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Sustainable Tourism in Flores, Indonesia

Walking the path towards a long-lasting improvement

Master thesis



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ABSTRACT

The central government of Indonesia has defined ten priority destinations, which shall be developed for global tourism until 2020. Flores, especially Labuan Bajo, is one of these “10 New Balis” aiming to attract up to 500,000 tourists per year, compared to 120,000 arrivals in 2018. This master thesis explores the impact of this strategy on a former remote area. It includes aspects about the spatial structures and their changes, the economic and demographic development as well as the environmental consequences of a growing tourism sector. To acquire knowledge about local conditions official statistics were combined with literature research and interviews on-site. Several noteworthy results are the deficiency of strategic planning and therefore the lack of sustainability, the poor integration of inhabitants in the economic cycle and the slow fading of the local heritage. These findings were used to generate two scenarios of possible developments in Labuan Bajo: the continuation of the current trend, in which Labuan Bajo faces mass tourism in a relatively short time or on the contrary no tourism, where the impact of tourism on local conditions comes clear. In order to avoid these extreme scenarios a master plan was created where objectives and measures with a specific allocation of responsibilities aim towards sustainable development.

ZUSAMMENFASSUNG

“10 neue Bali” lautet die nationale Strategie der indonesischen Regierung, welche zehn vorrangige Destinationen für die Entwicklung von Tourismus definiert. Flores, bzw. die Stadt Labuan Bajo, ist eine davon, welche im Jahr 2020 bis zu 500.000 Ankünfte verzeichnen soll. Im Vergleich zum Jahr 2018 würde dies einen Anstieg von 380.000 Ankünften bedeuten. In dieser Diplomarbeit werden die Auswirkungen dieser Strategie näher untersucht. Die Analyse beinhaltet die Veränderung der räumlichen Strukturen, die wirtschaftliche und demographische Entwicklung wie auch die Konsequenzen für die Umwelt durch einen wachsenden Tourismussektor. Wissen über die lokalen Gegebenheiten, welches die Basis der Analyse bildet, wurde durch die Kombination von statistischen Daten, Literaturrecherche und Interviews vor Ort erlangt. Dabei wurden vor allem der Mangel an strategischer Planung, die fehlende Einbindung der lokalen Bevölkerung in den wirtschaftlichen Kreislauf sowie der Verlust des Kulturguts als zentrale Herausforderungen identifiziert. Die Erkenntnisse der Analyse bildeten die Basis für die Entwicklung zweier Szenarien. Das erste Szenario behandelt das Fortschreiben des aktuellen Trends bis hin zum Massentourismus. Im konträren Szenario wird die Vulnerabilität des Tourismus dargestellt und die Auswirkungen näher erläutert, welche das Ausbleiben der Tourist*innen zur Folge hätte. Um diese beiden Szenarien abzuwenden, wurde ein Masterplan erstellt. In diesem sind Ziele und Maßnahmen verankert, welche durch die Zuteilung der Kompetenzen sowie einem konkreten Zeitplan die nachhaltige Entwicklung der Region fördern sollen.

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Prolog

After I had received my bachelor degree in 2016 I took the chance to get an insight into international development cooperation. From August 2016 until January 2017 I worked in Nias, North Sumatra, for the organisation Caritas Keuskupan Sibolga. Nias was hit by a Tsunami in 2004 which almost completely destroyed the infrastructure of Nias West. Just a few months later an earthquake devastated the remaining structures and thousands of people died. During this time Nias received international attention and many NGOs settled. Since then a lot of time has passed. However, conditions only improved in the short term. When I arrived there 12 years later, most of the rebuilt infrastructure was broken again – due to missing maintaining – and hardly any foreigners lived in Gunungsitoli, the capital of Nias.

Before I arrived I knew I had to learn the national language. The inhabitants did not speak English. In order to support the work for Caritas in remote villages and to initiate my own projects, command of Bahasa Indonesia was required. During my stay I met other volunteers and started to cooperate with them and the organisations. The Museum Gunungsitoli developed a strategy to establish sustainable tourism. While Sorake is a famous surfing spot, other parts of Nias seldom get visitors. As a foreigner in Gunungsitoli one cannot go unnoticed, every few metres a person would stop to ask if they can take a photo. No tourism means no exchange with other cultures. Living and working conditions in Nias change very slowly, for foreigners it is difficult to get an insight in local processes.

During my time in Nias I realized how important cultural exchange is for progress. By using endogenous potentials, regions in Indonesia indicate a high frequency of visitors. Tourism is the easiest attempt to support development. In Labuan Bajo, Flores, this approach is visible, the city benefits from a global trend of increasing tourism, but within a very short period the interest in Komodo exceeded the limit of natural tolerability. Therefore this master thesis deals with the impact tourism has on local conditions and what implications Labuan Bajo has for further development. With my experience of the Indonesian culture and language this thesis combines the point of view of concerned parties as well as the knowledge of local population, authorities, NGOs, business owners and other experts.

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1. INTRODUCTION

1.1. CONTEXTUAL OVERVIEW AND PROBLEM STATEMENT

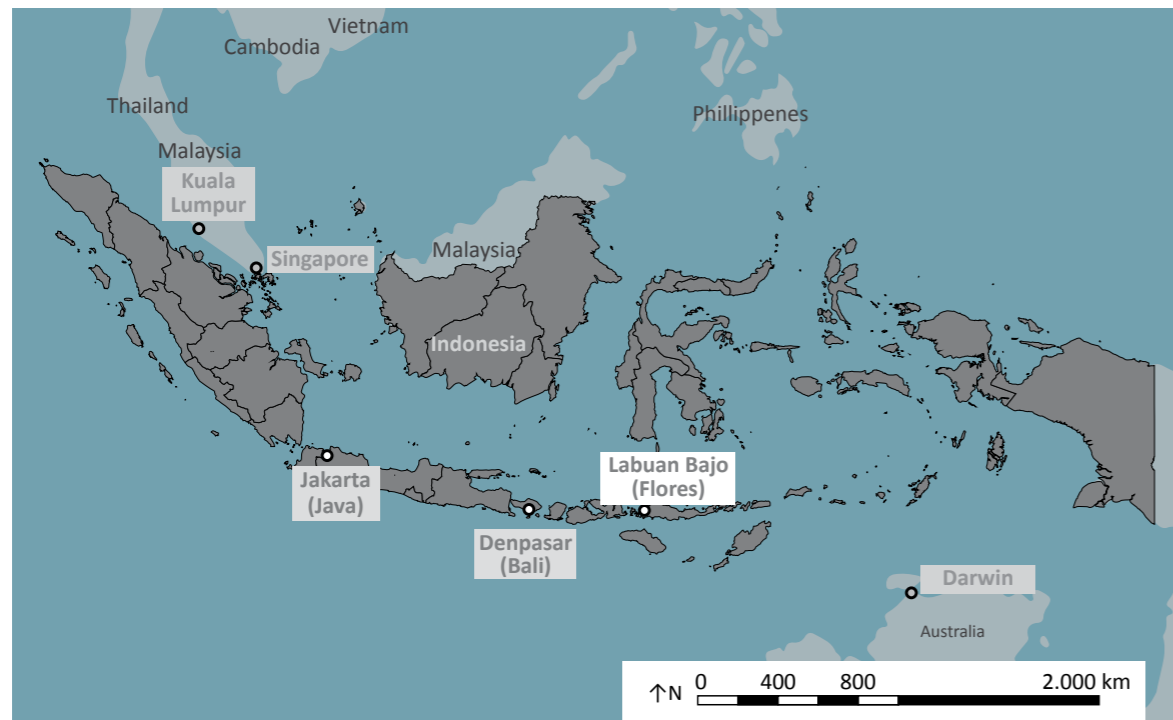


figure nr. 1: Map of Indonesia and its surroundings, location of Labuan Bajo¹

In 2018 15.81 million foreign tourists visited Indonesia². The government aims to attract 20 million tourists by 2019³. Many areas are facing mass tourism (e.g. Bali, which claims a third of all visitors), which is rapidly growing, while others do not develop at all. Even though tourists bring money to new destinations, it does not end up where it is needed and the local community as well as the nature suffers from its impacts. Because Bali is overloaded with visitors, the government of Indonesia wants to offer ten more comparable destinations - the policy is called “10 Bali Baru”. One of them is the region around Flores with the UNESCO world heritage Komodo.⁴

Flores is about 14,125 km² and is home to approximately 1.8 million people. It belongs to the province Nusa Tenggara Timur, which is an eastern region of Indonesia. Due to the Portuguese influence in the 16th century (this is where Flores got its name from) two thirds of the inhabitants are Christians (catholic and protestant).⁵ The economy of the region Nusa Tenggara Timur is characterized by the primary sector, more than 55% of all employed people work as fishermen or farmers. After jobs in the social sector the tourism industry employs 11% of all people in Nusa Tenggara Timur. Tourism is growing especially in the West of Flores, where the Komodo National Park is located.⁶

Labuan Bajo is a city in the district Manggarai Barat in Flores, an island East of Bali. It is one of the smaller towns of the island. However, it is the main tourist destination with the main airport located in the centre.

The new measures by the government lead to big changes in Flores. The uncontrolled growth especially of Labuan Bajo must be taken seriously. The population is not aware of what these rapid changes mean to their environment, locals are not included in the planning process - and there is hardly any planning. The investors take advantage of poor education and the poverty of the inhabitants. They buy land along the beaches and fishermen lose their access to the sea, which is their main source of income. Numerous hotels are being built although the supply of water and electricity for the locals as well as for the tourists is not ensured. Surely the population will suffer by droughts and climate changes more than tourists. Other than the limited water resource inhabitants fear the loss of agricultural land and forest, environmental issues (there is no working recycle management in most parts of Indonesia) as well as the loss of Flores identity due to extraordinary influence of tourists and the adoption of the “western life style”. A large proportion of foreigners does not adapt to the culture and does not respect local rules. Another threat is the rising numbers of visitors at the Komodo National Park. It has already reached its limit of tolerated visitors, but the government of Indonesia still promotes it and wants to maximize the profit.⁷

1.2. RESEARCH QUESTIONS

This master thesis will deal with different aspects of tourism. The aim is to broaden the understanding for tourism and its implications and consequences for Labuan Bajo.

What does the framework of spatial development in Indonesia look like?

- » How was spatial planning handled in the past?
- » Which instruments are put into place to ensure sustainable development?

What is the definition of the concept “tourism”?

- » Is there a delimitation to other terms? Are there dependencies to other systems?
- » What elements and flows exist in the system “tourism”?
- » How did tourism develop in Indonesia?

What is sustainable development?

- » How did the term “sustainability” develop?
- » Are there any indicators to measure sustainable development?

How has tourism affected Labuan Bajo so far?

- » What economic sectors are affected?
- » What advantages and disadvantages does tourism have on Labuan Bajo?

How will Labuan Bajo develop in the future?

- » Are there guidelines available which Labuan Bajo can follow?
- » What impact do these guidelines have on Labuan Bajo?

How can Labuan Bajo be more sustainable?

- » Which measures need to be developed to cope with upcoming challenges?

1 Figure nr. 1: own elaboration, based on Google Maps, Bing Maps and Snazzy maps
2 The Jakarta Post (2019, a):
3 Trading Economics 2018
4 CNN Indonesia (2017)
5 RIJAMO Flores Indonesia Tours & Travel Services (online)
6 Badan Pusat Statistik (2017, a)

7 EcoFlores (2015: 11)

1.3. AIM OF THE MASTER THESIS

The challenges, which arise with the definition of the ten priority destinations by the central government of Indonesia, aroused the interest of a wide range of researchers. Until now, studies have only dealt with the impact this strategy has on the different regions. By visiting Labuan Bajo and its surroundings interviews with locals draw a different impression of what the inhabitants need. With the communities and NGOs on-site an analysis has been made and resulted in two possible scenarios regarding the future development of Labuan Bajo. At the end a master plan will be developed with measures to create tourism development which does not harm the population or the nature, but rather uses the potential of the region. After finishing the thesis, a copy shall be sent to different stakeholders and authorities in Labuan Bajo to support those who are active in tourism and spatial planning by providing a clear analyses of opportunities and challenges as well as giving them ideas how to orchestrate development. Specific objectives have been identified and measures are set up with mentioning the person, organisation or authority who has the power and expertise to put them into practice.

1.4. COMPOSITION AND STRUCTURE OF THIS MASTER THESIS

The first chapter consists of a short overview over the problem statement, the upcoming research questions and the structure of this thesis. It summarizes what can be expected of this document and which aspects it covers.

The applied methods are described in the second chapter. The pre-investigation, which took place before visiting the area, was made by remote sensing and literature research. BPS, the national statistic provider, publishes data about a large variety of topics in Manggarai Barat, the district of Labuan Bajo. The statistics were used to verify statements from surveys and conducted interviews. On site interviews and investigations were carried out. Schönwandts “solving complex problems” elucidates how problems and challenges can be identified by determining the cause of them. His declarations were also applied to the development of the objectives and measures of the master plan.

The chapter “theoretical framework” outlines the basic theories which were required to write this thesis. Decision making theories and approaches of regional policies help to understand the basics of the current situation and how it has emerged. An essential content is the system theory. It is needed to differentiate tourism from similar appearances. The chapter about spatial planning describes the development of spatial planning and how it is handled these days. The “10 Bali Baru” is the driver of the development in Labuan Bajo. The objective and its measures are outlined below. The heart of the thesis are the nine indicators for sustainable development, which are further used to summarize the analyses of Labuan Bajo and the form the objectives of the master plan.

With the methodology and theories described earlier, the research area was analysed from various views. Literature was compiled to get an overview over the current situation and how its affected by tourism. It is built up on the three pillars of sustainability and furthermore combined with the nine indicators of sustainable development. Swisscontact published an assessment survey of Labuan Bajo in 2016. Together with own investigations and the BPS the basis of the analyses was formed.

After mentioning the most important challenges that have been shaped through tourism, two scenarios are developed to visualize the two paths Labuan Bajo may follow. By continuing the current trend and reaching the national goal of 500.000 visitors in Komodo National Park, the region will soon transform into a destination of mass tourism. The opposite, e.g. a reduction of the number of arrivals until there is no tourism at all, is visualized next. To avoid both scenarios, a master plan was developed, following the nine objectives for sustainable development. The creation of measures to encourage compatible tourism, from which society, environment and economy can benefit in equal parts, forms the objective of this chapter.

At the end the conclusio gives a short overview over the main findings and the answers to all research questions. Last but not least further topics are mentioned which can serve as starting points for further surveys or master theses. The “lesson learned” chapter is a personal review about the process of writing this master thesis.

2. METHODS

This chapter deals with the methods which have been used for analyses and theoretical background. Research had taken place before the on-site visit, the area had been analysed by remote sensing and literature research as well as interviews with experts in tourism development in Labuan Bajo. On-site interviews and observations were conducted afterwards. Schönwandts “Solving complex problems” was used as a basis for identifying challenges and developing measures within the master plan.

2.1. REMOTE SENSING

Since the elaboration of the master thesis started without actually knowing the area on-site, other ways needed to be found to generate an impression of the investigated area. One of the main methods in spatial planning is the remote sensing, where pictures of satellites, drones and airplanes are analysed and used as a basis for further research. The first step is to read different maps, scientific ones but also tourist maps which are drawn up by travellers themselves, locals and tourist operators. This gives a good impression of important sights and infrastructure in the area. Aerial photographs can be found on “Google” or “Bing Maps” and give an insight on local building structures, density, urban sprawl and the town centre with cumulative infrastructure. Different neighbourhoods will be analysed beforehand and the tourism facilities will indicate the focus of the neighbourhoods.

To process information which can be used for the research, GIS-data will be required. Geodata can be found online in various levels of quality⁸. With “Overpass-Turbo” data can be downloaded from OpenStreetMap, which is a good basis for spatial queries. To process the data in greater detail, geographic information will be combined with statistical data to enable statements about the province Nusa Tenggara Timur.

An additional method which was used in this thesis is called “SimLab”, the “Interdisciplinary Centre for Spatial Simulation and Modelling” at the TU Vienna. It is comparable to the analysis of aerial photographs, but creates a different outcome to the researcher. It works with google maps and its street view, by using 3D-glasses the researcher “dives” into the examination area.

⁸ Berbagidata (online)

This allows the investigator to walk around and observe the area without actually being there. After comparing it to the experience of actually walking around in an Indonesian touristic town, where westerners are often seen as consumers, it enables someone to watch the street life without being seen. While this method opens up different vistas on the research area, it does not replace the investigation on-site.

2.2. LITERATURE AND ONLINE RESEARCH

The first step in this thesis was to analyse the phenomena tourism and its impact on spatial aspects. Scientific research about tourism has established in the 1990's, when tourism became a commonly experienced phenomenon and scientists published a high variety of studies focusing on the different aspects of sustainability and tourism. Based on these theories contemporary scientists have applied these approaches and compared it to present issues. Thomas Bieger for example is a recognized scientist in the tourism field, his approach was used to explain the system "tourism" and its interdependencies.

Another important source was the publications of Swisscontact, a Swiss NGO which has established sustainable tourism in Flores by involving the local community and empowering them to be part of the development. A survey was made to evaluate what impact tourism has on the local conditions.

To develop a long-term strategy for settlement development and its related issues, it is necessary to talk about "sustainability". To ingrain the measures, the term "sustainability" has to be defined. Therefore scientific releases from Stephen Wheeler will be used to describe the main contents of sustainable development.

Since Flores is a well-known destination which struggles with very rapid change, many authors picked up the issue and did research on it. Stroma Cole is a senior lecturer at the University of West England (UWE) and published several studies about tourism and water inequality in Labuan Bajo, Flores. Her work will be used to explain the situation on-site as well as its history.

2.3. ANALYSIS OF STATISTICAL DATA

The national statistical office of Indonesia (BPS) provides an online service where all statistical data can be examined and downloaded. Since they are the originator of the data which was used in other scientific papers, I chose this source to be the foundation for survey of Flores. Due to its limitation to time frames and geographical completeness, other informants will proof necessary in different parts. Since Swisscontact, ... also gathered information about the island, their survey will be used additionally to create a comprehensive picture of Labuan Bajo and the region around it. To guarantee the correctness of the facts and numbers different sources will be taken into consideration.

2.4. INTERVIEWS

Interviews will provide knowledge about existing concepts on sustainable tourism, international good practice examples, the current situation in Flores, the local culture, resources on the island and their limits.

Interviews will be conducted with experts about sustainable development and Flores, including Ulrike Herbig (expert in architecture across Indonesia) and Nina van Toulon (accommodation owner in Flores, active in sustainable development and founder of "EcoFlores"), as well as with other NGOs which are active in Labuan Bajo. Target groups for on-site will be entrepreneurs and employees who operate in the tourism sector, NGOs and other organisations, tourists, politics and decision-makers as well as local communities. With this pool of stakeholder there will be a wide range of knowledge collected to form the basis of this master thesis.

Interviews only offer qualitative aspects. Quantitative data is provided, cited in chapter 2.3. "analyses of statistical data". Qualitative interviews will be mostly one-on-one interview. There is no questionnaire, the questioned person leads the interview but the interviewer indicates a direction.

Content of the interviews will be social and cultural components, impacts of touristic development on a general as well as individual level. This will support the understanding and interpretation of the statistics.

Different types of interviews were be conducted:⁹ Types of interviews will be focused, problem-centred and narrative interviews. For the first type a photomontage was created which shows possible developments of Labuan Bajo to start the conservation. Interviewed stakeholder are NGOs, local communities and employees of businesses in the tourism sector.

The problem-centred interview was applied to talk about specific challenges which raised with tourism. Interviews were held with NGOs who are aware of the problem and know the effect it can have. Some interviews with locals were started with the subject of mass tourism first, but mostly they do not see the current changes as an issue itself so a narrative interview was continued. Questions for the department of spatial planning concerned the settlement structure and its transformation, the future supply of water (which is the most claimed issue among locals), the policies for future development and which instruments there are to guide it. NGOs (described in chapter "4.2.3. Identified stakeholder in tourism") were asked about their measures to implement sustainable tourism, threats of mass tourism for Labuan Bajo, their cooperation with other stakeholder and involvement of local communities.

A narrative interview was chosen to gain another point of view, especially at the beginning of the visit on-site. The questioned person was not influenced by specific questions nor interrupted during their answer. This method was used to verify knowledge which had been obtained by prior research. It was applied to people who worked in the tourism sector and local communities.

⁹ Lecture: Methoden der empirischen Sozialforschung, lecturer: Kogler (2015, a), based on: Flick, Uwe 2011

2.5. OBSERVATIONAL RESEARCH

Friedrich¹⁰ distinguishes between different types of observations.

Due to the authors obvious appearance as an European tourist, a hidden observation was impossible. The role as a student and researcher was disclosed during interviews but was not shown during touristic activities. Depending on the location a hidden observation was easier or more difficult, differing on the occasion of the observer as participant or participant as observer. During touristic activities the author was a complete participant. The behaviour of tourists as well as the contact with locals and their social interactions was observed non-participating and - as far as possible - covered.

The aim was to verify statements by other researchers (in dissertations or master thesis as well as public surveys - like the report by Swisscontact) as well as findings from conducted interviews. The settings were touristic sights on one hand and local meeting points on the other hand.

To achieve a high diversity of locations, open, half open and private spaces where defined. Jalan Soekarno Hatta was an open scene which is usually very crowded at all times of the day, Pantai Pede, where locals and tourists enjoy the last public beach and the harbour area. Half-open scenes included cafés, private hotel beaches which were accessible due to the match in the target group - locals were often excluded from these private properties - and other hotel areas. To gain an insight on locals daily life families were visited in their homes.

2.6. ANALYSIS OF CHALLENGES AND RESOLVING PROBLEMS

Strengths, weaknesses, potentials and threats are hard to spot in Labuan Bajo, since the city is changing rapidly and unregulated. Within this thesis issues and threats have to be identified, to use the strengths and potentials to guarantee a sustainable development. The methods of Schönwandt's "Solving complex problems" will be described here and applied to create objectives and measures. This source has been chosen because Labuan Bajo is affected by many different challenges which are not easy to identify. Schönwandt describes four indicators for a complex problem: It needs to be influenced by many factor, transparency is low and therefore identification is difficult, it has many cross linkages with other problems and there is a large variety of goals.¹¹ All these four indicators can be applied on Labuan Bajo and are part of this thesis.

Firstly the aim of a measure needs to be specified. What is the greater use of an action that is been taken? After identifying indicators for sustainable development, which shall be reached in order to guarantee a compatible growth. The reason why the situation is not sufficient yet needs to be found. Schönwandt uses this formula:

$$\gg P = A [-] \gg M [?] \gg B [+]$$

The problem "P" exists, because "A" is not sufficient, with the measure "M" the ideal state "B" can be reached. Seldomly there is not just a singular cause of problems, mostly there is a complex structure responsible for how things are.¹² If the cause is not clear, policies might go in

¹⁰ Lecture: Methoden der empirischen Sozialforschung, lecturer: Kogler (2015, b), based on: Friedrichs (1973: 272f)

¹¹ Schönwandt et al (2013: 22)

¹² Schönwandt et al (2013: 43 et seq.)

the wrong direction and do not remove the source of the problem. This is induced by a missing correlation to simultaneously occurring events. There are causal relationships and they have to be identified to solve problems. Therefore all issues which are responsible for the insufficient state of A need to be found.

$$\gg P = A [-] \gg M [?] \gg B [-]$$

M needs to be identified to find the reason why A is not sufficient and the state B is the current status. By developing the measures different aspects are relevant: economic, social, political-administrative, ecological and spatial structures shall be taken into account.

An example for the identification of issues and the measure which shall resolve is the current rush for Komodo. Komodo is currently not in a healthy environmental state [P], it is threatened by the rising number of tourists [A-]. This trend might occur because of the rising offers the island has [B-] and affects the natural heritage immensely. The number of visitors is growing because many investors finance hotels in Labuan Bajo and the supply of accommodation and activities is increasing [B-]. Hotels are built because the locals sell their land [B-]. Locals sell their land because in need of additional income [B-]. Locals need the money because they are not well off and their income from fishing is much lower than they earn by selling their land [B-].

To solve this problem, locals took the measure to sell their land. The target was to contribute to the local living conditions [B+], which were insufficient not too long ago. By selling land [M] the beneficiaries are the hotel owners which are most likely from abroad. Was [M] (sale of land) the right measure to reach the aim in the long-term (improvement of living conditions)?

To identify the problem, stakeholders and important players in Labuan Bajo have to be determined. Who is suffering by a insufficient state of A? Values might differ between parties. A foreigner who moved to Labuan Bajo because of its unspoiled nature years ago might have another perspective on the current development than a local who did not know how to feed his family 10 years ago. The desired state will always lead to conflicting objectives as well. Sustainable tourism might be good for the nature and some economic sectors, but means less profit for the tourist operators.¹³

3. THEORETICAL FRAMEWORK

Before diving into the analysis of Labuan Bajo, the theoretical framework needs to be formed. This involves theories about how decisions are made and the explanation of regional capital and different approaches of policies as well as the "system theory" which is applied to delimit tourism from other activities, but also to identify touristic elements and their relation to other systems. Ensuing the development of tourism in Indonesia is outlined.

The system of spatial planning is described to learn about instruments of strategic planning but also look at its development over the last century. The driver of the current economic growth of Labuan Bajo has its roots in the definition of "10 Bali Baru" - 10 priority destinations which shall be developed for mass tourism. To create guidelines for sustainable development literature was scanned. Steven Wheelers "9 indicators for sustainable development" are the basis of the master plan and are depicted in this chapter.

¹³ Schönwandt et al (2013, 25 et seq)

3.1. DECISION MAKING PROCESSES

In decision making processes a widely accepted consensus needs to be found. To do so, participation of all groups of society is inevitable. In Indonesia a strict hierarchical thinking is predominant in political spheres. The planning system is characterized by a top-down approach. This leads to an exclusion of the directly affected population and making it impossible to influence local conditions.

To understand the planning approach of the authorities who are responsible for spatial planning, the three ways of decision making shall be outlined:¹⁴

- » *Hierarchical structures follow a top down approach, which put policies into practice created by government and administration. It is a very unilateral approach. Sanctions follow in the event of non-compliance. On the upside there are very low legal costs, but the question of rationality of decisions occurs. Threats are corruption and a low acceptance in democratic structures by the population.*
- » *Majority decisions have low legal costs and the decision making process underlies a high transparency. There are clear rules, every vote is equivalent. Contrary, the manipulation by experts can be high, it is difficult to control the media and therefore the generation of knowledge might be influenced by populist parties. The different groups of the population are not taken into consideration – a minority might never enforce their ideas. Innovative, little known policies are hard to implement. There is a risk of finding the lowest common denominator rather than the policy with the biggest impact.*
- » *Consensus decisions (consensus democracy) are approved by every member of the group. There is a high legitimisation effect but also high legal costs. The right of a veto might lead to a block of the project by a single person. The risk of a compromise is also given here.*

Apriana Fanggidae did research on tourism development in West Manggarai and described a method of including locals in the process. CBT - community based tourism was applied by Swisscontact and other NGOs. He indicated three aims which shall be achieved through CBT: »1) empowering citizens; 2) enhance the role and participation in the development of tourism in order to benefit from the economic, social and cultural sustainability of Natural Resources and Environment; 3) provide equal opportunity to all members of society.«¹⁵

3.2. REGIONAL POLICIES TO DRIVE DEVELOPMENT

During the education at TU Vienna two main strategies about regional development have been described in several lectures¹⁶. The Keynesian and the Neoclassic theory analyse how development is driven in regions and how to support progress, if it can be supported at all.

