inoculation *P. chyrosoporium* on cocoa pod fermentation (30%) was combined king grass (30%) and concentrate for goat feed, it resulted higher dry matter consumption (560 g/anim/days vs 538 g/anim/days respectively), higher feed ration convertion (5.50 vs 6.42 respectively), and higher average daily gain (101,79 g/anim/days vs 83,93 g/anim/days respectively) than feed ration consist of king grass, cocoa pod unfermented and concetrate. Factor fiber content can affect inoculation of *A. niger* was distinguished with cocoa pod inoculation *P. chyrososporium*. Potention of fungal *P. chyrososporium* produced enzyme ligninase higher than *A. niger*. Imsya and Palupi (2009), showed that content of NDF, ADF and lignin was lower on feedstuff, it would rise digestibility. Puastuti *et al.* (2009), showed that lignin bounded on cocoa pod has lowest ester and highest methoxyl group than other forage. That caused cocoa pod needed enzyme ligninase to degrade fiber content.

Model integration cocoa pod fermentation (by-product plantation)-livestock in agrotourism

Livestock production in South Asia is dominated by Integrated farming system, in some cases providing power and feces of cattle used for agricultural production. (Rao and Birthal, 2008). Thomas et al., (2002) states that smallholder using the system of cattle-food crops enough to dominate in South Asia, and many projects into the future demand for the production of meat and milk cow which is expected to meet at a point increase livestock production in a integrated or mixed systems. Devandra and Thomas (2002), concludes that cattle are usually integrated with agriculture on a small scale, and it has been a characteristic of agriculture asia.

Design Integrated farming cocoa (*Theobroma cacao*) plantation with livestock (animal farming) was did some province at Indonesia. Waste product without treatment can be desease source such as black pod deseases from fungi *Palmiovora sp.* Black pod desease destroyed other crop cocoa plantation, that deseases caused farmer loss profit untill 60%.

Livestock would use waste product plantation, waste product was processed that have good nutrition and would be convert into meat and milk. Integrated farming cocoa with livestock can raise eficiency (produce organic fertilizer from livestock feeding waste cocoa) and reduce environment pollution.

Ruminants great potential to support the development of cocoa plantations, that needed of factors fertilization and soil texture improvement. System integration of cocoa and cattle showed that not only the cattle who benefit from oil palm plantations, but cocoa plantations will also benefit from a cattle. Integration of livestock - cocoa plantations can lower production costs associated with the cost of procurement of chemicals for the eradication of invasive plant and labor. Developed cattle in the cocoa plantations have more value, feces and urine produced can be used as a fertilizer for plant growth and development of cocoa. By-product plantations of cocoa was used as animal feed to produce meat. Alternative patterns of intensive livestock rearing or semi-intensive depending on the type of livestock and adapted existing natural resources.

Maintenance of large ruminants and small ruminants have more added value and feedback are synergistic with the needs of the plantation. Breeding, in this phase carrying capacity is determined by amount by-product plantation. This effort (breeding) is expected to act as the steer and calf. For this effort is not necessary high-quality feed. Fattening, to obtain optimal growth rate needed special treatment, especially the award of additional food and maintenance intensive. If effort fattening was chosen, it will be needed high quality feed.

Farming system assets decreases steadily from year to year due to the changes of ecology and population. This change needs farming intensification in which, one of them is the introduction of integrated syste such ash crop livestock system. The crop livestock system has applied Low External Input Sustainable Agriculture (LEISA) approach in order to reach efficiency of the farming system. The potential of livestock integrated with the cocoa estate has a good prospect on the public estate development. Cocoa estate has a good prospect to support the integrated with goat farming, however it needs a real concept of the integrated program that work sustainable. The potency of cocoa estate has a carrying capacity of 6.05 head goats for 1 hectare area.

Simulation model agrotourism development

Simulation model of development of rural agrotourism were tested in December 2016, inviting a boarding school that has Madrasah Ibtidayah, Madrasah Tsanawiyah, Madrasah

Aliyah and Integrated Islamic School (consist of SMP IT and SMA IT) to done rihlah ilmiah (programs were done to support agrotourism development) during one weeks. This test is to see the results of agro rural development model. The hope with this scientific *rihlah ilmiah*, can be accelerated phases of agriculture-based economy in the area.

Figure 4. Resting area

Some trees are already old and unproductive, used as a seat and laid out under the shade trees. In addition to agro-tourism village object that had been developed, we also set some food stalls and soft drinks communities to meet the immediate needs of the visitors of *rihlah ilmiah*. Visitor of *rihlah ilmiah* have enthusiastic during in agrotourism place. Many activities such as inform of agriculture environment, animal farming, plant manufacturing of rice/paddy, and cross river area.

