

6th GoGreen Summit & Awareness on Climate Change

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Submission date: 12-Oct-2022 12:39PM (UTC+0700)

Submission ID: 1923236228

File name: 2020-_proseding_inter_go_green_-ok.pdf (900.16K)

Word count: 12218

Character count: 66969



6th GoGreen Summit & Awareness on Climate Change

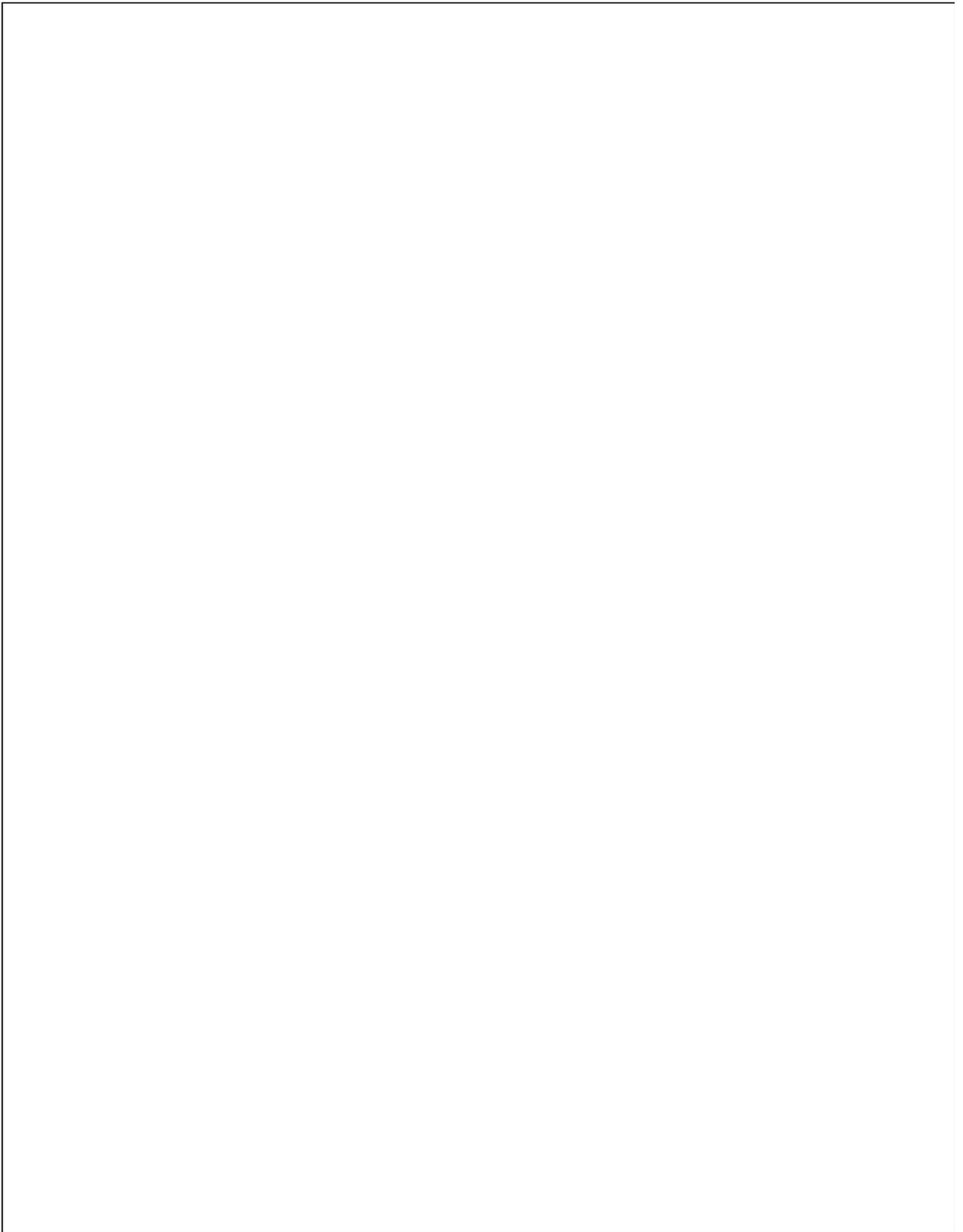
"Socio-economic scenarios and Environmental Consequences of Human activities causing Climate Change"

**Hotel Santika Premiere Malang
Malang, Indonesia
01st - 02nd July, 2020**

Organized by:
BioLEAGUES Worldwide

Co-Hosting Organizations:





Preface

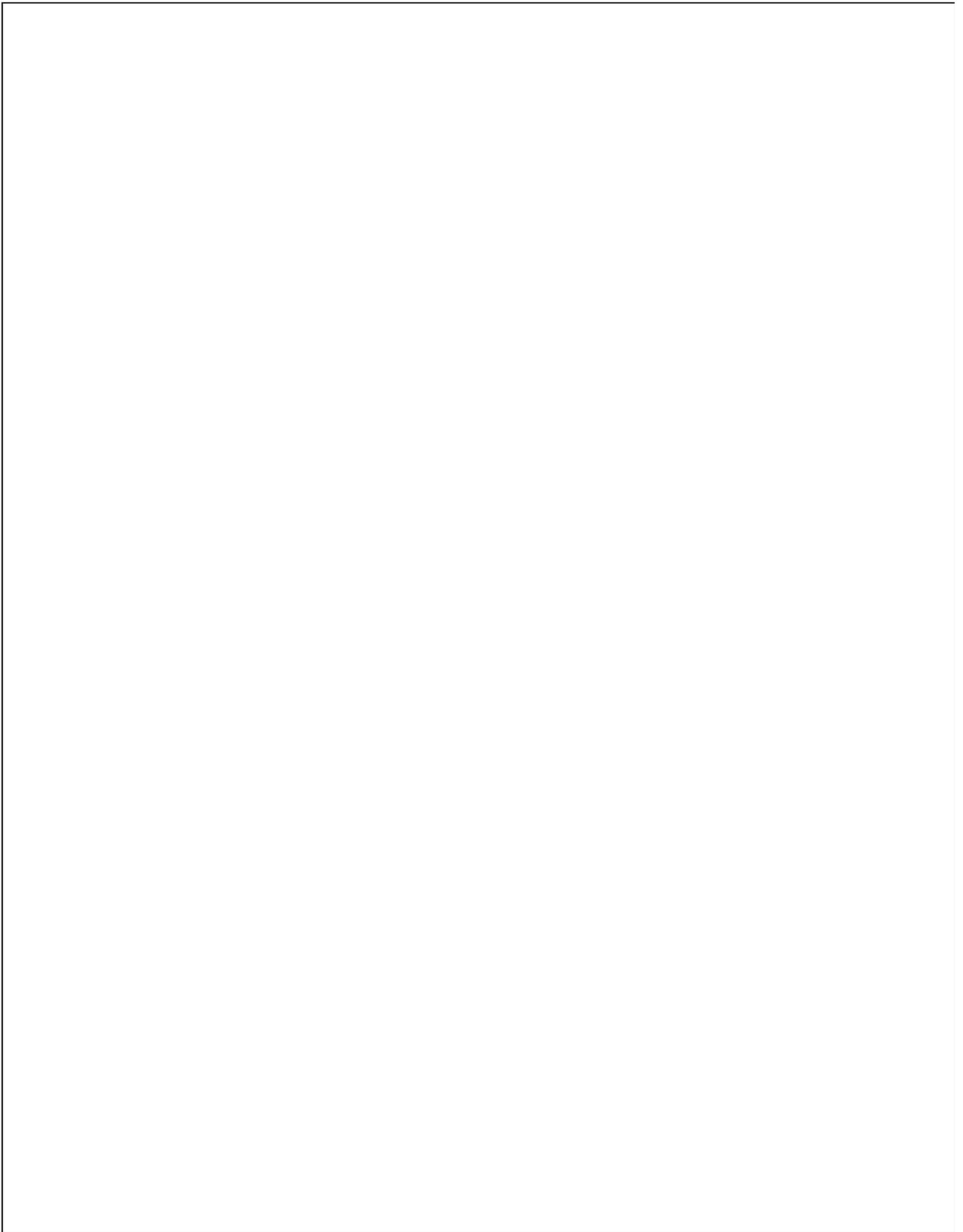
This book reports the Proceedings of the “*6th GoGreen Summit & Awareness on Climate Change*” held at *Hotel Santika Premiere Malang, Malang, Indonesia on 01st & 02nd July 2020*, organized by *BioLEAGUES Worldwide*.

The publishing department has accepted more than 110 abstracts. After an initial review of the submitted abstracts, 50 papers were presented at the conference and were accepted for publication in the Conference Proceedings. The topics that are covered in the conference include Global Warming, Pollution types & Control techniques, Renewable Energy, Recycling and Reuse, Biodiversity, Green Energy, Environmental Toxicology, Environmental Engineering, Circular Economy, Agriculture, Earth Science. We would like to thank all the participants for their contributions to the conference and the proceedings.

Reviewing papers of the *6th GoGreen Summit* was a challenging process that relies on the goodwill of those people involved in the field. We invited more than 15 researchers from related fields to review papers for the presentation and the publication in the conference Proceedings book. We would like to thank all the reviewers for their time and effort in reviewing the documents.

Finally, we would like to thank all the proceeding team members who with much dedication have given their constant support and priceless time to bring out the proceedings in a grand and successful manner. I am sure this *6th GoGreen Summit* proceeding will be a credit to a large group of people, and each one of us should be proud of its successful outcome...

6th GoGreen Summit



From BioLEAGUES Director's Desk...

On behalf of **BioLEAGUES Worldwide**, I am delighted to welcome all the delegates and participants around the globe to the “**6th GoGreen Summit & Awareness on Climate Change**” which is going to be held at **Hotel Santika Premiere Malang, Malang, Indonesia on 01st & 02nd July 2020**. This conference will revolve around the theme “ *Socio-economic scenarios and Environmental Consequences of Human activities causing Climate Change*”.



