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Strategy of Developing Kendari Botanical Garden as Ecotourism and Climate Control Area



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ABSTRACT

Kendari City is one of the regions in Indonesia that is actively developing its tourism potential by restructuring the Nanga-Nanga Forest which is administratively located in Kendari City and South Konawe, covering an area of 6,675 ha which was previously designated as a protected forest area and production forest. This study aims to identify the internal factors that become strengths and weaknesses, external factors that are opportunities and threats, to analyze the development strategy of the Kendari Botanical Gardens as an ecotourism and climate control area. This research took place in March to June 2018. The analysis used in this study is the Strength Weakness Opportunity Threat analysis. The results of research on the Tourism Object of the Kendari Botanical Garden show that 1) Internal factors: a) Potential strengths in the form of intact landscapes and the presence of water sources in the area, the availability of spots and infrastructure developed by managers properly, there are endemic plants; b) Weaknesses in the form of inadequate infrastructure and unprofessional maintenance, security and comfort of tourists have not been optimal, accessibility in areas that have started to be damaged, c) there is no mini climatology station for observing climate elements as controls. 2) External factors: a) Opportunities in the form of support and seriousness of the local government in developing natural tourism products, overall community support, the near by Kendari Botanical Garden with the city and government center, the availability of adequate infrastructure in the form of public roads, tourist visit trends prefer natural tourist destinations; b) Threats in the form of population pressure (development of settlements), land conflicts with the community, the dynamics of the development of other attractions. 3) The development strategy of the Kendari Botanical Garden is formulated as follows: (a) the government must strengthen cross-regency/city accessibility by developing tourism linkages, (b) seeking accelerated development, development and management, (c) the government and managers must establish cooperation in the formulation of a new tourism program package, (d) the government and managers collaborate in terms of capacity building for caribou and surrounding communities, (e) marketing innovation, (f) in cooperation with local governments throughout Indonesia, (g) making policies in the form of regulations regions governing governance of the Kendari Botanical Gardens, (h) Building cooperation with the army and police to maintain security and comfort, (i) internalizing government programs towards climate change mitigation and adaptation efforts, (j) constructing mini climatology stations for observation of climate elements as controls.



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INTRODUCTION

Ecotourism and climate control are two important things that cross each other as well as be a solution to the global challenges of the 21st century, namely global warming due to increased green house gas emissions. Indonesia, through Presidential Regulation Number 61 of 2011 concerning the National Action Plan for Reducing Greenhouse Gas Emissions, and Presidential Regulation Number 71 of 2011 concerning the Implementation of a National Green house Gas Inventory, has declared a reduction in green house gas emissions which trigger climate change by 26 percent in 2020. On the other hand, tourism is positioned as one of the mainstay sectors in Indonesia's national development (Haryanto, 2014). Karyati (2015), reports that the number of tourist visits is influenced by several climatic elements, namely rainfall, air temperature, humidity, and duration of exposure. It is further explained that the microclimate conditions in vegetated environments are better than open fields.

Ecotourism development is a form of tourism product as a derivative of the concept of sustainable tourism development (Haryanto, 2014). Ecotourism development is essentially intended to sell regional potential attractions, both in the form of natural beauty (Flamin and Asnaryati, 2013), diversity of flora and fauna (Muttaqin *et al.*, 2011; Flamin and Asnaryati, 2013).

Botanical Gardens are the main institutions for *ex situ* conservation of plants in Indonesia whose function is increasingly important in the effort to conserve and use Indonesian plants in a sustainable manner (Purnomo *et al.*, 2010). One of the global environmental phenomena that can threaten Indonesia's rare plants is climate change (Widyatmoko *et al.*, 2012; Widyatmoko, 2018). Addressing climate change must be integrated with sustainable development efforts and global commitments must be raised to reduce the concentration of green house gases in the atmosphere to a certain level so that various ecosystems can adapt to these changes (Widyatmoko *et al.*, 2013).

The development of new botanical gardens in Indonesia is one of Indonesia's important contributions to tackling climate change in the world. The existence of botanical gardens is increasingly needed because they are permanent or cannot be converted into other uses and this guarantees long-term management certainty (Presidential Decree No. 93/2011). One of the

characteristics of botanical gardens is documented collection of plants (Christita *et al.*, 2013). Each regional botanical garden has different collection priorities based on plant endemic city in the area, scarcity, conservation status, and economic potential (Bogor Botanical Garden Conservation Center, 2012).