The Neoclassic theory assumes a market mechanism balance effect between different regions. This market mechanism effectuates a movement of factors of production like workforces and capital. The role of the government is to provide infrastructure to guarantee mobility for goods and workforces, but otherwise letting the market develop by itself. The main aspects of a functioning market is to reduce barriers, ensure transparency, which means information shall be accessible and comprehensible. Legal certainty and protection of open competition need to be regulated.¹⁷

¹⁴ Lecture: Raumplanungspolitik, TU Vienna, lecturer: Hamedinger, based on: Eberlein, Burkhard & Grande, Edgar (2003: 175-202)

¹⁵ Fanggidae, Apriana H. J. (2017)

¹⁶ Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018)

¹⁷ Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018)

The Keynesian theory is based on the polarisation theory of Myrdal and believes in a cumulative growth and a degeneration process. The government needs to support rural areas which are often disadvantaged compared to well connected cities. The local production factors need to be improved to balance the development impulses within stronger and weaker regions. This can be transfer of knowledge and technology, development of complementary industries which are needed or the improvement of local conditions like education.¹⁸

To develop a region, two different approaches can be accepted: Using the USP (Unique Selling Proposition) of a region to boost the local economy and establish a regional cycle where different sectors can benefit of, or pull external drivers to develop a region. These two types are called exogenous and endogenous strategies.¹⁹

The exogenous strategy can be applied to every type of region but is not linked with the local potentials. Examples of this would be the establishment of export-oriented industries, where external investors bring money into the region which attracts qualified workforces. Tourism can also be an exogenous strategy, if no existing potentials lead to the development, for example the gambling industry in Las Vegas. The advantages are a quick growth of the economy, creation of jobs, internationalisation due to external investors, improvement of image. Disadvantages are a dominance of few sectors, which are not drivers for other sectors. These businesses have no bond to the region, also the workforces which settle down due to the job opportunities have a low identification with the region. Other negative aspects include budgetary sensitivities to the economic cycle, low multiplier effect since networks do not need to be built, little cooperation between businesses. Decisions are being made outside of the region, usually only low influence by local stakeholders.²⁰

The endogenous strategy makes use of the full potential of the region. Therefore no external investors are needed and an independent development is desired. The territorial capital is the asset every region has to offer. Location factors like geographical location, soil resources, accessibility, climate conditions, factor of production endowment, local workforces, living quality, traditions, willingness of cooperation, local institutions, law, networks, creativity and innovation, local market, competition; differentiation of other regions, USP can be potentials. The OECD explains the territorial capital as follows: It is regarded as a distinct bundle of components which attracts investments and makes the return of certain investments higher than in other regions²¹ This approach requires engaged locals who want to develop the region they live in rather than generate external interest to invest in the region. In comparison to the exogenous approach, several sectors benefit because local businesses build networks and obtain their resources from businesses in the area, a cooperation between pre-production and similar branches occurs, different local stakeholder are involved. The objective of improving the economical situation is to increase the local living quality rather than maximizing the net product. Advantages of endogenous strategies are low dependencies on external factors, the benefit for many sectors from economic growth rather than only one and a high bond to the location: the industry can not move elsewhere. Beside that, the main disadvantage of endogenous strategies is the slow progress compared to the endogenous approach. At first the benefit is hardly visible, it is a long process and it takes more resources to spot local potentials and develop them.²²

¹⁸ Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018)

¹⁹ Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018)

²⁰ Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018)

²¹ Lecture: Raumplanungspolitik (2019); lecturer: Giffinger, based on: OECD (2001:15 et seq.)

²² Lecture: Wirtschaftliche Entwicklung in ländlich-peripheren Regionen; lecturer: Kramar (2018), based on (Stör 1981, Brugger 1985, Hahne 1985)

3.3. DECLARATION OF THE CONCEPT "TOURISM"

3.3.1. SYSTEM THEORY

» Systems are a organized entirety of elements, where relations exist or develop.«²³ The world contains of complex systems which interact with each other but are mostly autonomous. The introduction of the system theory is essential in spatial planning: Every intervention to solve a specific problem impacts another field or area. The objective of the system theory is to describe complex connections and their dependencies.

Bieger, who is a recognized researcher in tourism theory defines three criteria how to delimit a system from others:²⁴

- » two or more elements which may be assigned to different types (for example: employee and employer) which may form another system from a different perspective
- » these elements have to be connected in some kind of way and interact with each other frequently another characteristic is the complementarity of the systems elements. This means, every elements has a connection with every other element.

To differentiate a system from others Giddens uses the constructivism theory which presumes a subjectivity of a delimitation. This means that no researcher can define a general boundary of a system. An example is the structuration theory by Giddens, who says that every institution or network, is not guided by regulations but a summary of the act by every individual. This means, active player comply with the structure but through their acting they also form and change the structure.²⁵

The positivism is applied at the theory of transaction by Williamson²⁶ which analyses the connection of two elements by their intensity, which occur based on the costs. These connections are more likely to be used and strengthened, when the expenses are low.

Modern interpretations of system theory do not presume a system is stable and have reached their state of equilibrium, but focus more on the elements and flows which get them in imbalance. Systems change if new elements occur, for example through technological progress or the development of new markets. Also the connections and their intensity can vary, as well as they can disappear. Through this changes subsystems can form other networks or collapse into single elements. New systems can be formed. With this new dimension systems are looked at, also time is a relevant factor.²⁷

3.3.2. "TOURISM" AS A SYSTEM

Tourism is an interdisciplinary field and therefore has many complex relations to other elements. Analysing an element means that it has to be examined with all its subsystems – such as infrastructure development, cultural change, labour market, the environmental conditions, etc. – to understand the whole complexity. Therefore it is defined as "open system" where elements, connections and their intensity change. The changes of the system become visible by analysing the development of tourism over time. Globalisation has an immense impact on local conditions and therefore classifies tourism as a dynamic system.

²³ Ulrich 1968, 105, in Bieger, Thomas (2006:67)

²⁴ Bieger, Thomas (2006: 68)

²⁵ Bieger, Thomas (2006: 77)

²⁶ Bieger, Thomas (2006: 77)

²⁷ Bieger, Thomas (2006: 74)

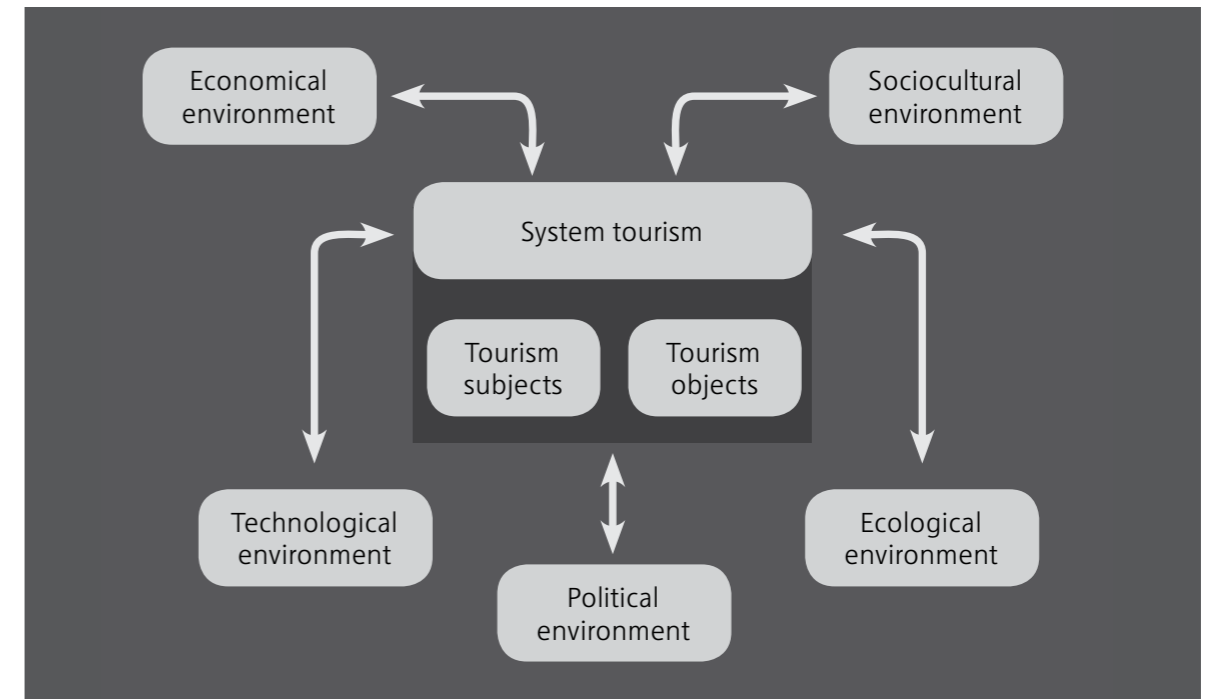


figure nr. 2: System theory by Kaspar 1996²⁸

Tourism has many relations to other systems, as shown above. Within it there are subsystems which have relations among each other. Tourism subjects can be travellers, objects are organisations and institutions of tourism, like tourism operators and accommodation providers. The destination itself is a subsystem of tourism objects. These subsystems correlate with their economical, sociocultural, technological, political and ecological environment. This is one of many models, created by Kaspar in 1996. Other models vary depending on their focus and objectives. This is a economic approach which analyses the correlations between economical elements. Leiper for example developed a model by looking into the geographical elements of a system. He differentiates between the origin of travellers, defines "places of passage", major destinations of tourism and their effects.²⁹

Applying the structuration theory on tourism results in the analyses of tourism organisations/institutions which are characterized through socioeconomic structures also impact the development of a destination and their socioeconomic structures.³⁰ The theory of transaction can be applied on the intensity of the connections between the previous named elements. If the government eases the market entry and the formal regulations, it will support external elements to be part of the system and intensify their relation to its elements.

3.3.2.1. SYSTEM SUBJECTS: TOURISTS

To identify different groups of tourism the purpose of traveling and their organization have to be combined. The academic literature often mixes those two types, in this thesis the type organisation shall be analysed and what kind of characteristics it brings with it. Since Labuan Bajo is primary a destination for Australian and European travellers, there will be a focus on

²⁸ Figure nr. 2: Bieger, Thomas (2006: 68)

²⁹ Bieger, Thomas (2006: 68-69)

³⁰ Bieger, Thomas (2006: 77)

outbound tourism. Inbound tourism is a currently developing sector and thus may be part of perspective research.

Bieger³¹ identifies eight different purposes of traveling: *leisure, relaxing, holiday, relatives and friends, business trips, health trip (rehab), religious trips, pilgrimage* and others which cannot be allocated to one type.

The United Nation World Tourism Organisation “UNWTO”³² classifies tourism in 14 different types: *Cultural Tourism, Ecotourism, Rural Tourism, Adventure Tourism, Health Tourism, Wellness Tourism, Medical Tourism, Business Tourism (related to the Meetings Industry), Gastronomy Tourism, Coastal, Maritime and Inland Water Tourism, Urban / City Tourism, Mountain Tourism, Education Tourism, Sports Tourism.*

Philipp Tingler’s published an article at Die Welt, a German newspaper, about different groups of tourism. He classifies five types of tourists: the package tourist, the business tourist, the adventurous type, the luxury one and the average person (who switches inbetween groups).³³

A more scientific classification was made by Konrad Götz and Barbara Birzle-Harder³⁴, both lecturers at the institute of social-ecological science (ISOE) in Frankfurt am Main. They published a study with more than 2.000 participants and developed the 7-type-solution, resulting in outcomes: *nature and outdoor, the “loyal traditionalists”, demanding culture tourist, family holiday, sun and beach package tour, young and fun adventurous and the unconventional explorer.* In their study the sun and beach package tourist and the “loyal traditionalist” were the most common ones.

Why?	How?
Why does somebody travel? (inner characteristics)	How is the trip organized? (outer characteristics)
content (business, visiting, education, holiday, sextourism, wellness and health, ...)	duration of travel (daytrip, holiday, long- or short-term-journey)
motive of traveling (recreation, adventour, self-realisation, exploring, work, ...)	date of travel (main or mid season, public holidays, ...)
destination (long- or short distance travel, mountains, landscape, water, cities, culture, ...)	means of transportation (plane, train, car, motorbike, ship, ferry, sailboat, bicycle)
	organisation of travel (package tour, individual)
	type of participant (children, teenager, pensioner, family, group, young adult, couple)

Table nr. 1.: Characteristics of travellers according to Bütow³⁵

31 Bieger, Thomas (2006: 55)
 32 UNWTO (2013: 18-46)
 33 Tingler, Philipp (2011)
 34 Birze-Harder, Götz (2004)
 35 Table nr. 1: Bütow (20016) in Berg,Eisenstein, Gardini, Kristges, Schulz (2014):5

3.3.2.2. SYSTEM OBJECTS: TOURISM DESTINATIONS

To develop a tourist destination, basic conditions have prevail to attract the interest of foreign visitors. To maintain those elements is a key asset to enable sustainable tourism. According to the UNWTO the destination development has to integrate in particular: attractions, amenities, accessibility, image, human resources and price.³⁶

Attractions can be natural as in landscapes, views, sights which offer an enjoyable experience in the nature once required its positive nature. Built sights are an original obtained historical town centre, cultural monuments, religious buildings, conference and sports facilities. Activities such as museum visits, guided city tours, business visits and other man-made attractions are some example for built attractions. Festivals, events, history, arts and crafts, events and performances, people, cuisine rank among cultural sights. Activities such as attending festivals, cooking classes, art schools, shopping for arts and crafts, as well as historic tours can be attended. A guarantee for the success of these three attractions is their USP (Unique Selling Proposition), hardly found at other destinations.

Besides the endogenous potentials (see chapter: 3.2. Regional policies to drive development) a destination has to offer, it also needs other instruments to attract visitors and investors:³⁷

Amenities & Accessibility: To increase the demand of visitors, accessibility is required. This involves the transportation to reach the region as well as the mobility on-site. The time it takes to get to a destination also influences the frequency and duration of stays, ways to get somewhere include air, sea or land and how well they are interconnected. The requirements of visa are also crucial to the accessibility of a destination. On-site the road network, public transport and the information of how to get around matter. Available information about the attractions, touristic sights, networks, tourism operators and guides also play an important role in the amenities of a destination.

Image and price: The frequently mentioned USP of a destination which stands out among the competition and its marketing and promotion contributes to the success of a label. The image of a region may be linked to its intact nature, or a purpose of travelling. Where some types of tourists would seek spots with a stunning nature, others prefer cultural aspects or a city with a wide known nightlife. The price-performance ratio for the offerings and the price level needs to match. The less the price is for accommodation, the lower are their expectation and therefore the chance for frustration. Western tourists often travel to foreign countries and expect the same level of comfort in the style of their country of origin.

Human resources: With a growing economy local conditions change. In many underdeveloped regions high qualified jobs are hardly available, people self-support and grow their own food. In many cases their formal educational level is low and their contact with people from other social classes or even countries is non-existent. The improvement of accessibility allows visitors to visit more remote regions with the expectations of keeping their usual standards. Employees have to meet their needs, this implies the reduction of language barriers, reliability and responsibility, service skills and so on. Employees have to undergo a vocational training to keep up with international competition.

36 UNWTO (2007)
 37 UNWTO. (2007)

3.3.3. DELIMITATION OF THE TERM "TOURISM"

The aspects of tourism have different dimensions, depending on which level its being analysed. Conditionally the network and connections to other systems change. Berg³⁸ differs between the normal, real and universal definition.

- » *normal definition: separation between traveling and living*
- » *real definition: economical effects of tourism*
- » *universal definition: every impact and effect of tourism (types, form of appearance, characteristics) with effect on economical, social, political and ecological situation*

In this thesis the universal definition will be used to identify all kinds of impacts tourism can have. According to Bieger³⁹, touristic activities are all activities and relations which are resulting from a temporary and not permanent stay of a person. The UNWTO, which is cited by Bieger, defines tourism as every person who is visiting another country other than their place of primary residence for any reason other than employment, the organisation differentiates between a tourist and a day tripper. Since Labuan Bajo is located on the island Flores, expenses are too high, most visitors stay for at least one night and a separation is therefore not needed.⁴⁰ Differentiation between visitors and inhabitant takes place through the duration of the stay.

The parties, which are active in tourism or influenced by tourism, depending on the perspective where tourism is being separated from other sectors:⁴¹

- » *classic tourism industry: every typical linkage between tourism and other sectors (airlines, tour operators, accommodation, ...)*
- » *additional tourism industry: typical products for tourism (travel guides, textile industry, equipment...)*
- » *touristic fringe industry: other products/services, which are not only consumed by tourists but can be effected by those (massage, ...) in the literature there are only products named, which are directly influence by tourism, but there are many sectors which benefit from tourism but not consumed directly by tourists: for example farmers, construction sector,*

Tourism is one of the most efficient ways to boost the economy. Tourism does not only improve the employment rate in the gastronomy and accommodation sector but is furthermore a driver for the other industries. The influence by other cultures impacts social structures as well. Overall tourism is believed to be an appropriate sector to enhance the living conditions. Swisscontact⁴² calls four indicators of the economical effect of tourism: public profits, private businesses, employment and infrastructure. Investments are expected to create new jobs, to drive industry growth and to increase the domestic product. What spill-overs can be expected in Labuan Bajo and who is the profiteer of the rising wealth needs to be answered in this thesis.

3.3.4. EFFECTS ON LOCAL CONDITIONS

Economical development which occurs with rising visitor numbers has an impact on local conditions. These can be positive or negative and shall be examined in this thesis. Berg differentiates between direct and indirect effects as well as positive and negative balance effects.⁴³ A direct impact on the economy is everything which is visible at first sight. This means all goods

38 Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 3-5)

39 Bieger, Thomas (2006: 68)

40 Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 35)

41 Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 3 - 5)

42 Remmer, Stefanie (2016: 9)

43 Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 167)

which are directly produced for tourism and consumed directly by tourists. Work places in the secondary sector (service sector) are established to provide services for tourists, industries are for example accommodation and gastronomy sector but also tour operators. The employment rises and its measurable on the income employees receive. Indirect effects would be the growing demand of goods and services due to the improving wealth. This occurs due to increasing job opportunities and a rising income and means the money is spent again within the regional economic cycle and other sectors benefit from the development as well. The indirect effects occur after a longer period and are the desired outcome of a growing economy.

Rising tourism will have a positive impact on local condition. Regional disparities will be reduced, since many players are taking part within the development. Tourists who are located in the centre of the region take tours to periphery regions, or consumed goods are produced in the surroundings of the hotspots. Rising job opportunities as well as increasing salaries improve the living standards. The previous described other economical sectors, which are not directly influenced by tourism, gain importance and a diversity of different fields occurs. Besides the economical sector, also the infrastructure improves. Either because it is needed for supply of tourists or because more income is generated and money can be spend to improve the local conditions. After all these elements also impact the image of a region. Often visited areas are known beyond the region.

Authorities need to be aware of negative balance effects which occur, they need to provide solutions for rising challenges. Firstly the improvement of the image and the rising number of visitors shall not affect the environmental and social conditions. Pollution is an often mentioned issue which comes with a rising number of users and affects the natural ecology of a region. To reach balance effects within a region, the focus must not limited to one area, other destinations have to be supported as well. If only one place is developed, the pressure on limited resources will rise. Another threat is the season variety many holiday destinations face. This is owed to the origin of the tourists, which are more likely to travel in their holiday season, but also to dry and rain season which characterizes the weather in Indonesia. Vacancies are therefore only filled during high season, but there are less jobs in low season. With the opening of a system, also the interest of foreign investors is raised, who bring expertise due to their long turn experience, which makes it hard to compete for local businesses.

By developing a priority destinations for tourism these factors need to be clear and strategies shall be developed beforehand to face these challenges.

3.3.5. DEVELOPMENT OF TOURISM IN INDONESIA

Tourism is a globally strong growing sector. A forecast by the UNWTO⁴⁴ claims an annual growth of 4.4% in the tourism sector until 2030. The greatest potential has Africa, Asia, the Pacific and the Middle East, where investors are developing new markets. When tourists started to explore Indonesia a small number of them began to travel to the villages in Flores in the 1980's. It did not take long until more people explored the remote island. In 1987 the inbound tourism of the whole country was 1 million and grew by 4 million people within 10 years. In this year tourism created 10.2% of all Indonesians exports.⁴⁵

44 Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 3-5)

45 WTO (1999) in Cole, S. (2008)

The previous described relations to other systems become clear when looking at the development of tourism in Indonesia. The political and sociocultural systems have a high impact on the number of visitors who come to Indonesia.

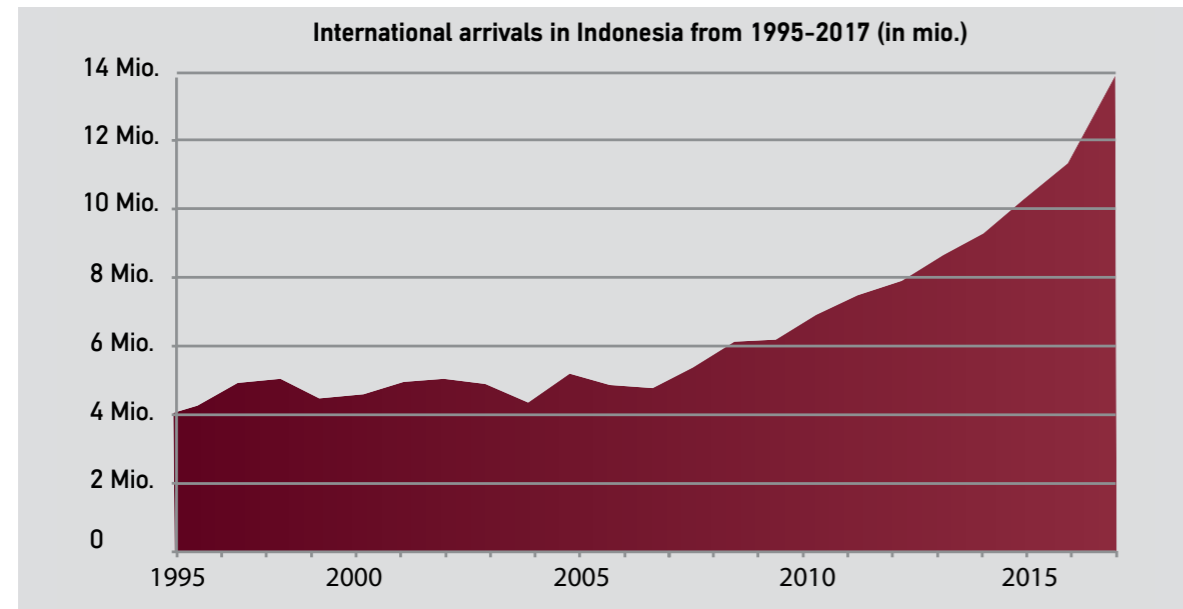


figure nr. 3: International arrivals in Indonesia from 1995-2017 ⁴⁶

International arrivals in Indonesia increased continually until 1997 when the Asian financial crises happened. The Indonesian Rupiah lost 45% of its value and this caused an immense price increase, which also affected the price level of rice, which ranks among the basic nutrition in Indonesia. This was responsible for a higher rate of poverty.⁴⁷ Nusa Tenggara Timur is among the poorest five regions in Indonesia, in 2011 about 24% were living below the national poverty line.⁴⁸ Due to the weak situation of the inhabitants riots began which caused another diminish of the total number of visitors.

Due to the political situation in Indonesia as well as the election for independence in East Timor and the following conflict many countries like New Zealand, UK, Australia and Japan published press releases to boycott Indonesia. Tour operators and tourists cancelled trips to specific parts Indonesia, even though the people there did not support the government either but were depending on the income from tourism. Bali for example was not affected as much as Flores, which was depending on the markets in the UK and Australia. Another event with a significant impact was the “Bali Bombings” in 2002. While 9/11 did not have a high impact on the tourism in Indonesia, even though it is the largest Muslim country in the world, the terror attack in Bali was devastating for the country. Compared to 9/11, where everybody was encouraged to visit New York and not to be scared by terrorists, the same countries advised their inhabitants not to visit Indonesia due to the high danger of terror attacks. Bed occupancy collapsed from 70% to 10% after the attack. The sales numbers declined by 71%, 31% of the children dropped out of school because their parents could not afford it anymore.⁴⁹

⁴⁶ Figure nr. 3: CEIC, in: Ollivaud and Haxton (2017)

⁴⁷ Cole, S. (2008)

⁴⁸ WFP (2013)

⁴⁹ Cole, S. (2008)

The terror attack at Christian churches in East Java in May 2018 caused numerous victims again and the Austrian ministry for foreign affairs raised the alert alarm from 1 to 2 and requested travellers to be cautious.⁵⁰

Another threat are diseases and viruses. The SARS-induced panic resulted in a 60% drop of arrivals in 2003 although it has never reached Bali or Flores, but it caused the biggest drop of tourism numbers due to panic caused by media. Rabies outbreak in Flores claimed 113 people's death but was never reported and therefore did not influence the number of visitors.⁵¹

From 1995-2007 the numbers of international arrivals remained stable. Since 2007 the amount of tourists has been increasing rapidly again, reaching 14 million arrivals in 2017. By the end of 2019 it is believed that more than 20 million people have chosen their holiday destination to be Indonesia. Until now the Chinese account for the highest share of nationalities who visit Indonesia.

OECD published a survey about the purpose of stay of tourists, which is mostly indicated with culture and nature tourism (95%). The largest share in “culture tourism” relates to “culinary/gastronomy or shopping” with 45% of all answers. People who visit Indonesia because of its nature enjoy ecotourism (45%) and marine tourism like diving an, surfing and snorkelling (35%).⁵²

⁵⁰ Bundesministerium für Europa, Integration und Äußeres (2018)

⁵¹ Cole, S. (2008)

⁵² Ollivaud and Haxton (2017: 7)

3.4. SPATIAL PLANNING IN INDONESIA

3.4.1. HISTORY OF SPATIAL PLANNING

The New Order regime, which existed during the term of president Suharto from 1967-1998 was characterized by steady economic growth and political stability – his authoritarian rule did not allow any other development. Instruments for strategic spatial planning existed already, but were only applied to specific cities or regions which were prioritized, like the agglomeration of Jakarta. Besides documents for spatial planning sectoral programs were created, for instance programs for tourism.⁵³ In November 1989 the government put together a coordinating team of national spatial planners (since the evaluation of regional plans revealed a lack of coordination of spatial planning within the country). The first law of spatial planning was ratified in 1992 with legal guidelines about the plan-making process, implementation of the plan and development control. The law 24/1992 supported the realization of spatial plans within all levels. Due to missing sanctions in the event of non-compliance the law did not work as intended. The hierarchical structures of the central government did not allow any independent development of specific regions anyway.⁵⁴ In 1992 the foundation of the hierarchy of spatial planning in the country was set, consisting of the national plan (RTRW), the regional plan (RTRW Propinsi), and the district spatial plans (RTRW Kabupaten and RTRW Kotamadya). All levels of governments are obligated to elaborate a spatial plan for their territorium.⁵⁵

After 32 years in power Suharto was brought to fall. His successors changed the system into a more transparent one. To fight corruption and make the processes more efficient as well as democratic, the planning system was decentralized. Local authorities were elected rather than chosen by the central government and responsibilities were delegated. This transformation was called the “Reformasi” (reformation). The aim of the reformasi government was to dissolve economic monopolies, improve the reputation of the Indonesian administrative system and their politics by fighting corruption, collusion and cronyism and promote a clean, reliable government.

In 2004 two new laws were adopted to hold local governments responsible for their own field of action and their finances.