It will be a great pleasure to join with Doctorates, Research Scholars and Academicians all around the globe. You are invited to be stimulated and enriched by the latest innovations in all the aspects of Environment issues and prevention techniques, while delving into presentations surrounding transformative advances provided by a variety of disciplines.

I congratulate the Chair person, Organizing Secretary, Committee Members, coordinator BioLEAGUES and all the people involved for their efforts in organizing the **6th GoGreen Summit**, Bali, Indonesia and successfully conducting the International Conference and wish all the delegates and participants a very pleasant stay at Indonesia.

A handwritten signature in blue ink that reads "A. Siddh Kumar Chhajer". The signature is written in a cursive style.

A. Siddh Kumar Chhajer
Director
BioLEAGUES Worldwide



Welcome Message from the Organizing Secretary

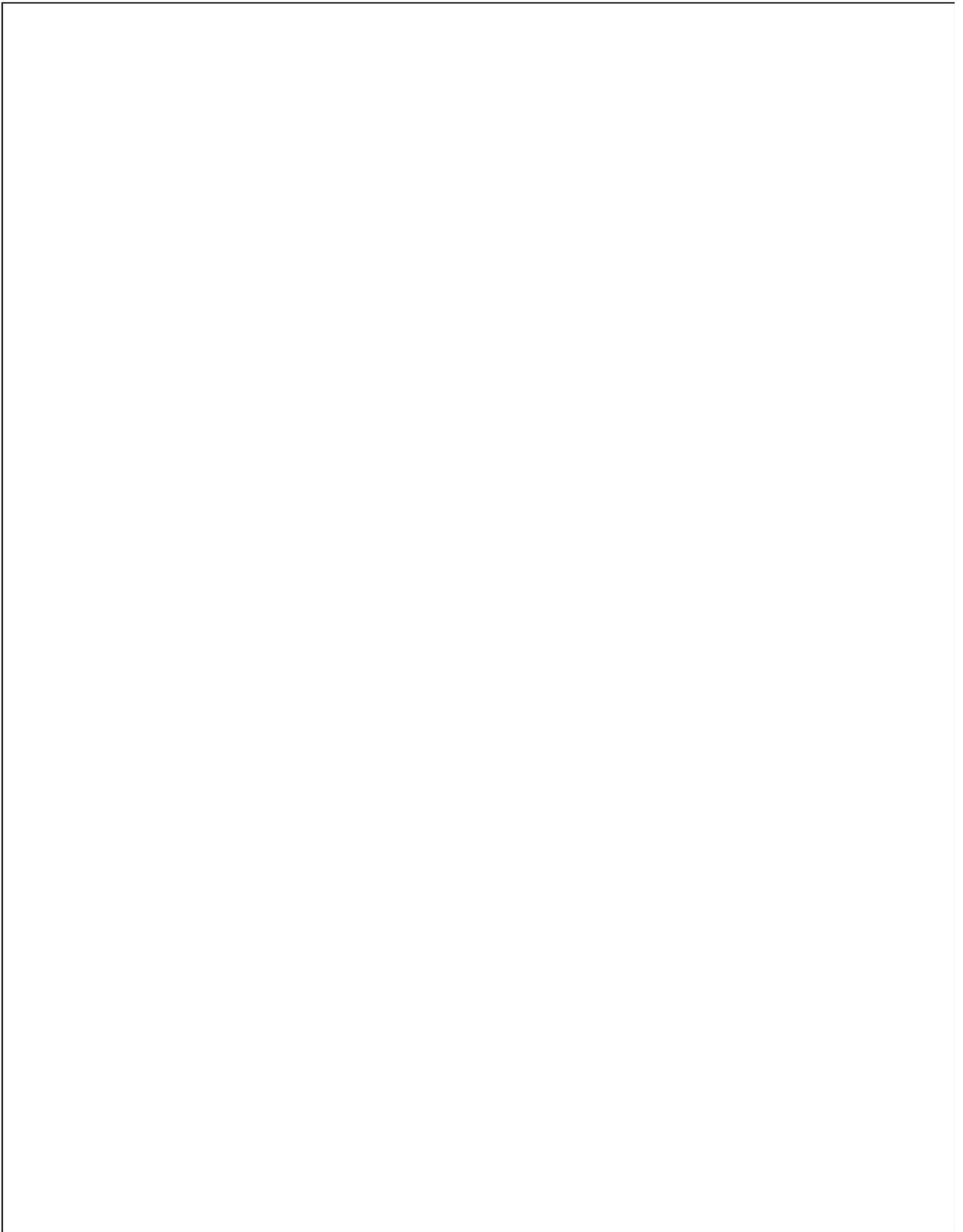


Dear Professional Researchers, Presenters, and Participants,

It is a great pleasure to welcome all of you in the "6th GoGreen Summit and Awareness on Climate Change." Theme of this GoGreen Summit 2020 is "Socio Economic Scenarios and Environmental Consequences of Human Activities causing Climate Change." I would like to take this opportunity and thank to all the Organizing Committee for their hard work and dedications to held this International Conference in Malang Indonesia successfully. I warmly welcome all participants, presenters, and attendees from all over the world to this conference and look forward to your participation.

With complement of

The Organizing Secretary
Dr. Ir. Bambang Sugiyono Agus Purwono, MSc
State Polytechnic of Malang – Indonesia



Welcome Message from the Keynote Speaker



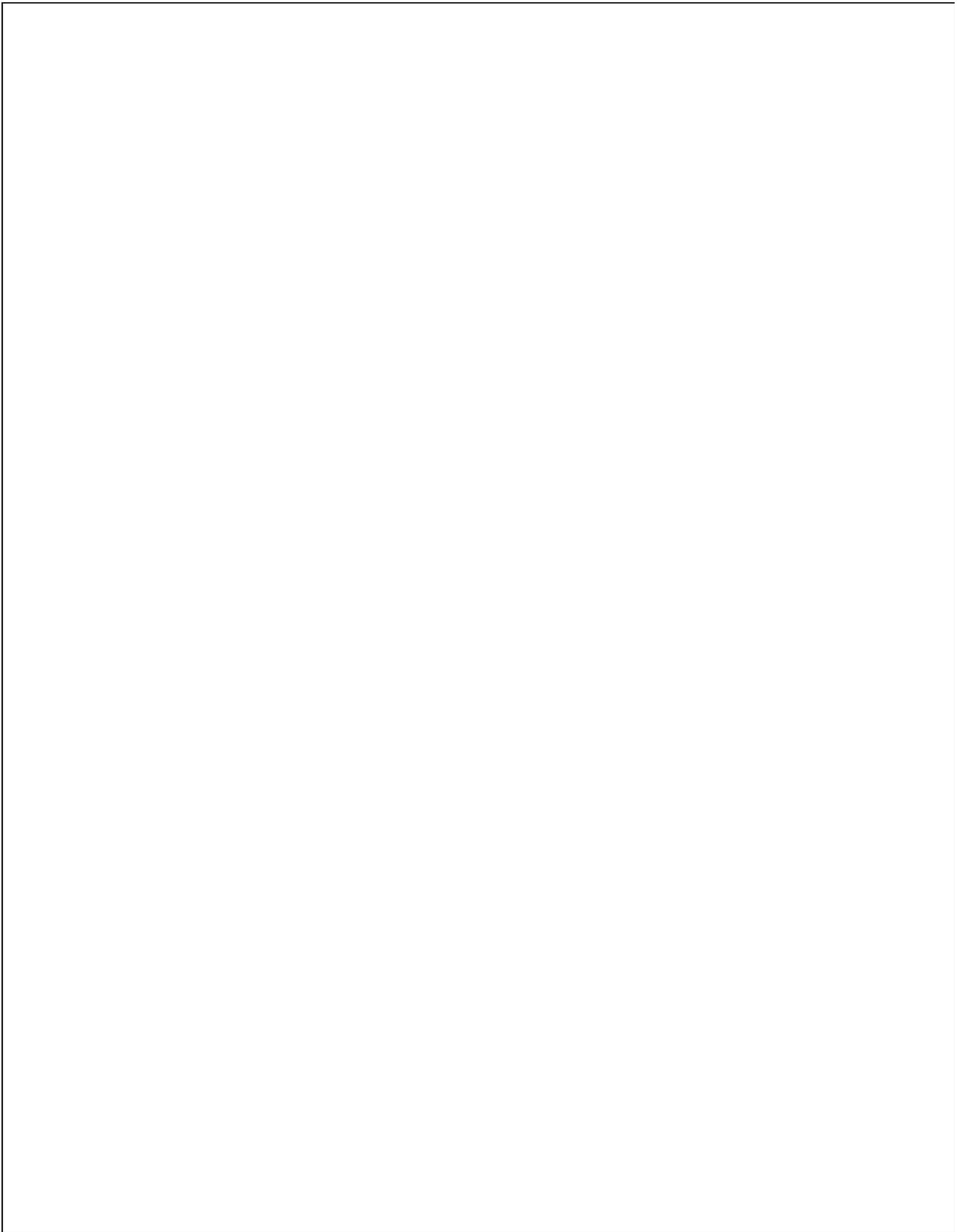
On behalf of Agribusiness Department, Faculty of Agriculture and Animal Science, University of Muhammadiyah Malang, Indonesia, it gives me a great pleasure to extend greetings and a warm welcome to everyone attending the “6th GoGreen Summit and Awareness on Climate Change 2020” on 01st - 02nd July 2020, Malang Indonesia. I am really happy and delighted that the organization has included me (Dr. Rahayu Relawati) from University of Muhammadiyah Malang, Indonesia, as a cohost to arrange this wonderful event.

On this extraordinary meeting, the organizing committee welcomes participants from all over the world to join in this summit. I sincerely thank you all for your commitments and efforts in attending, preparing and presenting your innovative and valuable research and findings at this conference. I also extend a warm welcome and gratitude to those of you who have joined us at the meeting to support your colleagues and to learn much from the other presenters. An episode of this greatness will distribute a generous opening for scientists, researchers, academicians to learn about socio-economic aspects and environmental consequences related with climate change.

