

Personal Factors in Entrepreneurs Towards Natural Resource Conservation Management: A Case Study of Community-Based Tourism

Pornpimon Kampetch^{1*}, Parichart Sriharan² and Pransak Thongyeam³

^{1*,3} Faculty of Business Administration, Rajamangala University of Technology
Rattanakosin Borpitpimuk Chakrawad Campus

² Faculty of Management Sciences, Nakhon Si Thammarat Rajabhat University

(Received: October 15, 2020; Revised: April 5, 2021; Accepted: May 12, 2021)

Abstract

This study is a quantitative research, and the objective is to compare personal factors affecting the conservation of natural resources. The population and sampling is members of the community-based tourism group in Thailand. Because the exact number of population is unknown, researchers determined the size according to the formula developed by Cochran (1953). The level of confidence is 95% and the error level is 5%. The researcher then determined the number of suitable samples for the research which is 385 people.

The results of the research showed that the different levels of members' education and income, and their membership duration differently affect the level of conservation in operating the community-based tourism namely in terms of; i) the beneficial utilization of the resources, ii) the activities which promote and raise awareness in resource conservation, iii) penalties for those who's destroying resources in the community, iv) the restoration, rehabilitation and improvement of resources to maintain their original condition, and v) the pursuit of additional resources, all of these at the statistical significance level of .05.

Keywords: 1) Personal factors 2) Management 3) Natural resource conservation 4) Community-based tourism

^{1*,3} Lecturer, Department of Management; E-mail: hondew@hotmail.com

² Lecturer, Department of Marketing



Introduction

Natural resources and the environments are considered important for both humans and animals being a part of the nature as well as being its beneficiaries in order to survive, i.e. the nature being the origin of raw materials and products, being the venues for various human activities, being the waste recipient as well as being the place for human enjoyment (Boonyarat, 2015, p. 1). In the past, human being had utilized the natural resources in an ineffective manner resulting in rapid decrease and deterioration. Such utilization included the cutting down of trees and destroying of forests, releasing of pollution from factories, creating the products not using the natural raw materials, and etc. These had led to the vast degree of environmental degradation and had continuously become more and more severe (Soonthonwaritthichod and Sukhaboon, 2013, p. 25) Based on the natural resources and environment issues taking place in Thailand, it was found that the quality of sea water in the coastal area was mostly at a satisfactory and fair level; however, there was still an area where the sea water quality was continuously at the poor level, especially in the inner area of the gulf of Thailand. The air quality situation in 2018 tended to be at a steady rate; still the amount exceeding the standard was found due to PM 2.5, the ozone gas, PM 10, and the benzene gas. As for the garbage and hazardous wastes situation, the volume increased at around 27.8 million tons compared to 2017 which was accounted for 1.64% due to the expansion of the urban community and the changing of lifestyles from agricultural society towards urban society. The increase in population, the tourism promotion,

and the increase in consumption have led to the significant increase in the volume of garbage in many areas. Hence, the tourism promotion could understandably be viewed as a cause of natural resources and environmental degradation.

Tourism industry is an important driving force for national development leading to job creation and increase in revenue for its citizens. The tourism trend in Thailand has experienced a positive growth (Pimonsompong, 2017, p. 1) in combination with the tourism patterns having its linkages to natural resources in various ways, such as ecological tourism, agricultural tourism, or even the community-based tourism. The community-based tourism is a tourism which takes into account that the sustainability of the environment, society, culture, and the venues are existentially in place. This is in line with the tourists' behaviors interested in experiencing the lives of the community in various areas where the community still greatly maintains its characteristics and identity. Furthermore, the community-based tourism strengthens the community in managing the natural resources and culture (Richards and Wilson, 2006, p. 1408) and also be a tool in developing the community towards sustainability arising out of the participation mainly from the community members as the processes and tourism patterns are determined by the community itself (Kampetch and Jitpakdee, 2019, p. 108) However, the finding about the problems and obstacles in tourism development were that the impacts to the community's way of life were both positive and negative (Pongsakornrunsilp, 2014, p. 650). This was due to the members of

some communities lacking the knowledge and understanding about tourism development and management, the ambiguity in the management of tourism resources, the distribution of interests to the local community, and in addition the awareness on the importance of natural resources and environmental preservation through tourism which could cause negative impact to the community-based tourism (Dowruang, 2018, p. 102). Chuckpaiwong and Virunraj (2020, p. 119) mentioned as well that a part of success in business operation is from senior entrepreneurs whose experiences are different compared to those who are modern entrepreneurs.

