Agrotourism Development Strategies Based on Institutional at Wonorejo Reservoir, Tulungagung, East Java, Indonesia

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Abstract
The aim of the study was to formulate alternative strategies for the development of agrotourism of Wonorejo Reservoir based on institutional participation using SWOT analysis. Participation of Formal and Non Formal institutions was previously analysed to find out Strengths, Weaknesses, Opportunities, and Threats by using descriptive analysis of the frequency distribution. Vision and mission were formulated based on local government programs in order to increase revenue from tourism and missions that were being carried out by formal institutions and were related to the achievement of goals of agrotourism development. There were 12 institutions comprising 6 formal and 6 non formal institutions of which 120 respondents were randomly selected. The result concluded that there were four groups of strategies for the development of agrotourism that were: Strengths-Opportunities (SO), Strength-Threats (ST), Weaknesses-Opportunities (WO), and Weaknesses-Threats (WT).

Key Words: strategies, agrotourism development, institution

1. Introduction
Paradigm shift in the system of government from a centralized to a decentralized system has implications for changes of regional development management system. Regional autonomy is a concept that emphasizes the aspects of regional autonomy to organize and manage his own household as specified in Law No. 32 of 2004, article 1 paragraph c which states that decentralization is devolution of government power by the central government to the autonomous regions within the framework of the Republic of Indonesia. However, enforcement of this Law has certain consequences which must be prepared by each region in order to support the implementation of autonomy. One of which is the lack of ability of local financial resources to organize and manage his own household, since before the financial sectors of regional development is still heavily dependent on central government.

With regional autonomy, then the costs of regional development and local government operations have to be undertaken by the local government itself, while subsidies from the central government only act as a complement. Problems that arise in this case is unqualified autonomous regional governments in exploring a variety of potential resources that could sustain local development and local governance.

In order to increase financial resources of local governments, one of the sectors with huge potential and needs to be explored in order to increase revenue and promote the area is tourism. It is based on the fact that today’s tourism industry has become one of the largest in the world as is a mainstay in generating foreign exchange in many countries. Tourism is often referred to as passport to development, new kind of sugar, tool for regional development, invisible export, non-polluting industry, and so on (Pitana and Diarta, 2009). Depart from the sense of optimism, several countries including Indonesia seek to develop the tourism sector as a leading sector in the economic development that is able to contribute foreign exchange after oil and gas sector has decreased. Indonesia is pinning its hope on tourism as an export commodity that is expected to replace the role of oil and gas. This expectation is reasonable because Indonesia has a huge potential for tourism in terms of both natural and socio-cultural. One of the attractions of the highlands that was introduced by the local government of Tulungagung is agrotourism of Wonorejo Reservoir. Yet the fact, the number of tourists who come to the reservoir during the last three years has decreased continuously.

An artificial reservoir is one of important factors for creating tourism attraction in an area and thus has an impact on the level of tourism development. Further the development of sustainable and responsible tourism would not be viable without also involving ecological and economic thinking. Consequently, economic and ecological tourism, in theory and practice, of course, can help the development of rural tourism based on natural, social and cultural resources (Katarzyna, 2010). In tourism development, which should be considered first is the local people’s needs that will result in improved quality and standard of living, tourist expectations, protection of nature and culture (Kurek, 2007).

The area of Wonorejo reservoir was administratively included in the authority of some formal institutions. Each formal institution had programs involving community groups or non formal institutions that acted as program goals. There were cases where a non formal institution supervised by more than one formal institutions. Besides that, programs of formal institutions geared more towards achieving the vision and mission of each organization.
sectorally, so often encountered a conflict of interest among the programs. This was compounded by the fact that each formal institution had program priorities which were also conflicting with each other, and seemed to walk alone without any process of mutual interaction and coordination.

Participation is very important because it can clarify the objectives of project, reduce project costs, prevent or reduce management conflict (which might occur between construction workers and local communities), increase technology transfer to the community and promote a culture of independent living and community commitment (Katsumoto, 2007). Participation can eliminate the mentality of dependency and increase a sense of awareness and self-confidence (Mefenguza, 2007). Participation increases the efficiency, effectiveness, sustainability and scope of projects and programs and increase the capacity of stakeholders, independence and empowerment (FAO, 2000). Participation provides a balanced development and creates a sense of self-determination, community development and self-development (CPA, 2009).

However, there are some barriers to community participation in development programs. Participatory approach creates a balanced relationship and interdependence between the government and the public. As a result, administrative decentralization encourages the emergence of sectoral ego of each institution having its own mission. Besides that, there are some internal factors such as socio-cultural factors and external factors such as government bureaucracies that inhibit community participation in development programs (Lestari, 2012).