Climate change has an impact on various socioeconomic aspects of agriculture and agribusiness. In the aspect of production, farming of various food crops and horticulture has decreased the quantity and quality of product. Cropping patterns also changes and shifts in schedules due to the uncertainty of weather. In terms of food consumption, farmers' families and rural communities in general face a decrease of food availability, as a result of the decline in farming production and farmers' purchasing ability. Macro food security at the regional level also faces a serious threat due to climate change. Various mitigation and adaptation efforts to climate change need to be done continuously and become a priority in the agricultural development strategy. Nationally, the agribusiness of Indonesia's export crops also faces serious problems related to climate change.

I am sure that this summit will give remarkable effect for the understandings of scientific knowledge in the areas of socio-economics of agriculture and agribusiness and its' applications in numerous aspects. I wish grand success of this event.

Dr. Rahayu Relawati
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Department of Agribusiness
University of Muhammadiyah Malang,
Indonesia





The Models of Kampung Improvement Program in Supporting Sustainable Development

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Abstract

The increasing of many sectors development in Indonesia is characterized by the rapidity of urban growth, including the high urbanization. As the consequence, urban development requires supporting in a number of houses as human basic need. In the history of urban development, most of housing supply is provided by the people itself than supported by private sectors or government. Some people with low income, they make small and high density housing which is not supported by many facilities and infrastructure. This condition makes housing become the slum and squatter area. Some efforts to improve the villages (kampung) have been done, but up to now, kampung problems are always found. The efforts in improving socio-economic conditions have been conducted, some of them become habitable kampung especially better sanitation, productive and also tourism. Malang is one of the big cities in East Java, and it has the same problem, some kampung improvement programs have been done. One of the interesting things in Malang, is that the improvement of the kampung is not only improving slum areas, but also many of them are able to develop local economic, improve their environmental, and it becomes tourist kampung. In this case, the role of the community and local leaders are very important. Some types of Its Kampung e.g, Kampung with better sanitation, saving the water, sanitary, home industry of tempe, colourful kampung, heritage kampung ect. Another interesting one is the kampung development competitions, which is participated by each sub-district. It is more encouraging of every Kampung to improve their quality which each Kampung has different theme. As the result it can classify of kampung development models. Using the identifications of potential, problems and efforts of each kampung and the role of community in improving their kampung and also applying comparative analysis can identify the typology of Kampung development.

THE MODELS OF KAMPUNG IMPROVEMENT PROGRAM IN SUPPORTING SUSTAINABLE DEVELOPMENT

ABSTRACT

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The increasing of many sectors development in Indonesia is characterized by the rapidity of urban growth, including the high urbanization. As the consequence, urban development requires supporting in a number of houses as human basic need. In the history of urban development, most of housing supply is provided by the people itself than supported by private sectors or government. Some people with low income, they make small and high density housing which is not supported by many facilities and infrastructure. This condition makes housing become the slum and squater area. Some efforts to improve the kampung have been done, but up to now, kampung problems are always fond. The efforts in improving socio-economic conditions have been conducted, some of them become habitable kampung especially better sanitation, productive and also tourism.

Malang is one of the big cities in East Java, and it has the same problem, some kampung improvement programs have been done. One of the interesting things in Malang, is that the improvement of the kampung is not only improving slum areas, but also many of them are able to develop local economic, improve their environmental, and it becomes tourist kampung. In this case, the role of the community and local leaders are very important. Some types of Its Kampung e.g, Kampung with better sanitation, saving the water, sanitary, home industry of tempe, colourful kampung, heritage kampung ect. Another interesting one is the kampung development competitions, which is participated by each sub-district. It is more encouraging of every Kampung to improve their quality which each Kampung has deferent theme. As the result it can classify of kampung development models.

Using the identifications of potential, problems and efforts of each kampung and the role of community in improving their kampung and also applying comparative analysis can identify the typology of Kampung development. Furthermore, it will show the relational between kampung character, their variety with to the types of kampung development. Then it can be dispersed or expanded in to models of Kampung development in supporting sustainable development.

Key words: kampung development model, sustainable

1. Introduction

The process of development in Indonesia has been well done since the long-term program of development plan was launched in which operationalized by five year plan since 1969. Various development programs have been carried out to take the public welfare through the concept of growth and equity. Even though, it is often found that there are some problems with increasing economic growth, in fact, there has been an impact on environmental quality decrease, and in some cases there were unbalance in the development of human resources. Furthermore, it was realized the need for balancing of development in creating sustainability.

The basic concept of sustainable development is well known as a three dimensions of sustainability, they are: ecological/environmental, social and economic. Ecological and environmental sustainability means to maintain the environment as a place for the people activities and economic development, social sustainability means to preserve social and cultural identity, and economic sustainability is for maintaining the natural, social and human capital in which all of them should be balanced (Tomislav Klarin, 2018). In the spatial context, i.e urban

and rural areas, shows that urban growth is faster than rural areas, than the impact was a lot of number migration from rural to urban areas. This increase of population directly affected a large number of housing in urban area. Furthermore the low income people will stay in kampung as a dense area, some of them become slum and squatter.

In the context of urban settlement, kampung is an urban settlement of low-income communities located separately in many ways, such a not maintain location, in the river bank, also all functional parts of the city including in the most expensive area such as Central Business District, Government Centre, Shopping and Social Centre, etc. In general, kampung usually performs as unstructured, unorganized, and has an informal economic activity. Kampung is not as bad as thoughts the previous mentioned. Some of kampung is neither slum nor squatter. The community develops concept by the community itself. Kampung is not a merely physical aspect but it is a development process by community itself due to cope with the housing access (Andarita at all, 2013)

Malang, one of big cities in East Java - Indonesia, also has a various kampung character, some of them have been exist since the colonial era, and others are developed separately in many ways. In general, kampungs have similarities, as a settlement with dense buildings, lack of infrastructure, narrow streets, some located on river banks, side of railway, even near to the garbage place. However, there are also kampungs that are well-maintained and green, have economic potential, such as producing ceramics, sanitaire, tempe chips, corn chip, and lately become kampung tourism. Some kampungs have another success story that have solution on environmental problems especially flooding and environmental sanitation that become educational tourism based on environment. So, it can be said that there are various programs in solving kampung problem as well economic development.

Many efforts have been supported in kampung improvement program especially to reduce slums and squatters, some have shown success, and some have failed, but the number of kampung is still increasing and it is widespread in the city. On the other hand, there are success stories, in which kampung perform as a green area, the local economy is well maintained, some Kampung become a tourist destination. Therefore, it still needed some efforts to maintain kampung in supporting towards sustainable development.

Thera are some examples of well maintain kampung such as ceramic center in Dinoyo, in which it performs as one of the creative economy of Malang; then it becomes Dinoyo Ceramic Tourism Area (Adhi Widarthara at all, 2018). Another kampung that has become iconic in Malang is colorful Kampung in Jodipan. This Kampung is located in Brantas river bank, previously it was a slum area in which people had a habit of throwing garbage to the river and it has bad environment. Through the performance of colorful kampung, then it becomes a tourist kampung with a clean and well-maintained environment (Parjito at all, 2019). In this case, the community has an active role in maintaining the quality of their kampung, and it will create the local economic by tourist visits.

There are other efforts by organize thematic kampung competition in which the design is proposed by the community accompanied by universities. It resulted an interesting collaboration in kampung design, namely the concept of public - private - university partnership. The application of thematic kampung concept in Malang is generally expected a kind of problem solving in reducing slum and squatter and at once to develop kampung potential. The concept of these thematic kampung also tends to be oriented towards the development of the economic and tourism sectors (Taufik Akbar at all, 2018). The results of the design are various, and some of them cannot be directly implemented. For this reason, the previous design are redesigned to be more operational by people and local government accompanied by professionals. The results of this redesign are increasing the kampung potential while improving the environment.

Finally based on the various kampung and its problems than the typology of kampung development can be classified which can then be used as a model for urban kampung development. Furthermore, the concept of sustainable development with the main aspects of

physical / environmental, economic and human resources will support as a concept of sustainability.

2. Theoretical Back Ground

Urban developments in Indonesia are often faced with large number of population growth and its activities, some of them are lack of adequate infrastructure. Most of them happen in residential areas, furthermore it becomes slums and squatters. The way of living in urban areas, as a housing, especially Asia, which is realized or does not represent the character of its inhabitants (Agung Cahyo Nugroho, 2009). Urban settlement of Indonesia is having unique characteristic due to the process of how the settlement formed and community who live in. There are two kinds of housing provision that are formal and informal. Formal housing is provided by the housing developer, while informal housing is built by the owner. The settlement that is built by the community themselves is called kampung. The community who live in the formal housing usually has the same background, social and economic level, but many diverse in informal housing or kampung. Social capital is intervened by economic capital existed at kampung. It showed in the kampung environmental quality improvement and community quality of life. Therefore, it is mentioned that kampung is an integral part of the city that as an organism growth and live. City system transformation on physic, social, economic, and culture will change the social community system. The social capital is a part of the social community system. (Andarita Rolalisasi, at all, 2013)

Kampung has performed in various way, most of them are lack of infrastructure then emerge the concept of Kampung Improvement Program (KIP) initiated by community. This concept became well known as a successful urban strategy for upgrading the living environment. There are a lot of lessons to be learnt from the experience of KIP to develop the method of Community Based Development (CBD). However, KIP provides only such infrastructural facilities as footpaths, drainage, water supply, electricity and so on, but does not supply dwelling units. (Funo, Shuji, ad all, 2002). Actually, KIP has been started since the colonial era, previously it was implemented in Jakarta and Surabaya in 1968. KIP is the first successful program to be recognized globally and arguably the largest state-led program in some countries for more than three decades. The activities undertaken are to integrate the role of government and society in improving the environment. This program is considered to be very successful in solving environmental quality problems in an integrated manner and also significantly reducing urban poverty. The main objective of KIP is community economic development and empowerment (Anita Dianingrum at all, 2017)

Kampung in Surabaya has a new paradigm in the context of live ability and sustainability. A new understanding of livable settlement is needed, both on mix qualitative and quantitative indicators, to make appropriate changes in their own setting and in a dynamic rather a static instrument information on good policies/practices. Over time rather than just statistics as multi stakeholders approach should be encourage for data collection, analysis, dissemination and use. The definition of live ability includes many issues such as participation, equity, resilience, inclusiveness, and accessibility. Sustainability is an idealized conditions from now, until the foreseeable future and within the smallest space (settlement) on a broader dimension (Johan ²las and Rita Emawati, 2013)

²The city government institutionalized the idea of sustainable urban development by presenting the image of Malang as 'Green City'. The revitalization of Green Open Space performs social sustainability as a priority. It hopes the people interested to visit the locations of Green Open Space as family gathering, vacation, community interaction, relaxing and sport area. The transformation of physical performance of Green Open Space thematically is able to attract people to come and increasing the number of visitors to the areas. Several esthetic innovation on the location of Green Open Space provide for the whole elements of the society involve family, children, older, disable, and common people.