Kendari City is one of the regions in Indonesia that is actively developing its tourism potential by restructuring the Nanga-Nanga Forest which is administratively located in Kendari City and Konawe Selatan, covering an area of 6,675 ha which was previously designated as a protected forest area and production forest (Ministerial Decree of Agriculture-Forestry, 1982 and Ministerial decree of Forestry, 1997). The Nanga-Nanga Forest has now been developed by the Kendari City Government as one of the botanical garden attractions, which is better known as the Kendari Botanical Garden. The enrichment of collection plants in Kendari Botanical Garden is obtained through independent plant exploration activities and plant propagation. Data collection and registration are carried out on plants that grow naturally or are existings as well as potential collection seeds that are still in the nursery, where currently there are 4,517 specimens of 285 species (Plant Conservation Area Development Sector, 2016).

Kendari Botanical Garden is located in the middle of Kendari city, apart from being the lungs of the city, it is also a potential recreation area, administratively located in the area of Nanga-Nanga Village, Anduonohu Village, Poasia District, built on a forest area with an area of approximately 96 ha and 18 ha of which are protected forest areas and 78 ha as permanent production forest areas. This garden has a wealth of plant collections including 1,747 nursery collections, 1,647 non-orchid collections and 120 orchid collections (Field of Plant Conservation Area Development, 2016). It is further explained that this area is a former land for sand and rock mining as well as illegal logging activities so that it has a high conservation and environmental service function, but with the Kendari Botanical Garden, illegal mining and logging have decreased. In the form of ultra basic rock and damaged due to mining activities and illegal logging can be recovered.

As an area for the lungs of the city, Kendari Botanical Garden can indirectly provide clean oxygen for Kendari city residents, as well as one of the defenses of climate stability in the context of carbon absorption in mitigating and adapting to global warming and climate change. This garden is also equipped with thematic gardens such as Pakuli Park, Ethnobotany Park and

Ultrasah Garden, which all function as conservation parks for vegetation types according to environmental conditions. According to the Ministry of Tourism and Creative Economy of the Republic of Indonesia (2012), climate change causes sea levels to rise, which has an impact on coastal areas and small islands. He further explained that deforestation has an effect on various vulnerable ecosystems and reduces the world's carbon sinks, as well as reducing tourist visits to damaged tourist destination areas.

Kendari Botanical Garden with its rocky natural characteristics has many valleys and sloping cliffs and is crossed by the Wanggu River, very strategic as green open space and placement of plant collections. On that basis, the Botanical Gardens area was initiated in 2009 because it has the potential to become one of the tourist destinations in Kendari City, which was officially used by the Governor of Southeast Sulawesi, witnessed by Representatives, Ministry of Environment, Mayor of Kendari and the chairman and members of the legislative assembly Kendari City. Therefore, research on the Strategic Development of the Kendari Botanical Garden as an ecotourism area and climate control is important to be carried out with the aim of: 1) identifying internal factors that are strengths and weaknesses, 2) knowing external factors that become opportunities and threats, 3) analyze the development strategy of Kendari botanical garden into ecotourism and climate control.

MATERIAL AND METHODS

Research Location and Date

This research was conducted in the Kendari Botanical Garden Tourism Object Area, in Nanga-Nanga Village, Anduonohu Village, Poasia District, Kendari City, Southeast Sulawesi Province, geographically located at the coordinates of 3°54'30" SL and 122°23'0" EL (Figure 1), research was carried out in March-June 2018.