The new law had many changes for the spatial policies. The most significant change was the decentralization which empowered the municipalities and districts. It was seen to be the most efficient way to implement sustainable planning if every community is responsible for their own development. Another modification was the introduction of sanctions (described further ahead). To maintain the sustainable development the national government evaluates the land use. The monitoring of spatial plans is also something which was implemented with the new law. Last but not least the participation of inhabitants was introduced, which also guarantees a specific quality of the development as well as social control.⁵⁶

3.4.2. SPATIAL PLANNING INDONESIA TODAY

Every government in each level (central, regional, local) is responsible to create a long-term plan for spatial development (Rencana Pembangunan Jangka Panjang (RPJP)) which serves

as a general guideline for the short-term plans. Their planning horizon is 20 years.⁵⁷ However, it is divided in four planning phases with five years each (called RTRW), these phases match with legislative periods of the central government. Every party in power needs to elaborate the objectives as long as they are in office. The ruling party can put their projects into practice during these five years, these projects have to be in line with the main targets of the long term RPJPN.⁵⁸ Due to this concept the Indonesian spatial planning is closely related to the political party which is currently in office. Unlike the planning law in 1992 all regions have to have spatial documents at their disposal, but the central government can still define “strategic areas” which are driver of the development in a region. There are six draft RTR islands, including RTR Java and Bali Islands, RTR Sumatera Island, RTR Sulawesi Island, RTR Kalimantan Island, RTR Maluku and RTR Papua.

There is a strict hierarchical structure in spatial programs: The central government monitors the region, the region overwatches the district, the supervises monitors the municipality. The lower level must obey the programs of the higher level. In the new Law two different provinces or districts area allowed to cooperate and work out a plan together (before this was the responsibility of the higher level government) This should help to coordinate border areas in a better way.⁵⁹

The objectives of spatial planning in Indonesia are:⁶⁰

- » *the management of land use shall focus on a sustainable development*
- » *there must not be any waste of land*
- » *the prospective quality of the resources has to be at least equal compared to today*

A new instrument forces the cooperation within a region. Metropolitan areas, containing smaller and bigger cities within a functional network, and connected through regional infrastructure, have to create a common administration for their future development. Rural areas, consisting of two or more districts or provinces, can cooperate if they hold an economical connection.⁶¹

New measures shall encourage local governments to implement zoning regulation, planning permits, implementation of incentives as well as sanctions. Incentives could include tax cuts, compensations, cross-subsidy, planning permit deregulation and awards. Disincentives are for example higher taxes, the limitation of infrastructure which is provided by the government, imposing compensation and penalty.⁶² The government draws distinctions between urban and rural planning. Throughout nationwide strategic planning all regions shall develop awareness to sustainable development.

The National plan leads the way for Indonesia and comprises four essential points: national resilience, consideration of national and international trends and their assessment and effects on spatial planning, fair and sustainable development and economical growth. It defines strategic areas and cities which are drivers for the whole country due to their economic or strategic position. Nationwide infrastructure network systems are defined, protection plans for sensitive natural areas created, rules for participation of inhabitants and guidelines for transparent processes as well as raising awareness among the population are implied. It is the baseline for further policies which are created every 5 years.⁶³

⁵³ Rukmana, Deden (2015: 2 et seq.)

⁵⁴ Rukmana, Deden (2015: 5)

⁵⁵ Rukmana, Deden (2015: 4)

⁵⁶ Indonesian Institute for Infrastructure Studies (online, a)

⁵⁷ Rukmana, Deden (2015: 7)

⁵⁸ Indonesia Investments (online)

⁵⁹ Rukmana, Deden (2015: 6)

⁶⁰ Indonesian Institute for Infrastructure Studies (online, a)

⁶¹ Indonesian Institute for Infrastructure Studies (online, a)

⁶² Rukmana, Deden (2015: 8)

⁶³ Indonesian Institute for Infrastructure Studies (online)

After defining strategic areas in the national plan, the sectoral plans take care of the specific potentials of these regions. Sectoral plans are made for economic development zones (KAPET), locations of defence and security, agricultural production centres (food supply for the nation).⁶⁴

The current medium-term development plan of Indonesia is valid from 2015-2019, with president Joko Widodo being responsible for it. It is the third stage of the RPJP. The current focus lies on the »realization of Indonesia as an independent state based on the spirit of self-reliance and gotong royong (mutual cooperation)«. It is based on pillars which include human resource/social development, economic development, disparity reduction and environmental friendliness. The new emphasis on sustainable development is very special within this document.⁶⁵

At the lowest level provincial plans go into action. Generally the objectives are very similar to the national plan, with a greater focus on the development spots (strategic points are exactly located), district/province policies are defined. The RPJM focuses on land use regimentation, different policies for the urban and the rural (supply) area, cooperations and networks between them. It identifies areas which shall be protected due to their unique value (natural or economic) and other strategic locations.⁶⁶

The contents of the local/urban documents are similar to the ones in the higher levels, but include specific guidelines for open space. They differentiate between green and not-green areas and open space for community use. Among these sector strategies pedestrian facilities, public transport, informal sector activities and disaster evacuation areas are also listed. These are required for the functioning areas of the city as the heart of economic and social services regional growth centres. Regulations claim that there has to be at least 30% open space in every Indonesian municipality (public and private - but at least 20% public).

The land use plan regulates the specific usage of areas within a city. These plans have to be in accordance with the hierarchical higher plans. If they contradict with other documents, the regional government is obligated to cancel these plans. If the permit of the use is not longer appropriate due to changes, or the spatial plan is cancelled by higher authorities, the local authorities have to provide proper compensation for the owner of the properties. To motivate municipalities to implement land use plans, incentives have been established, e.g. reward for the implementation of activities in line with the spatial plan; easier, faster approval procedures and an award to the government.⁶⁷

Disincentives are implemented to prevent policies which limit growth, due to activities which are not in line with higher levels of spatial plans: higher taxes compensate for costs required to address the impact caused by the use of space; and / or restrictions on the provision of infrastructure, the imposition of compensation and penalties. The imposition of sanctions referred to in Article 35 is an enforcement action carried out against the use of space that is not in accordance with the spatial plan and zoning regulations.

⁶⁴ Landoala, Tasrif (2013)
⁶⁵ General Affairs Division (online)
⁶⁶ Indonesian Institute for Infrastructure Studies (online, a)
⁶⁷ Indonesian Institute for Infrastructure Studies (online, b)

According to Mr. Sontani, the head of the spatial department in Labuan Bajo, the macro-plan (long-term) is created already while the micro plan (short-term) is still in progress. The land use plan is not accessible for the public. There is a zoning plan, which defines building and non-building land, but their aim is not clear. However, the Muslim villages close at the sea for example are classified as green zones.

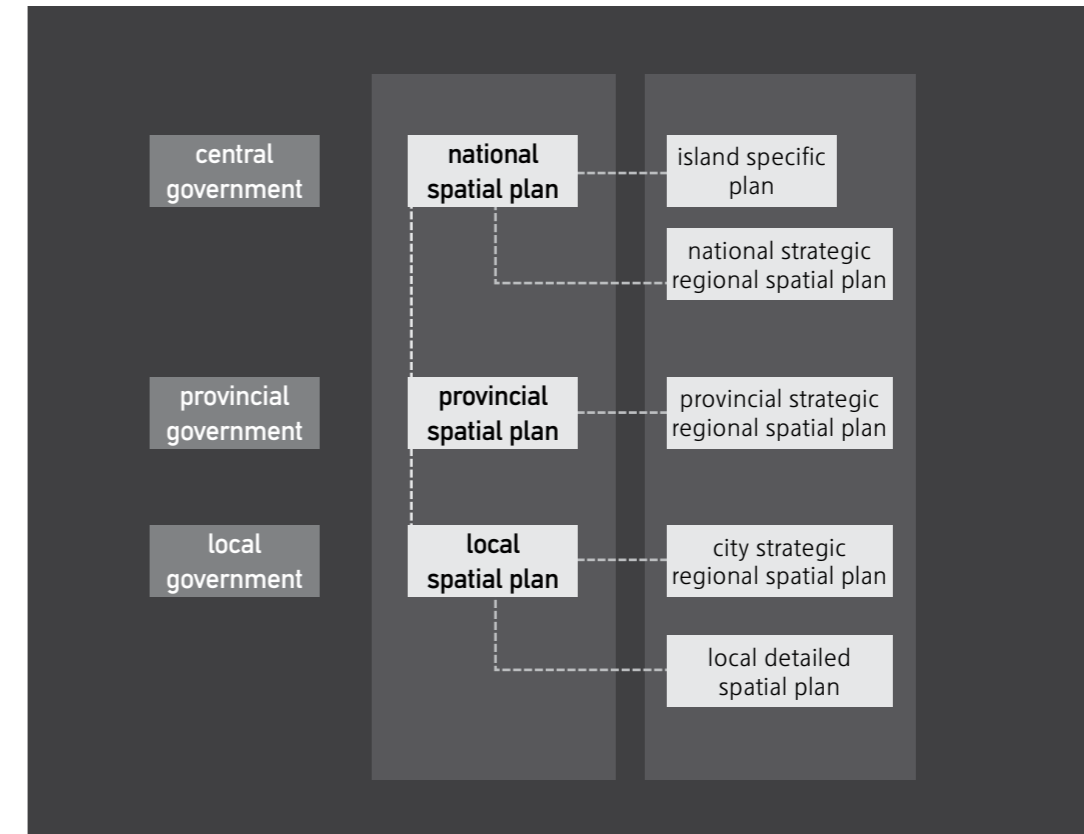


figure nr. 4: Planning system Indonesia⁶⁸

3.4.3. SEPATU BALI BARU: LABUAN BAJO AS A PRIORITY TOURISM REGION

In recent years, Indonesia has put forward policies to advance sustainable tourism along its cultural, environmental and economic dimensions. The core elements of sustainability “Tourism shall be intended to increase economic growth, improve welfare, eradicate poverty, overcome unemployment, preserve nature, environment and resources, promote culture, raise the nation’s image, foster patriotism, and strengthen international relationships”. The policy framework for tourism development also includes guidelines and standards rooted in sustainability principles, and supporting the development of national strategic tourism areas and destinations across Indonesia’s vast territory.⁶⁹

The government of Indonesia identified 10 new destinations which are prioritized for tourism development. One of them is Komodo National Park with its main access point Labuan Bajo. Therefore three objectives were defined by the central ministry of tourism:

- » recognizing and promoting of the great natural beauty and social diversity of West Manggarai Regency as a tourist destination

⁶⁸ Figure nr. 4: own elaboration
⁶⁹ UNWTO (2017, b: 39)

- » *informing foreign and domestic investors, developers, operators, and visitors about the tourism development potentials in West Manggarai Regency*
- » *providing guidance for investors on the comprehensive investment services offered by the Ministry's partners, including the Indonesia Investment Coordinating Board.*⁷⁰

In order to reach these goals, a framework for sustainable development has been created with four main targets, which have to be implemented: community based tourism, sustainable tourism, cultural preservation and collaborative partnership between stakeholders.⁷¹

To attract the interest of international investors, fiscal and non-fiscal incentives were applied. On the official "Indonesia-tourism-website" these incentives are mentioned:

- » *Fiscal Incentives in Tourism Sector*
 - * *Tax Allowance for development of Tourism Zone (68120) is available with no condition. Refer to Government Regulation No. 18/2015*
 - * *Import duty facility refers to Ministry of Finance Regulation No. 188/PMK.010/2015. It provides exemption of import duty on machinery, goods and materials for industry that produce services such as, Tourism and Culture, Transportation / Communications for Public Transport Services, Public Health Services, Mining, Construction, Telecommunications Industry, and Port.*
 - * *Value added tax facility refers to Government Regulation No. 31/2007*
- » *Non Fiscal Incentives in Tourism Sector*
 - * *Local government support (land tax reduction)*
 - * *Ease employment*
 - * *Ease immigration for foreigners businesses*
 - * *Ease of land acquisition*
 - * *Ease of infrastructure coordination*
 - * *Negative investment list does not apply except for reserved business fields for SMEs and cooperatives*
 - * *Ease of licensing / permit applications (including one stop services by Central Government or Local Government)*⁷²

To accelerate the investment process, the One Stop Service has been developed. With the "3 hours program" big investors are supported to open their business (with at least 100 Billion Rupiah - about 6.5 million € - or 1.000 new jobs) in Labuan Bajo.⁷³ The approach of the central government follows the theory of transaction, where flows between elements of a system are supported by dissolving barriers and reducing costs for players of external systems.

But the national strategy does not only result in changes for the economy, also local living conditions shall be improved. This affects the technical infrastructure like the road system, waste and sewage management as well as education and career chances. The Ministry of PUPR (Public Works and Public Housing) spent more than 40 billion Rupiah (around 2,5 Mio. €) for the development in Labuan Bajo in 2017-2018.⁷⁴

70 Indonesia Tourism Investment (online)
 71 Indonesia Tourism Investment (online)
 72 Indonesia Tourism Investment (online)
 73 Indonesia Tourism Investment (online)
 74 CNBC Indonesia (2019)

The government declares the improvement in the culinary tourism centre of Kampung Ujung (a new market was built right at the sea front where local trader can sell their products), the pedestrian walk at Jalan Soekarno Hatta, new roads and bridges in the smaller villages close to the centre as well as public road lightning. In addition to measures concerning the living quality in Labuan Bajo, tourism infrastructure shall be built such as ticketing buildings, visitor shelter and public toilets.⁷⁵

The most visible measures taken by the government are clearly the improvement of the infrastructure (expansion of Trans Flores, reliability of the electricity network) and the acquisition of foreign investors by simplifying the local regulations. The central government clearly followed a neoclassic strategy by providing infrastructure, transparency and mobility of goods and workforces, but does not interfere in local conditions by causing a distribution of wealth between central and periphery regions.

During 2019 the central government had become aware of the conditions in Komodo National Park. As a consequence it planned to limit the number of visitors or even shut down the island completely. Different newspaper picked up the news and published articles about the closure of the National Park. These rumours were denied by the government, but in October 2019 another statement was published about the implementation of 1,000 USD entrance fee.⁷⁶ Although Komodo National Park is the most promoted and visited sight of Labuan Bajo, the government does still not change its plan to attract up to 500,000 visitors in 2020.

3.5. DEFINITION OF SUSTAINABLE DEVELOPMENT

Sustainability always has to consider the three pillars: economy, ecology and social issues. This means, a concept, project or policy is only sustainable, if human and natural systems can exist besides each other in the long run.

Steven Wheeler⁷⁷ is a Professor in New Mexico and California in the Departments of Human Ecology and Regional Planning Program and is known for his expertise in sustainable spatial planning. He received several awards for his research on ecofriendly spatial development and he was cited several times during lectures at TU Vienna. His approach on sustainability will be explained in the following paragraphs as well as how it will be applied in this thesis with regards to the conditions of Indonesia. Firstly first the origin of the term "sustainability" shall be examined:

While the word "sustainability" has been used since 1290, the meaning as we understand it today, emerged over the last few decades. The German translation is "Nachhaltigkeit" and has been used since the early 18th century, where it indicated the three-field-system of the agriculture sector.⁷⁸ The beginning of the idea of sustainable development was in the 1970's, when the awareness of global problems regarding environmental and social issues increased and the first Conference of Environment and Development of the UN was held in Stockholm.⁷⁹ Also the economic growth after the Second World War and its impact on ecosystems occurred around that time. Other events, like the oil embargo 1973, reminded the society that fossil fuel

75 CNBC Indonesia (2019)
 76 BBC (2019), NZ Herald (2019)
 77 Wheeler, Stephen (1998)
 78 Alumniportal Deutschland (2013)
 79 Wheeler, Stephen (1998: 500)

is a limited resource and there needs to be other ways to produce energy.

As the definition of sustainability has to consider many aspects, the most common one is established by the Brundtland commission: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

However, critics claim that this definition does not include natural ecosystems or the environment, thus is limited to the long-term needs of humanity.⁸⁰ Also the definition of “need” is very wide. The requirements for a content society vary between different cultures. A sustainable lifestyle can therefore not meet the need of every population group.

Wheeler’s interpretation of sustainable development is a »development that improves the long-term health of human and ecological systems.« According to Wheeler there are 9 directions where planning strategies have to be estimated, or issues that have to be discussed. It is a summary of different approaches of sustainability, where a compatible settlement development is one that “improves the long term social and ecological health of cities and towns.”⁸¹

1. Compact, efficient land use:

Land is a complex matter. Building land is a limited resource and thus one of the most valuable ones. Therefore the use of the land is important for large parts of society. Different groups use it as a source for income, they build family homes on it or buy it as a financial investment. Besides private use the public has an interest to make land accessible for the general public, for infrastructure like transport routes, schools or as recreation area for the inhabitants of bigger towns. Other than that land needs to be undeveloped for safety reasons, or to install safety measures for natural threats. All these various demands have to be considered when planning the use of land. The balance needs to be kept between public and private ownership. To prevent speculations, land shall be owned by the people who live there. The measures for compact land use shall be in accordance with the objectives of strategic spatial planning in Indonesia: the management of land use focuses on a sustainable development, there must not be any wastage of land, the future quality of the resources has to be at least equal to the current one.⁸²

2. Efficient mobility system

Transport contributes greatly to air pollution within cities. The original item was called “less automobile use” but this is not an issue yet in most parts of Indonesia, since cars are not as popular among Indonesians, but they are getting more popular with rising wealth. Wheeler names three factors of a functional mobility network:

- » *Short distances: Strategic planning of cities, where almost every journey can be completed by walking or biking. This can be made by efficient land use planning.*
- » *An inversion of the current transport hierarchy, that means to rise the popularity of public transport and giving alternative mobility like pedestrians, bikes but also public transport advantages thus reduce the need for private motorized transport by pricing mechanisms, for example: charging for parking spaces, “city toll”, taxes on cars, petrol, etc.*
- » *If the infrastructure for cars is less developed than for other means of transports, the demand will decrease as well.*

3. Efficient resource use, less pollution and waste

The sustainable use of resources has to be a priority in spatial planning. The aim is to create a

⁸⁰ Wheeler, Stephen (1998: 502)

⁸¹ Wheeler, Stephen (1998: 504 et seq.)

⁸² Indonesian Institute for Infrastructure Studies (online, a)

closed loop of producing, using and recycling. Less pollution needs to be prioritized in Indonesia, since the issue has not been taken seriously for a long time and the impacts are much higher than in Europe. While the first mentioned issues have to be implemented by the administration of an area, the sustainable use of resources starts with every single inhabitant. This concerns the reduced use of fresh drinking water, the recycling of waste and the consumption of energy. Although awareness can be raised towards the careful handling of limited resources, it is the responsibility of the administration to provide appropriate infrastructure. Furthermore the economy needs to adapt to a sustainable environment. Cooperation between companies can lead to recycling processes where the waste product can be used to create something new.

4. Restoration of natural systems

Even though cities are manmade and sealing is inevitable taking place in most areas, every city should provide natural areas which need to be maintained or even reclaimed. This is an important issue in Indonesia, where cities consist mainly of buildings and pavements, but very seldomly offer green spaces. Especially in cities, where the air pollution is higher than in rural areas, trees and plants need to be spread throughout the cities. Biodiversity can be strengthened through urban gardening or agriculture. Due to the climate change and rising temperatures as well as rarer rainfall these measures are very important for future settlement development.

5. Good housing and living environments

One of the main tasks and challenges for governments is the supply of adequate living standards by means of accommodation. Especially bigger cities struggle with the demand of affordable housing. The availability of cheap accommodation and the demand of sustainable development might be a contradiction, since modern, energy efficient buildings are mostly not affordable. Also the demand on free space and other social infrastructure is not reflected in low-cost living.

6. A healthy social ecology

Wheeler describes the difference of visible and invisible inequalities within a society. While the condition of the environment in a city can often be seen very clearly, social issues are not as easy to spot. Racism - which can often be a problem in Indonesia, a state with hundreds of different ethnics⁸³ - was one of the main issues in the US, for example, but could not be identified easily. Planners need to be aware of this issue and advocate for the interests of weaker groups of the society. Measures have to meet the needs of all different groups of inhabitants.

- » *definition social ecology: characterized by the Chicago school, spatial patterns of social relations, (ecology and interactions (competition, adaption, assimilation),⁸⁴*
- * *integration: preservation of culture, but integration throughout language, employment, summary of different elements*
- * *adaption: loss of individual culture*
- * *aspects: (de)centralisation, segregation, expansion of spatial structures, succession*

7. A sustainable economy

Economy is one of the three pillars of sustainability, but is often harder to implement than the other two “society” and “ecology”. Developing economic growth without impacting the social welfare and the nature is considered one of the biggest challenges in sustainable development. This needs to be set as an focus within this thesis, since the governments aims for economical

⁸³ Encyclopedia Britannica (online)

⁸⁴ Spektrum.de (2001)

growth regardless to its impacts on the locals or the environment. Paul Hawken indicates three principles about a sustainable economic: The first one is the “restoration economy” which shall fix the damage which has been done in the past. The second focus involves the human needs. Fair working conditions as well as decent jobs need to be established by a sustainable economy. “Think global, act local”, the third issue covers the regional resource, which shall be used instead of imported goods. Therefore endogenous strategies should be chosen to motivate local cooperation and funding of new businesses forward. Schober⁸⁵ developed five criteria which are essential for endogenous strategies: The use of local resources, which also involve local workforces and creating a USP (Unique Selling Proposition) which is inimitable within the region. Locals have to be educated and assimilate required skills to keep up with the market. Therefore training facilities have to be established. Small and medium-sized businesses have to be supported, locals shall start their own company to be part of the economic cycle. These businesses shall cooperate with each other, networks are going to be built and knowledge can be exchanged. But not only the economy shall be pushed forward, the local living conditions also have to be improved. This involves a healthy environment as well as the improvement of the living standard, infrastructure and so on. Endogenous strategies are not only responsible for increasing wealth but shall also be an asset for the people who live in the region.

8. Community participation and involvement

Endogenous strategies, where local potentials are used rather than external sources, depend on local initiative of communities. Development depends on local stakeholder who spring into action. Sustainable progress, which is based on the endogenous potential, can only be implemented by involving local players. The bottom-up approach needs to be applied to ensure a development where all three pillars of sustainability are being taking care of – involving social issues. The founding of a functioning local and regional government, where the national level does not decide alone about regional concerns, is essential for progression. This point is quite similar to the previous one, where local resources – which involves inhabitants – have to be used as the base for further development.

9. Preservation of local culture and wisdom

This item together with the two previous ones will be the main focus of this thesis. A city scape always emerges through the traditions and the culture of the inhabitants. This is what makes a city unique and strengthens the identification of people who live there. Local conditions shall form the look of a city, its atmosphere is also relevant to travellers. Places which are unique are visited by people, who want to familiarize with different cultures. They want to visit unique places, that differ from what they have seen before and preserve the culture of the people who live there.

⁸⁵ SCHOBER, Bettina (2007)

Komodo National Park

Rangko Cave

harbour

centre Labuan Bajo

Pantai Pede

4. THE CITY OF KOMODO: LABUAN BAJO AND ITS SURROUNDINGS

This chapter deals with the development and current conditions of Labuan Bajo. The analysis includes different thematic areas which shall all contribute to a better understanding of the area. Since the master thesis researches about the impact tourism has on spatial structure the influence of touristic development will be examined. Findings of local observations and conducted interviews were used to interpret statistical data. The structure of the analyses is based on the three pillars of sustainability. All results are summarized in the last chapter by using the nine indicators for sustainable development by Steven Wheeler.

4.1. HISTORY AND MODERN TIMES OF FLORES AND INDONESIA

Flores is home to a variety of different cultures and languages. The inhabitants of Labuan Bajo still speak “Bahasa Manggarai”, the local language of the region. It is not known exactly, when Flores was inhabited. The first human remains were dated 50,000 years ago, and called the “Homo Flores”, or “Ibu Gogo” by the locals. Other sources claim the Homo Flores is more than 1.5 million years old and not related to the Homo Sapiens at all. They were eradicated when the modern human settled down in Flores.⁸⁶

Before Europeans had explored Flores, Chinese, Arabic and Javanese traders came to Flores to do business, their social and cultural impact is not documented and can therefore not be estimated.⁸⁷ When Vasco da Gama sailed to India in 1497, he explored the richness of spices in the area. This captivated European businessmen and Indonesia became an important trading center for Europeans. A Portuguese expedition crew came across the island in the beginning of the 16th century and called it “Cabo das Flores”. Because oriental herbs are not native in Flores, the island was used as a strategic point for the activities of trade. Portuguese tried to capture the archipelago over the years, but failed. Due to the wealth of spices, Indonesia has always been in the centre of attention of European countries, since it was a way to gain wealth. 1607 the Netherlands took over and stayed. Portugal managed to hold on to power in Nusa Tenggara Timur, the province Flores belongs to, until the early 18th century. The Dutch made “Jayakarta” their capital city, the port city was established in 1619. The Netherlands transferred their knowledge of city planning to the new capital of Indonesia. It became a copy of Amsterdam, with the look and the channel system of the Dutch capital. Due to the different climate and the frequency of earthquakes those channels were often silted and the water did not circulate. As a result malaria was an issue.^{88, 89} Since Flores was no source for income yet, the Dutch improved the educational system and the infrastructure. After not interfering in local issues at first, a military campaign was sent in 1907 to settle inter-tribal wars. In 1909 they implemented a new administrative system, Manggarai, Ngada, Ende, Sikka, and Flores Timur where defined as the five districts of Flores. The government nominated a leader in each unit to ensure local peace devoted to the colonial power.⁹⁰ After being occupied by Dutch, Portuguese and Japanese, Indonesia gained its independence on the 17th of August 1945. The statement of independence was written in Bahasa Indonesia which was henceforth the new official language of the 17.000 islands of the young state.⁹¹

86 Patalong, Frank (2017)
87 Christiane Moser (2011: 21)
88 Documentary: Rahmann, Harun (2018)
89 Schott, Christina (2015: 71-75)
90 Florestourism (online)
91 Indonesian Language Program (online)

Soekarno was the first president of the independent Indonesia and ruled over the country from 1945 until he was brought to fall in 1965. 6 months lasted the “Indonesian mass killing” and hundred thousand people were killed. In 1967 Soehartos was elected for president. The “new order government” was meant to guide the country from a rural state to the modern world. Due to his authoritarian way of leading Indonesia, with massive restrictions in freedom of speech and the press, the protests did not stop and he resigned in 1998.