2
In Indonesia, the government has a roadmap to create the future city plan which considers the wealth of the people 2 respecting the character of culture, local wisdom, and economic prospect. The context of sustainable urban development – city could afford the need of the whole society without neglecting the need of future generation in the term of economy, ecology, and social well-being. It is in line with the global 2 discourse about sustainable urban development as the response to climate change issue. In the case in Malang City, the local government gains corporate partnerships through Corporate Social Responsibility program that successfully promote several thematic innovations and increase the social merits of GOS, by present the green city model known as *Malang Ijo Royo-Royo (MIRR)*” (Dyah Estu Kurniawati at all, 2017)

The development of kampung in Malang, in fact is various, some of them have improved the kampung quality such as KIP in Surabaya, other kampung can encourage development to become a tourist kampung. Likewise the MIRR concept that makes the kampung become green, one of the kampung in Malang - Glintung, has perform attractive, in which a narrow street is decorated with vertical garden along the wall, and also in the long street in front of housing (Nufian Susanti Febriani,2019).This kampung was also successful in reducing or resolving flood problem by making infiltration wells and biopories, hereinafter known as water saving programs. Through this success story, local people together maintain their kampung, which perform more beautiful and greener, so that it becomes an environment-based tourist kampung. Kampung Jodipan has a different success story. Previously Jodipan, located in the Brantas River bank, was known as a slum area, people threw garbage into the river, the environment was dirty then it became unhealthy. The housing performance is bad in appearance. Some students have the idea to make it better in performance bay painting the tile and wall decoratively. Through the cooperation together with people of Jodipan, and supported by private sector, they painted it. Through the tile and wall painting, Kampung Jodipan becomes decorative and attractive. As the result many people come to see a beautiful kampung and take picture selfie) with the back ground of colorful Jodipan. Later, Kampung Jodipan are well known as a colorful kampung and become a tourist attraction. Furthermore, because many tourists visit this kampung, the people improve almost all of their infrastructure, adding various decoration serving the tourist, etc. Furthermore the people can develop their local economic, higher participation and well manage their environment. Now, the people of Jodipan have succeeded in changing the image of Jodipan which was previously slum, now it becomes a tourist kampung perform by colorful kampung, clean, and good maintain (Julisa, 2019)

One of the mainstay products of Malang City is Tempe Chips, especially for gift. This product is produced by a kampung namely Kampung Sanan. Tempe chip is produced at home, so it is called tempe home industry of Sanan. There are some activities in producing tempe chip where in the process, they involve the closest people, such as families, relatives, or other people who stay near the house or neighbor. They cooperate each other in the production of tempe chips in various product. This collaboration in producing, packing and marketing is as one system, then it can be said as a social capital in the form of trust, norms and networks (Taupan Muhamad Hapiz, 2015). In the effort to develop tempe chips, it is also followed by environmental improvements, where tempe waste is used to feed cattle, while cow dung is used for bio gas. Furthermore, Sanan becomes famous as a center for tempe chip and other gift product, so many visitor and tourist visit to Sanan. Realizing that their kampung become attract tourist visit, the people also improve their housing as well as their environment then it becomes clean and well maintained.

Lately, one of the iconic kampung that has emerged in Malang is Kajoetangan Heritage kampung. Since 2018, Kampung Kayutangan has been designated as a cultural kampung (heritage) by the government of Malang.This kampung has Dutch heritage buildings which still perform their originality, especially the house form, material, and its furniture. These people want to conserve the originality of kampung performance that is called Kayutangan heritage

kampung. Kampung Kayutangan offers cultural tourism with historical education by showing the architecture of the Dutch colonial building that is still maintained and decorates wall. As a Heritage and tourist kampung, Kayutangan is not only rely on the colonial building, but also, equipment in the old era are shown such as bicycle, cookware, lights, windows, cameras, telephones and other home furnishings.

In addition, Kampung Kayutangan still maintains many remnants of past civilizations in the form of shopping buildings, Eyang Honggo Kusumo tomb, Tandak grave, Krempyeng Market, Dutch irrigation, waterways, thousand stairs which connecting one to other points (Moch. Nurfahrul Lukmanul Khakim, at all, 2019). Kampung Kayutangan got a lot of tourist, so that the local economic activities grew. Furthermore, the determination of Kampung Kayutangan as a heritage area makes the people willing and aware of maintaining buildings and the environment, including its cleanliness. Some efforts of beautification to make kampung more attractive through painting the wall (murals) of the past, making vertical gardens, or interesting spots for photography.

One of the efforts was made by the government of Malang City in improving kampung, at once developing the kampung potential, and increasing people participation in maintaining and improving their kampung is through thematic kampung competitions. The aims of thematic kampung competition is in general expected to be a one of problem solver in relation to reducing slum areas, as well creating local economic development and social responsibility on the settlement context. Furthermore the content of this competition should be proposed the existing condition, the concept of physical aspect, people participation, and economic creation. This pattern is also expected to encourage equitability of urban development through making various type of development for each kampung, as a competitiveness in urban area as a whole.

The program of this thematic kampung development is trusted as one of the solutions to increase the people participation to become higher than before. The implementing of thematic kampung generally presents a different style and aesthetic value for each, by promoting environmental sustainability as well as developing the creative economy.

Impact of Thematic kampung in progress, in general the people, previously, stay in slum area. Most of them, have now turned into beautiful or at lease better than before, even it is still diversified in performance. However, all of them have one thing in common sense, namely the economic problem and the need to have proper housing is the main reason, and improvement of kampung and encouraging economic are still needed (Taufik Akbar, 2018)

Thus the meaning of sustainable development, in settlement focusing in kampung context, will support sustainable development in wider area, ie, in urban area, based on the character of each. Furthermore it can be developed as a model of sustainable development in a small scale, kampung, in urban area.

3. Method

a. Literature Review

The previous step done in this research is a literature review related to sustainability in urban settlements and kampung in a general context. Next step is a review of Malang history, including the formation of kampung at the early stage, collecting references and studies of kampung in Malang and its development. Furthermore, the study is more focused on kampungs that have more efforts to improve or preserve their kampung, develop local economic and their social activities support the improvement of kampung conditions. This study also review the proposal, concept and the implementation of kampung thematic competitions.

b. Kampung description

In this research, kampung descriptions are related to:

- 1) Historical background or kampung development:
- 2) Kampung development in the early stages

- 3) Next kampung development
- 4) Existing conditions
- 5) Note

c. Determination of assessment sustainability elements

Based on the theoretical background of kampung studies, it can be concluded that their efforts and success in improving to support sustainable development, includes several elements, they are:

- 1) Participation of stake holders in kampung development or improvement: first initiator, people, government, private sector, other parties (i.e universities).
- 2) Motivation in kampung development or management: physical improvement, economic, social, tourism, and conservation

In reality the two main elements above are not independent of each other, but it can be interdependent or interrelated

d. Scaling method

The assessment of kampung development or their success will be assessed by each variable, based on scaling method. Then, ordinal scale is applied, that using the scale is arranged based on the levels of certain attributes, in this case, their participation and motivation on each kampung improvement or development. So that the score is made in order from highest to lowest. The using of this scale is based on respondent perceptual according to the basic knowledge and experience of each. The order of score is made on the basis of participation and motivation in developing or managing in kampung problems. The arrangement of score from highest to lowest is made between 5 for highest and 1 lowest level.

e. Determination of the influence variables on the participation and motivation of kampung development

The determination of the influence and relation for in each kampung is by considering the variable of participation, motivation and sustainability. The variables of stake holders are observed from the activeness of the stakeholder elements, namely the initiator, the people, the government and others, while the motivation is arranged based on physical/environmental, economic, social, tourism and conservation. Sustainability is arranged based on physical/environmental, economic, social elements. Determination of this influence is done by using the technique of geographical weighted regression (GWR).

The Geographically Weighted Regression (GWR) model is a development of the regression method. It's just that in the GWR model, the parameters of equation for each different location with other locations so that the number of parameter vectors that are guest is as many as the number of locations observed, which is used in the data. In the GWR analysis, the resulting model also cannot be used to estimate parameters except the parameters at the observation area (Walter et al. 2005). GWR is an analysis tool that are local, and regression is an example of global analysis. In general, the difference between the regression analysis and GWR is in the regression, the parameter values are assumed to be the same for all points of observation, so that the resulting parameter estimators are also single and it can be applied to all locations.