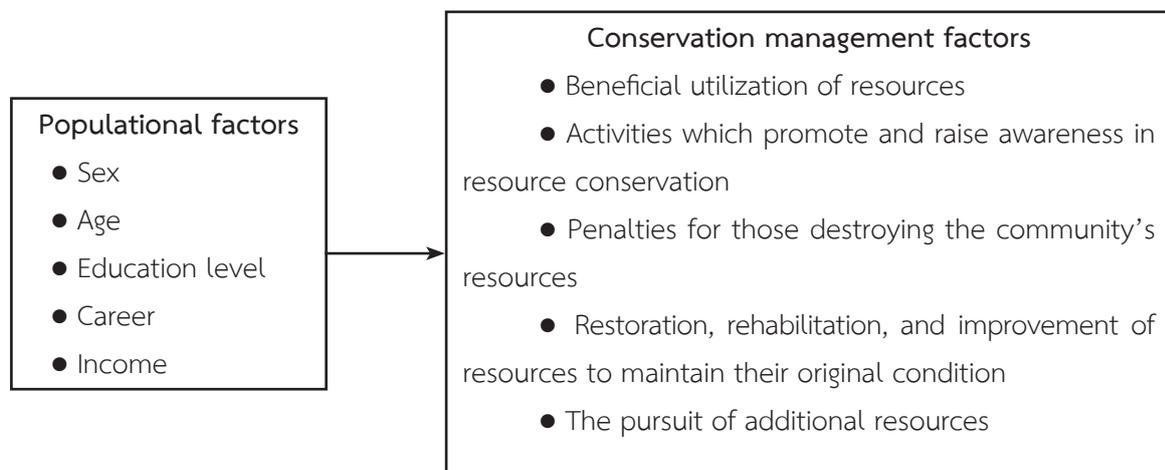
Therefore, to promote the community-based tourism in Thailand to have an outstanding potential in attracting more tourists and visitors than the present time, the necessary step which should be taken into consideration is the provision of community-based services, especially the awareness on the importance of natural resources and environmental conservation by the members

operating the community-based tourism services which would lead to sustainability and be in consistent with the 12th National Economic and Social Development Plan (2560-2564 B.E.), the 20-Year National Strategy (2561-2580 B.E.), and the Sustainable Development Goals (SDGs). Hence, the researchers were interested to do a comparative study between the personal factors and the conservation management factors which would allow us to see the personal differences, initiate the development of participation in the conservation management of the community-based tourism in Thailand. As mentioned above, the natural and environmental resources are highly important to the human beings; therefore, the public sector or other related agencies should be the basis in enhancing the preservation of natural and environmental resources in the local community from now on.

Objective

To study and compare personal factors affecting the conservation of natural resources of the community-based tourism in Thailand

Conceptual Framework



Picture No. 1 Conceptual framework of the research



Literature Review

Conservation management concept

Conservation management is related to natural resources and environmental management which focus on the beneficial utilization of resources along with its preservation. Surya, et. al. (2020, p. 4) refers to conservation of being a relationship between human existence and natural resources which focus on community participation and the strengthening of community's economic forces in a sustainable manner. Besides, conservation is not just about preserving the resources but also the proper utilization of it at the right time and space. This is in consistent with Niesenbaum (2019, p. 4676) stating that conservation is like the duty and service of the ecosystem in which human beings have to depend on and also directly connects with the economy and the society. Jankaew (2001, p. 29) explained that conservation means preserving, reserving, repairing, improving, and the utilization of natural and environmental resources in order to facilitate the eternal existence of human beings in a high quality manner. Or in another significance, it is the utilization following the needs and the saving of it for future usages. Conservation consists of 8 means, i.e. utilization, (sustainably), storing, preservation, repairing, restoration, development, protection and reservation, and the setting of boundaries. While Choomanee (2014, p. 25) stated that "conservation" means the pursuing of selected activities for maximum benefits, reducing the destroying of resources by maintaining their original status, and preserving it for future generation. As for the natural resources conservation management, Pooltrakoon (2015, p. 61) proposed an idea

on the conservation management of forestry resources in Thailand comprises areas in forestry protection, plantation, preservation, and wildfire prevention. Therefore, natural resources conservation is a pattern or means which focuses at the efficient utilization of resources and preservation of those resources to ensure their existence. This consists of 5 main activities namely 1) beneficial utilization of resources; 2) activities which promote and raise awareness in resources conservation; 3) determination of penalties for those destroying the community's resources; 4) restoration, rehabilitation and improvement of resources to maintain their original condition; 5) the pursuit of additional resources.