Indonesia and Flores today

Today Indonesia’s administrative structure changes to a more democratic and decentralized one. In consequence of the size of Indonesia, smaller, more rural areas of the country do not experience the positive effects of new developed policies, they benefit less from the local autonomy. The inhabitants of Flores still rank among the poorest of the country. The climate change makes it harder to live on the products of agriculture and fishery. School fees are not affordable for families with a low income so the chances for future generations to escape the poverty are comparatively low. The access to health care, clean water and information needs to be improved and tourism has the potential to increase the local prosperity.⁹²

4.2. ADMINISTRATIVE BOARDERS AND LOCATION

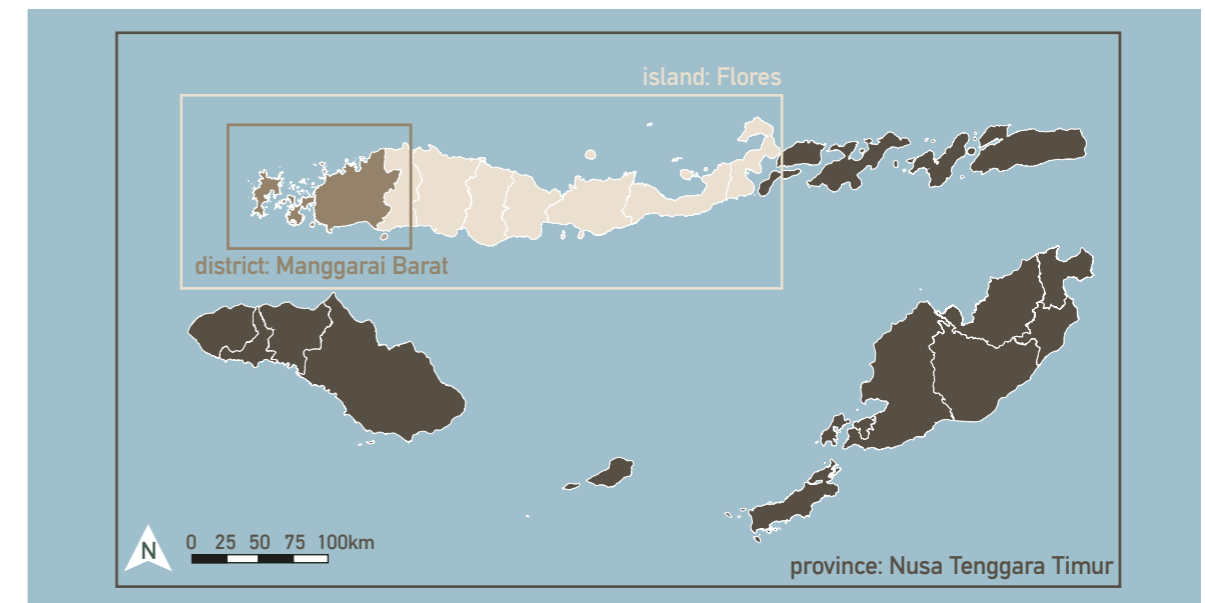


figure nr. 5: Nusa Tenggara Timur, Flores and Manggarai Barat⁹³

The province Nusa Tenggara Timur is situated in the east of Indonesia. Timur means East in Bahasa Indonesia, so the province is part of the area Nusa Tenggara and shares its name with Nusa Tenggara Barat, which is west of mentioned province. It covers more than 47,000 km², comprising 566 islands, but it is believed that only 42 islands are permanently inhabited. The four major islands are Flores, Sumba, Alor, and Timor. Nusa Tenggara Timur is one of 34 provinces of Indonesia, bordering Nusa Tenggara Barat on the west and East Timor in the East. It is further subdivided in 22 districts and 203 subdistricts. Kota Kupang is the provincial capital as well as the economic centre of the region, it is located on the island Timor and inhabits 38% of the population of the province.⁹⁴

92 Florestourism (online)
93 Figure nr. 5: own elaboration, based on Google Maps
94 Roland-Holst, Frielink (2009)

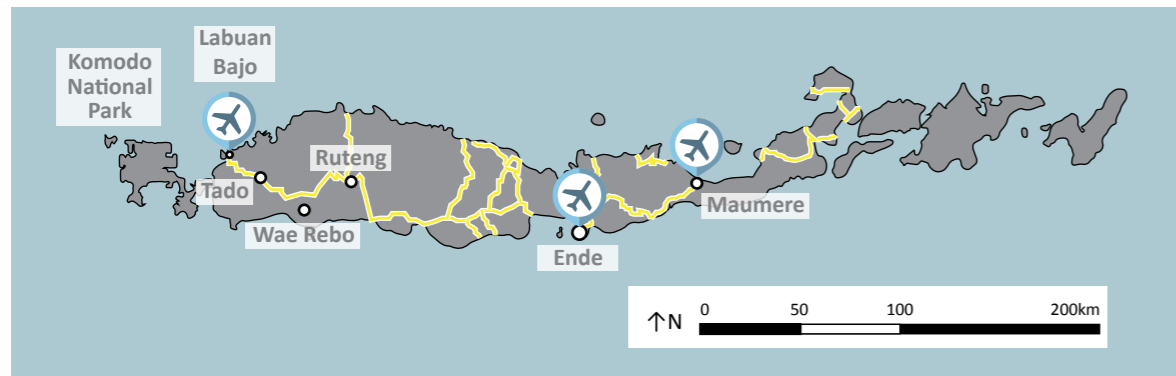


figure nr. 6: Map of Flores ⁹⁵

The “Kebupaten” – which is Indonesian for region or district - “Manggarai Barat” is the most Western district of the province. With its 9.400 km² most of its area is on the islands Flores, Komodo, Rinca, Island Longos, and several other small islands. Statistical data is available on the district level, so further on Manggarai Barat is often mentioned in graphics as the district Labuan Bajo is located in. Administratively it is divided in seven subdistricts: Labuan Bajo belongs to the subdistrict Komodo and consists of five Kelurahan – which is the sub-level of the sub-district. These five Kelurahan constitute the agglomeration area of Labuan Bajo. Because of the administrative structure of the city it is not known exactly how many people live in Labuan Bajo. ⁹⁶



figure nr. 7: Map of Labuan Bajo and its usage structure⁹⁷

⁹⁵ Figure nr. 6: own elaboration, based on Google Maps

⁹⁶ Remmer, Stefanie (2016: 43)

⁹⁷ Figure nr. 7: own elaboration based on: Google Maps, Open street map and own observations

4.3. ANALYSIS OF LABUAN BAJO

Labuan Bajo is changing rapidly, Komodo National Park gains importance and every year more visitors arrive in Flores to see the Komodo Dragon. But how does Labuan Bajo cope with this development? What impact does it have on the three pillars of sustainability? This analysis is based on the three pillars, the economic, environmental and social aspect and their development regarding to the growth within the tourism sector.

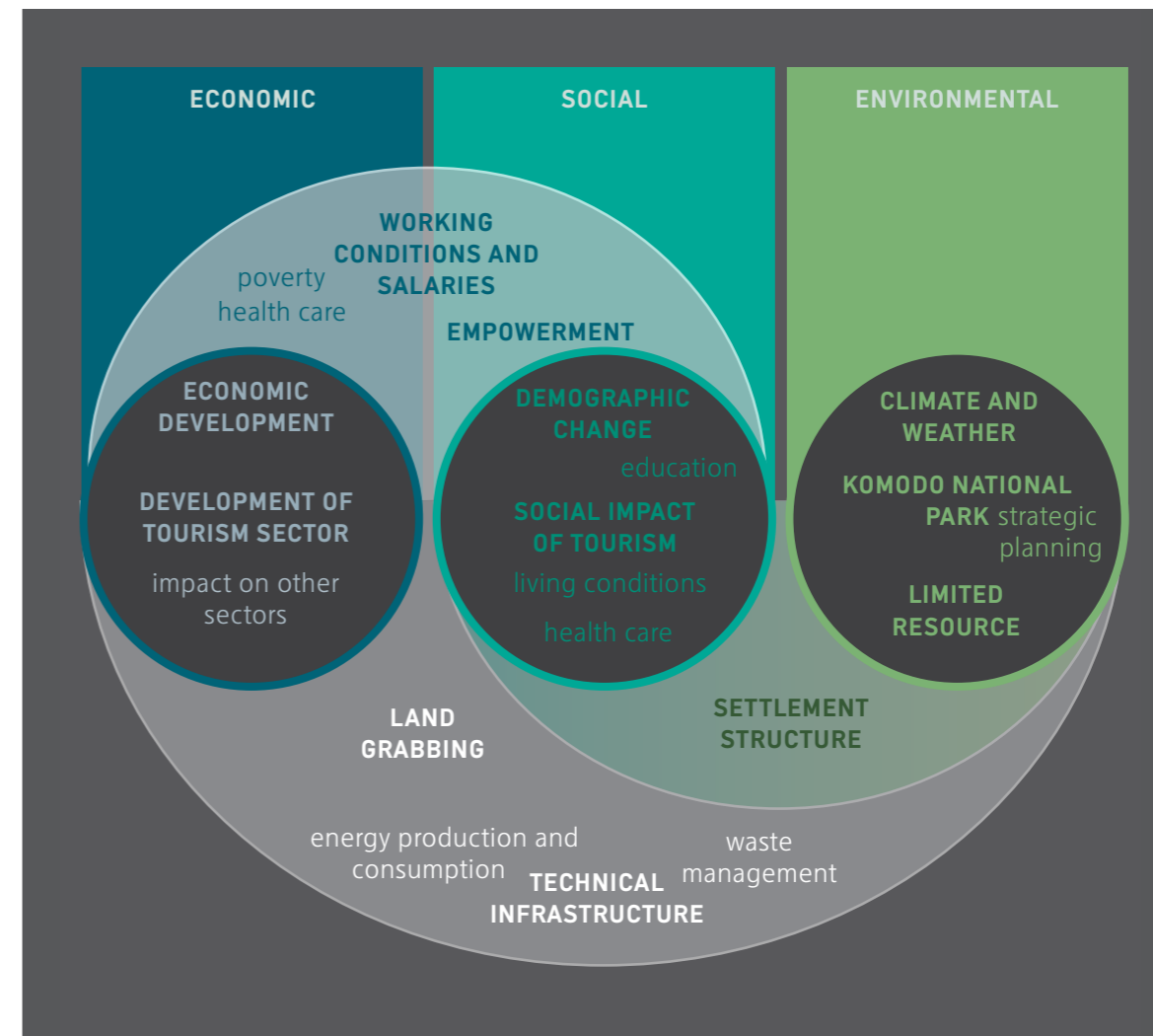


figure nr. 8: Structure of analysis fields in Labuan Bajo⁹⁸

⁹⁸ Figure nr. 8: own elaboration

4.3.1. ECONOMY AND TOURISM IN LABUAN BAJO

The economy in Labuan Bajo is growing, especially due to the growing number of foreign visitors. The current trend started not too long ago and every year the numbers are rising. Before tourism other sectors loomed large. Nusa Tenggara Timur rated among the poorest provinces of Indonesia. The remote location and the widely scattered islands resulted in high transportation costs for imports and shipping out exports.

However, the greater challenge has always been the dry climate. Back in the 90s more than 53 % of the inhabitants worked in the agriculture sector and only 12,5% in tourism.⁹⁹ Because of the harsh weather conditions due to the semi-arid climate the productivity of agriculture has decreased. The dry season lasts more than eight months, the wet season between three and four months thus it is too short to keep land irrigated. During dry season many regions suffer from low income and food shortage. Although the conditions for the agricultural sector are poor, the highest share of the regional value creation is made by livestock and marine fishing. Due to the large sea area the province covers, there is a high variety in diversity of marine products.¹⁰⁰

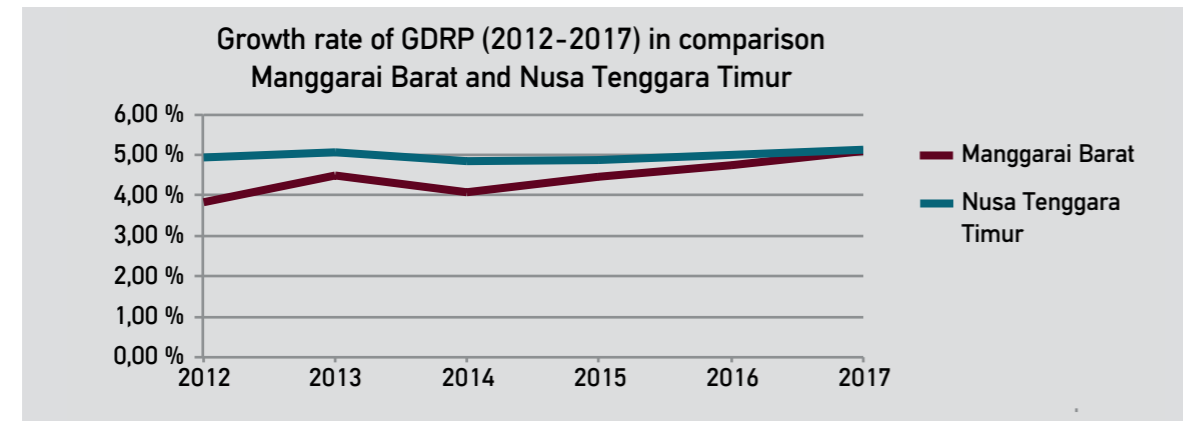


figure nr. 9: Growth of the GDRP each year in %, Manggarai Barat in comparison with NTT (2012-2017)¹⁰¹

Compared to other regions in Nusa Tenggara Timur Manggarai Barats industry growth just caught up with the regional development. Figure nr. 9 shows, that in 2017 it reached the level of the average GDP within the province. If the growth rate continues Manggarai Barat will quickly leave the other regions behind.

Indonesia's economy ranks among the emerging markets and this becomes visible at the local markets as well. In comparison with the GDRP of the province Nusa Tenggara Timur the progress was not visible until 2014 but then showed constant growth for the last four years. 2013 the "Sail Komodo" - an international sailing event - took place, which explains the peak in 2013. Within the GDRP the finances and real estate branches have contributed largely to the regional economy. Due to investments by the government to improve the supply with power and water as well as the infrastructure these sectors also grew rapidly. Air transportation gained more importance over the last years. Agriculture and fisheries did not develop as quickly, there is a decline of people working in the primary sector especially in touristic areas. Overall there

⁹⁹ Andrews, Barlow, Bellis (1991: 15)
¹⁰⁰ Roland-Holst, Frielink (2009)
¹⁰¹ Figure nr. 9: Badan Pusat Statistik (2017)

is no sector which did not grow between 2004 and 2013 so the improvement of the economy as a whole is clearly visible.

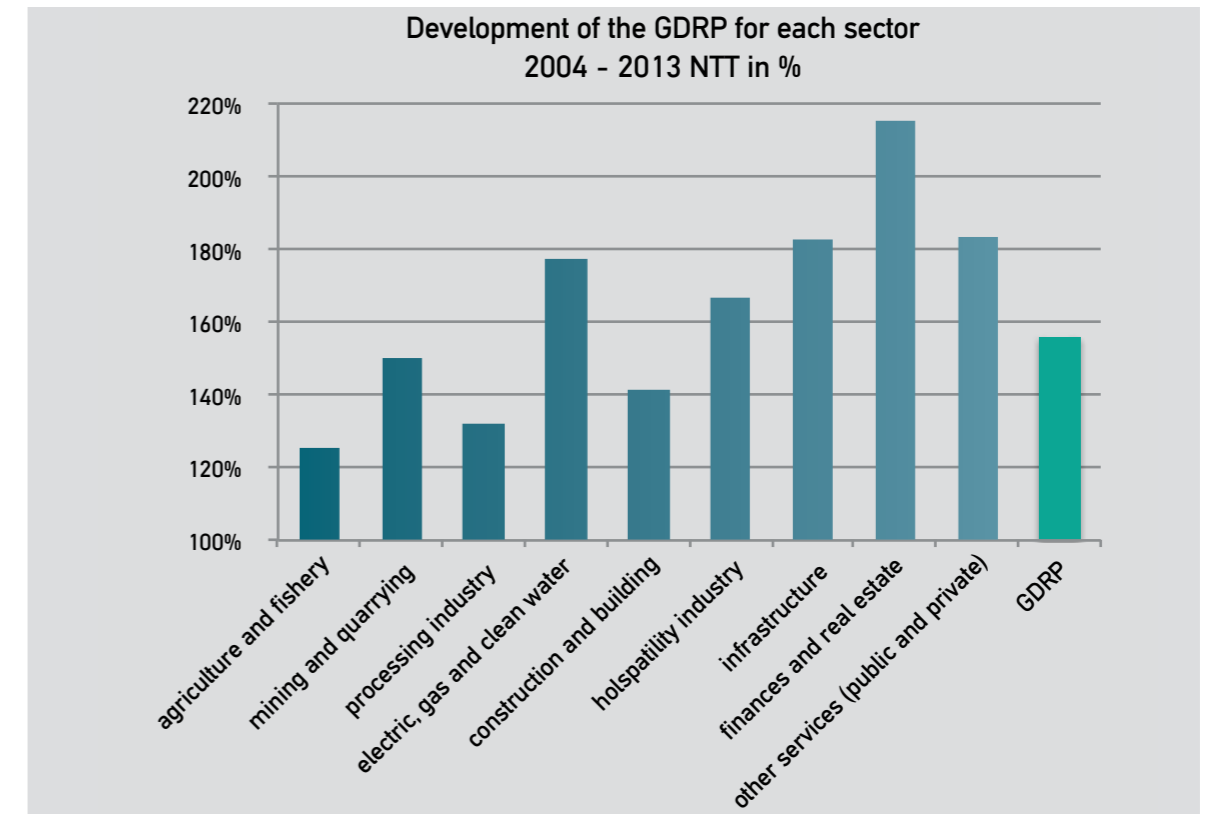


figure nr. 10: Development of the GDRP 2004 - 2013 (base year: 2004)¹⁰²

4.3.1.1. DEVELOPMENT OF TOURISM

The analyses of the economical structure of the district Manggarai Barat shows the major part of tourism. The development, that has occurred within the last couple of years, and its impact has not been fully researched yet. In this chapter the development of tourism and its characteristics as well as spill-overs and its relation to other sectors shall be examined.

Each month in 2018 10,250 people visited Komodo National Park, 95% of them originate from other countries than Indonesia. 137.000 people visited the Park in 2018, the number is increasing quickly.

¹⁰² Figure nr. 10: Badan Pusat Statistik (2016)

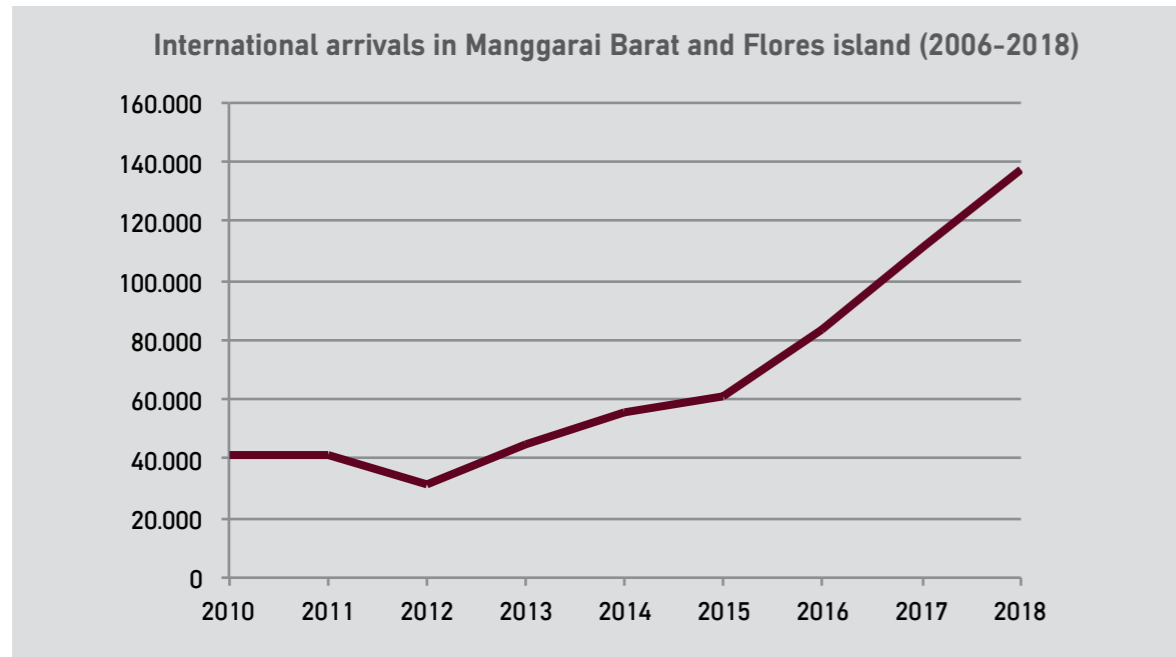


figure nr. 11: International arrivals in Manggarai Barat and Flores island (2006-2018)¹⁰³

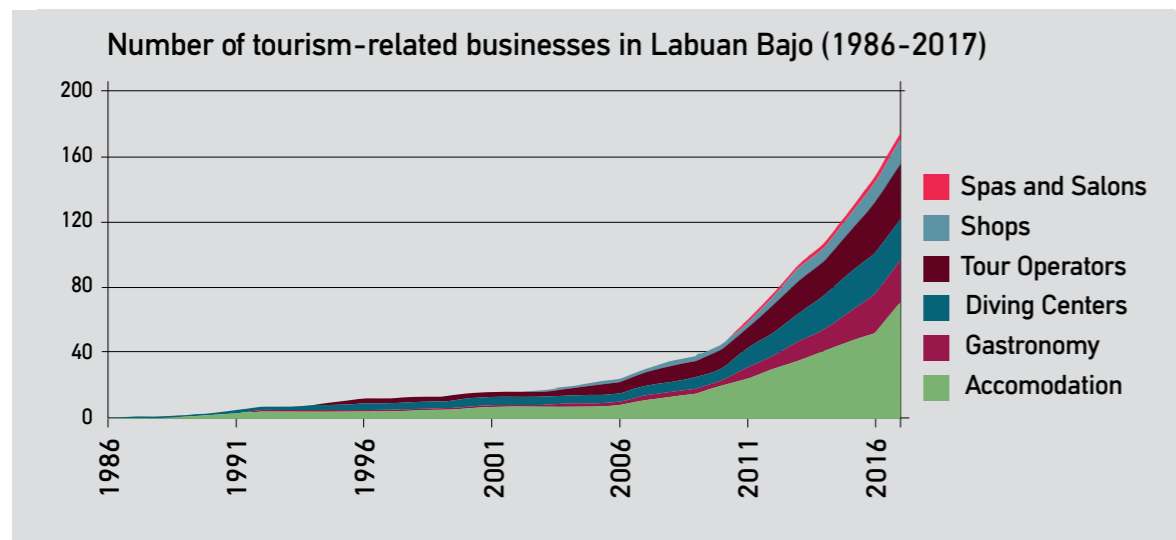


figure nr. 12:: Number of tourism-related businesses in Labuan Bajo (1986-2017) ¹⁰⁴

In 2017 there were 212 businesses operating in Labuan Bajo's tourism sector as showed below. Swisscontact conducted a survey about the impact of tourism on the city. Therefore a questionnaire of all tourism-related businesses had been made, overall 70% of all entrepreneur participated.

¹⁰³ Figure nr. 11: Kepala Bidang destinasi dan pemasaran parawisata (2017)

¹⁰⁴ Figure nr. 12: Remmer, Stefanie (2016: 43)

	Total	Data available for	%
Accommodation	72	53	74%
Gastronomy	46	24	52%
Diving Centres	27	25	93%
Tour Operators	50	31	62%
Souvenir shops and boutiques	13	12	92%
Spas and Salons	4	4	100%
Total	212	149	70%

Table nr. 2.: Data on existing tourism business and share of participating businesses at Swisscontact survey¹⁰⁵

Firstly a closer look at the development of tourism related businesses shall be taken. The number of openings per year show a significant growth of the sector. 2013 during Komodo Sail it reached a peak and grew relatively steady over the following years. The average growth rate per year amounts to 18%. While accommodation increased every year, especially spas and salons have been vital since 2015.

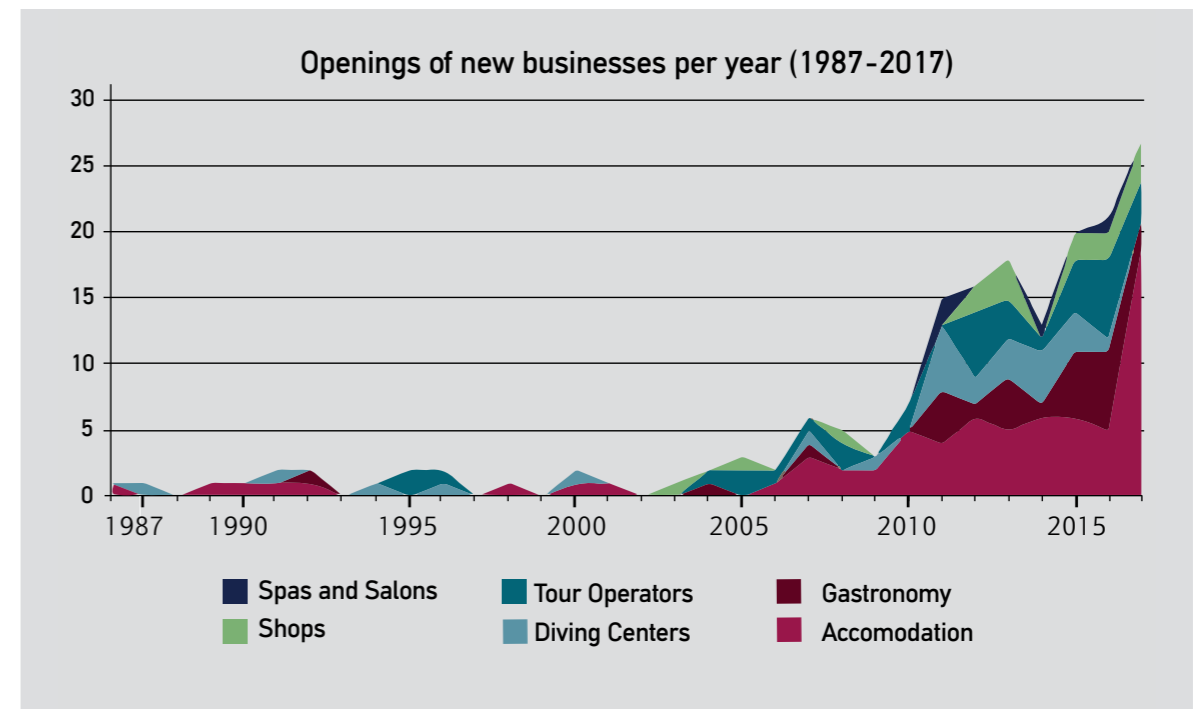


figure nr. 13: Openings of new businesses per year (1987 - 2017) ¹⁰⁶

While the number of businesses itself increased, existing companies expanded the number of their employees and capacities as well. In 2017 about 50% of all accommodations extended their number of beds, within the next year 71% of all hotels are planning to invest in their business to enlarge their profit. During high season (October - March) 70% of all beds are occupied, during the low season it decreases to 35%. Bali in comparison has quite about the

¹⁰⁵ table nr. 2: Remmer, Stefanie (2016: 9)

¹⁰⁶ Figure nr. 13: Remmer, Stefanie (2016: 10)

same occupancy rate among 50-60% all year long. Due to foreign visitors the occupancy rate is about 22% higher around Christmas. When Swisscontact published their survey in 2017, they claimed that until now large scale hotel developments by transnational tour operators from abroad have not occurred yet. This is not true anymore in 2019. In October 2018 Ayana opened with 200 rooms. With the finalisation of the new Marina in the centre of Labuan Bajo international chains like Starbucks and McDonalds also settled down in Flores.