On the other hand, the GWR, the parameter values for each location are different from other locations so that the estimated parameter generated is also much in accordance with the number of observation locations of the data used (multi-valued statistics). It is different with the regression that does not pay attention to location factors (places), the GWR is very concerned about location (space) so this analysis is often followed by mapping and can be applied with a Geographic Information System (GIS). The following is a chart explaining this fifth stage

4. Result and Discussion

Along the history of Malang, Malang was known since prehistoric times, continuing to the era of Hindu-Buddhist. The first kingdom known to be named Kanjuruhan, it was not take a long time, then Malang became under rule of the Ancient Mataram Kingdom, where at that time they was leaving many inscriptions. In the next period Malang under the rule of the Panjalu/Kadiri kingdom, then the Panjalu/Kadiri Kingdom collapsed, emerged other kingdom namely Tumapel/Singasari with the famous first king was Ken Arok and his descendants was leaving some temples: Singasari, Kidal and Jago, including Jawi Temple. In East Java after the falling down of Singasari, emerged Majapahit Kingdom, which had the influence and the power throughout Nusantara. In the Singasari area, King of Majapahit, Hayamwuruk, was leaving Sumberawan site. In the southern part of Malang, there is a Hindu kingdom namely Sengguruh, in which Sengguruh was the last defense of Majapahit in the Malang region. When Sengguruh falling down, The King, Sultan Trenggana, moved to Kutho Bedah ("Destroyed City") – now its located in the east part of Malang.

After Kingdoms period was over, Malang became under colonialism era, and Malang had a municipal status on April 1, 1914 as a autonomous city "*kota praja*". As a Dutch colony, the design of Malang was also carried out by the Dutch, namely Tomas Karsten. He made Malang Masterplan known as blowplan consist of eight stages. At that time, there were relics of buildings and areas that characterized by colonial. During the Japanese occupation there were not influenced relics in Malang, except they change the function of the building for Japanese interests.

Along with the History of Malang, the old settlements have existed since the Kingdom of Kanjuruhan, Gajayana and Singosari, some of them are: Polowijen, Tlogomas, Merjosari, Dinoyo, Karangbesuki, Ketawanggede, Bunulreja, Lesanpuro, Madyopuro etc. Other kampung such Chinatown, Kayutangan, Celaket, Klojen, Oro-oro dowo, Kota Lama, Sukun, Jagalan, Kauman, Comboran, Sanan, etc were exist in colonial era, then some others exist after independence day. So that, it can be said that Malang have various kampung as it perform, function and its characteristic.

Malang is also known as a Flower City, or a beautiful and cool city. Supporting beautification of Malang, the Greening Movement was known as the *Malang Ijo Royo-Royo (MIRR)*, which was supported by the people, students, military and police officers, mass organizations, political parties, non-government organizations, as well. On the other side, the movement of kampung improvement program was done, based on community development and also economic motivation result various/types of kampung development, even it is shown in various way.

4.1 Kampung Profile

Malang is a big city which have 5 Sub District (*Kecamatan*) and totally there are 52 sub-sub district (*kelurahan*). Kampung are settlement part of sub-sub district, or most of single sub-sub district has some kampung. In this research, 25 kampungs were selected, in which every sub district represented by 5 kampungs. The element of kampung profile are:

- a. Historical background
Historical background is needed to get in information of the beginning of physical kampung condition or people social- economic activities.
- b. First stage development
Describe about an overview of about kampung development and their activities
- c. Further development
Describe about the effort of kampung improvement program was done, economic activities was developed or people activities in supporting their kampung.
- d. Existing condition

Describe of the current kampung conditions, to assess how far kampung realize and support sustainable development

e. Note

Provide an initial description of the possibility of each kampung in supporting sustainable development.

Overall kampung's profile can be seen in the table below .

	Blimbing	Historical Background	First stage of Development	Further Development	Existing Condition	Note
1.	Purwanto/ Sanan	People have a habit of making tempe chips hereditary	Previously, people were accustomed produce tempe chips. Then they produce various tempe chips other product.	Their activities increase become into several product and Sana become one of the shopping destination souvenirs. On the other hand tempe waste is used for animal feed	physical appearance hasn't changed much but economic development and various product was made, they have the show room, and its kampung become known as kampung for gift. Tempe waste for cow feed and the manure for biogas.	Thus Kampung is high potential to develop for shopping tourism and education as well.
2.	Purwanto/ Glintung	Congested kampung which is often flooded	People tried to solve the flood problem by making infiltration wells and bopories and make greener and vertical garden	The Kampung become flood-free, greener and more beautiful than well known by tourist as a destination of tourism kampung for education and environment	It is well known as educational and environment tourism especially water absorption and handling household waste water and also urban farming	Potential as a kampung for tourist and can be used as a pilot project in handling floods and urban farming.
3.	Arjosari /Cytrus	Many people are planting oranges	Developed into an orange kampung	It is well known as orange kampung as their identity	Has potential as a tourism kampung	This Kampung need a certain design in making beautification for kampung tourist
4.	Jodipan/ Kampung Warna Warni	Congested kamoung located along the side of Brantas River Bank	This Kampung had been painted and perform as colorful Kampung	The painted and colorful kampung became interesting sight an then known as one of the kampung tourism icons	The colorful tourist kampung is beautified with ornament and its clean	Has a potentially as an iconic kampung tourism and pilot project for environment management
5.	Jodipan/ Kampung (3)D	Congested kampung located along the side of Brantas River Bank	Part of this Kampung had been painted with perform with three-dimensional picture	Developed into a tourist kampung side of colorful kampung with the main attraction of three-dimensional picture	It is become one of the tourist destination Supported by people, government and private sector	Potential to be an art tourism.

Sukun		Historical Background	First stage of Development	Further Development	Existing Condition	Note
1.	Karangbesuki/Klasman	Known as a kampung in producing various products of Sanitary and produce from generation to generation	Most people in this kampung work in the field of sanitary	Sanitary product develop diversification and wider market	Activities began to decrease because they could not compete with new product	It can be developed to be more competitive As Sanitary kampung
2.	Ciptomulyo	High Density Kampung which have many small and medium scale industries.	Air pollution from water waste of industries reduce by greening and growing herbal plants	Herbal plant become a business of herbal medicine and people start manage their environment through vertical gardens	Reducing air pollution by herbal plan become switch into more intensive in greening and herbal plants;	Potential as a beautiful place for herbal tourism and education.
3.	Kebonsari	High density kampung along the river	The road side in Kampung and the river banks began to be arranged to be more beautiful and have artistic value	This Kampung and its river banks gradually become greener some places as been given picture and ornaments.	The Kampung is looked neat, while the river banks still doesn't well maintain	There is potential as an green and art tourist kampung
4.	Bakalan Krajan	Perform as old kampung and some people still perform traditional as well.	The people is familiar with recycling waste management for handy crafts	The kampung became a producer of traditional arts and crafts it was as popular daily activities.	IN the progress some activities are reduced, both of recycling waste and also performing arts, depend on the other people order	can be revitalized in to interesting tourist kampung based on art and waste recycle product.
5.	Tanjungreja/ Mergan	It is perform as organized kampung but some lack of infrastructure	Step by step people improve their kampung, provide a place for children's playground	Step by step the people cooperation each other improve their kampung and make a children's forum providing children's facilities.	Kampung infrastructure is getting better, some potential land is being used for children's playground and some other facilities.	Potential as a pilot project kampung to be comfortable for children
Klojen		Historical Background	First stage of Development	Further Development	Existing Condition	Note
1	Sukoharjo	Kampung for moslem's student, Intellectual and Patriotic Kampung (SIP)	This Kampung perform as moslem student but the people are heterogeneous. In general kampug perform clean and green.	The kampung is growing caused of the influence of urban economic development and the SIP character become stronger	Kampung perform clean and green supported by SIP	It can be developed as kampung tourist with the character of SIP
2	Kiduldalem	High density kampung located in a down town, in which crossed by	The people need to be a good kampung performance	The people developed into a creative kampung as, greener, arts	Kampung performance seen more creative a green	It can be develop as potential creative kampung for tourist.

		Brantas River and perform as art and green Kampung	they try to become greener and look artsy	and crafts	and artsy kampung	
3	Samaan /Kampung Edukasi	High density kampung located in the center of the city, and it is crossed by Brantas River	One of the dense and slum kampung, in which the level of people education and environment awareness is low	Step by step kampung development done by people, furthermore they aware of the importance of kampung improvement for better environment	High density kampung getting better condition, public awareness of better environment	This kampung is potential to be not slum anymore, increase the quality of the settlement for better living
4	Gadingkasri /Kampung Santri	This kampung has a high density and known as Islamic boarding schools	Islamic boarding schools is influence the Kampung development	The role of Islamic boarding schools important in day living, so that this kampung are develop based on Moslem's student Identity	High density kampung which familiar religious activities	Potentially as a kampung of moslem identity.
5	Kauman /Kampung kayutangan	High density kampung situated in down town, which performed mostly an old house with colonial identity.	This kampung had less attention in maintains colonial buildings	The efforts to conserve colonial building and its environment increasingly improve. People awareness is raised up.	This kampung perform the atmosphere of the past by maintaining old and colonial buildings. The improvement of environment become one of the kampung historical tourism	Potential as an educational and historical kampung tourism.
Lowokwaru		Historical Background	First stage of Development	Further Development	Existing Condition	Note
1.	Mojolangu /Kampung AKOER Handycraft	This kampung is located in the middle of the city and close to the culinary center and universities.	This kampung step by step developed into a lodging house and a local economic development	Potential to be developed as a village with environmental quality. and developing economic potential through handicraft	This kampung is well organized, environmental concern is high and has handicraft potential.	The craft potential is growing, it needs display space and supporting shopping tourism
2.	Tulusrejo/ smart and green kampung	This kampung is well organized and clean and green	the people care about the cleanliness and beauty of kampung performance	People participation increased also awareness of this kampung then it be come clean and green	a comfortable and beautiful-looking kampung	Potential in supporting sustainable kampung based on the concerning of better environment
3.	Dinoyo /Kampung Keramik Dinoyo	Kampung in which many people make ceramic products and supported by small ceramic industry.	Well known as Ceramic production kampung and become one of the icons in gift product in	This Kampung developed into a ceramic center with various functions and became a tourist kampung	High density kampung but well organized as a kampung tourism but part of them change as shops and	This kampung still potential as one of the tourism icon but it should be improve the surround conditions