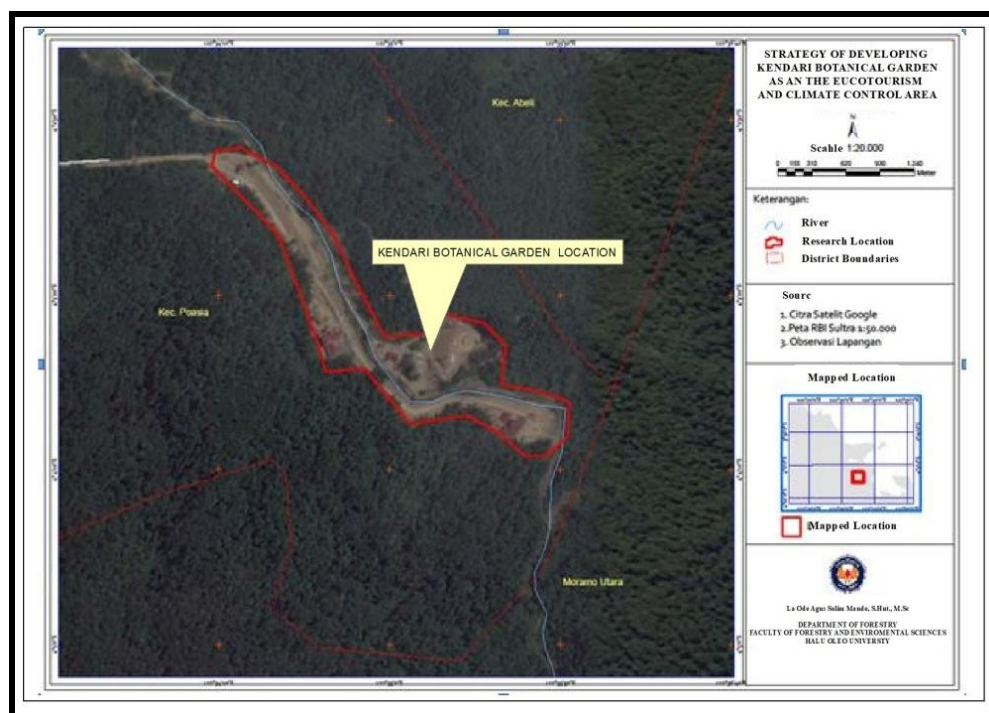


Figure 1. Location Map of Kendari Botanical Garden

Sampling Method and Data Collection

The populations in this study were: manager users of tourism objects (tourists), the community, and related agencies. Sampling of respondents included 10 visitors, 10 people around the Botanical Gardens, 3 (three) botanical garden managers, and 3 related agencies (three) people. Thus, it is hoped that the actual picture and/or situation that has occurred in the management and development of the Kendari Botanical Garden Tourism Project will be revealed.

The sampling method was purpose sampling (Sugiono, 2011). Data collection was carried out in several stages, including: a) Observation, b) Interviews through questions and answers to stakeholders, managers, tourists, and the local community as samples and objects of research. c) Documentary studies, written legacy, especially in the form of archives and including books on opinions, theories, arguments/laws and others related to investigative issues (Nawawi, 2007). The variables observed namely the potential and constraints of the development of the Kendari Botanical Garden tourism object, both internal factors related to strengths and weaknesses, as well as external factors, which are related to threats and development opportunities.

Data Analisis

The data analysis in this research is generally descriptive in nature, which is approach by the Strength Weakness Opportunity Threat (SWOT) analysis method. The SWOT analysis compares the external factors, opportunities and threats, with internal factors of strengths and weaknesses. Internal factors are entered into a matrix called the internal factor strategy matrix or internal factors analysis strategy (IFAS). External factors are included in a matrix called the External Factors Analysis Strategy (EFAS) (Rangkuti, 2004 *in* Nisak, 2014).

RESULTS AND DISCUSSION

Internal Factors

Potential Strengths of Development of the Kendari Botanical Gardens Tourism Object