4.3.1.2. IDENTIFIED STAKEHOLDER IN TOURISM

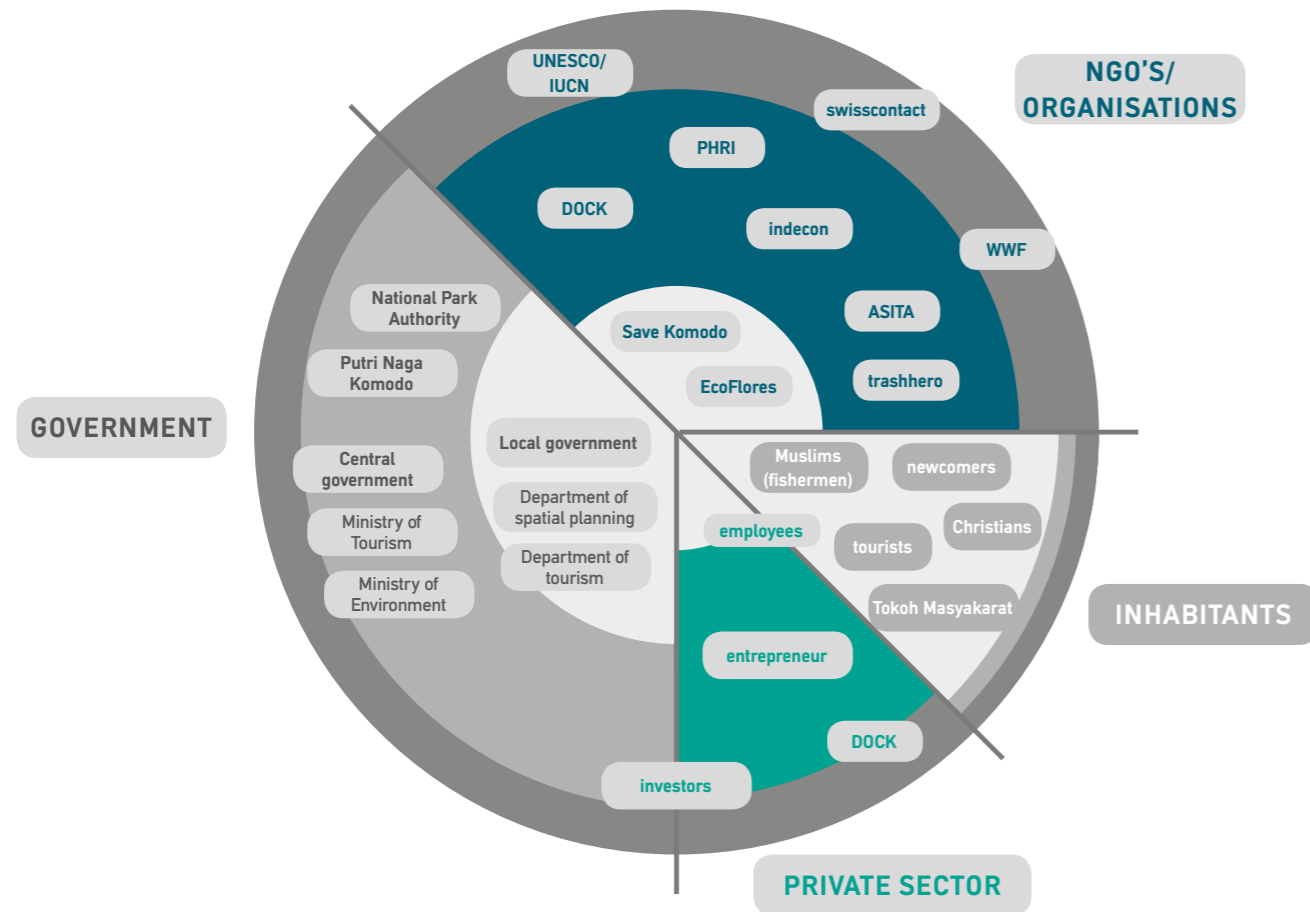


figure nr. 14: Stakeholder in Labuan Bajo¹⁰⁷

The graphic shows the system of stakeholders in Labuan Bajo. Originally, before visitors started to explore Komodo, the city itself formed a melting pot of different cultures. The people from the inland who have been inhabited the island for several decades and the fishing villagers who are traditionally Muslims.

With the priority destination “Komodo” and the rising responsibilities of the central government another stakeholder was created. Foreigners who settled down in Labuan Bajo are often actively fighting the fast development. New NGOs were established to push forward sustainable development, Indonesian NGOs settled down in Labuan Bajo since it gained national importance.

¹⁰⁷ Figure nr. 14: own elaboration

Hereby all stakeholders who were examined in this master thesis shall be named. During the research stay in Flores they were contacted and most of them were interviewed.

Non governmental organisations:

Asita (“Association of The Indonesian Tours and Travel Agencies”) is responsible for the consultation of hotels (operational, social, environmental). They campaign for the execution of legal working conditions.

DOCK (dive operators community Komodo) is a merger of the different diving centres in Labuan Bajo. They ensure fixed prices and sustainable diving in Komodo national park. Since August 2018 there is one permanent employee who works together with other NGOs and advocates for the protection of the National Park.

Ecoflores is a group of various interested parties who are concerned about the changes in Flores. The aim is to work on projects collaboratively and to raise awareness. They also organize workshops where issues are being discussed and important stakeholders identified.

Indecon is an Indonesian NGO which first sent a representative to Labuan Bajo in 2018. Their aim is to establish a regional value added chain and to form a network with farmers, hotels, shops and restaurants to sell regional products rather to import them. Furthermore they founded a “homestay” network where houses in traditional villages are promoted to host tourists and give them a real local experience.

PHRI (“Perhimpunan Hotel & Restoran Indonesia”) provides trainings and vocational trainings for employees in the accommodation and gastronomy branch. They developed a plan for sustainable tourism and advise other hotels about environmental measures for ecological business.

Trashhero is originally from Switzerland and supports initiatives about waste management and education worldwide. The local trashhero organisation offers free English classes for kids and educates them about recycling and waste prevention. Once a week they meet up to clean the beaches and the city. Usually kids who take part in the English program help and also tourists join the group. Due to different participants an exchange of various ideas and lifestyles happens.

Save Komodo is an association of locals which views international investors critically and tries to empower inhabitants of Labuan Bajo. They are aware of the negative impact of mass tourism and want to raise awareness towards it. Activities of the group are seen controversial. In summer 2018 rumours occurred that they destroyed a construction zone of a hotel on Rinca island which is located in the Komodo National Park. Their activities tend to be radical.

Swisscontact is a Swiss NGO trying to improve the living conditions in Flores, established in Labuan Bajo 2009 and has spread to other parts of the island 2014. Swisscontact set up a “Destination Management Organisation” (DMO) with three “Island Work Groups” which coordinate between the different actors of Komodo.¹⁰⁸

¹⁰⁸ Swisscontact (online)

UNESCO (United Nations Educational, Scientific and Cultural Organization) took Komodo National Park under protection 1977. The government is responsible to create a management plan for further development. The IUCN (International Union for Conservation of Nature) established an “environmental network” which assists with knowledge and experience concerning economic development and nature conservation. It commented the current state of Komodo National Park as “concerning” due to rapid population growth and touristic activities.

WWF (“World Wide Fund For Nature”) is an international NGO with 4 employees in Labuan Bajo. They have good connections with the local government and advise them on sustainable development. They support the Komodo master plan, establish rules for tour operators, tourists and locals. KSU¹⁰⁹ (the Komodo waste management) was founded by WWF and they are classified as the facilitator between tourism player and Komodo Management

Central Government:

The national government in Jakarta chose Labuan Bajo to be one of the ten new Bali’s. The main focus lies on the economic development, touristic activities shall increase and international investors are attracted to push development further. They are following a top-down approach with little participation of the local community.

Local Government:

The **department of spatial planning** appreciates the current process. They are responsible for the strategic planning and are confident to plan the best possible development. Inhabitants are seldomly involved in the process because of their lack of expertise. The department is responsible for the whole area of Manggarai Barat.

In 2020 elections will take place, in which different parties with contrary opinions about the current development participate. Parts of the **local government** of the regency Manggarai Barat is sceptical about the fast changes and the loss of culture. Interviews were conducted with the Vice Governor (Vize Bupati) who works closely with different NGOs and is eager to conserve typical traditions. Measures which were discussed concern the reduction of tourism rather than the expansion. Other members of the government represent another perspective, in general they support the line of the central government.

The **department of tourism** aims to increase tourism in Labuan Bajo. They see it as opportunity to push forward the whole region and rise employment. They lead the changes and are reassured that the current development is sustainable and will help the region to gain wealth.

Local communities:

The different groups of **inhabitants** mostly approve of the rising tourism. Locals who have lived in Labuan Bajo for generations appreciate the rising wealth. The Tokoh Masyarakat is the traditional head of the village, kind of the “mayor” of the Kampung, the villages. The hierarchical structures come increasingly under pressure, many business owners and decision makers do not know about these structures and therefore ignore them. Cooperations with smaller communities are therefore more difficult. Members of the Muslim community in the centre are also sceptic about the current development. Newcomers immigrated to the region due to better job opportunities and therefore approve of the touristic growth.

¹⁰⁹ WWF (online)

4.3.1.3. IMPACT ON OTHER ECONOMIC SECTORS

4.3.1.4.4. Agriculture and fishery

Since tourism operators have to provide food and water for their guests, the agriculture and fishery sector is usually related closely to the tourism sector. It can benefit indirectly. The primary sector is depended on available land and the weather conditions, businesses are usually very small and lead by locals. According to Swisscontact around 50% of the participating businesses purchased their food supply from the local markets (farmers and supermarkets). Another 25% purchased their food from local retailer.

Labuan Bajo gets more popular among international travellers. Specific tourists prefer to consume goods they know from their country. Jalan Soekarno Hatta, the main road within the tourism area, is filled with delicacies from Italy, Japan, USA, etc.

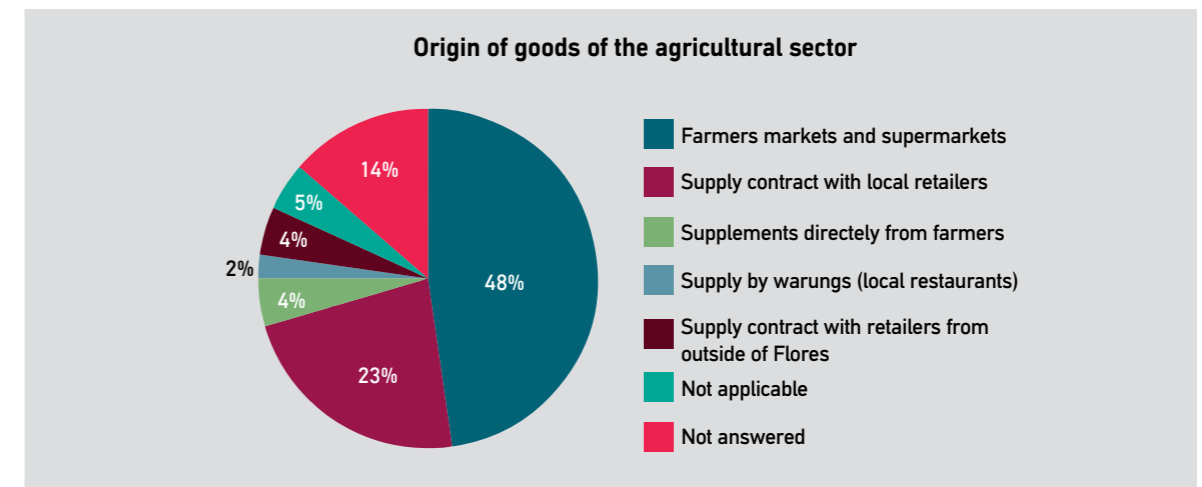


figure nr. 15: Food purchasing by tourism businesses¹¹⁰

The supply from supermarkets does not guarantee that the food is locally grown. Businesses which do not buy their food locally justified their decision with the insufficient supply (e.g. the chicken is delivered in one piece). Only 20% of the fruit supply is bought from Florenese farmers. The number is strongly related to the origin of the owner. The issue with local farmers is often related to the quality and quantity of goods as well as the reliability of supplies. Since the majority of the products is grown near Ruteng (where the climate conditions work better for agriculture than in Labuan Bajo), transport is often an issue. The windy roads from Ruteng to Labuan Bajo are more challenging than the sea, where goods are being brought by boats and ferries. The local farmers are not organized enough to provide fresh food on time, people from other parts of Indonesia have more expertise in this field.

Products that are always purchased locally by the businesses are coffee and drinking water. The producers of coffee are small-scaled farmers in Bajawa and Manggarai. Flores is famous for its high-quality coffee and has a entrenched coffee tradition. NGOs support the growth of coffee by founding coffee grower associations in 2013/2014.

Fish is mostly provided by Komodo fishing communities, and thus is an indirect benefit for people who live in the National Park.¹¹¹

¹¹⁰ Figure nr. 15: Remmer, Stefanie (2016: 36)

¹¹¹ Remmer, Stefanie (2016: 37)

4.3.1.5.5. Crafts

The primary souvenirs sold on the streets of Labuan Bajo are sarongs and pearl necklaces. Cheaper products are likely to be made in factories in Java (the difference is not noticeable), but pearls are usually from Komodo. Wood carvings are sometimes made in Komodo, but 30% of the business claimed that they buy their wooden crafts from Lombok or Bali. There was only one souvenir shop in Labuan Bajo, specialized in local products. Imported products are: table ware, jewellery, clothing and shoes made from traditional fabrics, honey (during the season), shrimp paste, sugar, snacks and dried fish from local producers. The reason was again unreliability of the sellers, the quality was insufficient and sometimes the products were sold to competitors by the trader.

Lasso and Dahles published a survey about the craft sector in Labuan Bajo which is also mentioned by Swisscontact:¹¹²

The rising competition of craft sellers in Komodo is caused by the decreasing fish stock and higher fuel prices. The first time this phenomena occurred was around the same time the tourism began to increase, so new businesses were very successful. The competition rose as there was more demand. The prolonged low season bothers the traders, since the numbers of visitors declined resulting in a higher debt risk. Another issue is the dependence on external negative effects on tourism (e.g. earthquake in Lombok, terrorism in Bali)

Lasso and Dahles have identified other threats to inhabitants of the National Park:

- » *The rising entrance fees to the National park and the risk of decreasing visitor numbers*
- » *There is only one legal market place in Komodo and without enough space for all the competitors*
- » *The lack of knowledge towards financial management, profitable high season, long low season without an income: debt trap*

4.3.1.6.6. Services

Laundry and maintenance/repair are services that tourism operators often outsource to local providers. Laundry services are crucial to tourists who travel through Indonesia for a longer period. 60% of hotels did their laundry themselves and 40% had staff who did the maintenance and repairs. Own investigations showed that the prices for laundry within the tourism area of Labuan Bajo is up to 150% more expensive than 2 km further outside.

4.3.1.7.7. Construction

Since the increase of tourists has had a large impact on the expansion of technical infrastructure, like the improvement of Trans Flores, the “high way” of Flores, it is expected to influence the employment as well. However, only 25% of the people employed in the construction sector originate from Flores.¹¹³ According to own investigations most of the builders were from Ruteng, in the province Manggarai, which is about 4 hours away from Labuan Bajo. They stayed in the area for several years and moved from one construction site to the next. Observations showed very poor working conditions. At the construction zone of the new hotel “Atlanta” the barracks are documented below.

Furthermore the jobs of the employers include hard physical work. Business owners in Labuan

¹¹² Lasso, Dahles (2017: 38)

¹¹³ Remmer, Stefanie (2016: 39-40)

Bajo indicated that jobs which request skilled workers are often done by companies from Java (like electric installation or plumbing). Although the benefit of the jobs generated by construction are small, workers reported that the resources which are needed for the buildings originate from Flores. Besides the short haul of the resources it is not recorded how sustainable the resource extraction is.¹¹⁴



photo nr. 2: Accommodation of builders for “Atlanta”

4.3.1.8.8. Other spill-overs of tourism

An interview was held with Mr. Sontani, head of the spatial department of Manggarai Barat about the impact of tourism and the current condition of Labuan Bajo. Due to the “Priority destination Komodo” Labuan Bajo is authorised to collect tourism taxes of 10%. 30-60% of these taxes go directly into the development of the infrastructure. Since the separation of the three regions Manggarai, Manggarai Timur, Manggarai Barat, there has been investments into infrastructure and the changes of a 13 year progress are already visible. Participation of locals is difficult, since – according to Mr. Sontani – they do not have much knowledge about economy and sustainable growth. Within the villages progress is visible, there are many projects. However, since Labuan Bajo is divided in so many little villages, it is difficult to keep track of development of what is going on. Overall Mr. Sontani claims that the tourism sector will be a key sector for the development of the whole region.

¹¹⁴ Remmer, Stefanie (2016: 39-40)

4.3.1.9. Interdependencies between business sectors:

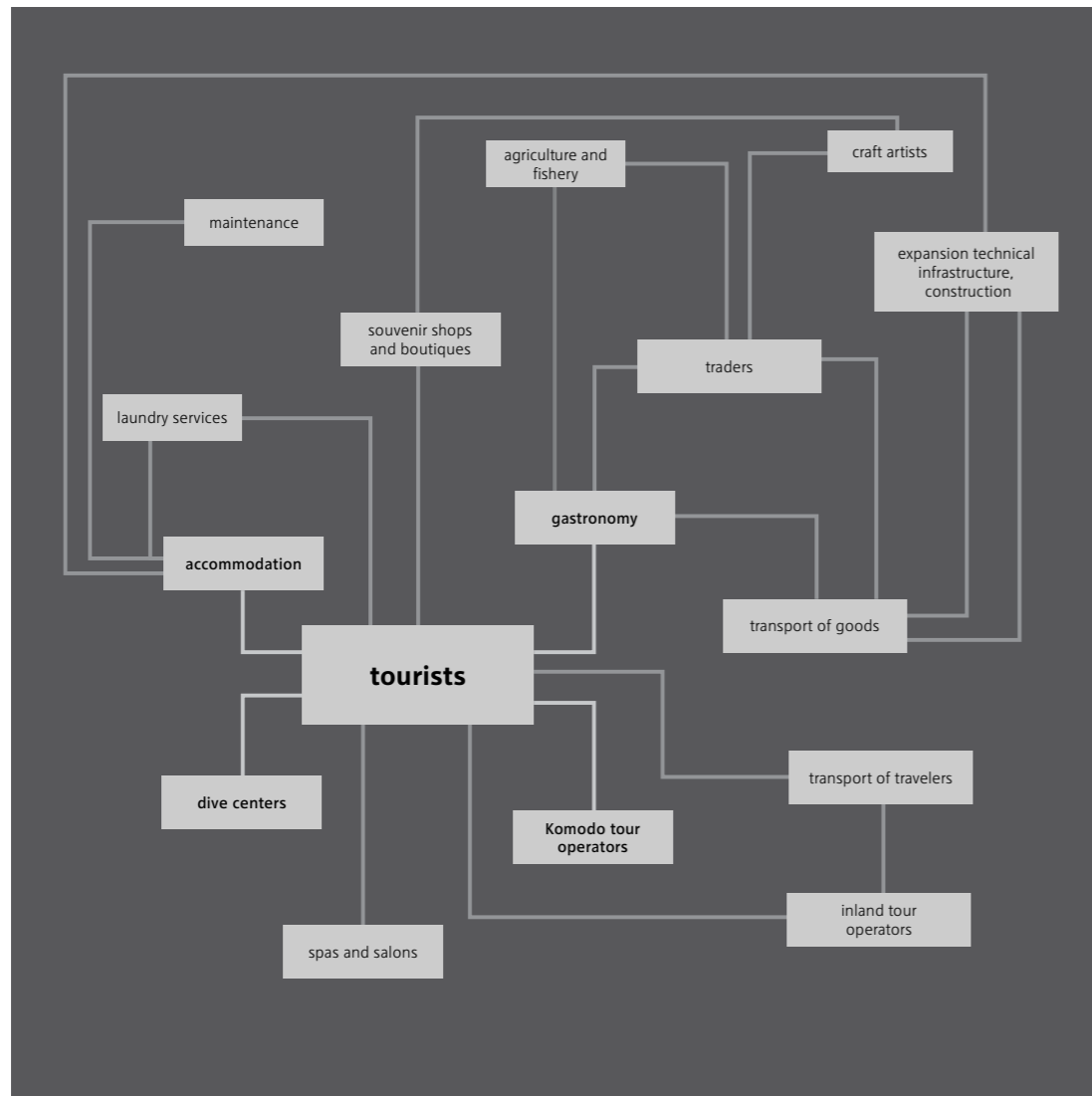


figure nr. 16: Impact of tourism on economical sectors¹¹⁵

The graphic shows what other sectors are influenced by the tourism. The rising number of tourists does not only affect the hospitality sector or tourism operators, but there are outsourced services (for example if the maintenance and the laundry service is outsourced it has an impact on this sector), which benefit of a larger number of travellers, but also sectors which profit because of a wealthier government and a rising public income. The graphic also shows if a sector is directly linked with tourism or indirectly influenced.

As mentioned before there are four direct services which are consumed by every traveller in Labuan Bajo. The influence on local conditions depends on the type of tourism. However, specific tourists might be more aware of their impact while others prioritize to enjoy their holiday regardless on their footprint. These “types of tourists” and their impact are described in chapter “4.2.5. Types of tourists”.

¹¹⁵ Figure nr. 16: own elaboration

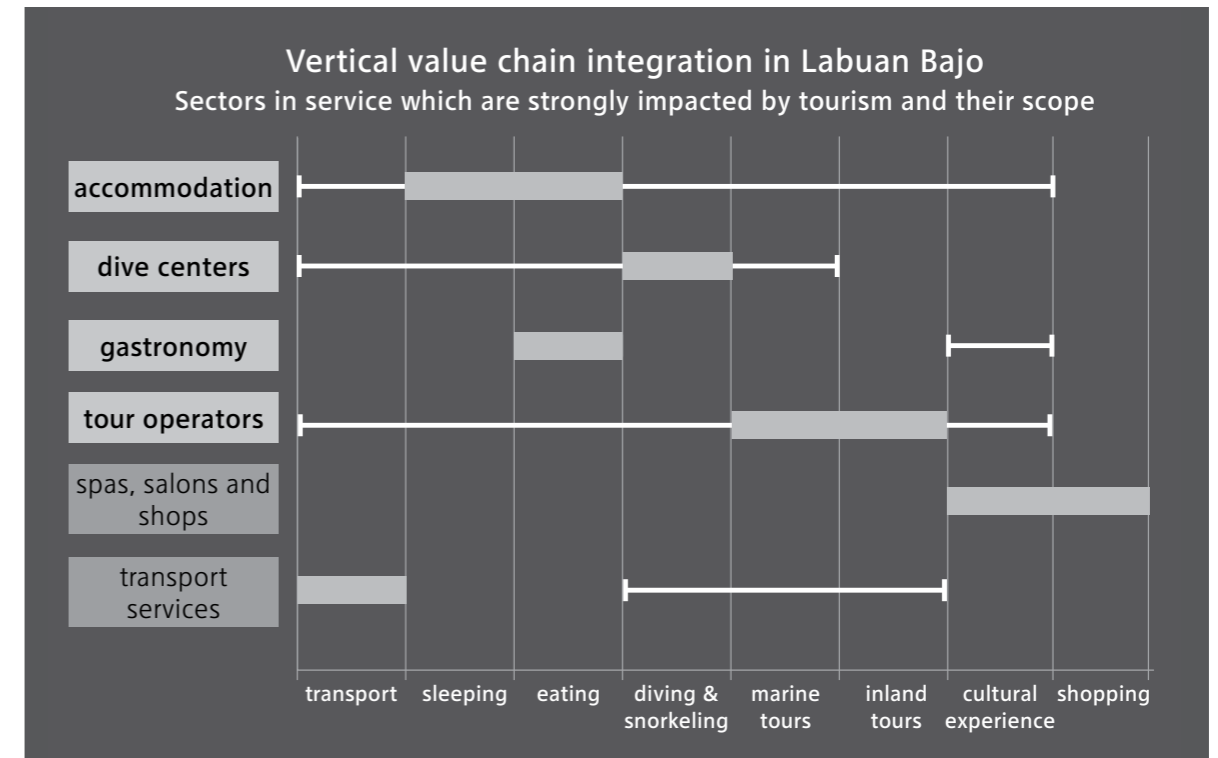


figure nr. 17: Vertical value chain integration in Labuan Bajo¹¹⁶

Findings from the survey of Swisscontact were linked with the results of the author from observations and interviews with different tourism operators. The six service sectors on the left are the ones which are strongly effected by tourism. On the bottom line their offered activities can be found. The accommodation sector profits the most from tourism, since it can offer a large variety of activities tourists are interested in. A majority of the dive centres provide accommodation and food supply for one or more days. The gastronomy sector is the only one which usually does not provide any other activities. Like dive centres tour operators try to address a large target group by offering a wide variety of services for travellers. Most tours are booked at tour operators, only a small minority organizes their trips directly with locals. Unfortunately safety is an issue among local tour operators or boat owners, so foreign business owners (mostly European) are much more likely to be chosen for day trips than others. During the research stay of the author news were spread about boats which capsized because it was not properly maintained or overloaded.¹¹⁷ Offers of spas, salons and shops do not usually overlap with other sectors. Transport services often provide tours to different sights but as mentioned before, safety is often an issue. Travellers can ask boat owners directly to take them to snorkelling spots, and often they will be happy to show them around and earn some extra money.

4.3.1.10. TYPES OF TOURISTS IN LABUAN BAJO

In chapter “3.3.2.1. Tourism subjects: tourists” different types of tourists were described^{118, 119, 120}.

¹¹⁶ Figure nr 17: own elaboration based on: Remmer, Stefanie (2016: 18)

¹¹⁷ articles about capsized touristic boats: <https://travel.kompas.com/read/2018/12/24/081700127/dua-penumpang-kapal-la-hila-hilang-di-tn-komodo;https://phinemo.com/kecelakaan-laut-di-perairan-kepulauan-komodo/>

¹¹⁸ UNWTO (2013: 18-46)

¹¹⁹ Bieger, Thomas (2006: 55)

¹²⁰ Tingler, Philipp (2011)

¹²¹. They are divided according to their activities during their trip. To cluster those groups and also draw a conclusion of their impact on the further development this information was combined with how the traveling is organized. The first classification had been made before the research stay, by observing the offer of accommodation and tours, by reading literature about Labuan Bajo and talking to people who have been there before. During my stay I talked to around 50 travellers and specified the types by the results of their interviews. Combining the purpose and the organization of traveling and keeping the destination Labuan Bajo in mind, three types were summarized.

This three types have numerous subcategories, and not every tourist fulfils all criteria. It is a way to simplify the complex structures of tourism and to allow a prediction of how different types of tourists impact the further development of Labuan Bajo.

Backpacker:

This group is very common in Indonesia. Most of them travel through Indonesia or South-East-Asia with a backpack. They are open to new experiences. Usually they travel by themselves or in small groups of 2-4 people. Their aim is to live an adventure and break out of their daily routine, they want to gain knowledge about the local traditions and visit different places. Due to their low budget they mostly stay in hostels or homestays, sometimes even with locals, sometimes they prefer middle budget hotels. Their activities are characterized by nature and sport, they want to explore new spots. For transportation on land a backpacker chooses a motorbike or a public bus rather than organized transportation by tourism operators.

In literature this type is classified in these groups:

- » *nature and outdoor, demanding culture tourist, young and fun adventurous, unconventional explorer*¹²²
- » *cultural tourism, ecotourism, rural tourism, adventure tourism, coastal, maritime and inland water tourism, mountain tourism, sports tourism*¹²³,
- » *adventurous type*¹²⁴

Holidaymaker:

Holidaymakers are characterized according to their wish for relaxation. Their busy lives guides them to chose a typical holiday destination where they do not have to worry about anything. Criteria for the location is a nice hotel with beach access and stress-free transportation. They are interested in daily tours, but mostly they chill out. A typical example for this type of holiday is a family or a group of friends. They enjoy to meet people like them and share dinner or a drink in the evening. Cultural assets are not a main influence factor of their destination. Integration therefore is not necessary. Holidaymaker do not change their style of clothes on their trip, their behaviour is adjusted to their holiday mood. Other than backpackers they like to stay at one place and not change their place of residence during their holiday.

In literature this type is classified in these groups:

- » *nature and outdoors, loyal traditionalists, family holiday, sun and beach package tours*¹²⁵
- » *wellness tourism, gastronomy tourism, coastal, Maritime and Inland Water Tourism,*

121 Birze-Harder, Götz (2004)
 122 Birze-Harder, Götz (2004)
 123 UNWTO (2013: 18-46)
 124 Tingler, Philipp (2011)
 125 Birze-Harder, Götz (2004)

- urban/city tourism, mountain tourism, sports tourism*¹²⁶,
- » *package tourists, luxury tourist, average tourist (it is very likely that a person who is in this group changes to one of the other two)*¹²⁷

Program traveller:

Gaining different impressions, visiting sights and getting to know the local culture is a priority to program travellers. Other than the backpacker a program traveller needs support to organize the trip. Most of the time they travel in large groups with a local guide who shows them around. The program is full of sightseeing and getting to know the typical traditions of a destination. Dinner reservations are made in big restaurants who serve the local dish, transportation is often made by bus or ferry with a high capacity. Stops are not too long since the program is busy, over night stays are booked in big hotels with an international standard.