			Malang		lodging houses.	supporting shopping tourism destination
4.	Tlogomas /Kampung Sanitasi	High density kampung, used to slum and dirty, located in the Brantas River Bank.	People was introduced with communal sanitation system, and cleanliness Environment as well.	This kampung become clean and green, environment well manage, processing of sanitation water become clean water, Socio-economic activities are increasingly develop.	The Kampung become well manage, and it become as one of kampung pilot project in environment management and socio-economic as well.	It can be introduced as a pilot kampung
5.	Tasikmadu /Kampung bambu mewek	This Kampung is located in the suburban, part of them as an agriculture area and cross by mewek river	The people are aware to change their area especially for green kampung and beautification of river bank as natural tourism object.	Step by step people developed green kampung, conserve the river bank,	The people more aware in improving their kampung, and manage mewek river bank becoming one of the kampung tourist destination	This is potential kampung as one of the environmental education tourist with natural concept.
Kedungkandang		Historical Background	First stage of Development	Further Development	Existing Condition	Note
1.	Wonokoyo /Kampung Organik	This is a type of suburb kampung.	People use their house yard for producing vegetable and using the vacant land to produce vegetables as well	From plants in the house yard developed into a green house	Beautiful kampung with various vegetables product	This kampung can be developed into an agro tourism kampung.
2.	Tlogowaru/Kampung Wisata Sehat	This is dense kampung located in suburb, and many people are farmer	The basic of people occupation is farmer in which getting introduce to product craft and waste recycling	People production in craft and waste recycling become increasingly develop, more productive, and kampung performance become more beautiful.	The kampung is well organized farming, crafting and recycling.	This kampung has a lot of potential and people support in kampung development become productive kampung
3.	Kotalama	This is a high density and slum kampung, located in the brantas river bank and in the middle of their settlement there was china cemetery.	Step by step people and government improve the kampung, cemetery had changed to be simple flat house	In improving of this kampung by developing some facilities and infrastructure, the kampung become better than before and the people awareness to better manage their living.	It is a dense residential complex of simple flats houses and old kampung, are side by side.	Potentially as a better kampung with the improving some infrastructure
4.	Lesanpuro	It is a dense kampung in the suburbs and side	There are two type of housing, and the space	In the kampung people work as farmer, the vacant	There is a dualism of the housing type,	Harmonized living should be well manage

		by side with formal housing in a large scale.	between there are some vacant land.	land were cultivated. Realizing the importance of consuming healthier foods, the made pilot project for organic agriculture	bust still harmonious in living. There are some efforts using vacant land for organic Agriculture.	and the developing organic agriculture become iconic kampung product
5.	Mergosono	It is a high density old kampung, located in the river bank, and many people work in informal sector some of them are entrepreneurs	The people of this kampung, has various business fields including waste recycling	In spite of people activities are increasingly but they take aware of environment quality so that they improve the kampung become greener.	Type of organized kampung, the performance is clean and the economic activities craft based are well develop	Potential to be an entrepreneur kampung

4.2 Participation:

The people who stay in kampung are generally have tight emotional each other. In the context kampung development, it is often supported by many participant, so that it must be assessed how important is their role. Previous description is short explanation taken from some sources, so the description of kampung is different each other – based on their conditions and its development. Furthermore, each respondent gave a score according to the respective ordinal scale; for more clearly see the table below,

Blimbing		initiator	People	Government	Private Sector	Others
1	Purwanto/ Sanan	It's been done from generation to generation	Part of people day living	support in advise and training, improve the infrastructure and promotion for marketing	Supporting in design and promotion	Supporting in kampung design for tourism
Average		5	4	3,25	2,625	2,375
2	Purwanto/ Glintung	Informal Leader	Accompanied by informal leader designing and applying	Supporting in infrastructure and technical assistance	Supporting in material and some financing	Designing physical and economic aspect
Average		4,125	4,25	3,375	2,75	2,75
3	Arjosari	Farmer of Germany caterpillars	Interested in Germany caterpillars development	Supporting in Infrastructure	non	Supporting in design
Average		3,5	3,375	2,125	1,25	1,875
4	Jodipan/Colorful Kampung	Students and informal leader	Together realize the tourist kampung	Improving infrastructure, educating and branding	Design and material supporting	Supporting in design and management
Average		4,75	4,625	3,625	3,875	3

5	Jodipan/ Kampung (3)D	Informal leader and artist	Together with informal leaders and artists to realize tourism kampung	Supporting in infrastructure	Together realizing tourism kampung	Designing and management
Average		4	3,625	3	2,5	2,375
Sukun		initiator	People	Government	Private Sector	Others
1	Karangbesuk i/Klasman	Informal leader	Conducting business as daily activities	Supporting in infrastructure and promotion	non	non
Average		3,375	4	3,25	1	1
2	Ciptumulyo	Informal leader	Improving their environment and some business	Supporting in infrastructure	non	Supporting in design
Average		3,125	3	3	1	1,875
3	Kebonsari	Informal leader	Environmental management	Supporting in infrastructure	non	Supporting in design
Average		3,125	3,75	3	1,875	1,875
4	Bakalan Krajan	Informal Leader	Improving the kampung and producing based on waste recycle	Supporting in infrastructure	non	Supporting in design
Average		3,125	3,25	3	1,25	1,875
5	Tanjungrejo/ Mergan	Informal Leader	Improving the kampung and provision playground	Supporting in infrastructure	non	Supporting in design
Average		3,25	3,375	3	1,25	1,875
Klojen		initiator	People	Government	Private Sector	Others
1	Sukoharjo	Informal Leader	Participating in green dan clean kampung	Supporting in infrastructure	non	Supporting in Design
Average		3,125	3,125	3	1	1,875
2	Kiduldalem	People and local leader	Participate in realizing kampung improvement programs	Supporting in infrastructure and education	Supporting in design and realizing green kampung	Supporting in design and realizing green kampung
Average		3,375	3,5	3,125	2,125	2,125
3	Samaam	Informal Leader	Participate in kampung improvement and education programs	Supporting in design and infrastructure	non	Supporting in design and green kampung
Average		2,875	3	2,875	1	2
4..	Gadingkasri	Informal Leader	Realizing a clean kampung with a moslem student's identity	Supporting in infrastructure	non	Supporting in design
Average		3,125	3,125	3	1	1,875

5	Kauman/Kampung kayutangan	Local Leader together with Lovers and heritage observers	Together realize the heritage tourist kampung	Involved in the total activities, from the idea, implementation and maintenance	Supporting in idea and material for beautification	Supporting in design and its implementation
Average		4,875	4,875	4,5	3,875	3
Lowokwaru		initiator	People	Government	Private Sector	Others
1	Mojolangu	Informal Leader	encourage each other to produce handy crafts	Supporting in infrastructure	non	Supporting in design
Average		3,875	3,125	3	1	2
2	Tulusrejo	Informal Leader	Create a green and neat kampung	Supporting in infrastructure	non	Supporting in design
Average		3,375	3,375	3,375	1,375	2,375
3	Dinoyo	People, entrepreneurs and informal leader	conduct the business and participate in realizing the ceramic tourism kampung	Supporting in infrastructure educating and branding or promotion	Educating and developing economic potential	Supporting in design
Average		4,875	4	3,125	3	2,25
4	Tlogomas	Informal leader	Participating in sanitation program, and creating clean kampung	Supporting in infrastructure	non	Supporting in design and become a research object
Average		4,875	4,875	3,125	1,25	2,125
5	Tasikmadu	Informal Leader, local government and University	The idea and realization of a clean and aesthetic kampung	Supporting in design and infrastructure program	Supporting in concept and management of tourism kampung	Supporting in design
Average		3,875	4,125	3,25	2,25	2,25
Kedungkandang		initiator	People	Government	Private Sector	Others
1	Wonokoyo	Informal Leader	Participate in green and clean kampung	Supporting in infrastructure	non	non
Average		3,25	3	3	1	2
2	Tlogowaru	Informal Leader	Participate in clean and green kampung program	Supporting in infrastructure and education	non	Supporting in design
Average		3,25	3,25	3	1	2,25
3	Kotalama	Informal leader	Participate in kampung improvement program	Supporting in infrastructure and education	non	Supporting in design
Average			3,875	3,25	1,125	2

4	Lesanpuro	Informal Leader	Improving kampung, cleaner, and organic farming	Supporting in infrastructure	non	Supporting in design
Average		3,25	3,875	3	1	2,125
5	Mergosono	Informal Leader	Improving kampung, cleaner, some business	Supporting in infrastructure	non	Supporting in design and education
Average		3,125	3,125	2	1	2