The potential that becomes the strength of the object and tourist attraction of the Kendari City Nang-Nanga Botanical Garden, namely: **Flora**, according to Kendari City Government (2008) in Hayat (2018) states that there are 38 kinds of plants both endemic and not that should be protected and conserved. In situ and there are also plants belonging to the local area. The types are: Rasamala (*Altingia exelca* Noronha), Dao (*Dracontomelon dao* Blanco Merril & Rolfe), Eha (*Castanopsis baruana* Miq), Meranti (*Shorea spp*), Pontoh (*Myristica koodersii* Warb), Puntah (*Barringtonia racemosa* L.) Spreng, Iron Wood (*Metroseideros petiolata* Koord), Bolo-Bolo (*Adenandra celebica* Koord), White Bolo-Bolo (*Thea spp*), Pankar (*Helminthostachys zeylanica* (L.) Hook), Kopo Raja (*Syzygium polyanthum* var. Sessile (MR Hend.)), Dambu-Dambu (*Eugenia spp*), Huru (*Litsea sp*), Banyan (*Ficus benyamina* L.), Jeluntung Mainland (*Dyera costulata* (Miq.) Hook F), Bintangur (*Callopylum spp*), Uru (*Elmerrillia ovalis* (Miq.) Dandy), Kulipapo (*Vitex copassus* Reinw), Nato (*Palaquium sp*), Longori (*Intis retusa* R.Br), Anyurung (*Dyospiros celebica* Bakh), Onahaa (*Pandanus aurantiacus* Ridl), Kisuji (*Dracaena angustifolia* (Medik.) Roxb), Banggeris (*Koompassia excels* (Bec) Taub), Chinese wood (*Cinnamon spp*), Tolihe (*Gardenia racemosa* Aubl), Gito-Gito (*Dyospyros surensis* Bakh), Puspa (*Schima wallichii* (DC.) Korth), Kacapi (*Sandoricum koetjape* (Burm.f.) Merr.), Kadanca (*Terminalia bellirica* Gartn), Bintunu (*Visenia umbellate* Houtt), Pinana'a Wood (*Areca catechu* Linn), Kuku wood (*Pericopsis mooniana* Thw), Gelam Hutan (*Maleleuca sp*), Kibako (*Nauclea speciosa* (Korth.) Miq), Kanyere (*Bridelia stipularis* (L.) Blume), Balantak (*Koompassia excels* Taub),

and Manyiru (*Eugenia spp*) (Figure 2b). In addition, the botanical garden has the natural beauty of steamy the watter falls (Figure 2a), general facilities such as Pakuli park (Figure 2c) and nursery building (Figure 2d).



Figure 2. Natural Conditions and Plant Collection Facilities at Kendari Botanical Garden

The existence of Kendari Botanical Garden which is one of the Green Open Spaces, apart from being a vehicle for conservation and collection of plants, education and tourism, also provides environmental services as a regulator of water management, landscaping beauty, supplying oxygen and absorbing carbon. This is in line with the Regulation of the Indonesian Institute of Sciences Number 10 of 2015 concerning Botanical Garden Management. The visitors first take the ticket at the entrance gate (Figure 3a).