Figure 5. *Rihlah ilmiah* Group on agrotourism

Jurnal Ekonomi Bisnis Syariah. 1(1): 9-21

CONCLUSION

Asset Based Community driven Development method for the development of rural agro-based integrated farming system is sufficiently accelerate the rural development program into rural agro-tourism. The concept focuses on the assets of the target communities have a sense of belonging, so that they knowingly and voluntarily to establish and develop agro-tourism village.

SUGGESTION

The community service program has not calculated the benefits directly and indirectly by the society in the village of agrotourism. It should be a tour guide team to facilitate the visit tour of the village agro-tourism.

ACKNOWLEDGMENT

The authors wish to thank to Ministry of Religion Affair via Directorate of Islamic Higher Education because this community based research was financed by service program for beginners PPP/42/2016.

REFERENCE

Anonimous. 2002. ABCD -- Asset Based Community Development Workshop -- Bangkok, Thailand, February 21, 2002. Synergos: Changing the Systems That Keep People in Poverty. http://www.synergos.org/events/abcd2002/#resources.

Badan Pusat Statistik Kolaka Timur. 2014. Buku Putih Sanitasi Kabupaten Kolaka Timur Tahun 2014.

Budiasa, I. W., dan I. G. A. A. Ambarawati. 2014. Community based agro-tourism as an innovative integrated farming system development model towards sustainable agriculture and tourism in Bali. J. ISSAAS. Vol 20 (1): 29-40.

Brook, D. 2016. Asset Based Community driven Development. Diseminarkan di International Conference on University Community Engagement. UIN Sunan Ampel Surabaya.

Cheeke, Peter R. 2005. Applied Animal Nutriton Feeds And Feeding. Third edition. Departement of Animal Sciences Oregon State University. Pearson Prentice.

Devandra, C., and D. Thomas. 20002. Smallholder farming system in asia. Agriculture system. 71. 17-25.

Food and Agriculture Organization. 2003. Integrated livestock-fish farmins systems. The United Nation. Rome.

Guntoro, S., riyanto, N. Suyasa, and M. R. Yasa. 2006. Feeding of processed cacao by-product to growing Bali cattle. Proceeding Seminar Nasional Peternakan dan Veteriner. 116-120.

Imsya, A. dan R. Palupi. 2009. The change of lignin, neutral detergent fiber, and acid detergent fiber of palm frond with biodegumming process as fiber source feedstuff for ruminant. Jurnal Ilmu Ternak dan Veteriner 14 (4): 284 - 287.

Mastika, I. M., I. W. Supartha, A. W. Puger and I. K. M. Budiasa. *Aspergillus niger* significantly improved nutrient content and quality of cocoa waste (Theobroma cacao L.). The Excellent Research Universitas Udayana 2011. Denpasar.

Munier, F. F. 2012. Kajian Fermantasi Kulit Buah Kakao (*Theobroma cacao* L) menggunakan *Aspergillus spp*. Terhadap Kecernaan dan Konsumsi pada Kambing Peranakan Etawah Jantan. Disertasi. Program Pasca Sarjana. Fakultas Peternakan. Universitas Gadjah Mada. Yogyakarta.

Puastuti, W., D. Yulistiani, dan Supriyati. 2008. Cacao pod based ration enriched with mineral: evaluation on digestibility and rumen fermentation in vitro. Proceeding Seminar Nasional Teknologi Peternakan dan Veteriner: 442 – 448.

Rao, P. P, and P. S. Birthal. 2008. Livestock in mixed farming system in South Asia.International Crops Research Institute for the Semi Arid Tropics.

Saili, T., Marsetyo, Poppi, D. P., Isherwood, P., Nafiu, L. and Quigley, S. P. (2010). Effect of treatment of cocoa-pods with Aspergillus niger on liveweight gain and cocoa-pod intake of Bali (Bos sondaicus) cattle in Southeast Sulawesi. In: Proceedings of the 28th Biennial Conference of the Australian Society of Animal Production. *28th Biennial Conference of the Australian Society of Animal Production*, Armidale, NSW, Australia, (52-52). 11-15 July 2010.

Suparjo, K.G. Wiryawan, E.B. Laconi dan D. Mangunwidjya. 2009. Perubahan Komposisi Kimia Kulit Buah Kakao Akibat Penambahan Mangan dan Kalsium dalam Biokonversi dengan Kapang *Phanerochaete chrysosporium*. Media Peternakan 32 (3): 204-211.

Thomas, D., E. Zerbini, P. P. Rao, and A. Vaidvanathan. 2002. Increasing animal productivity on small mixed farms in south asia: a system perspective. Agriculture system. 71. 41-57.

Zakariah, M. A. 2016. Optimalisasi pemberdayaan masyarakat desa melalui pengembangan ekonmi dan agrowisata berbasis integrated farming system di kecematan mowewe, kabupaten kolaka, sulawesi tenggara. Jurnal Ilmiah Al-Mawaddah. 2(1). 31-43.