1 Kampung	Equation	Significance Variable	Reduction Variable	Most influence Variable in the Model of Partisipasi
Purwantoro / Sanan	$Y = 6.647 \times 10^{-16} + 0,898 X1 + 0,838 X2 + 0,782 X3$	X1 = Initiator X2 = People X3 = Government	- Private Sector - Others	Purwantoro/Sanan : Initiator
Purwantoro / Glintung	$Y = 6.774 \times 10^{-16} + 0,832 X1 + 0,960 X2 + 0,838 X3$	X1 = Initiator X2 = People X3 = Government	- Private Sector - Others	Purwanto/Glintung : People
Kampung Jodipan/Colorful	$Y = 6.875 \times 10^{-18} + 0,795 X1 + 0,937 X2 + 0,838 X3 + 0,783 X4$	X1 = Initiator X2 = People X3 = initiator X4 = Private Sector	- Others	Jodipan/Colorful : Initiator
Karangbesuki /Klasman	$Y = 2.227 \times 10^{-18} + 0,908 X1 + 0,865 X2 + 0,788 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Karangbesuki: People
Ciptomulyo	$Y = 1.444 \times 10^{-15} + 0,866 X1 + 0,832 X2 + 0,776 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Ciptomulyo : People
Tanjungrejo / Mergan	$Y = 2.554 \times 10^{-17} + 0,876 X1 + 0,818 X2 + 0,705 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Tanjungrejo/Mergan : People
Sukoharjo	$Y = 1.118 \times 10^{-15} + 0,927 X1 + 0,876 X2 + 0,766 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Sukoharjo : People
Gadingkasri /Kampung Santri	$Y = 2.051 \times 10^{-18} + 0,795 X1 + 0,550 X2$	X1 = Initiator X2 = People	- Private Sector - Others - Government	Gadingkasri : Initiator
Kauman /Kayutangan	$Y = 1.365 \times 10^{-15} + 1,254 X1 + 1,151 X2 + 0,972 X3 + 0,877 X4 + 0,812 X5$	X1 = Initiator X2 = People X3 = Government X4 = Private Sector X5 = Others		Kauman / Kayutangan : Initiator
Dinoyo	$Y = 6.645 \times 10^{-16} + 0,838 X1 + 0,784 X2$	X1 = People X2 = Initiator	- Private Sector - Others	Dinoyo : People

1 Kampung	Equation	Significance Variable	Reduction Variable	Most influence Variable in the Model of Partisipasi
			- Government	
1 Tlogomas	$Y = 6.545 \times 10^{-16} + 0,891 X1 + 0,784 X2$	X1 = Initiator X2 = People	- Private Sector - Others - Government	Tlogomas : Initiator
Tasikmadu	$Y = 6.645 \times 10^{-16} + 0,838 X1 + 0,784 X2$	X1 = People X2 = Initiator	- Private Sector - Others - Government	Tasikmadu : People
Kota Lama	$Y = 4.772 \times 10^{-17} + 0,905 X1 + 0,846 X2 + 0,873 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Kota Lama : People
Lesanpuro	$Y = 2.776 \times 10^{-17} + 0,882 X1 + 0,794 X2 + 0,779 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Lesanpuro : People
Mergosono	$Y = 1.145 \times 10^{-15} + 1,235 X1 + 0,937 X2 + 0,988 X3$	X1 = People X2 = Initiator X3 = Government	- Private Sector - Others	Mergosono : People

Based on two tables above, in general, there are five participants in the kampung improvement, they are: initiators, people, government, private sectors and others like observer, researcher. Using the scaling method, can be concluded that Initiators and people have the most important role in kampung improvement. The initiators can be a local leader, the people in general or others like student or special group. Then in many cases the role of people in improving their environment are still dominant. The role of government are supporting in infrastructure for better physical condition, and still give some advices by education and technical assistance and branding, especially for productive or tourism kampung. Furthermore, are the role of private sectors and others occur in some kampung, event it were not so dominant. In shot it can be described below:

Summary: The Role of Participants:

Initiator: Local leader and people – participant (moderate – high)

People: Part of day living, environment (better kampung condition), economic benefit (moderate – high)

Government: Supporting infrastructure, education and technical assistance, branding (moderate)

Private: Supporting idea - design, material (very low – low)

Others: Supporting design, research (very low – low)

4.3 Motivation

In the kampung improvement program, it is result not only the improvement of the environment quality on their settlements, but also some people in their kampung have others motivations namely economic motivation – in which people in many kampung that have special business so that it called productive kampung, or there is an improvement in environmental quality or some maintenance of old buildings than it turned out to tourists visiting.

Other kampung have different motivation, people likes the atmosphere in harmony so that they often doing together in improving their kampung, and some of them, in their social activities recycling the waste for handy crafts or maintain the waste by forming a garbage bank. Thus, these motivations can be classified into motivations to: environment, economic, social, tourism and conservation improvement. To assess each motivation, respondents give the highest scale of 5 and lowest 1. For more details, see the table below:

Blimbing		Environment improvement	Economic	Social	Tourism	conservation
1	Purwanto/Sanan	3,5	5	3,25	4	1
2	Purwanto/ Glitung	4,875	3	3,875	4,25	1,875
3	Arjosari	3,25	3,875	3,125	3,875	1,125
4	Jodipan/ colorful Kampung	4,25	4,875	3,25	4,875	2,625
5	Jodipan/ Kampung (3)D	4,125	4	3,25	4,25	2,5
Sukun		Environment improvement	Economic	Social	Tourism	conservation
1	Karangbesuki/Klasm an	2,25	5	3,875	2,875	1,75
2	Ciptomulyo	4,75	3,125	3,5	2,25	1,875
3	Kebonsari	3,875	3,125	3,875	3	2
4	Bakalan Krajan	3,25	4,375	3,375	2,875	2,625
5	Tanjungrejo/Mergan	2,875	2,25	3,625	1,875	1,875
Klojen		Environment improvement	Economic	Social	Tourism	conservation
1	Sukoharjo	2,25	2,125	4	4	2,5
2	Kiduldalem	3,875	3,875	3,75	3	2,5
3	Samaan	3	2,5	3,875	2,125	1,75
4	Gadingkasri	2,625	2	4,75	2,25	1,875
5	Kauman/Kampung kayutangan	4	4	4	4,625	4,375
Lowokwaru		Environment improvement	Economic	Social	Tourism	conservation

1	Mojolangu	3,625	3,75	3	3,875	1,75
2	Tulusrejo	4,25	3,25	3,25	2,375	1,75
3	Dinoyo	3,375	4,875	3,875	4,75	1,875
4	Tlogomas	5	4,125	3,875	4	2,125
5	Tasikmadu	4,625	3,25	3,875	3,75	2
	Kedungkandang	Environment improvement	Economic	Social	Tourism	conservation
1	Wonokoyo	3,125	3,75	3,125	3,875	2
2	Tlogowaru	5	4	4	2,125	1,75
3	Kotalama	3	3,125	3,875	2,5	2
4	Lesanpuro	2,625	3	3,125	2,25	1,75
5	Mergosono	3,875	4,25	3,125	3	1,75

Kampung	Equation	Significant Variable	Reduction Variable	Most Influence Variable
1 Purwanto / Sanan	$Y = 2.242 \times 10^{-15} + 0.612 X_1 + 0.516 X_2 + 0.216 X_3$	X1 = Economic X2 = Tourism X3 = Environment improvement	- Conservation - Social	Purwanto/Sanan : Economic
1 Purwanto / Glitung	$Y = 2.242 \times 10^{-15} + 0.912 X_1 + 0.716 X_2 + 0.616 X_3$	X1 = Environment improvement X2 = Social X3 = Tourism X4 = Economic	- Conservation	Purwanto/Glitung : Environment improvement
Kampung Jodipan/Colorful	$Y = 4.832 \times 10^{-17} - 0.098 X_1 + 0.8678 X_2 + 0.839 X_3$	X1 = Tourism X2 = Economic	- Conservation - Social	Jodipan/Colorful : Tourism
Karangbesuki /Klasman	$Y = 2.306 \times 10^{-18} + 0.912 X_1 + 0.799 X_2 + 0.788 X_3$	X1 = Economic X2 = Social X3 = Tourism	- Conservation - Others	Karangbesuki/ Klasman : Economic
Ciptomulyo	$Y = 2.504 \times 10^{-17} + 0.955 X_1 + 0.912 X_2 + 0.873 X_3 + 0.788 X_4$	X1 = Environment improvement X2 = Tourism X3 = Pemerintah X4 = Economic	- Tourism	Ciptomulyo : Environment improvement
1 Tanjungrejo / Mergan	$Y = 6.332 \times 10^{-16} + 0.897 X_1 + 0.788 X_2$	X1 = Environment improvement X2 = Social	- Tourism - Economic - Conservation	Tanjungrejo/Mergan : Environment improvement

Sukoharjo	$Y = 2.686 \times 10^{-18} + 0.754 X_1 + 0,772 X_2 + 0,647 X_3$	X1 = Tourism X2 = Social X3 = Economic	- Conservation - Environment improvement	Sukoharjo : Tourism
Gadingkasri /Kampung Santri	$Y = 1.215 \times 10^{-15} + 1.161 X_1 + 0,975 X_2 + 0,899 X_3$	X1 = Social X2 = Environment improvement X3 = Economic	- Conservation - Tourism	Kampung Gadingkasri : Social
Kauman /Kayutangan	$Y = 1.405 \times 10^{-15} + 1.700 X_1 + 1.200 X_2 + 1.300 X_3 + 0,977 X_4 + 0,889 X_5$	X1 = Tourism X2 = Conservation X3 = Social X4 = Economic X5 = Environment improvement		Kampung Kayutangan : Tourism
Dinoyo	$Y = 2.745 \times 10^{-16} + 0,832 X_1 + 0,782 X_2 + 0,765 X_3$	X1 = Economic X2 = Tourism X3 = Social	- Conservation - Environment improvement	Dinoyo : Economic improvement
Tlogomas	$Y = 2.186 \times 10^{-17} + 1.217 X_1 + 0,954 X_2 + 0,754 X_3$	X1 = Environment improvement X2 = Economic X3 = Tourism	- Conservation - Social	Tlogomas : Environment improvement
Tasikmadu	$Y = 6.203 \times 10^{-17} + 1.617 X_1 + 0,866 X_2 + 0,822 X_3 + 0,712 X_4$	X1 = Environment improvement X2 = Social X3 = Tourism X4 = Economic	- Conservation	Tasikmadu : Environment improvement
Kota Lama	$Y = 8.803 \times 10^{-16} + 1.033 X_1 + 0,859 X_2 + 0,882 X_3$	X1 = Social X2 = Environment improvement X3 = Economic	- Conservation - Tourism	Kota Lama : Economic
Lesanpuro	$Y = 6.647 \times 10^{-16} + 0,838 X_1 + 0,782 X_2$	X1 = Economic X2 = Social	- Conservation - Tourism - Environment improvement	Lesanpuro : Economic
Mergosono	$Y = 2.180 \times 10^{-17} + 0,953 X_1 + 0,899 X_2 + 0,731 X_3$	X1 = Economic X2 = Environment improvement X3 = Social	- Conservation - Tourism	Mergosono : Economic

Based on two tables above, in general there are five element in the kampung improvement motivation, they are: environment improvement, economic, social, tourism and conservation. In this part, scaling method was applied and it can be concluded that there are two main motivation factors in kampung improvement programs, they are better environment and economic one, event it still various for each kampung. Economic motivation relatively stable in supporting kampung development and its sustainability. Social aspect in general has its moderate role in kampung improvement, and it can be said that social aspect is a connecting factor between the elements of development in each kampung. Further more tourism aspect has the important role in kampung improvement and development, some kampung shows that tourism is one of push factor for kampung improvement and development, so that many kampung become more attractive and productive. Conservation in general is not a determining factor in the motivation for kampung development, and only in kampung kayutangan the people has high motivation, because it is perform as a kampung heritage.