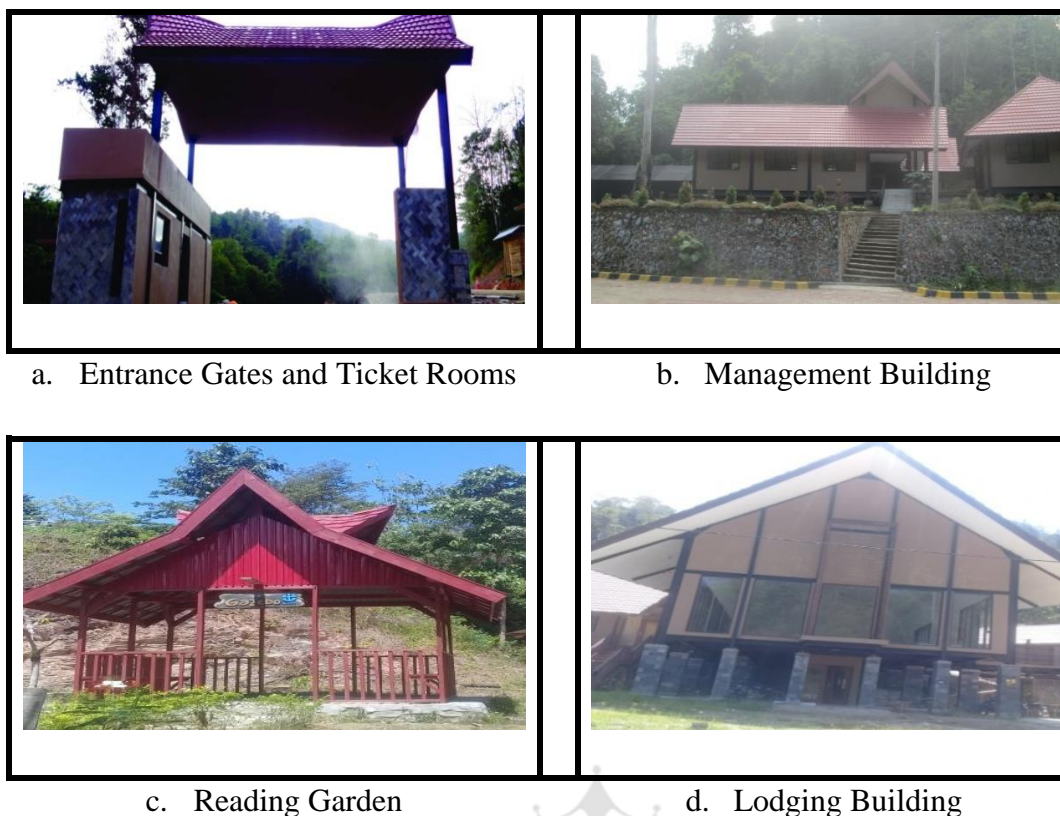


Figure 3. Main Infrastructure of Kendari Botanical Garden

Management building, infrastructure is the center of the activities of employees or managers of the Kendari Botanical Garden. The condition of the building management infrastructure is very good but has not been used properly because temporarily the building area is still at the development stage (Figure 3b). **Reading Garden**, designed in accordance with existing natural conditions so that visitors who come to use it as a medium for taking pictures (Figure 3c). **Lodging building**, in good condition and suitable as a place to rest and stay because the design has cultural nuances, which is similar to the shape of a traditional house in one of the regions in Southeast Sulawesi (Figure 3 d).

The network of roads and paths, roads traversed and used by tourist visitors that have a special attraction because they are designed with unique characteristics (Figure 4a). **Parking area**, the area used to park the vehicles of tourist visitors, the placement of the vehicle is also regulated by the managers so that when viewed from a distance and at a very attractive height (Figure 4b). **The mosque** is a place of worship for visitors in good condition (Figure 4d). **Flaim Fox** is currently under construction and in 2019 it will be completed (Figure 4c).



Figure 4. Kendari Botanical Garden Supporting Infrastructure

Weaknesses of Kendari Botanical Gardens Tourism Development

Weakness is an obstacle related to the Kendari Botanical Garden Tourism Object it selfs in its development. Based on observations and interviews there are several weaknesses, namely: (1) the care of the nursery has not been fully considered so that many plants are found that are critical and likely to experience death, (2) the canteen used in the botanical garden area is not suitable for use because it is still non-permanent, (3) road access in the Kendari Botanical Garden area has started to break down, (4) security and comfort are still considered lacking.

External Factors

Opportunities for the Development of Kendari Botanical Gardens

Opportunities in the development of the Kendari Botanical Garden Tourism Object can be seen from: One, the support and seriousness of the local government in developing natural tourism

products which are fully contained in the Kendari City which is strengthened by the Kendari City Regional Regulation Number: 1 of 2012 concerning the Plan Kendari City Spatial Planning 2010-2030. The regional regulation is stated in Chapter IV of the Urban Spatial Pattern Plan, Article 24 (point a), article 25 and article 36 (point b) states: (1) Article 24 (point a) states that: the planned spatial pattern of protected areas with a total area of approximately 9,847 Ha, (2) Article 25 that: The protected forest area as referred to in Article 24 letter a, includes the Nanga-Nanga Protected forest area located in Abeli District, Poasia District, and Kambu District with an area of 875 Ha, (3) Article 36 (point b) that: natural tourism areas, in the form of Nature Tourism Parks in Puuwatu District, Wua-Wua District, Baruga District, Kambu District, and Poasia District ".

Two, the availability of adequate infrastructure on public roads leading to the location of the botanical gardens. Three, the proximity of Kendari Kendari Botanical Garden to the city center and the government of Southeast Sulawesi Province. Four, the trend of tourist visits to prefer natural tourist destinations, Five, there is overall community support because this tourist attraction is relatively new in the Southeast Sulawesi area, especially Kendari City.