In literature this type is classified in these groups:

- » *nature and outdoors, demanding culture tourists*¹²⁸
- » *cultural tourism, rural tourism, gastronomy tourism, coastal, Maritime and Inland Water Tourism, urban/city tourism, mountain tourism, sports tourism, education tourism*¹²⁹,
- » *package tourists, luxury tourist*¹³⁰

To give a better picture of these classified tourist types, they shall be combined with the categories of tourists according to Berger:

	Backpacker	Holidaymaker	Program traveller
Why: content	visiting, holiday, unconventional, education	holiday, wellness and health	holiday, education
Why: motive of traveling	adventure, recreation	recreation	education, recreation
Why: destination	nature, landscape, culture, cities	beach, water, nature	culture, cities, nature, gastronomy
How: duration of travel	long (> 1 week)	middle (1-2 weeks)	short (< 1 week)
How: date of travel	main and mid season	main season	main and mid season
How: means of transportation	plane, car, motor-bike, boat, ferry, bicycle	plane, car, ferry	plane, bus, ferry

126 UNWTO (2013: 18-46)
 127 Tingler, Philipp (2011)
 128 Birze-Harder, Götz (2004)
 129 UNWTO (2013: 18.46)
 130 Tingler, Philipp (2011)

How: type of participant	(young) adult, couple, pensioner, friends	family, teenager, couple, friends, group, pensioner	adult, pensioner, group
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Table nr. 3.: Comparison of the different types of tourist by in (Berg 2014: 5)¹³¹

4.3.1.11. TYPES OF ACCOMMODATION

Labuan Bajo offers a wide range of hotels to different target groups. Since the types of tourists were classified in the previous chapter, in the following the categories for accommodation types shall be defined. The development of Labuan Bajo is closely related to the kind of holiday which is being made in the city. Criteria for the impact are the area usage, the use of resources, the linkage to the local culture etc. and have to be considered by developing a new tourism hotspot. UNWTO classified three different types¹³²: youth hostel, which takes up about 20m² per person, the middle budget hotel accommodates guests for 50m²/person and the luxury hotels where an average was stated with 100m², but due to different land prices and other indicators this sector can vary very much. According to Scott¹³³ land use is more extensive the easier and cheaper land is available. The calculation of land use in the luxury sector in Flores showed that the average land use per bed is 287m² (further calculations are conducted with 280m²), Gössling's result is 284m².

Homestay:

If locals are involved in tourism businesses they often decide to offer rooms on their own land. Benefits for tourists are often the price, which varies between 150,000 and 450,000 Rupiah (10€ -30€) and the close contact with locals. People who wish to experience the daily life in Flores chose a homestay hotel. The standards depend on the owner, but it can be very low, sometimes there is no western toilet or shower, but a water basin and a bucket. This results in a very low use of resources, warm water is seldomly available and often there is no air condition. Language barrier often is an issue, sometimes the owner speaks English, but staff often does not. Nevertheless, the impact on the local economy is very high, the owner and the staff are Indonesians. UNWTO indicates the land use of middle budget hotel, which applies here in terms of space, for 45m² per person.¹³⁴

Examples for homestay accommodations in Labuan Bajo are: Tado homestay network¹³⁵, Hotel Surya, Te Teuz B&B, G-Rima Homestay...

Low budget (hostel):

Hostels are reasonably priced accommodations mostly used by backpacker. The standards vary and so does the price. One night costs between 90,000 Rupiah and 350,000 Rupiah (around 5€-23€), depending on the facilities. Tourists value the central location of hostels and usually only stay a few nights. The contact to locals is little due to the high amount of people on little space. If the owner is Indonesian he or she is often eager to get in touch with his or her guests. It is easier to meet other travellers due to the high share of common space and only little privacy. Due to this fact many people who travel alone or in small groups prefer hostels. In Labuan

¹³¹ table nr. 3: Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 5)

¹³² Gössling, Hall, Scott (2015)

¹³³ Gössling, Hall, Scott (2015)

¹³⁴ Gössling, Hall, Scott (2015)

¹³⁵ Tado Homestay (online)

Bajo there is a wide range of hostels, they reach from very low basics and Indonesian hygienic standards to big rooms with air conditioning and large common space with a pool. With the wide-ranging offer the origin of the owner also varies. A high share of them are lead in western style and well booked by western backpackers. Due to the versatile range of accommodation the average land use is difficult to calculate. The UNWTO¹³⁶ indicates an average size of 20m² but due to the high-quality of facilities in most hostels located in Labuan Bajo an average land use of 30m² is more appropriate.

Examples for hostel accommodation in Labuan Bajo are: Palm Hostel, One Tree Hostel, Harmoni Backpacker, P'Adi Backpacker, Cool Corner Backpacker, ...

Middle budget:

This category is one of the most common one in the centre and the area of Labuan Bajo. The most common guests are couples or families who want to stay in a central location. Their appearance varies between multi storage buildings, one storage buildings or bungalows. Facilities comply with middle standard, mostly rooms with air condition are offered, hot showers are seldomly available. Besides homestays this is the commonly Indonesian owned form of accommodation.

Examples for middle budget accommodations in Labuan Bajo are: Gardena Hotel, Tree Hotel, Orange, Green Brundi Hotel, Hotel Kasuwari, Casa Selini...

Luxury:

An expanding sector in Labuan Bajo which has been around for 5-10 years are luxury hotels. They are characterized by their high quality facilities, high price for hotel rooms and food. They are usually situated close to the beach, most of the time with beach access, but further away from the hustle and bustle of the city. The owners are not from Labuan Bajo, but sometimes originate from other parts of Indonesia, mostly Bali or Java. International investors prefer to build hotels in the luxury sector. Privacy is a valuable commodity and therefore access is prohibited for external people. Due to the fast growth of luxury hotels, beach access has become a scarce resource in Labuan Bajo, especially for locals. Facilities range from big suites or bungalows, air condition and hot water showers, private tours to Komodo, sometimes by speed boat, gastronomies from all over the world and so on. To satisfy their guests, employees are very well educated and in case they have direct content with travellers they have a good command of English. Due to the large share of imported goods and the high use of resources, this sector contributes the most to pollution and other negative aspects of tourism. The average land use depends on the building structures. Some hotels consist of stand-alone bungalows, others are multi-storeyed buildings. The average was calculated with 280 m². This type is classified as a "classified" hotel by the "Regional Tourism Agency".¹³⁷

Examples for luxury accommodations in Labuan Bajo are: Plataran, La Prima, Ayana, The Jayakarta Suites, Seraya Hotel and Resort, Hotel Silvia, Le Pirate, La Cecille

Luxury-eco:

Beside of big investors there are other business people interested in owning and managing hotels with international standards. Compared to the previous paragraph these people are more considerate of a sustainable hotel management and therefore a line has to be drawn. Mostly they are foreigners who chose to live in Labuan Bajo and make their living by offering a

¹³⁶ Gössling, Hall, Scott (2015)

¹³⁷ Badan Pusat Statistik (online)

different kind of accommodation also to raise awareness among tourists. These hotels revert to local products and traders and awareness for the limitation of resources is raised. The building structure is chosen to adapt to the missing air condition. Water is reused and rain water is collected. Due to the typical building structure of bungalows the land use is higher than in the previous described sector, they are located outside of the city centre, mostly next to the beach.

Examples for luxury-eco accommodations in Labuan Bajo are: Puri Sari Hotel, Waecicu Beach Inn, Villa Selini on the Hill

Overview: Different types of accommodations:

	Homestay	Low budget	Middle Budget	Luxury	Luxury eco
Price per night (in IDR)	150,000 - 450,000	100,000 - 350,000	300,000 - 700,000	700,000 - 3,000,000	700,000 - 3,000,000
Price per night (in EUR)	around 10€ - 30€	around 6€ - 23€	around 20€ - 45€	around 45€ - 200€	around 45€ - 200€
Benefit for local economy	very high	low	high	low	low
Land use	40 m ²	20 m ²	50 m ²	280 m ²	280 m ²
Water consumption	low (low standard)	medium (low or western standard, pools)	medium	very high	medium
Energy consumption	low (low standard)	medium (low or western standard)	medium	very high	medium
Culture linkage	high	low	medium	low	low

Table nr. 4.: Comparison of the different types of accommodation¹³⁸

Intersection: Types of accommodations and tourists:

In the next step the types of tourists are matched with the respective types of accommodation for a better understanding. With this table, the difference between these categories shall be cleared once again. Not every type of tourist as well as hotel has the same impact on Labuan Bajo.

	Homestay	Youth Hostel	Middle Budget	Luxury	Luxury Eco
Individual tourist	X	X	X		
Holidaymaker			X	X	X
Program traveller				X	X

Table nr. 5.: Merge of accommodation and tourist types¹³⁹

The average tourist in Flores is characterized by a period of stay of approximately 2-3 days¹⁴⁰, with respect to accommodation they choose to stay in a 3-5 star hotel¹⁴¹, which is a hotel in the middle class or luxury sector in Labuan Bajo. Their country of origin is usually Australia¹⁴². Mostly they arrive as a couple or a small group¹⁴³, the average tourist is 30-39 years old¹⁴⁴.

The way a person chooses to travel determines which type of accommodation is being chosen and what kind of activities are chosen. The local value chain modifies accordingly. In chapter “4.2.4. Impact on other economic sectors” the spill overs of tourism were described and a graphic showed different sectors which are affected by tourism businesses. The following graphic visualizes spill-over effects by a holidaymaker who stays in a beach resort which offers transport to the airport, day trips to Komodo and has its own restaurant. The government wants to attract these kinds of hotels (e.g. three hours investment program) and therefore improves the needed infrastructure.

139 table nr. 5: own elaboration
 140 Badan Pusat Statistics (2017, b)
 141 Badan Pusat Statistics (2017, c)
 142 Remmer, Stefanie (2016: 57)
 143 Remmer, Stefanie (2016: 5)
 144 Remmer, Stefanie (2016:5)

138 table nr. 4: own elaboration, data base from: University of Technology, Sydney (2017)

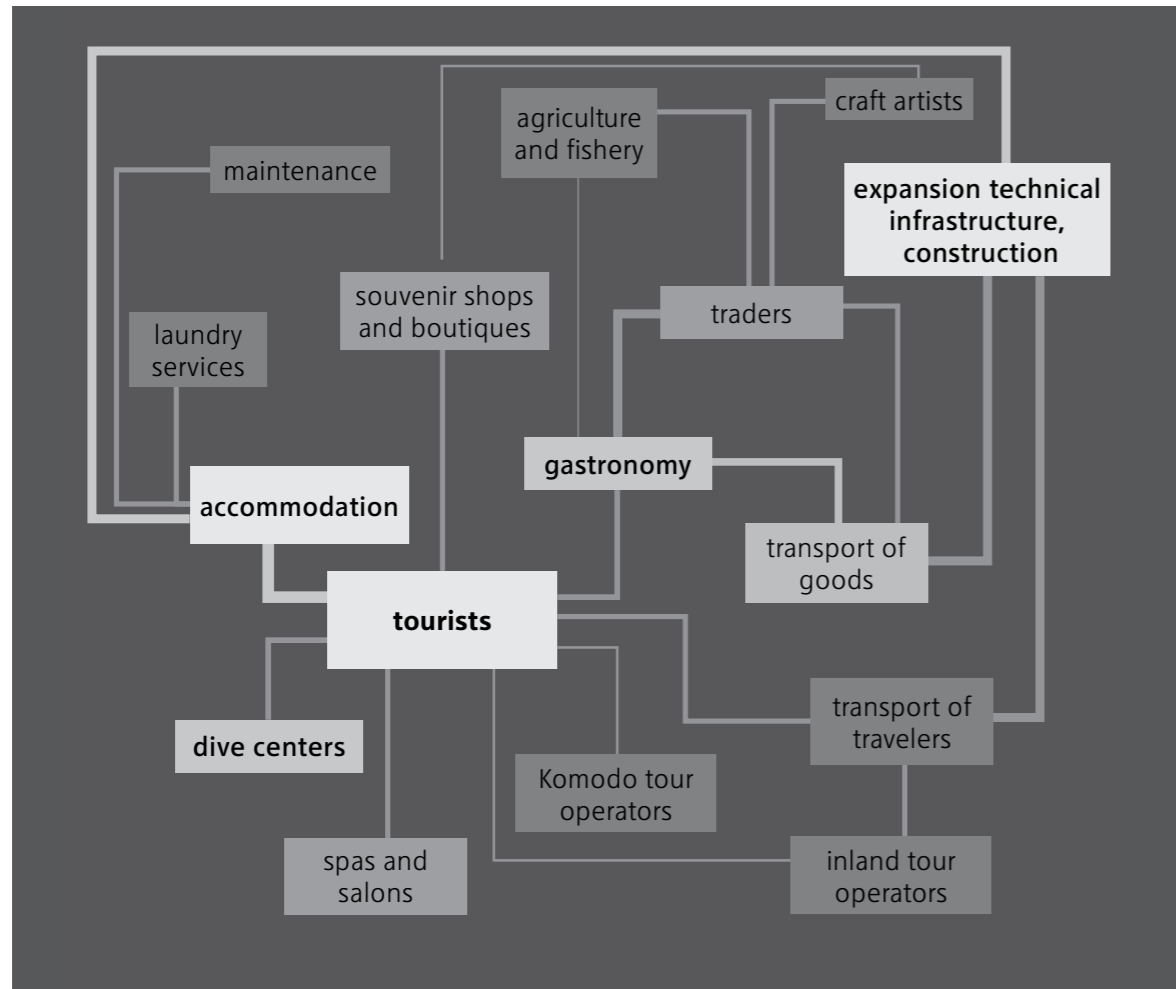


figure nr. 18: Impact of tourism on economical sectors¹⁴⁵

Combining the accommodation types with provided data of Swisscontact, 35 % of all tourists stay in luxury hotels, 43% choose middle budget accommodation and 22% stay in lower classes.¹⁴⁶ With a share of 14% the homestay type is far lower than its availability. According to Indecon, which implemented a homestay network in Tado, about one hour East to Labuan Bajo by motorbike, despite a supply of ten homestay rooms, only one guest at a time shows up. During low season they hardly have any guests. The average period of stay in homestay accommodations is around one week, which in comparison is twice as long as in other types of hotels. Back in 2017 Swisscontact counted 27 hotels in the luxury sector¹⁴⁷. There were 49 “non-classified hotels” in Labuan Bajo according to BPS¹⁴⁸. Due to the fast growth this number can only be a reference value.

145 Figure nr. 38: own elaboration
 146 Remmer, Stefanie (2016:13)
 147 Figure nr. 38: own elaboration, based on: Remmer, Stefanie (2016: 13)
 148 Badan Pusat Statistik (2018)

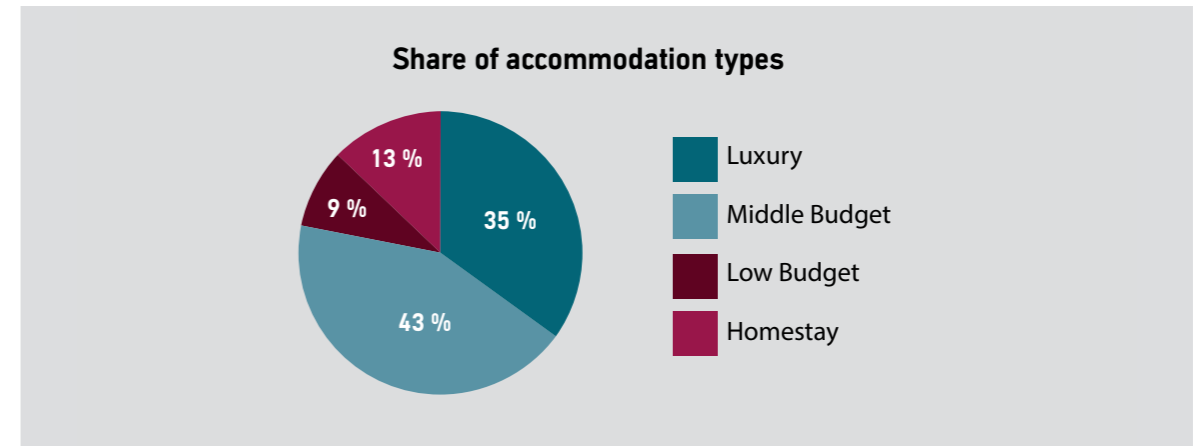


figure nr. 19: Share of accommodation¹⁴⁹

The following two figures show very clearly which type of accommodation is growing and most requested among travellers. While there were hardly any hotels in the luxury sector located in Labuan Bajo, this field has grown significantly since 2006. With an average occupancy rate of nearly 60% the “classified” hotels, which is according to BPS every hotel which has an own restaurant and hotel management¹⁵⁰, report good occupancy rates over the whole year, while at “non-classified” hotels only 20% of the rooms are occupied during the year. Both types reach a peak of occupancy during high season from April to September.

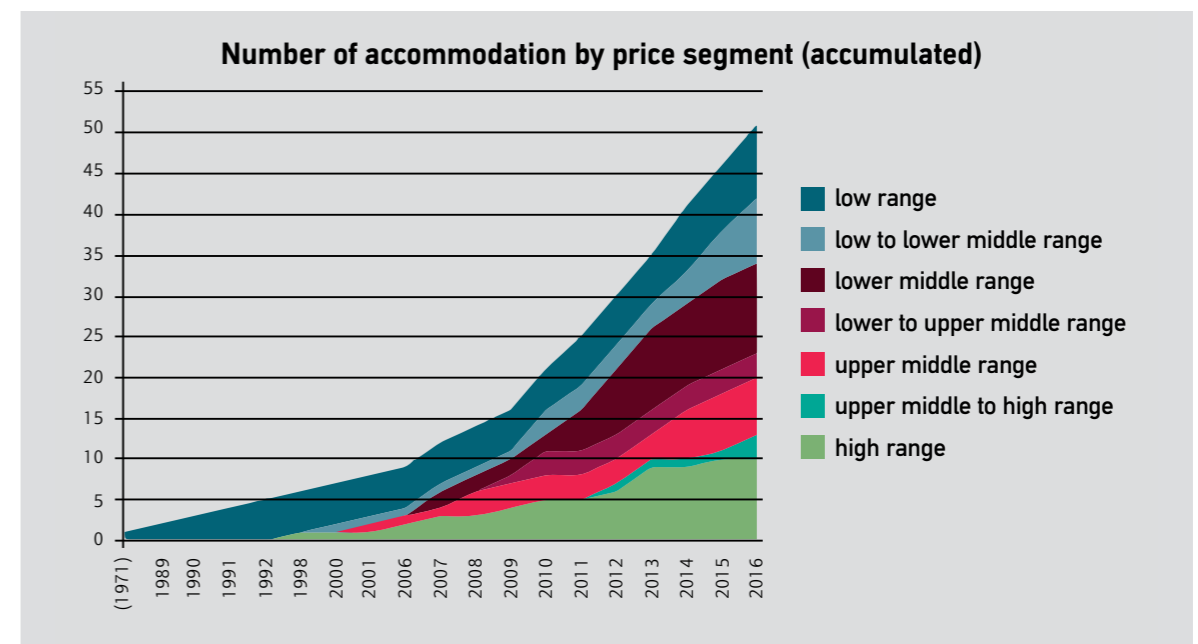


figure nr. 20: Number of accommodation by price segment ¹⁵¹

149 Figure nr. 19: own elaboration, based on: Remmer, Stefanie (2016:13)
 150 Badan Pusat Statistik (online):
 151 Figure nr. 20: Remmer, Stefanie (2016: 14)

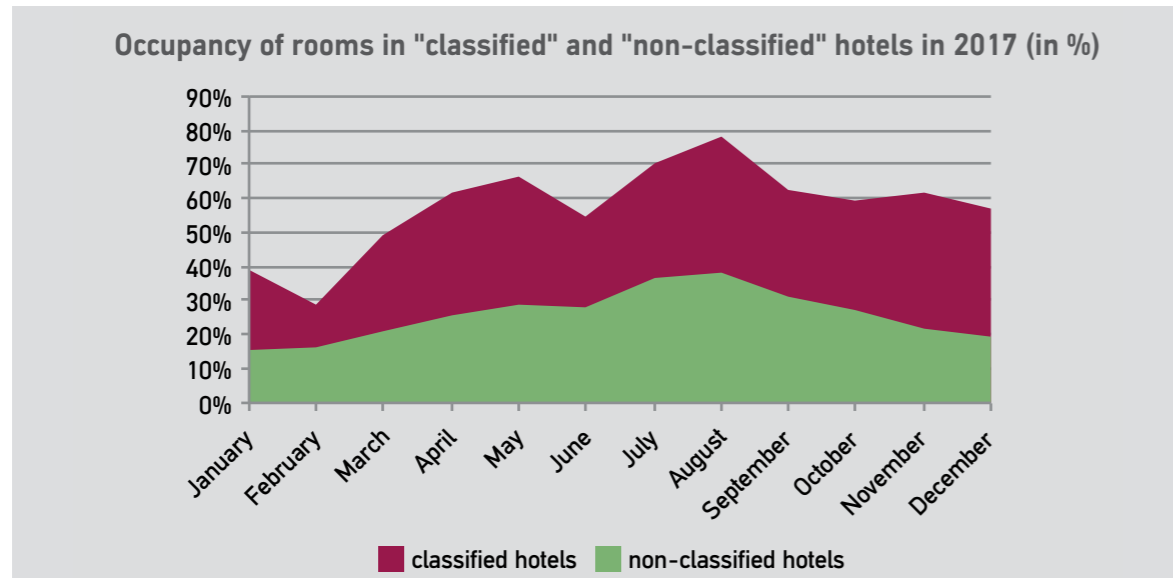


figure nr. 21: Number of accommodation by price segment ¹⁵²

4.3.1.12. WORKING MIGRATION DUE TO TOURISM

Employment statistics show the money gained in Labuan Bajo is mostly spent in other regions of Indonesia, mostly Bali or Java. Due to working migration employees often spend a couple of months during the high season on the island, but go back to their places of origin during the low season, where they have their primary residence. Two thirds of the owners of accommodation businesses are not originally from Flores. Even though the money is partly spent in Indonesia due to migration, the imbalance between the well and lesser developed regions in Indonesia is reinforced. Flores business men and women are more prevalent in low budget accommodation and diving operators rather than in the higher value industry segments. ¹⁵³

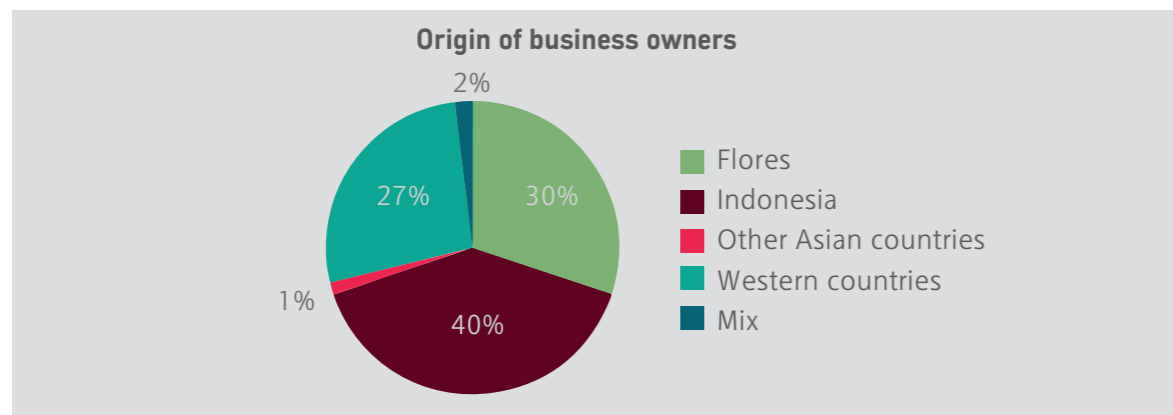


figure nr. 22: Origin of business owners ¹⁵⁴

The share of foreigners increases if the owners run more than one business in Labuan Bajo. The majority of the interviewed people ran only one business. However, the number is expected to rise, since many of the participants are planning to extend their number of businesses.

¹⁵² Figure nr. 21: Badan Pusat Statistik (2018)

¹⁵³ Remmer, Stefanie (2016: 16)

¹⁵⁴ Figure nr. 22: Remmer, Stefanie (2016: 17)

Around 25% owned more than one business, 3 operators have accumulated a higher number of businesses and acquired land in Flores for speculative purposes. While the diving operators provided different kind of tours like snorkelling and hiking tours in Komodo, none of them offered inland tours on Flores. This shows how important Komodo and its Marine park are for the tourism development. The focus lies on Komodo, and that is the only reason the majority chooses the island as their holiday destinations, other parts of Flores are seldomly visited.

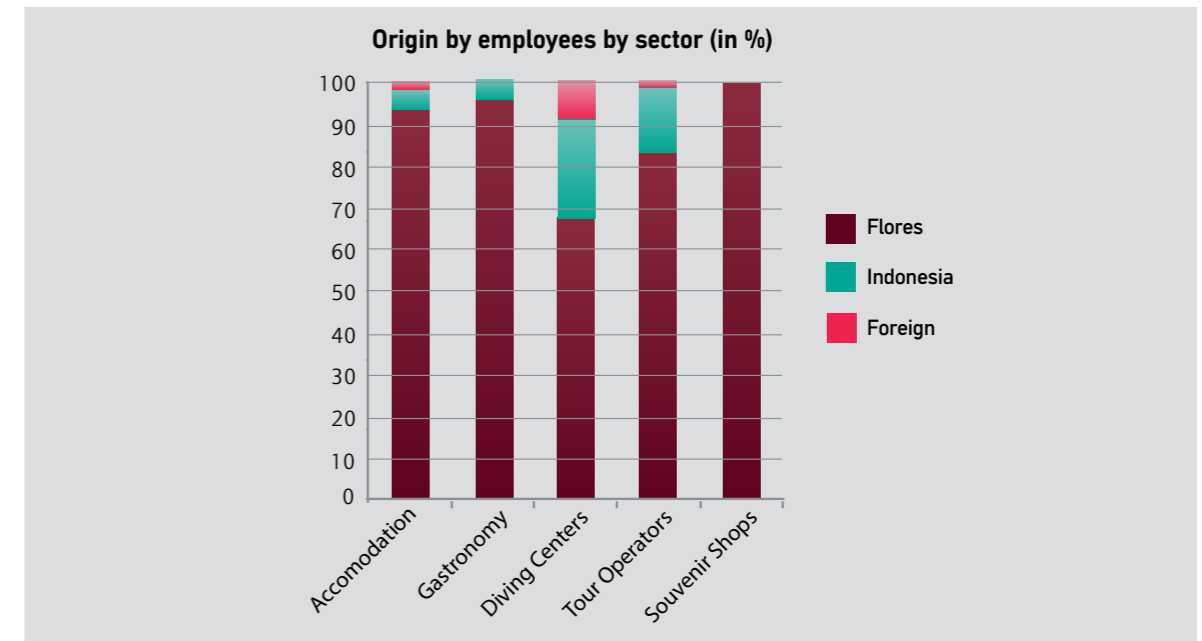


figure nr. 23: Origin of employees ¹⁵⁵

Due to the low salary a high share of the staff originates from Flores. Highly educated work staff is more likely to migrate from other regions of Indonesia or from abroad. The low wages are not in line with the law, 60 % of the questioned businesses by Swisscontact are not fulfilling the Indonesian working conditions. Own investigation with ASITA confirmed this issue. Most employees earn only half of the minimum regional wage. In many cases no contracts exist between the employer and employee, workers do not have a maximum of working hours per week. Especially during the high season this often results in 7 days work a week. ¹⁵⁶

4.3.1.13. WORKING CONDITIONS AND SALARIES

Net salaries in Labuan Bajo range between 600,000 Rupiah and 25,000,000 Rupiah (around 40€-1600€). The average salary in gastronomy is about 1.1 Mio. Rupiah (around 70€). People in investigated restaurants (which shall remain anonymous) earn around 800,000 Rupiah (around 50€) during their introduction phase and have to pay for their food. Only about 60% of all employers pay bonus payments (Christmas, ...). According to official statistics of Indonesia 1.2 Mio Rupiah/months (around 77€) should suffice to bear all expenses like food and drinks, clothing, housing, education, health expenditures, transportation, recreation and savings ¹⁵⁷, thus is the legal minimum wage of 1.2 Mio. Rupiah. This number is the same for the whole province Nusa Tenggara Timur, while the living costs in Manggarai Barat are influenced by tourism.