2. Literature Review

Agriculture development based on tourism is a trend affecting many European countries, the data showed a significant trend toward a more responsible and sustainable behavior on ecotourism activities (Giudici and Dessi, 2011). Agrotourism is a catalyst for economic growth and income supplement (Das and Rainey, 2010) and a successful industry in increasing revenue (Chesky, 2009). Agrotourism considered medium, if it can maintain agricultural activities and promote diversification of economic activities (Van der Ploeg and Renting, 2004). Agrotourism opportunities can be found in the most unexpected places and not exclusively as remote rural areas (Henderson, 2009). Development of rural tourism and agrotourism can contribute to rural development (Xarb and Shehu, 2011). Agrotourism activities are diversified or consumption of natural resources and the local culture as well as the development of personal relationships between visitors and the local community (Iakovidou, 1997 in Latiras et. al., 2010), but it can improve the quality of life by creating jobs, as well as the impact on aspects social and economic, as well as the multifunctional development of rural sustainable development (Wyporska and Mosiej, 2010; Sosnowski and Ciepiela, 2011). Economic motives become the main reason to participate agrotourism (Pillar et. al., 2012).

Agrotourism development is one way to increase rural areas and help local people to earn extra income (Czapiewska, 2010). Sustainable development of agrotourism should emphasize economic growth together with the preservation of local culture and environment, equitable benefit sharing and public participation (Chemmasiri, 2013). Development in agro-ecology and restoration should take into account the wishes of the people with the support and promotion of institutional development for environmental protection (Paraschiv, Gaina, and Zaharia, 2011). Factors that determine the sustainability of the ecology and ecosystems is determined by considering the influence of agrotourism activities (Christofakis, 2010). Tourism and agrotourism activities are very exciting for the locals in the develop the region, especially in the form of increased tourism facilities. In addition they support some form of participatory management related to local agrotourism (Gorner and Cihar, 2013). Agrotourism development plays an important role in enriching the industrial forms of agriculture, increase revenue, promote the optimization and upgrading of industrial structure countryside (Wang et. al., 2012).

Successful experience of agrotourism Toscana, among others : (1) Accelerate national legislation and local agritourism, agrotourism development through standardization of laws and regulations, and make institutional provisions of the aspects of food, shelter, transportation, travel, shopping and entertainment, (2) find the position of agrotourism accurate, ensuring agriculture's dominant position, (3) strengthening the destination network infrastructure, the establishment of a professional website agrotourism, the advantages of internet marketing, (4) strengthening the agro locality, maintaining local styles or habits, emphasizing a relaxed and recreation, (5) ensuring that agrotourism activities, and improve education and learning the meaning of agrotourism (Yu, Xia, and Xu, 2012). Agrotourism activities in southern Thailand has resulted in improved local agriculture by increasing agricultural resource conservation, agricultural diversification, added value to agricultural resources, as well as the promotion of tourism businesses are more profitable (Na Songkhla and Somboonsuke, 2012). Environmental management, local community involvement, sound legislation, sustainable marketing and realistic planning is very important for the development of agrotourism. Agrotourism is emerging as an important instrument for sustainable development, including poverty alleviation, job creation, regional development environment and regeneration secluded (Joshi and Bhujbal, 2012). Agrotourism development in Yunnan China demonstrated that agritourism is not only provide additional income and new employment opportunities for rural communities, but also have improved environmental conservation and cultural minorities...
and the rural lifestyle (Yang, 2012). Various problems of difficulty in the development of agrotourism in Iran include; hygiene and lack of health, lack of cultural attraction, the lack of proper understanding of the phenomenon of tourism, lack of program planning, lack of consistent research and monitoring system (Papzan et. al., 2012).

3. Methodology
There were 120 respondents in this study, who were selected randomly 10 respondents from each of 6 formal institutions and 6 non formal institutions. Formal institutions examined in this study were: Regional Planning and development Agency (A), Public Company Jasa Tirta I (B), Department of Agriculture (C), Department of Tourism (D), Department of Plantation (E), and the Department of Marine and Fisheries (F). Non Formal institutions included: Traders Group (a), Fish Farmers Group (b), Farmers Group (c), the Group of Traditional Artists (d), Housewives Group (e), and Youth Group (f).

Method of data collection used interviews with questionnaires. Method of data analysis used SWOT analysis. SWOT analysis was a strategic planning method used to evaluate Strengths (S), Weaknesses (W), Opportunities (O), and Threats (T) that existed in a project or institution. His analysis involved the specification of external and internal factors that supported and hindered institutional participation in the development of agrotourism in the activities of management, achieving the goals of agrotourism development, development of objects and tourist attractions, and community empowerment.