Community-based tourism Concept

Suansri (2003, p. 15) has defined community-based tourism as a tourism which considers the sustainability of the environment, society, and culture which is directed and managed by the community and for the sake of the community. Moreover, the community as the owner has the roles and rights to manage and look after it in order for the visitors to learn.

Sarobon and Wongtabtim (2003, p. 79) has mentioned the characteristics of community based tourism stating out the key point which is the community manages it on the basis of all the locals owning the resources and are all tourism's stakeholders. They bring out the local tourism resources naturally, historically, culturally, and traditionally as well as the way of living and production of the community and utilize them as factors or important capitals for appropriate tourism management. This is in order to benefit the

local economically, socially, and culturally, as well as the sustainable utilization of resources for later generation. At the same time, the people in the community has to develop their potential to become knowledgeable in managing tourism and also being participants in the operation ranging from planning, decision-making for activities, project evaluation and benefit acceptance taking into account the handling capacity of the nature as the key.

Sriharun and Kampetch (2018, p. 119) stated that community-based tourism is an alternative for sustainable tourism, emphasizing the interactions between the community's locals and the nature having the characteristics of mutual support between resource conservation.

Designated Areas for Sustainable Tourism (2019, p. 11) explained that the environment in the community incrementally restoring its abundance, the pictures of the grandchildren returning to their homeland to work, the pictures showing the delivery of community products into the small scale and low cost tourism economy, and with the higher negotiation power are all the pictures arising out of community-based tourism.

Methods

This study of personal factors in entrepreneurs towards natural resource conservation management is a quantitative research. The population and sample group used in the study were community members operating community-based tourism in Thailand. From the database provided by the Permanent Secretary Office of the Ministry of Tourism and Sports who explored the

community-based tourism sites under the Action Plan in driving the creative and sustainable community tourism development 2018-2019, there were 548 sites regionwide (Ministry of Tourism and Sports, 2019). However, since the certain number of populations was unknown, the researcher specified the population size following the formula developed by Cochran (1953). As there was no clear evidence of groups operating tourism on a self-establishing basis and not being recorded officially by the government authority, the certain number of populations was unknown. The level of confidence was determined at 95% and the error at 5%; therefore the population size was acquired at 385 members.

The sampling techniques used were probability sampling conducted under multiple stage sampling using stratified random sampling with the size of the region being the strata and then conducted a simple random sampling.

The tool used in the research was questionnaire which comprised 3 sections. Section 1 is the questionnaire seeking general information about the population, i.e. sex, age, education level, career, and income. Section 2 is the questionnaire seeking information about the operation of community-based tourism, and Section 3 is the questionnaire seeking information about conservation management by the members operating the community-based tourism. The questionnaire used the rating scale of 5 ranging from highest, high, medium, low, and lowest.

The analysis of data was conducted using descriptive statistic to analyze basic information about the questionnaire's



respondents through frequency, percentage, mean, and standard deviation. The inferential statistic was also used to measure t-test and F-test to compare independent variables with dependent variables following the hypothesis with the level of significance at 0.05.

The hypothesis of this research was that different personal factors of member operating the community-based tourism affect differently on the conservation management factors.

Results

The hypothesis test which compared the populational data with the conservation management of members operating community-based tourism could be summarized as followed.

Hypothesis 1: Difference in terms of sex affects differently on the conservation management of members operating community-based tourism.

Table No. 1 compares the conservation management of members operating community-based tourism categorized by sex.

Conservation management factors	Male	Female	t-value	Sig.
Beneficial utilization of resources	4.6425	4.5385	1.665	0.097
Activities which promote and raise awareness in resource conservation	4.6329	4.5337	1.575	0.116
Penalties for those destroying the community's resources	4.6377	4.5385	1.587	0.113
Restoration, rehabilitation and improvement of resources to maintain their original condition	4.6329	4.5288	1.661	0.097
The pursuit of additional resources	4.6377	4.5288	1.761	0.079

Remark * means the hypothesis is rejected at the 0.05 level of significance

From table No. 1, it was found that the difference in terms of sex affects indifferently on the conservation management of members operating community-based tourism in all areas.