¹⁵⁵ Figure nr. 23: Remmer, Stefanie (2016: 22)

¹⁵⁶ Remmer, Stefanie (2016: 23)

¹⁵⁷ BPS Provinsi Nusa Tenggara Timur (2012) in Remmer, Stefanie (2016: 43)

The minimum wage is not paid by a third of all businesses (with regards to the lowest salary in these businesses), and 20% do not even pay the minimum wage with regards to the highest salary in these businesses)¹⁵⁸. Although it has to be taken into account that about 90% of these business provide either free food or accommodation or both. It can be said that large share of the profit from tourism does not reach local employees.

The less a sector is related to tourism, the lower the formal educational degree is on average. A third of all employees in directly impacted business sectors (kiosks, motorbike rental, laundries, snorkelling gear rental) and 55% of informal sectors (fish market sellers, food stands, fruit and vegetable sellers, ojeks, taxis and overland drivers, boat captains or crew members as well as souvenir street vendors) attended only primary or secondary school. Compared to direct tourism business (gastronomy, diving, accommodation), where only 10 - 15 % have a lower educational level than vocational schooling.

Since the income of these sectors varies on daily basis, the conditions and changes in real times over the last years cannot be measured, but 60 - 75 % of the questioned employees claimed that their living conditions have improved over the last two years.

4.3.1.14. POVERTY

Until 2014 the share of people who lived below the poverty line in Manggarai Barat has slightly improved. Also compared to the neighbour provinces Manggarai Barat has developed faster. Interestingly the number has increased temporary between 2014 and 2015, probably caused by migration. Since Labuan Bajo was known for improvement, people from other provinces tried their luck in Manggarai Barat. In conclusion it can be said that there is no significant improvement of the economy and the inhabitants living standard visible yet. The number of people who are living below the poverty line in Manggarai Barat decreased from 28% to 18% within 10 years, but that is in line with the neighbouring regencies and taking the growing tourism into account the impact on the local economy is lower than expected.¹⁵⁹

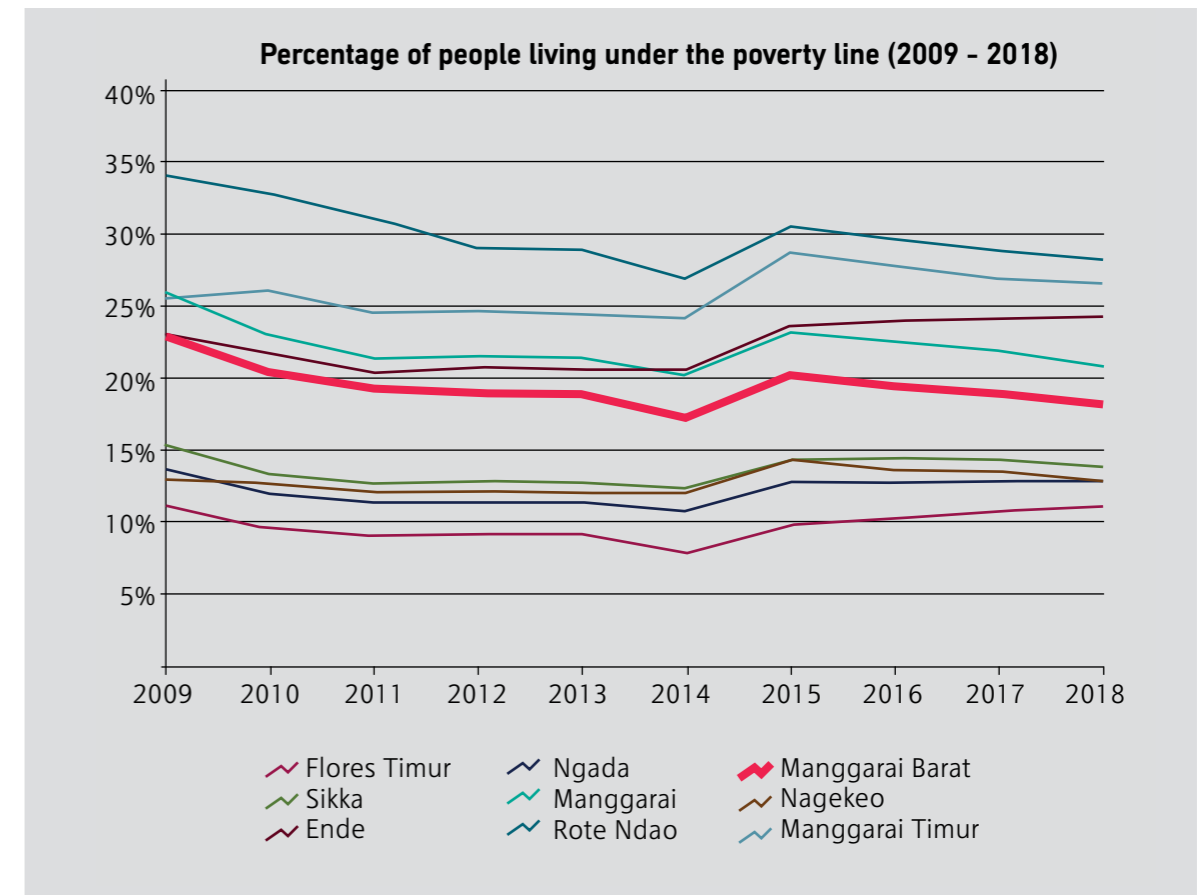


figure nr. 24: Percentage of people living under the poverty line (2009 - 2018)¹⁶⁰

4.3.1.15. HEALTH CARE

Overall the quality of health care did not improve because of tourism. In 2016 Rumah Sakit Siloam Labuan Bajo opened, which is a high-quality-hospital. The operator usually invests in touristic areas to benefit from wealthy tourists, but the improvement for locals is not extent as it is not affordable.

State social security system (BPJS Ketenagakerjaan)

The state insurance BPJS covers pension and health care. 6% of the participating businesses in the survey of Swisscontact which work directly in tourism did not pay for the BPJS of their employees. 60% of the people who are employed in the MSE sector (= all sectors which are impacted by tourism like rentals, laundry etc.) indicate that they are not registered for BPJS. While 80% say that it is possible to save money for the retirement 50% of MSE and 70% of informal sector said that they are not even able to save for a longer period of sickness.

4.3.1.16. EMPOWERMENT

The development of tourism has created more jobs for men than for women, but according to Swisscontact the number of female employees is rising.¹⁶¹

During observations it became clear that part of the population found their way to be part of

158 Remmer, Stefanie (2016: 27)

159 Remmer, Stefanie (2016: 34)

160 Figure nr. 24: Badan Pusat Statistik (2018)

161 Remmer, Stefanie (2016: 46)

the process. Several NGOs were found to influence decisions, empower the locals and encourage them to protest against certain kinds of changes. An example is the access to the beaches, which is decreasing because of new hotels that are being built along the coast. A small area at Pede beach is now reserved for locals. This can be either seen as empowerment or self defence, since they saved the last remaining public space. SaveKomodo is another citizen movement which criticizes the fast changes of Labuan Bajo.

Many regions have disadvantages in Indonesia because of their main religion.¹⁶² According to different sources¹⁶³ decisions which are made by the government cannot be changed and the population is aware of this – they follow a top-down approach with hierarchical structures¹⁶⁴. Furthermore the inhabitants are afraid of authorities because they fear repression.¹⁶⁵ Experiences with Indonesian over the years showed, that hierarchies are not questioned, furthermore it is considered rude to disregard somebody with a higher level in society. The group-orientation is perceptibly stronger than in western countries, individuals work for the smooth function of the society, rather than for their own success. This idea is perceived differently in areas which are more touristic.

4.3.1.17. LOCALS AND FOREIGNERS

Every local who had been talked to in the course of this thesis claimed that they appreciate the improvement caused by tourism. They acknowledge the close contact with foreigners and their impact on local structures. The majority mentioned the economical impacts first. In Majaga, a small village south of Labuan Bajo, all the land had been bought by investors and according to the locals and indecon, many hotels are going to be built at the beaches. Majaga is a traditional Muslim village which has not been touched by tourism yet. It must be assumed that this village is not prepared for mass tourism yet. However, all interviewed people reinforced the argument that their children will finally have a job in the village and do not have to travel to Labuan Bajo (which can only be reached by boat at the moment, but a street is being built to ensure the access for the tourists). Only two men who just visited the mosque said that they do not think this will only have a positive impact. None of them brought up the privatisation of the beaches, which is a very recent topic in the touristic areas. Land grabbing is an issue which will be very real in future, when land prices are going to increase and younger generations cannot afford to live close to the city anymore.

Swisscontact came to the same conclusion in their survey. Waste management and limited resources will be a bigger problem in the future. Cultural change is often mentioned by the older generation, younger people enjoy the freedom of the westernisation.

¹⁶² Cole, S. (2008: 279)
¹⁶³ Reisinger, Turner (1997: 139-147)
¹⁶⁴ Eberlein, Burkhard & Grande, Edgar (2003: 175-202)
¹⁶⁵ Cole, S. (2008: 279)

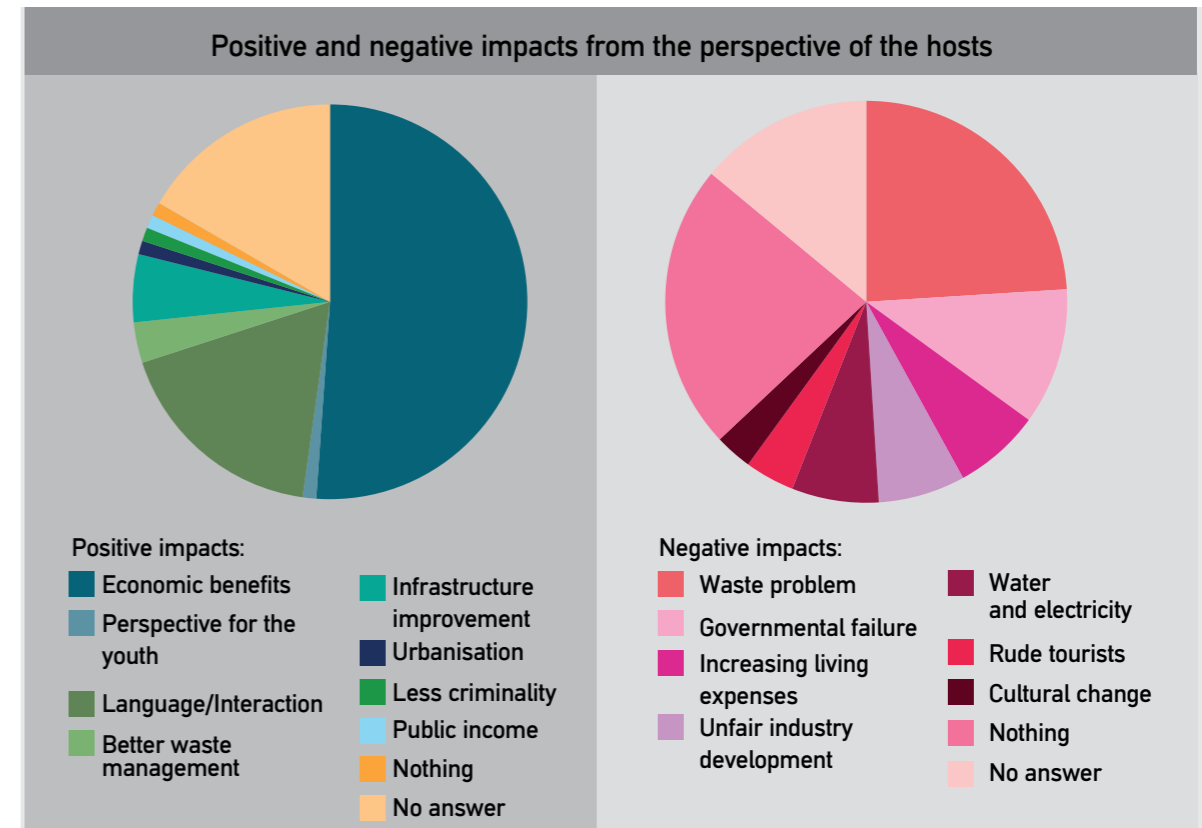


figure nr. 25: Positive and negative impact from tourism (perspective of the hosts, n=81) ¹⁶⁶

Stroma Cole analysed the implementation of tourism strategies in two different regions. According to Mrs. Cole the implementation of tourism in the second region was more difficult due to strong superficial social cohesion. If somebody earns a lot of money – which often happens very easily in the touristic sector – others might get jealous and the one who earned the money has to share it with the whole community. This also means it is hardly possible to get wealthy in communities like those.¹⁶⁷ This was also something observation have shown in Nias, North Sumatra (see prolog). Often people do not even try to earn reasonable money because of the high pressure it causes. On the other hand travellers are seen as very rich people – which they are compared to the locals – and it is believed that wealth has to be shared. This makes many tourists feel very uncomfortable and does not encourage them to return.

4.3.1.18. PUBLIC INCOME

Besides the common way to generate public income, like income taxes, business taxes, capital duties, property taxes, value added taxes and customs fees, public income is generated additionally through entrance fees of protected areas and tourist attractions, which are under governmental management. Public income is shared between the local government of Manggarai Barat and the central government. The amount of income is not transparent, neither is the proportion of the share between local and central government. Since the central government receives three quarters of the income of the Komodo National Park it can be assumed that the share for the central government is much bigger.¹⁶⁸

¹⁶⁶ Figure nr. 25: Remmer, Stefanie (2016: 50)
¹⁶⁷ Cole, S. (2008: 275 et seq.)
¹⁶⁸ Remmer, Stefanie (2016: 41)

Local government	Central government
Private income tax	Corporate income tax
Value added tax	Vehicle taxes
Customs fees	Taxes on land and construction
Komodo National Park fee	Taxes on acquisition of land and buildings
Fee for touristic activities in Komodo National Park	Entrance fee to touristic facilities in Komodo National Park
Harbour and airport fees	

Table nr. 6.: Distribution of taxes and fees to central and local government¹⁶⁹

4.3.2. RELATIONS TO OTHER INDONESIA CENTRES

Labuan Bajo is not a self-contained system. It has got connections with other cities and regions of Indonesia. The most important one is Jakarta, the capital of Indonesia. Since Komodo National Park was defined as a priority destination for tourism, most competences were passed over to the central government. Also a large share of visitors chose the direct way from Jakarta to come to Labuan Bajo. Besides Jakarta, unless the international terminal at the airport is opened, there are only two direct flights from outside Flores to Labuan Bajo: Denpasar, Bali and Kupang, the capital of Nusa Tenggara Timur. Since Bali records the most tourists in Indonesia, the majority of visitors departs from Denpasar. This is also why the economies between these two regions are closely connected. If tourism in Bali decreases, Labuan Bajo will be affected as well. Other important cities in Flores are Ruteng, Ende and Maumere. Individual tourists often visit cities mentioned above. Wae Rebo is another one of Flores' most famous sights. The most dependencies occur between Komodo National Park and Labuan Bajo. The city is the main entrance point to the National Park, the majority of visitors come to Labuan Bajo because of the Komodo dragons. These interdependencies are important to take into account since the change in one system will have an impact on the conditions in Labuan Bajo.

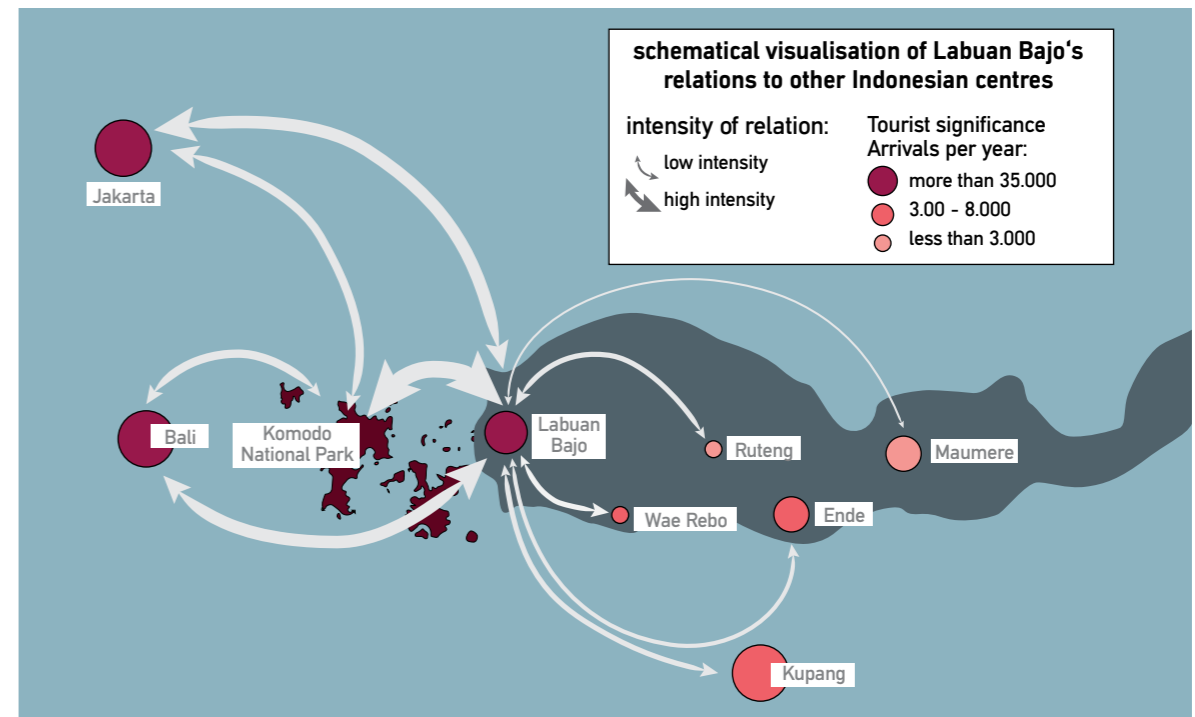


figure nr. 26: Schematical visualisation of Labuan Bajo's relations to other Indonesian centres¹⁷⁰

4.3.3. DEMOGRAPHIC DEVELOPMENT

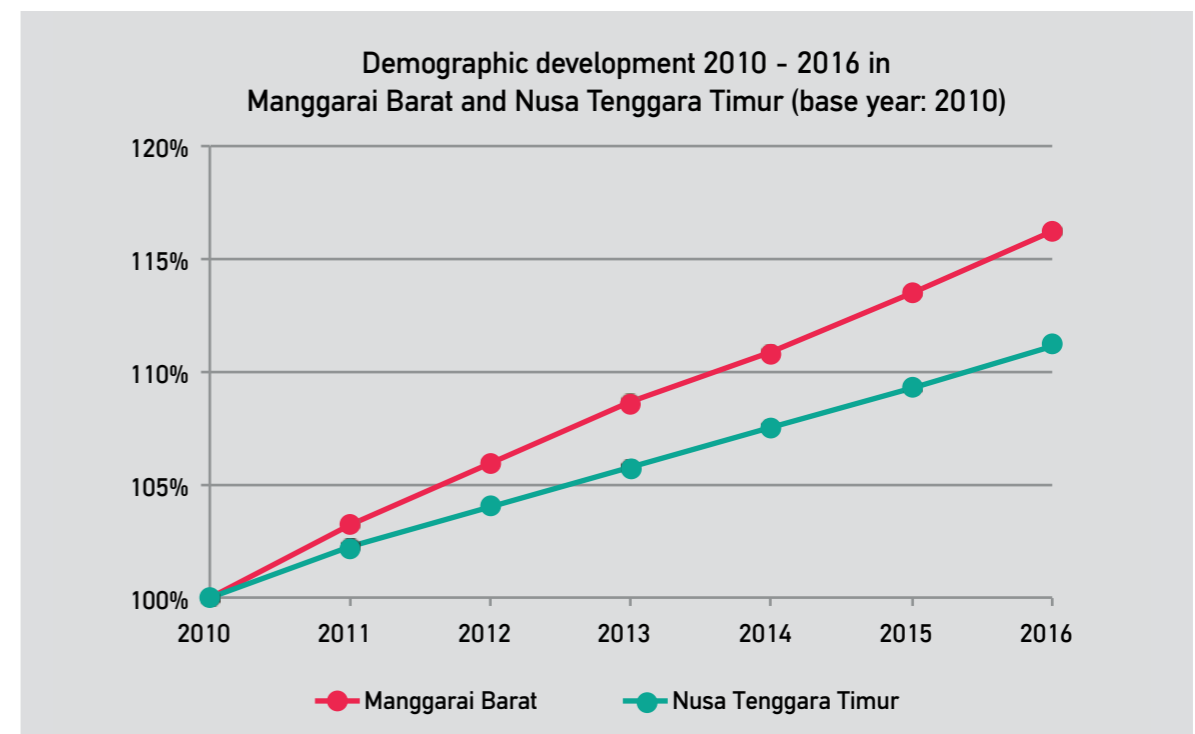


figure nr. 27: Population development Manggarai Barat (district) and Nusa Tenggara Timur (province)¹⁷¹

¹⁶⁹ table nr. 6: Remmer, Stefanie (2016: 43)

¹⁷⁰ Figure nr 26: own elaboration based on the economic analyses

¹⁷¹ Figure nr. 27: Badan Pusat Statistik (2016)

Manggarai Barat has grown more rapidly than the rest of the province. 30.000 inhabitants moved there within only 6 years. The number of inhabitants of Labuan Bajo differs from source to source. According to Swisscontacts research activities in 2016, when there were 30.000 inhabitants in Labuan Bajo¹⁷². The department of spatial planning claims there are more than 50.000 people living in the area of Labuan Bajo. Since there are 12 sub-districts and 169 villages in Manggarai Barat, the administrative border of the city of Labuan Bajo is unclear. The city of Labuan Bajo by administration is only the touristic centre and the Northern part of the coast, while the agglomeration area is much bigger. Clearly the city is growing very fast so the authorities might talk about different administrative areas. Since Labuan Bajo is the closest city to Komodo, it is attractive for job seekers in the region to go there and look for employment. By analysing the population development of the whole district Manggarai Barat the growth of the sub-district Komodo is conspicuous. From 2014 until 2017 the population grew by 10 % only in the villages in the National Park.

Since the 1980's the population growth of the agglomeration area of Labuan Bajo was almost 50%. With increasing economic wealth and job opportunities, also the number of inhabitants grew. In 2000 the population growth surpassed the average the first time, the trend continued and reached another peak in 2010 and 2011. The SailKomodo in 2013 caused another increase of the number of inhabitants which is still measurable. The interviews of employees by Swisscontact revealed, that 20% of the staff of MSE (Micro and small enterprises) and 30% of the questioned people who work in the informal sector said they moved to Labuan Bajo from other parts of Indonesia because of the job opportunities. Most people who were interviewed for this thesis originated from Ruteng or the area around it. Educated staff which is often recruited in Labuan Bajo to teach new employees usually stems from Bali.

Due to the fast growth of the region and the better schools which are located in Labuan Bajo, the age structure is rather balanced. High schools with a focus on tourism attract families of the surrounding areas who send their kids to Labuan Bajo to give them a proper education. A great part of the students and employers in Labuan Bajo are from Ruteng, the next largest city in Flores. This explains the high number of 5 – 14-year-olds. Since the life expectancy rate is only 67 years the age group above 60 years is very small.¹⁷³

172 Remmer, Stefanie (2016: 43)
 173 WFP (2013)

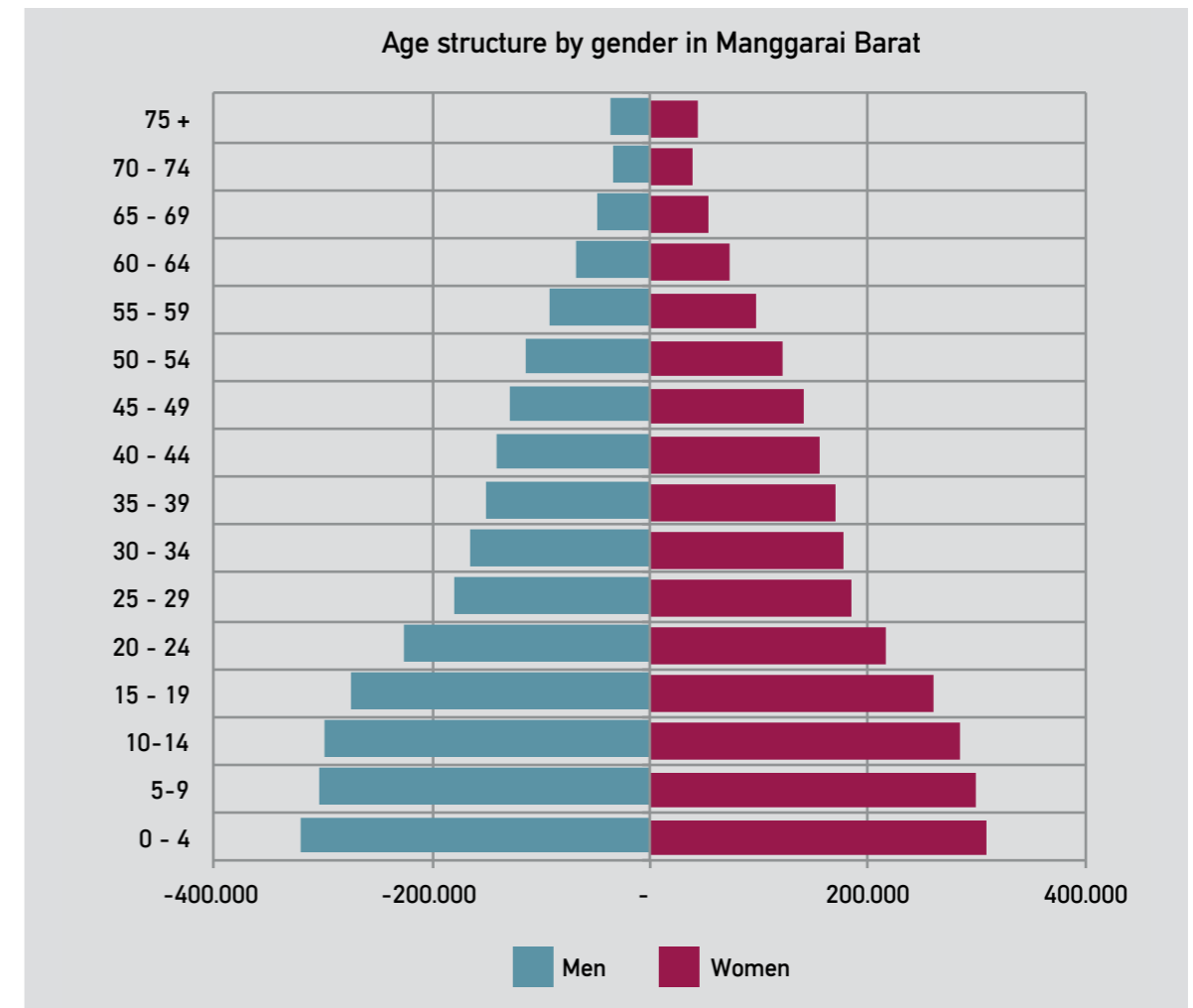


figure nr. 28: Age structure in Manggarai Barat¹⁷⁴

The density of the population in Labuan Bajo is very low. In Manggarai Barat there are only 82 people living per square meter – numbers are expected to rise due to the immigration. In comparison: Java – the highest populated islands of the archipelago – has a population density of 1.121 inhabitants per square meter.¹⁷⁵

The National Statistic Office (BPS) published the projection of the population from 2010 - 2020 – which is a timely limited forecast. Nevertheless it shows that Manggarai Barat is expected to grow more than 23 % over the next years – especially in comparison with the island (12 %) and the province (16 %).¹⁷⁶

4.3.4. EDUCATION

The illiteracy rate in Manggarai Barat is very low – only 3 % of all inhabitants can not read and write. Women more than men - 4 % to 2 %. The rate in the whole province is 7,4 % and thus slightly higher than in Flores (5 %). Due to the better education with regards to the tourism

174 Figure nr. 28: Badan Pusat Statistik Kabupaten Manggarai Barat (2017)
 175 Badan Pusat Statistik (2016: 3)
 176 Badan Pusat Statistik (2016, d)

sector where two new schools were built within the last years, it is expected that the growing economy will influence the rate of illiteracy positively.¹⁷⁷ But the analyses of the GDRP revealed, that the expenses in the education sector are declining.