Threats to the Development of Kendari Botanical Gardens

Based on observations and interviews with the community in the field, there are several threats. The threat can be seen from: **One**, population pressure (development of settlements). The population growth which directly results in high land requirements. This situation affects the dynamics of regional development, especially Kendari City as the center of government, of course there will be continuous development and when the government is inconsistent, these spaces will be filled. **Two**, there are land conflicts that occur in the development area. According to the local government acknowledgment that this condition occurs in production forest areas because the land in the area is already owned by the local community as plantation land. **Third**, the dynamics of the development of other tourism objects which directly and indirectly affect the development of tourism objects in Kendari Botanical Gardens.


Development Strategy of the Kendari Botanical Garden

The development strategy of the Kendari Botanical Garden is determined using a SWOT analysis with a qualitative approach and to determine the development strategy of the Kendari

Botanical Garden Tourism Object based on internal and external potential data, namely strength and opportunity weakness and treat.

Table 1. Development Strategy of Kendari Botanical Garden Ecotourism

<p style="text-align: center;">Internal Factors</p> <p style="text-align: center;">External Factors</p>	<p>Strength (S)</p> <ol style="list-style-type: none"> 1. The state of the landscape is still intact because most of the land is in protected forest areas 2. The existence of water sources in the development area so that it can be cool and attract tourists 3. The availability of spots and infrastructure that are well developed by the manager 4. There are endemic plants and not as many as 38 species 	<p>Weakness (W)</p> <ol style="list-style-type: none"> 1. Unprofessional maintenance of infrastructure 2. Some of the facilities are inadequate 3. Tourist safety and comfort 4. Accessibility that has begun to break down 5. There is no climate control station yet
<p>Opportunity (O)</p> <ol style="list-style-type: none"> 1. There is support and seriousness of the local government in developing natural tourism products which are fully contained in the spatial plans of Kendari City. 2. There is comprehensive community support because this tourist attraction is relatively new in the Southeast Sulawesi area, especially Kendari City. 3. The proximity of Kendari Botanical Garden to the city center and the government of Southeast Sulawesi Province 	<p>S-O Strategy</p> <ol style="list-style-type: none"> 1. The government must strengthen cross-regency / municipal accessibility by developing tourism linkages. 2. Strive to accelerate development, development and good management 3. The government and managers must build cooperation in terms of preparing new tour program packages. 	<p>W-O Strategy</p> <ol style="list-style-type: none"> 1. Increase the development and management of existing facilities and infrastructure in the Botanical Gardens 2. The government and managers cooperate in terms of increasing the human resource capacity of employees. 3. Managers must be able to cooperate with the community by organizing the surrounding

<p>4. The availability of adequate infrastructure in the form of public roads that lead to the location of the botanical gardens</p> <p>5. The trend of tourist visits to prefer natural tourist destinations.</p>		<p>community by providing understanding and skills</p> <p>4. Marketing innovation</p>
<p>Threat (T)</p> <p>1. Population pressure (Development of settlements).</p> <p>2. The existence of land conflicts that occur in the development area.</p> <p>3. The dynamics of the development of other tourism objects</p>	<p>S-T Strategy</p> <p>1) Cooperate with local governments throughout Indonesia</p> <p>2) Making policies in the form of regional regulations (Perda) governing the governance of the Kendari Botanical Gardens</p> 	<p>W-T Strategy</p> <p>1. Involve all parties and overcome weaknesses and challenges in all aspects of the development of the Kendari Botanical Garden</p> <p>2. Building cooperation with army-police</p> <p>3. Internalization of government programs for climate change mitigation and adaptation efforts</p> <p>4. It is proposed to build a mini climatology station.</p>

Source: Hayat (2018).

Based on the results of the SWOT matrix analysis, several strategies can be obtained (Table 1), namely:

The S-O Strategy (Strength-Opportunity), the S-O strategy is a strategy that uses the strength factors of Kendari Botanical Gardens to take advantage of existing opportunities. The strategies that can be implemented in the S-O strategy are: (1) strengthening cross-regency/city accessibility by developing tourism linkages. One of the efforts is to build cooperation with the

Travel Agency so that the percentage of the number of tourists increases. (2) Attempting to accelerate development, development and good management, especially the facilities and infrastructure in the Kendari Botanical Garden as well as accessibility to ecotourism areas, this potential can also add economic value to the Kendari City government and the communities around the development area. This strength is also supported by opportunities, where the opportunity for the Botanical Gardens is the possibility of tourists choosing natural tourist destinations and conservation areas. (3) The government and managers must build cooperation in terms of preparing new tour program packages, such as gardens tours (tour packages that visit several objects and tourist attractions into one unit of short tour), save ourplants (tour packages that want to save plants). This needs to be done in order to increase tourist attractiveness, especially domestic tourists and foreign tourists in general.