Agrotourism management activities included planning, organizing, coordinating, and controlling. The activities of the achievement of goals of agrotourism development included increasing conservation, adding aesthetic values and natural beauty, providing recreational values, and developing the local economy (Damanik and Weber, 2006). The activities of the development of objects and attractions included agricultural cultivation, forestry cultivation, fish farming, and the arrangement of tourist areas. Community empowerment activities included the provision of capital, community development, socialization, education and training in tourism.

Data on institutional participation in the agrotourism development were grouped into five classifications ie No Participation by the weight value of 1, the Low Participation by the weight value of 2, the medium Participation by the weight value of 3, the High Participation by the weight value of 4, and the Very High Participation by the weight value of 5.

By using frequency distribution tables, the raw data of institutional participation were then given scores obtained from the total weight of the value of the frequency multiplied by the value of 100 (the maximum value) and then divided by the total maximum value of the item in question.

The values of institutional participation were then classified into three groups, namely: Low Participation ranged from 0 to 50, Medium Participation ranged from 51 to 75, and High Participation ranged from 76 to 100. From the analysis of participation was then obtained Strengths, Weaknesses, Opportunities, and Threats. SWOT identification was very important for the next step in the planning process to achieve goals that had been set (Katsumoto, 2007). Some researchers who used SWOT analysis in their research on tourism were With, Kreiner, , and Wall (2007), Mansfeld et. al. (2000), Rahmat (2000), and Joshi and Bhujbal (2012).

4. Result and Discussion
1. Institutional Participation in Agrotourism Development
The highest participation in management was in the planning activities for formal institutions, whereas the non-formal institutions in organizing activities. The formal institution that had the highest participation in management was the Department of Tourism (= D), while the non-formal institution was the Traditional Artists Group (d) (Table 1).

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>INSTITUTIONAL PARTICIPATION IN AGROTOURISM MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FORMAL INSTITUTIONS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>1</td>
<td>Planning</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>Organizing</td>
<td>42</td>
</tr>
<tr>
<td>3</td>
<td>Coordinating</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>Controlling</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>48</td>
</tr>
</tbody>
</table>
In achieving the goals of agrotourism development, the highest participation was in community economic development activities for both formal institutions and non-formal institutions. In addition to the community economic development, participation of non-formal institutions was also the highest in the provision of recreational values (Table 2).

### Table 2: Institutional Participation in Achieving Goals of Agrotourism Development

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Formal Institutions</th>
<th>Non Formal Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A  B  C  D  E  F</td>
<td>a  c  c  d  e  f</td>
</tr>
<tr>
<td>1</td>
<td>Conservation</td>
<td>34  76  32  30  76  28</td>
<td>38  52  36  38  20</td>
</tr>
<tr>
<td>2</td>
<td>Aesthetics</td>
<td>56  76  24  88  30  32</td>
<td>36  38  32  72  38</td>
</tr>
<tr>
<td>3</td>
<td>Recreation Value</td>
<td>38  56  32  86  36  54</td>
<td>20  38  58  90  60</td>
</tr>
<tr>
<td>4</td>
<td>Local Economy</td>
<td>74  88  76  90  90  92</td>
<td>58  54  58  90  60</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>50,5  74  41  73,5  58  51,5</td>
<td>47,5  49,5  46  72,5  44,5  54,5</td>
</tr>
</tbody>
</table>

The highest participation in the development of tourist objects and attractions was in the regional arrangement activities for formal institutions, whereas the highest participation of non-formal institutions was in fish farming activities (Table 3).

### Table 3: Institutional Participation in Developing Tourist Objects and Attractions

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Formal Institutions</th>
<th>Non Formal Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A  B  C  D  E  F</td>
<td>a  c  c  d  e  f</td>
</tr>
<tr>
<td>1</td>
<td>Farming Agriculture</td>
<td>58  50  94  36  56  20</td>
<td>24  56  94  60  20</td>
</tr>
<tr>
<td>2</td>
<td>Forestry Cultivation</td>
<td>56  40  38  36  94  20</td>
<td>20  40  58  22  20</td>
</tr>
<tr>
<td>3</td>
<td>Fish Farming</td>
<td>58  38  40  38  20  98</td>
<td>20  96  56  58  40</td>
</tr>
<tr>
<td>4</td>
<td>Regional arrangement</td>
<td>74  94  40  56  38  40</td>
<td>50  38  34  36  20</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>61,5  55,5  53  41,5  52,5  44,5</td>
<td>28,5  57,5  60,5  44  25  47,5</td>
</tr>
</tbody>
</table>

In community empowerment, the highest participation of both formal and non formal institutions was on the provision of capital. The formal institution that had highest participation was Public Company Jasa Tirta I (B), while the non formal institution was the traders group (a) (Table 4).