Hypothesis 2: Difference in terms of age affects differently on the conservation management of members operating community-based tourism.

From table No. 2, the difference in terms of age affects indifferently on the conservation management of members operating

community-based tourism.

The difference in terms of education level affects differently on the conservation management of members operating community-based tourism in the beneficial utilization of resources, activities which promote and raise awareness in resource conservation, penalties for those destroying the community's resources, the restoration, rehabilitation and improvement of resources to maintain their original condition, and the pursuit of additional resources at the 0.05 level of

significance.

The difference in terms of career affects indifferently on the conservation management of members operating community-based tourism in all areas at the 0.05 level of significance.

The difference in terms of income affects differently on the conservation management of members operating community-based tourism in the beneficial utilization of resources, activities which promote and raise awareness in resource conservation, penalties for those destroying the community's resources, the restoration, rehabilitation, and improvement of

resources to maintain their original condition, and the pursuit of additional resources at the 0.05 level of significance.

The difference in terms of membership duration affects differently on the conservation management of members operating community-based tourism in the beneficial utilization of resources, penalties for those destroying the community's resources, the restoration, rehabilitation and improvement of resources to maintain their original condition, and the pursuit of additional resources at the 0.05 level of significance.

Table No. 2 compares the conservation management of members operating community-based tourism categorized by age, education level, career, income, and membership duration

Personal factors	Beneficial utilization of resources	Activities which promote and raise awareness in resource conservation	Penalties for those destroying the community's resources	Restoration, rehabilitation and improvement of resources to maintain their original condition	The pursuit of additional resources
Age	0.456 (0.713)	0.545 (0.651)	0.457 (0.713)	0.471 (0.703)	0.475 (0.700)
Education level	7.122 (0.000)**	7.196 (0.000)**	7.170 (0.000)**	6.997 (0.000)**	5.927 (0.000)**
Career	0.320 (0.927)	0.361 (0.903)	0.295 (0.939)	0.334 (0.919)	0.375 (0.895)
Income	10.391 (0.000)**	10.665 (0.000)**	10.117 (0.000)**	10.169 (0.000)**	10.649 (0.000)**
Community's membership duration	2.792 (0.040)*	2.562 (0.054)	3.024 (0.029)*	3.162 (0.025)*	3.001 (0.030)*

Remark * means the hypothesis is rejected at the 0.05 level of significance



Conclusion and Discussion

In this study, the researchers' objective was to compare personal factors affecting the management of natural resources of the community-based tourism in Thailand. The hypothesis of the research was that personal factors, i.e. different sex and ages of the community members operating community-based tourism indifferently affect the conservation management. While other personal factors, i.e. different education level, different income, different membership duration of the community members operating community-based tourism differently affect the conservation management at the statistically significant level.

From the above-mentioned hypothesis testing led to the discussions on the natural resources conservation management as per the following details.

1. Beneficial utilization of resources is the economical utilization ensuring its maximum benefit or sustainable utilization, avoiding negative environmental effects to be at the smallest extent or not allowing any waste at all. Beneficial utilization of resources would enable the resources and environmental recovery to meet the utilization needs of the human. (Mahatean, 2016, p. 129)

2. Activities which promote and raise awareness in resources conservation is to promote people in the community to be a part of the conservation, to jointly maintain its original condition by not allowing any degradation through a series of activities which promote conservation, restoring arts, culture and the local way of life such as mangrove forest planting, trees planting, and community forest planting activities, as studied by

Peuchnog, Bunjongsiri and Keowan (2016, p. 1) on the management of agricultural tourism by Kasing Sub-district community, Kasetvisai District, Roi et holding an activity to train the youth tour guides in the community to raise awareness in valuing the natural resources and cultural identity of the community.

3. Penalties for those destroying the community resources is a means of treating the resources through social and legal measures by which the social measure might make use of the social capital to create rules and regulations and ways in binding people to be in the relationship (Tepsing and Promsaka Na Sakolnakorn, 2013, p. 51) operated by the civil society in the community. As for the law it is the roles of the government authority in using it as a tool to control which would benefit the natural resources conservation. There should not be any law that provides opportunity to any specific group of people to use as a tool to destroy the interest of the public. As mentioned by Sinthipong (2015, p. 107) on the right of local community or the power of the community system in local fishery which is related to the value system of the community on the marine natural resources, the community has a system on the right in utilizing the resources appropriately and has its own rules and regulations to control and monitor the community members to comply.