Summary: Motivation Factors:
 Environment Improvement: low – moderate - high
 Economic: moderate – high
 Social: moderate – high
 Tourism: low – high
 Conservation: very low – low

Motivation Levels:
 High: tourist - environment - economic
 Medium: Social – environment - economic
 Low: tourist - conservation
 Very Low: conservation

4.4 Sustainability

The role of the kampung in supporting the sustainability can be describe from the environmental variables, they are: physical/environmental, economic and social. This assessment is done based on respondent knowledge through the previous description of: participation and motivation in improving or developing each kampung. By using scoring method, then the level of sustainability of each kampung can be assessed, see the table below,

Blimbing		Physic/Environm ent	Economic	Social	Result
1.	Purwantoro/ Sanan	Medium, Supported by a good environment	Very high, supported by tempe production for gift	Medium, supported by their social activities.	High, Sustainability can be improved to high by increasing shopping and education tourism
2.	Purwantoro/ Glintung	Very High, supported by awareness to maintain water absorption	Medium can be highly by managing as a kampung tourist	High, people feel the benefits of environmental maintenance and tourist visits	Potential to high by maintaining social and economic capital
3.	Arjosari	Medium, kampung condition in general is good maintain	High, supported by orange household product	Medium, people support the increasing of orange product	Medium, it is supported by social economic conditions
4.	Jodipan/colorful Kampung	High, coloring kampung become Clean and well maintain kampung and then encourage various other activities	Very high, supported by visitors and tourist	Medium, can be high by participation increasing in any kampung program	High, supported by kampung maintenance and tourist visits Note: need to pay attention based on its situated on the Brantas River Bank

(5).	Jodipan/ Kampung (3)D	High, physical improvement has the potential to encourage various other activities	High, it needs connectivity with colorful kampung as one package tour	Medium, it can be improved to high by increasing participating in kampung development programs	High, supported by kampung attraction and tourist visits Note: need to pay attention based on its situated on the Brantas River Bank
Sukun		Physic/Environment	Economic	Social	Result
1.	Karangbesuki/Klasman	Medium, High density kampung which is most of people produce sanitary	Very high, Sanitary is main activity and income by most people	High, they have the same social activities in economic supporting	Medium, generally supported by economic motivation, physical and social condition tend to be stagnant
2.	Ciptomulyo	Low, kampung located side of industrial estate	Medium, just the side effect of improving their environment	High, they have the spirit for better environment	Medium, the people have the spirit for better environment, but still less physical supported
3.	Kebonsari	Medium, kampung is well organized but need quality improvement	Medium, the people are not emphasize in economic, but it's the impact of kampung improvement program	Medium, people support in kampung improvement program	Medium, Kampung condition and its development, physically, economically and socially are moderate
4.	Bakalan Krajan	Moderate, People often doing together improving the environment	High, supported by economic activities based on recycling garbage or used goods	Moderate, people activities depend on activities depend on the situation	Moderate, supported by economic motivation and people harmony especially mothers social gathering
5	Tanjungrejo/ Mergan	High, kampung has been organized and the people improve their kampung	Low, people prioritizing in improving infrastructure	High, people working together creating child-friendly kampung	Moderate, people interest in Kampung improvement and child-friendly
Klojen		Physic/Environment	Economic	Social	Result
1.	Sukoharjo	Moderate, kampung is well organized	Low, people are more interested religion	High, there are many activities and human resource development in religion aspect	Moderate, emphasis on human resource development based on religion aspects
2.	Kiduldalem	Medium, Kampung are well organized, and become greener	moderate, the people develop handy crafts and kampung tourism object	High, the people interested in kampung improvement program	Moderate, kampung improvement program based on people supported, others need to be develop
3.	Samaan	Low, a high	Low, lack of	Medium, they	Low, in general it needs

		density kampung that needs to be improved	economic kampung potential to be developed	have high solidarity, but not supported by the quality of human resources	to be developed in some parts and it can be start from human resource developmnet
4..	Gadingkasri	Medium, well maintain kampung	Low, this kampung does not emphasize in the economic development	Very High, supported by the existence of moslem student and friendly community.	Medium, supported by people and moslem student especially on religious program
(5).	Kauman/Kampung kayutangan	Very high, it is a conserved area (5)	High, it is become tourist kampung. (4)	Very High, the people is highly concerned to maintain their kampung	Very High, supported by some sectors and the people highly concern in kampung conservation as tourism object
Lowokwaru		Physic/Environment	Economic	Social	Result
1.	Mojolangu	High, it is a well-organized settlement	Moderate, in general economically has been established people	Moderate, heterogeneous people and they have good interaction	Moderate, it is establish settlements, in fact some people move to other areas, because some of the house functions are become for various business
2.	Tulusrejo	Moderate, it is well organized settlement,	Moderate, the people have their own activities or business	Moderate, the people together improves their environment	Moderate, the settlements is well organized, people have their own business individually, the changing of some house become lodging house or shop result some people moved to the suburb.
3.	Dinoyo	Moderate, It is a high density kampung but still well organized	Very High, supported by the establishment of ceramics industry	Moderate, the community is trying to improve the image of their kampung as a tourist destination	High, supported by organized settlements, local economic support people activities.
4.	Tlogomas	Very High, supported by the kampung improvement program, especially in sanitation and greening the area	High, the people use their yard for vegetable plantation, produce organic fertilizer,	High, the community supports the development of their kampung	High, physically, economically and socially are supported by people
(5).	Tasikmadu	Very High, their kampung are well arranged, and around the	Medium, people activities are based on their own activities	High, still keep the spirit on realizing the riverbank tourist	High, this kampung and area around the mewek river bank are potential as ecological tourism

		mewek river become green.			
Kedungkandang		Physic/Environment	Economic	Social	Result
1.	Wonokoyo	Moderate, This kampung in general are well manage, they plant vegetables	High, supported by potential land to grow vegetables and will be used for agro-tourism	Moderate, the people together maintain their environment to grow vegetable	Moderate, people support for planting vegetable and further develop as agro-tourism
2.	Tlogowaru	High, it is well organized kampung whose people care of their environment quality) High, supported by agriculture and recycling things	High, the people still have the spirit in kampung improvement program and local economic development	High, kampung well organized, people support in developing economic and social-economic activities are still well maintain. Local leader also support in kampung development.
3.	Kotalama	Modetare, high density kampung less organized area, some housing is a disaster-prone area due to river banks landslides	Low, people have individual business and some of them work in the informal sector	Moderate, the people is less able to manage their kampung	Low-medium, it need supporting in physic-economic and they have social capital to make a better kampung
4.	Lesanpuro	High, there are large scale housing and kampung side by side, supported large land for agriculture	Moderate, people have their own economic activities	Moderate, some people together improve their kampung and some others make greener	Moderate, some housing are well maintain, some others perform as kampung need some improvement on the other hand there is potential land for agriculture
(5).	Mergosono	Medium, high density housing	High, people try to be improve their economic potential including the effort of recycling waste things	Medium, the people has a concern in improving their kampung and joint together produce handy craft from the waste	Medium, supported by people activities and local economic development based on recycle the waste

Based on table above, in general there are tree pillars or elements supporting sustainable development by kampung improvement programs, they are: environment, economic and social. The inter relational between the history and development for each kampung, the role of participant and motivation can be concluded that there are various level kampung development in supporting sustainable development. Most kampungs, previously supported by better environment programs, then it was supported by people and lately become tourism kampung. Therefore the economic reason become more dominant. Some others kampung are developed and it is supported by economic programs and lately become tourism kampung especially for

the gift. in general the social aspects have a moderate role a connecting factor in the development of kampung in Malang.

Summary, result of sustainability level:

High:

Environment – Economic/Social: Glintung, Jodipan, Tlogomas, Tasikmadu

Economic – Social/Environment: Sanan, Klasman, Dinoyo

Social (Conservation)/Environment – Economic: Kayutangan

Moderate:

Social – Economic/Environment: Ciptomulyo, Sukoharji, Gading

Environment – Social/Economic: Mergan, Lesanpuro

Economic – Social/Environment: Mergosono

Low:

Social/Environment – Economic: Kotalama

5 CONCLUSION:

1. Sustainable development in the settlement-kampung context, has been developed for a long time, and its support most of people day living.
2. There are various pattern in supporting, based on the development and history, and each kampung has a different trigger and motivation
3. Previously the economic reasons are more dominant in supporting kampung development, then improving environment become important because of the needed to make it as a tourist destination, especially shopping tourist
4. Better environment encourage various activities in each kampung which in turn creating economic activity and lately become tourist destination based on environment education
5. Social and Conservation reason in supporting sustainable development is occured in Kampung Heritage Kayutangan and now it become tourist destination for studying the building in the colonial and old era.
6. Therefore each kampung should have a trigger of development to encourage the acceleration in realization of sustainable development
7. in this era, it is noted that tourism has a main role in encouraging kampung development in realizing the successful of sustainable development

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