### Table 4: Institutional Participation in Community Empowerment

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Formal Institutions</th>
<th>Non Formal Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A  B  C  D  E  F</td>
<td>a  c  c  d  e  f</td>
</tr>
<tr>
<td>1</td>
<td>Provision of capital</td>
<td>40  96  78  98  76  58</td>
<td>40  96  56  78  54</td>
</tr>
<tr>
<td>2</td>
<td>Community development</td>
<td>38  94  92  98  72  32</td>
<td>31  56  20  78  98</td>
</tr>
<tr>
<td>3</td>
<td>Socialization</td>
<td>50  96  76  98  54  42</td>
<td>60  54  42  68  64</td>
</tr>
<tr>
<td>4</td>
<td>Education and training</td>
<td>42  80  70  90  48  44</td>
<td>90  42  74  52  20</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>42,5  91,5  79  96  62,5  44</td>
<td>76  44  62,5  74  39,5  48,5</td>
</tr>
</tbody>
</table>

Overall, institutional participation in the agrotourism development of Wonorejo Reservoir was still relatively...
The problems that confronted the participation of formal and non-formal institutions were:

a) The dominant authority over reservoir was in the hands of Public Company Jasa Tirta I Tulungagung that apparently did not have full authority because it was only a branch of Public Company Jasa Tirta I Malang

b) Public Company Jasa Tirta I cared more about water quality and silting reservoirs compared to the development of agrotourism

c) The concerns of some people of the threat of the entry of a new culture when developing agrotourism

d) Conflict between economic and ecological interests among institutions

2. SWOT Analysis

Based on local government programs in order to increase revenue from the tourism sector, the vision of the agrotourism development of Wonorejo reservoir was "Developing Agrotourism to actualize Wonorejo Reservoir as a city icon".

Formulation of tourism development missions performed by taking into account and accommodating the mission of each formal institution associated with the goals of agrotourism development in a professional manner, there were: 1) Agrotourism Development of Wonorejo reservoir by increasing environmental conservation in the reservoir area, 2) Agrotourism Development of Wonorejo reservoir by increasing the value of aesthetic and natural beauty; 3) Agrotourism Development of Wonorejo reservoir by providing recreational values; 4) Agrotourism Development of Wonorejo reservoir by improving the local economy in the reservoir area.

Weihrich (1982) developed TOWS matrix that provides tools to develop alternative strategies based on a logical combination of factors related to the strength or weakness of the internal factors related to opportunity or threat of external factors. TOWS matrix conceptually identified 4 groups of strategies: Strength-Opportunity (SO), Strength-Threats (ST), Weaknesses-Opportunities (WO), and Weaknesses-Threats (WT), to formulate alternative strategies based on IFAS (Internal Factors Analysis Summary) and EFAS (External Factors Analysis Summary) (Table 5).

Table 5: Matrix TOWS

<table>
<thead>
<tr>
<th>IFAS</th>
<th>STRATEGIES</th>
<th>WEAKNESSES</th>
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</table>

1. Maximize institutional participation in providing recreational value by utilizing the natural potential of Wonorejo reservoir

2. Maximize institutional participation in the achievement of the objectives of the agrotourism development by utilizing the burgeoning of tourist industry

3. Maximize institutional participation in the provision of capital to take advantage of the attention of the government towards the development of rural areas

4. Maximize institutional participation in improving the local economy by utilizing the potential of the reservoir fish

5. Maximize institutional participation in community empowerment by utilizing the potential of the reservoir capital to take advantage of rural development

1. Minimize the dominant authority over the reservoir by utilizing local authorities.

2. Increase institutional participation in the planning process to avoid the appearance of conflict of interest.

3. Increase institutional participation in the process of coordinating to utilize local authorities.

4. Increase institutional participation in the process of controlling to take advantage of local authorities.

The dominant authority over the reservoir was in the hands of Public Company Jasa Tirta I Tulungagung that apparently did not have full authority because it was only a branch of Public Company Jasa Tirta I Malang.

low institutional participation in the organizing environmental degradation, the entry of a new culture, and reservoir sedimentation, and environmental damage.
5. Conclusion
This research concluded that the alternative strategies of developing agrotourism of Wonorejo reservoir were classified into 4 groups of strategies: Strength-Opportunity (SO), Strength-Threats (ST), Weaknesses-Opportunities (WO), and Weaknesses-Threats (WT).

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