4. Restoration, rehabilitation and improvement of resources to maintain their original condition. Due to the deterioration of the natural resources more or less, it is necessary to restore them back to their original condition which could take a long or short period of time depending on the level of deterioration. This is to ensure that the

resources could be utilized again in an effective manner. The restoration, rehabilitation and improvement of resources to maintain their original condition could be carried out through various measures such as conservation measure and social measure. As studied by Churak and Chuchuyay (2015, p. 769) on the participation roles in the sustainable conservation of natural resources of the local community at the Khao Bantat wildlife sanctuary, Tamod District, Pattalung which found that the direction towards natural resource conservation of the community, the community leader and government personnel must all possess positive mindset in conserving natural resources, in prosecuting the conserved forest encroachers and claiming back the encroached forests and restore them back to their original condition.

5. The pursuit of additional resources is the compensation of some resources which are rare or exists for just a few or the pursuit for other materials or those of less value to compensate in terms of the utilization. This would help reduce the loss of rare natural resources and would also help the valueless materials to become more valuable as explained by Bejranonda (2010, p. 80) on the reservation of natural capital on the economic view of the environment that economic achievement would have a lot less social value if such achievement arises from using up all the resources. For example, if we continuously keep cutting down trees from the forest until they could not timely grow, the income from wood would be gone. On the other hand, if we carefully cut them down and ensure that they would have time to grow back, we would still have wood as a source of our income.

Research Suggestions

It was found from this study that personal factors namely different education level, different income, and different community membership duration affect the conservation. This could be understood that the conservation issues have something to do with human. Therefore, the researchers have the following suggestions.

1. Different level of education would differently affect the level of conservation in operating the community-based tourism. Therefore, the enhancing of knowledge would enable a better understanding about the importance of natural resources. This is because education enables the people to be knowledgeable and this would allow the natural resources conservation to be beneficial. The focus is to build awareness and a new thinking basis about conservation in order to understand that human, the world, and nature are united, a lack of which would affect one another. The design of such activities should focus on group assembling and the building of joint ownership.

2. Different level of income would differently affect the level of conservation in operating the community-based tourism. This is because the strengthening of self and community development in a self-sustaining manner are based on the ability to utilize natural resources ensuring their future existence. It could be stated that it is to strengthen the economy, not destroying the environment, focusing on the economic growth along with the conservation of the environment and natural resources.

3. Different duration of being the community member would differently affect



the level of conservation in operating the community-based tourism, especially for groups that have the membership duration of 3 years onward because they understand about the goal of organizing the groups to conserve natural resources and the local way of life.

Therefore, the conservation management could be done through processes and activities such as awareness raising about conservation in terms of utilization, the pursuit of resources and environmental restoration or even the determination of penalties should there be any violators. This could be clearly seen that the differences of each individual as mentioned previously are mostly from the obtained education and experiences from witnessing current social issues. Besides these differences, it was found that different personal income would affect the priority placed toward natural resources conservation as well. This is due to the view that the natural resources and environment are the community's assets and also that they are beneficial and could generate one's income. Therefore, the responsible

authorities both at the community and national level should look for ways to build up the proper knowledge and understanding that the natural resources and environment are considered to be the public assets and everyone should join hands to sustainably preserve it.

Suggestions for Future Research

1. There should be further studies on other factors affecting the conservation, such as participation factors, management factors, and learning factors.
2. There should be a study about the attitudes of both domestic and foreign tourists on conservation.

Acknowledgment

The researchers were grateful of the Rajamangala University of Technology, Borphitpimuk Chakkrawad and Nakhon Si Thammarat Rajabhat University for sponsoring and supporting the achievement of this research.

Bibliography

- Boonyarat, B. (2015). The Factors affecting Behavior on Natural and Environmental Conservation of people in border Thai - LAO PDR. **Journal of Social Academic**, 7(2), 1-8.
- Bejranonda, S. (2010). **Environmental Economics**. Bangkok: Kasetsart University Press.
- Choomanee, T. (2014). **Pred Nai community tambon Huang Nam Kao Trat province**. Public and Private Management. Burapha University, Chonburi.
- Churak, Y. and Chuchuyay, P. (2015). The Role Participation in the Conservation of Natural Resources Wildlife Area Mountains Line Amphoe Tamot Phatthalung Province. **The 6th Hatyai National Conference, Hatyai University**. 769-784.
- Chuckpaiwong, R. and Virunraj, B. (2020). Characteristics of Successful Entrepreneurs for Thailand 4.0: Thailand Medium Enterprises in Agricultural Processing Business. **Journal of Innovation Technology Management**, 7(1), 118-127.
- Cochran, W. G. (1953). **Sampling techniques**. New York: John Wiley and Sons. Inc.
- Dasmann, R. F. (1976). **Environmental Conservation**. New York: John Wiley and Sons.