The W-O Strategy (Weakness-Opportunity), the W-O strategy is a strategy that minimizes the weaknesses of the Kendari Botanical Garden by taking advantage of the opportunities it has. Several strategies that can be carried out in the W-O strategy are: (1) Increasing the development and management of existing facilities and infrastructure in the Botanical Gardens. (2) The government and managers cooperate in terms of increasing the capacity of human resources (employees) by including them in tourism education, comparative studies with other botanical gardens, workshops related to tourism, and or training to improve skills with formal education institutions in the tourism sector must be able to collaborate with the community by organizing the surrounding community by providing understanding and skills of the importance of the Ecotourism Area Kendari Botanical Garden (4) Marketing innovation is also an inseparable part of the Kendari Botanical Garden, one strategy that needs to be implemented is by means of conduct intensive promotions through television advertising media, social media, newspapers or magazines and participate in promotional activities on international tourism exchanges.

The S-T Strategy (Strength-Threat), there are several strategies that need to be carried out in the S-T strategy, namely: (1) Collaborating with local governments throughout Indonesia to send a list of rare plants in the local area. This is done because of the exploitation of the forest on a large scale so that the functions and objectives of ex situ conservation of the Kendari Botanical Garden can be optimal and its existence is maintained. (2) The regional government, in this case the Kendari City Government, must make a policy in the form of a regional regulation that

specifically regulates the management of the Kendari Botanical Garden so that it becomes the basis and reference for the public in utilizing and maintaining the existence of the Kendari Botanical Garden Tourism Object.

The W-T Strategy (Weakness-Threat), the W-T strategy is a strategy used to minimize weaknesses in order to avoid threats. One of the strategies that can be applied to the W-T strategy is: (1) Involving all parties and overcoming weaknesses and challenges in all aspects of the development of the Kendari Botanical Garden by adding or looking for other funding alternatives. This needs to be done considering the limited funds which resulted in the obstruction of the activities carried out by the Kendari Botanical Garden. Kendari Botanical Garden submits a proposal to entrepreneurs so that the company's CSR (Corporate Social Responsibility) funds can be given to Kendari Botanical Garden which plays a role in preserving the environment and as the lungs of the world. (2) Build cooperation with the army-police in maintaining security and comfort. (3) There is a need for internalization of government programs on climate change mitigation and adaptation efforts in an effort to develop an ecotourism strategy for the Kendari City Botanical Garden, (4) There is a need for a mini climatology station as an observation of climate elements for control.

DISCUSSION

One of the global environmental phenomena that can threaten Indonesia's rare plants is climate change (Widyatmoko, 2018). Climate change that occurs in Indonesia is inseparable from the influence of all human activities in the fields of economy, industry, transportation as well as the support of several natural elements. IPCC (2013), reports that one of the real impacts of human activities during the industrial revolution era is climate change as a result of a dramatic increase in greenhouse gas emissions into the atmosphere, especially carbon dioxide (CO₂). Thus, the development of the Botanical Gardens into an Ecotourism area in addition to increasing the source of community income is also a carbon sink area so that it can reduce greenhouse gas emissions and control global warming and climate change.

An implemented scientific approach to conserving Indonesia's plant diversity is through the development of botanical gardens in each type of eco-region (Widyatmoko, 2016). Furthermore, it is argued that the eco-region approach is an approach that is considered appropriate to the

characteristics and conditions of Indonesia because it can integrate conservation interests with economic needs. According to Widyatmoko *et al.* (2013) the development of new botanical gardens in Indonesia is one of Indonesia's important contributions to tackling climate change in the world.