- Designated Areas for Sustainable Tourism. (2019). **Community based Tourism: How to be sustainable**. Retrieved March 12, 2021, from <https://tis.dasta.or.th/dastaknowledge/cbt-howtobecomesustainable-thai>
- Dowruang, S. (2018). **Organization citizenship behavior for the environment: The spillover effects of private lifestyle on work-life**. Master thesis, B. A., Silpakorn University, Bangkok.
- Jankaew, K. (2001). **Environmental science**. Bangkok: Kasetsart University Press.
- Kampetch, P and Jitpakdee, R. (2019). Innovation and Creativity in Community-Based Tourism Management. **Journal of Business, Economics and Communications**, 14(1), 108-121.
- Ministry of Tourism and Sports, (2019). **Action Plan to Drive Sustainable and Creative Community Based Tourism Development**. Retrieved March 12, 2021, from <http://www.oic.go.th/FILEWEB/CABINFOCENTER17/DRAWER021/GENERAL/DATA0000/00000334.PDF>
- Mahatean, J. (2016). Natural Resources and Environment Management. **Journal of Educational Review Faculty of Education in MCU**. 3(2), 129-141.
- Niesenbaum, R. (2019). The Integration of Conservation, Biodiversity, and Sustainability. **Sustainability**, 11(2019), 4676.
- Peuchnog, P., Bunjongsiri, S. and Keowan, B. (2016). Agro-Tourism Management by Community in Ku KaSing Sub District, Kasetwisai District, Roi-Et Province. **The 3rd STOU Graduate Research Conference**.
- Pimonsompong, C. (2017). Tourism Research: Principle to Practice in Social Reflective Perspective. **Journal of Business, Economics and Communications**, 12(1), 1-5.
- Pongsakornrungsilp, P. (2014). The Management of Sustainable Community-Based Tourism: The Case of Ban Kokekrai, PhangNga Province. **Veridian E-Journal**, 7(3), 650-665.
- Richards, G. and Wilson, J. (2006). Developing creativity in tourist experiences: a solution to the serial reproduction of culture?. **Tourism Management**, 27(2006), 1408-1413.
- Ruangpanit, N. (1995). Tropical seasonal forests in monsoon Asia: With emphasis on continental southeast Asia. **Vegetation**, 121(1995), 31-40.
- Ruangpanich, N. (2003). **Conservation of Natural Resources and Environment**. Fourth Edition, Bangkok: Kasetsart University Press.
- Sarobon, S. and Wongtabtim, U. (2003). **Community-based tourism Conceptualized and Experienced from North Thailand**. Chiang Mai: Vanida Press.
- Sinthipong, U. (2015). Local Community and the Participation in the Management of Natural Resources for Sustainable Use. **Executive Journal**, 35(1), 104-113.
- Soonthonwaritthichod, N. and Sukhaboon, K. (2013). **Alternative: A study of environmental problems in the district, three graduates: Factors affecting the development of natural resources and environment of the people of the Third District graduates**. Phranakhon Si Ayutthaya Rajabhat University, Ayutthaya.
- Sriharun, P. and Kampetch, P. (2018). Community Tourism: A New Alternative to Sustainability. **Dusit Thani College Journal**, 12(3), 118-132.



- Suansri, P. (2003). **Manual of Community-Based Tourism Management**. Bangkok: Travel for Life Project.
- Surya, B., Syafri, S., Sahban, H. and Sakti, H. S. (2020). Natural Resource Conservation Based on Community Economic Empowerment: Perspectives on Watershed Management and Slum Settlements in Makassar City, South Sulawesi, Indonesia. **Land**, 9(104), 1-31.
- Tepsing, P and Promsaka Na Sakolnakorn, T. (2013). Community improvement guidelines for Sustainable development. **Humanities and Social Sciences, Khon Kaen University**, 30(2), 43-64.