Kendari Botanical Garden has an area of 96 ha located in the Nanga-Nanga Papalia forest area, covering 18 ha of protected forest and 78 ha of ordinary production forest. The Botanical Garden is 14.4 km away from Kendari City with a distance of about 30 minutes using a four-wheeled vehicle (Kinanti, 2019). Law Number 26 of 2007 concerning Spatial Planning mandates the need for the fulfillment of Green Open Space (GOS) in urban areas by 30 percent of the total urban area. The development of botanical gardens is under the coordination of IIS, while the Ministry of PUPR provides infrastructure support (Kinanti, 2019). Therefore, in order for plant resources to be managed in a sustainable manner, it is necessary to formulate the right development direction and strategy. From the aspect of potential, the existence of flora diversity can provide sustainable resources, provide opportunities to answer various natural phenomena through scientific activities, and maintain integrity and increase environmental diversity (Marggraf, 2005).

The majority of floras in the Kendari Botanical Garden are native to the Nanga-Nanga Forest Area. This is the main attraction for tourists who visit it. When compared with the research of Haris *et al.* (2017) in the Bukit Batu Wildlife Reserve, Bengkalis Riau Regency, there are 31 kinds of flora. Meanwhile, research by Flamin and Asnaryati (2013) in the Nipa-Nipa Forest Park, Kendari City, found approximately 14 kinds of plants. From the two studies, it describes the potential for more plants in the Kendari Botanical Garden. According to Widyatmoko (2017), the diversity of plants in the Botanical Gardens and in the in situ area is very large as a major asset for economic and social development in Indonesia if used sustainably because plants are renewable resources as long as they are not destroyed.

The flow of river water, this natural resource adds to the beauty and uniqueness of tourism objects, moreover, the water can be consumed by people and visitors because it is still not polluted (Figure 4c). **Landscape**, can be seen from the topographical characteristics of the height and slope. Based on the height of the place, there are 5 classes, starting from an altitude of 90-

275 m asl (Figure 2b). It looks so beautiful that it is composed of rocks that rise vertically. For the slope class starting from 0-51% which adds to the uniqueness of the landscape (Hayat, 2018).

Pakuli Park (Figure 2c); Hayat (2018), states that a botanical tourism object is provided to collect medicinal plants such as aloe vera, white cat whiskers, rodent tuber, and others. **The nursery**, the nursery building at Kendari Botanical Garden, already has 285 species (4,517 specimens). Thus, all potential plants for the Kendari Botanical Garden collection in the nursery already have an access number and their origin is known (Figure 2d). Collections to be planted in this garden will be grouped into thematic vacancies that will be compiled in the near future (Field of Plant Conservation Area Development, 2016).

CONCLUSION

Based on the results of the research that has been done, the following conclusions can be drawn: internal factors, namely: a) Potential strength in the form of an intact landscape and the presence of water sources in the area, the availability of spots and infrastructure that are well developed by the manager, there are endemic plants; b) Weaknesses in the form of inadequate infrastructure and unprofessional care, security and comfort of tourists that are not optimal, accessibility in areas that have begun to deteriorate. External factors, namely: a) Opportunities in the form of support and seriousness of the local government in developing natural tourism products, overall community support, the proximity of Kendari Botanical Gardens to the city center and government, availability of adequate infrastructure in the form of public roads, trend of tourist visits prefer natural tourist object destinations; b) Threats in the form of population pressure (development of settlements), land conflicts with communities, the dynamics of the development of other tourism objects. The development strategy of the Kendari Botanical Garden is formulated as follows: (a) the government must strengthen cross-regency/city accessibility by developing tourism linkages, (b) strive to accelerate development, development and good management, (c) the government and managers must build cooperation in terms of preparation new tourism program packages, (d) the government and managers cooperate in terms of increasing the capacity of the career and the surrounding community, (e) marketing innovation, (f) collaborating with local governments throughout Indonesia, (g) making policies in the form of regional regulations that regulate management of the Kendari Botanical Garden, (h) Building cooperation with the army-police to maintain security and comfort, (i) there is a need for

internalization of government programs on climate change mitigation and adaptation efforts in an effort to develop the Kendari City Botanical Garden ecotourism strategy, (j) it is necessary a mini-sized climatology station was built as an observation of climate elements for control.

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