At the Ujian Nasional (the national education exam) Nusa Tenggara Timur remains the province with the lowest results. The level of education does not improve as fast as the rest of Indonesia. According to an article at “Floresa” – a local newspaper – this is explained by 3 factors: The poor education of teachers which does not allow them to pass on knowledge appropriately. The quality of the class rooms is a mentioned by the ministry of education, which published a statistic of the learning facilities, where Nusa Tenggara Timur was ranked as the province with the most damaged class rooms. 7.652 class rooms were not intact. The last named reason are the school fees: Nusa Tenggara Timur ranks amongst the poorest province in Indonesia, but the school fees are standardized nationwide.

According to Swisscontact well educated workforce rather works in tourism than in other sectors because the jobs are paid better. This affects especially English teachers, who often work for very low salaries in schools. This impacts on the other hand the quality of local schools, which can not afford to rise payment, but need the teacher to educate the students.¹⁷⁸

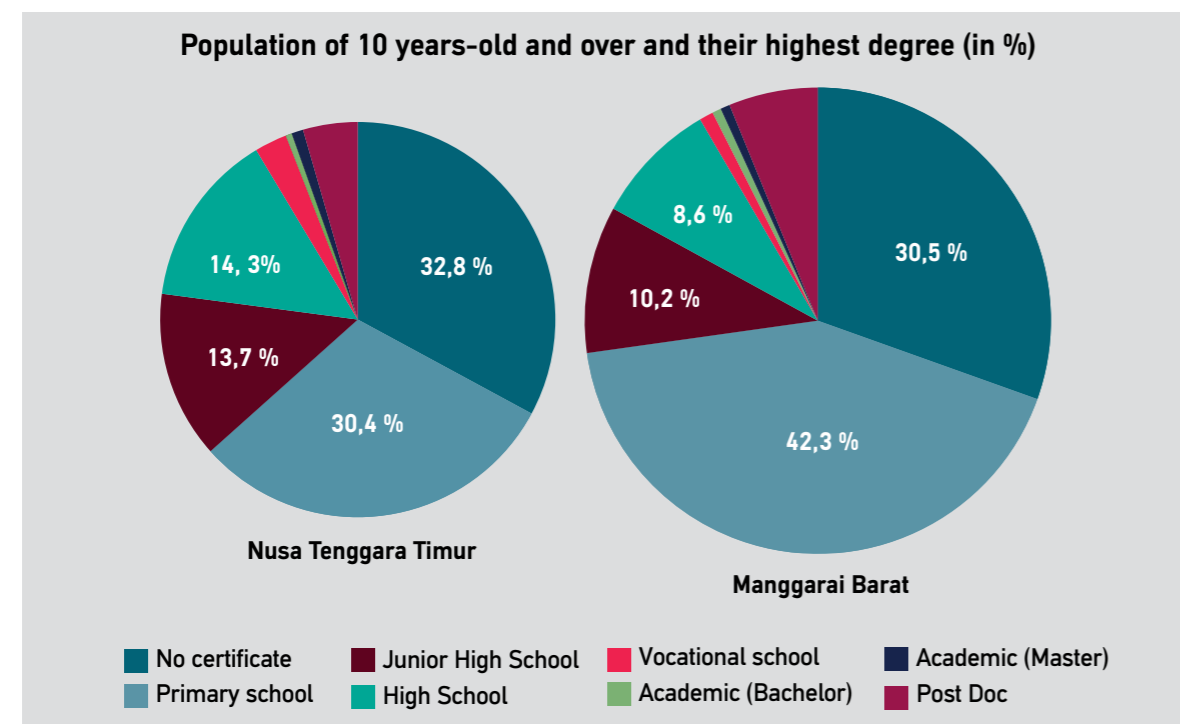


figure nr. 29: Highest degree of education in Nusa Tenggara Timur and Manggarai Barat¹⁷⁹

The share of inhabitants who have only graduated from primary school is 12 % higher in Manggarai Barat than in the whole province. It has to be taken into consideration that the statistical office included all people over the age of 10 years, which results in a very high share of people with no or comparably low educational degree. Most people who work in tourism sector at least attended vocational school.

177 Badan Pusat Statistik (2016, b)
 178 Remmer, Stefanie (2016: 51)
 179 Figure nr. 29: Badan Pusat Statistik (2017)

Often business owners do not educate their staff above the minimum required level. Most of the workers who are needed do not own a higher degree of formal education since they apply for low-skill-jobs. About 50% of business managers come from Flores, the others are either Indonesians or foreigners.

Also the dive instructors at diverse operators are mostly foreigners while the office staff is local. 45% of the dive instructors claimed to bear the expenses of certification courses. A third subsidized the classes. Not a single one of the dive centres recruited Komodo people for marine based livelihood alternatives.¹⁸⁰

4.3.5. CLIMATE AND WEATHER

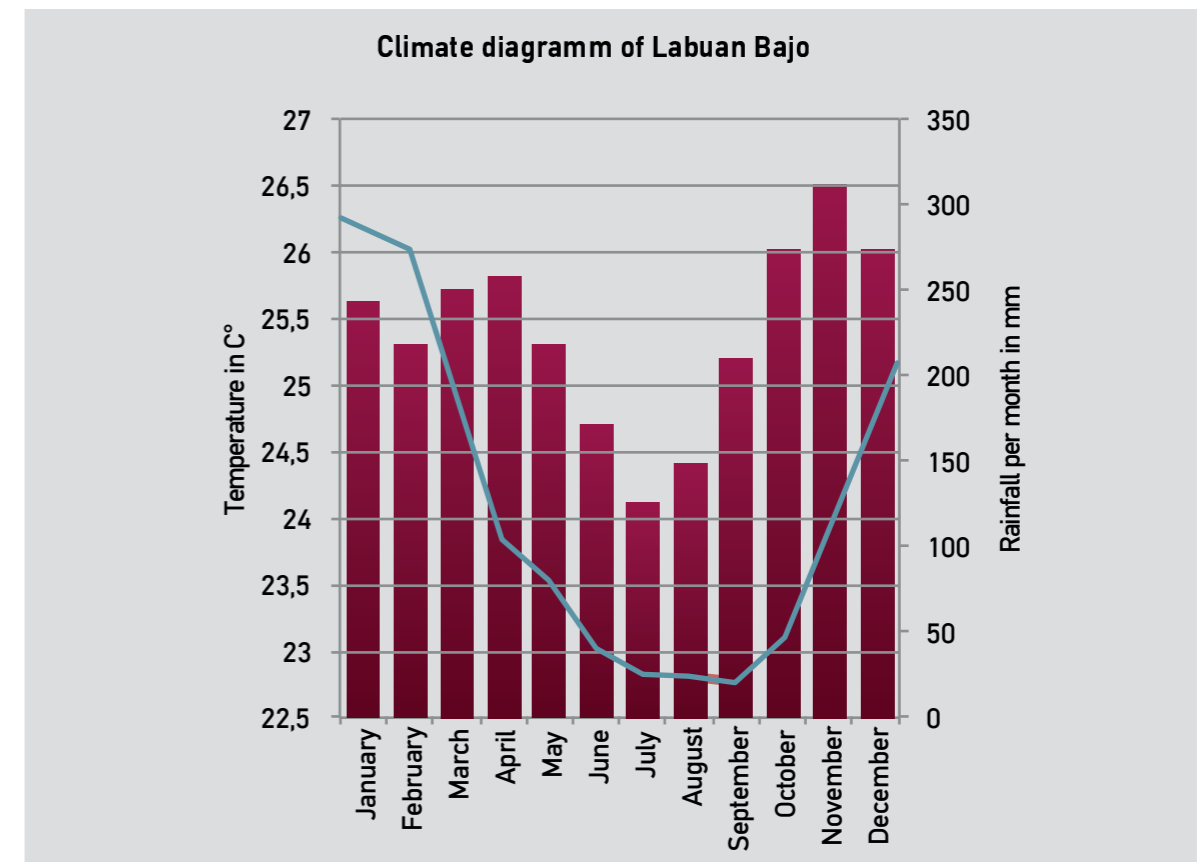


figure nr. 30: Climate diagram of Labuan Bajo¹⁸¹

The climate in Labuan Bajo is characterized by two seasons. Half of the year rain falls occur seldomly and the average temperature is around 24 degrees, the second half is characterized by heavy rainfalls and a high humidity. Different sources state the rainfall around 1.400 ml per year¹⁸², but the amount of rain is depending on the season. While in September the rainfall is about 14mm, the average precipitation in January is around 269 ml. During the summer months it hardly rains at all which results in a high risk of bush fires and bad conditions for farmers. Due to the time period of 15 years derivation of the development of the climate cannot be made, but the next figure shows that the amount of rainfall varies every year.

180 Remmer, Stefanie (2016: 21)
 181 Figure nr. 30: ClimateData.org (online)
 182 Borchers (2004: 68)

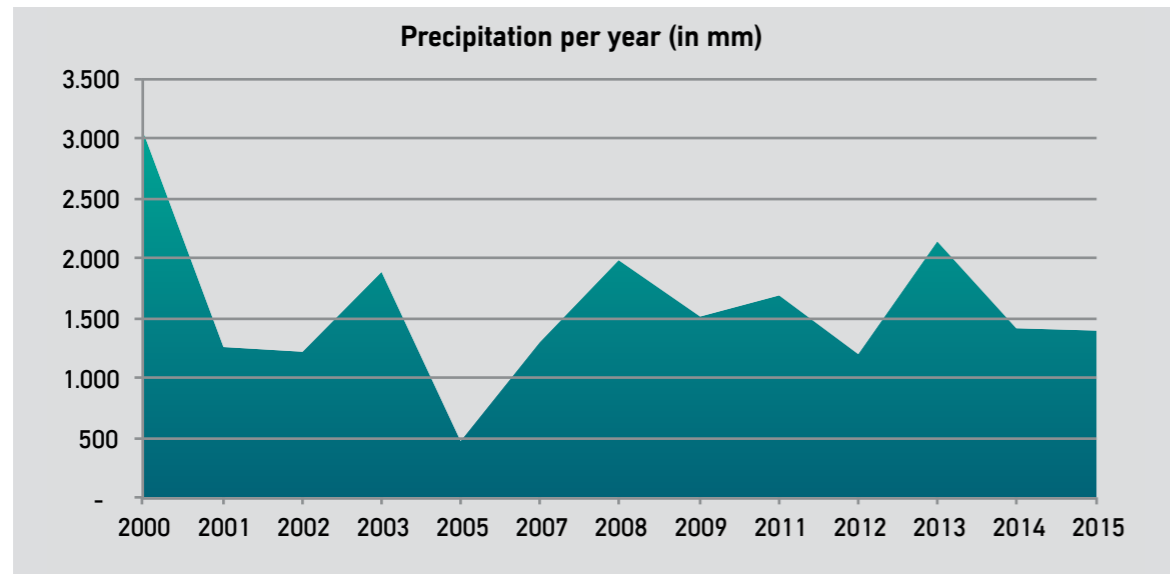


figure nr. 31: Precipitation per year in Labuan Bajo (2000-2015) ¹⁸³

The flora and fauna of Flores differs from the western part of Indonesia. Flores is characterised by the Australian vegetation and animals. This is due to the “Wallace Line” which divides Bali and Lombok. It is a deep ocean trench, which animals could not overcome. Komodo is like the “shatter belt” between the Australian and Sunda ecosystems. It is a biogeographic boarder between the islands and explains the difference in climate and landscape compared to other parts of the archipelago. ¹⁸⁴

4.3.6. KOMODO NATIONAL PARK

In the year 1980 the National Park Komodo was opened, In 1991 it became part of the world heritage list. The Komodo Biosphere Reserve was accepted under the UNESCO Man and the Biosphere Programme in January 1977. It was initially established to protect the Komodo dragon and its habitat. The Komodo dragon is listed as vulnerable on the IUCN list. The population of the Komodo dragons consists of about 2,448 individuals. Other animals which are domiciled in the National Park are an endemic rat, the crab-eating macaque and 72 species of birds, the diversity of the marine is unique as well and so it has been identified as one of the most biodiverse sites in the Indo-Pacific. ¹⁸⁵

About 19.000 people live in the National Park and its surroundings and their main income is fishery. Some of the methods are threatening the environment, e.g. dynamite-, cyanide-, and compressor fishing. ¹⁸⁶

The Komodo National Park is managed by the central government of Indonesia. The Directorate General of Forest Protection and Natural Conservation of the Ministry of Forestry is responsible for its development and protection, which was established in 1983.

The new management demands a strategy about how to deal with increasing numbers pf visitors and impacts from tourism. There is a specific program from the central government for ecotourism management (against illegal fishing, poaching, regular patrolling of the marine and terrestrial areas). ¹⁸⁷

¹⁸³ Figure nr. 31: Environment Statistics of Indonesia (2015)

¹⁸⁴ Documentary: Rahmann, Harun (2018)

¹⁸⁵ UNESCO (2017, a)

¹⁸⁶ Komodo National Park's Authority (2000)

¹⁸⁷ UNESCO (online)

According to different organisations on site (ecoFlores, DOCK, WWF – described in chapter 3.3.2.1. System subjects: Tourists) the UNESCO world heritage is in danger because Indonesia deemed Komodo as one of the „10 new Bali“. There are too many boats anchoring at the diving spots as well as at the places for the Komodo dragons. DOCK hired an expert who will report the change of the environment in the national park. They have started an initiative to put the National Park on the red list. The national importance of Komodo as a driver of the development gets visible and resulted in the change of the responsibility from the Ministry of Environment to the Ministry of Tourism.

25 years master plan for management Komodo National Park: ¹⁸⁸

The KNP (Komodo National Park) is about 1,817 km² large, with buffer zones in North-East and South-West. ¹⁸⁹

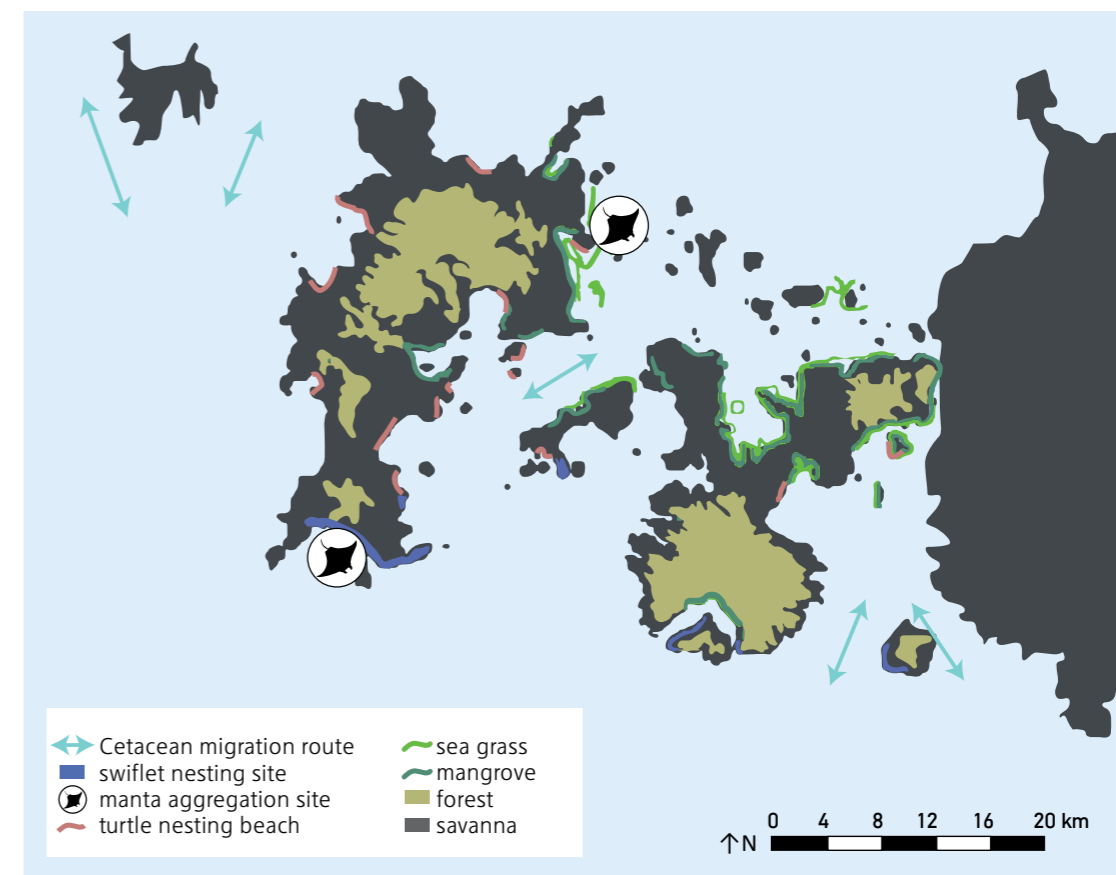


figure nr. 32: Komodo National Park and its flora and fauna ¹⁹⁰

¹⁸⁸ Komodo National Park's Authority (2000)

¹⁸⁹ Komodo National Park's Authority (2000: 39)

¹⁹⁰ Figure nr. 32: Own elaboration, based on: Komodo National Park's Authority (2000)

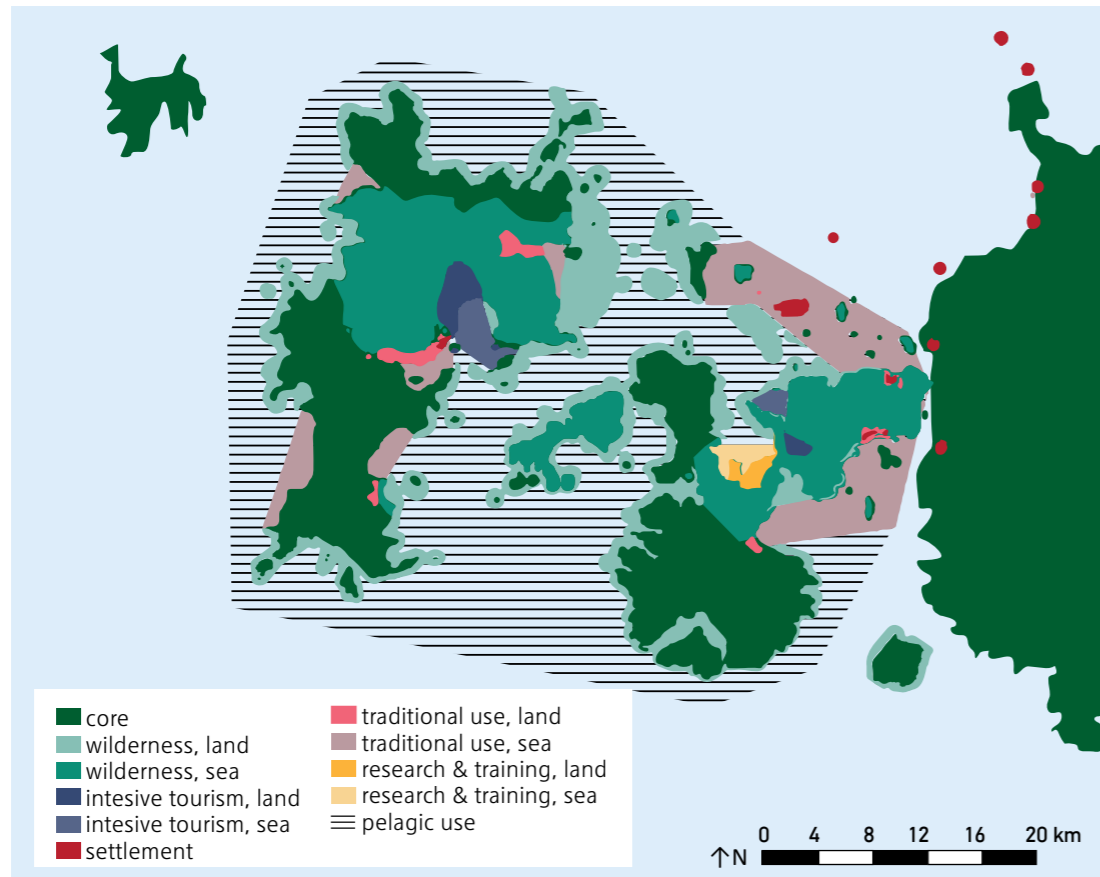


figure nr. 33: Proposed zoning for Komodo National Park¹⁹¹

The shown graphics are based on the Director General of PHPA and is in accordance with law no. 5 of the year 1990 concerning the conservation of biological resources and their Ecosystems. The management is based on this zoning plan which is still valid.

» *Zoning within the Park is based on available ecological data, current understanding of ecological and conservation principles, the socio-economic and cultural needs of the local communities, and feasibility. Regulations have been formulated for each zone to ensure the long-term survival of the Park's flora and fauna, its ecosystems, and its local communities.*«¹⁹²

Definition of different zones and their rules:¹⁹³

- » **core zone:** This area must not be used as a touristic sight, no visitors are allowed in that area, allowed activities include research, monitoring and recreation after natural disasters. no locals are allowed in that area either.
- » **wilderness zone:** Certain activities need special commission, anchoring prohibited except for mooring buoys (there are no mooring buoys, most boats anchor on the corals), Permanent accommodations for tourism are not permitted although in 2018 there was a hotel planned on Rinca, accepted by the authorities¹⁹⁴
- » **Tourism areas:** intensive tourism, fishing or farming is not allowed, permanent accommodation only for the staff, not for touristic use

¹⁹¹ Figure nr. 33: own elaboration, based on: Komodo National Park's Authority (2000: 42)

¹⁹² Komodo National Park's Authority (2000: 41)

¹⁹³ Komodo National Park's Authority (2000: 42-51)

¹⁹⁴ Interviews with locals and NGOs, conformed by the National Park authorities

- » **traditional use:** tourism activities allowed, same rules as in tourism areas, entrance fee to the villages, protection of all species, use of any agriculture or mariculture is prohibited - allowance for inhabitants of the villages! Limited permits for traditional fisheries, tourism, research, monitoring and environmental rehabilitation by the Head of Komodo National Park and local village leaders) Licences for fishing only for traditional methods
- » **pelagic use zone:** » All tourism activities in the Pelagic Use Zone fall under the same regulations as specified for the Tourism Use Zone, except fishing.« Regimentation is mostly the same as in other zones, but licences can be purchased for fishing (under regimentations of capacity) there is a list of fishes which are allowed to catch and keep, more vulnerable species are still protected.
- » **traditional settlement zone:** immigration is forbidden (within the KNP), accommodation only for inhabitants, not for tourists, water use is limited, pesticide: in own property allowed. community rain collect systems for water supply. sewage and waste disposal regulated: separated and non-recycle waste will be collected and shipped to the mainland, no pets like cats and dogs,
- » **in general:** fishing and farming prohibited for foreigners, inhabitants can get a licence for some areas. anchoring only at mooring buoys

IUCN: significant concern about the condition of the National Park¹⁹⁵

Threats to the National Park include fishing, waste, hunting of deer (which is also nutrition for the Komodo dragons), increasing tourism. 3,200 people live in the Komodo village (number is increasing) but 16.000 people are living close to the National Park and also rely on the resources of the park. Especially their need for food like fish and deer threatens animals relying on those sources as well.

In fall 2020 several rumours have occurred about the central government shutting down Komodo National Park. Since these news have been spread before and demented by the local government the actual realization about entrance fees and limitation of visitor numbers can not be estimated. In July 2019 the guardian reported in reference to Siti Nurbaya Bakar, Indonesia's environment and forestry minister, that tourists are no threat for the Komodo dragon and plans about closing the park in 2020 had been cancelled.¹⁹⁶ Latest articles report about implementing a 1.000 USD entrance fee for National Park.¹⁹⁷ However, on the same day the Jakarta Post wrote that the government has "scrapped" these plans.¹⁹⁸ These rumours already had a massive impact on Labuan Bajo and according to local NGOs visitor numbers decreased already. This is another proof of the vulnerability of touristic development in Labuan Bajo.

4.3.7. LIMITED RESOURCE: WATER

In the interview with Richard Sontani, head of the department of spatial planning, the water issue was also addressed. Since 2003 Manggarai Barat is a independent district, water supply is a responsibility of the district Manggarai Barat. According to the head of the department of spatial planning Richard Sontani the water supply for the whole district is secured. Also the master plan picks up the issue. An important source is Cunca Wulang (also a touristic site), 3 other springs are being tapped as new sources (Wae Kacang, Wae Mese, Wae Baru). All of

¹⁹⁵ IUCN (online)

¹⁹⁶ The Guardian (2019)

¹⁹⁷ BBC (2019)

¹⁹⁸ The Jakarta Post (2019, c)

them are located within a radius of 10 km from Labuan Bajo. Richard Sontani claims that the supply of the villages does not work yet and new pipes are frequently illegally tapped. For the head of the department this is the issue which leads to a water shortage in the city. A central accumulation of water within Labuan Bajo and a distribution from there would work better. Within the last years 250 Million Rupiah (around 16.700 €) has been invested in the improvement of the water supply. At the moment a majority of drinking water comes from Ruteng by trucks, since the springs there are more stable than in Labuan Bajo.¹⁹⁹

Due to the dry weather conditions, water supply does not meet the needs of the rising number of tourists and residents. According to BPS the price index of water is one of the fastest rising price indices. Even though there is a public water supply system, it does not work properly and many households have to purchase drinking water. Most of the water is carried from Ruteng or further places to Labuan Bajo by trucks, which in turn causes carbon emissions. Measures of saving raining water haven't been implemented by locals yet. Currently (year 2019) 1,000 litres of water cost 85.000 Rupiah (around 5€), which – according to the locals – an average household gets by three days.

Tourism exacerbates the water shortage. The accommodation businesses which had been interviewed by Swisscontact claimed a water usage between 20 up to 770 l per day per bed. The large gap between the utilizations is caused by the facilities. The median is 117 l per bed. In comparison in Austria the average water use per person is 130 l²⁰⁰ a day, but water is easier available than in Labuan Bajo. Hotels on the top of the water usage have pools and decorations like fountains which also use a large amount of water. So the future water usage also depends on the segments of accommodation provider.²⁰¹ As well as the locals business operators also have to purchase their water from private providers, most of the hotel chains therefore build their own wells. Even though 40 % of all business owner who had been asked by Swisscontact claimed to have implemented measures to reduce their water usage, most of them clearly wasted a large amount of water by water fountains or landscaping. Measures which are applied have a small impact. More appropriate measures like saving raining water or grey water for flushing haven't been implemented yet.²⁰²

According to the national statistic office BPS only 39 % of the inhabitants of Nusa Tenggara Timur have access to decent and sustainable sanitation services, Papua is the only other province with a lower percentage. The average share of population who has access to sustainable sanitation services nationwide is 67 %.

4.3.8. SETTLEMENT STRUCTURE

4.3.8.1. SPATIAL PLANNING IN LABUAN BAJO

While the head of the spatial department claims there is a land zoning plan, it is not accessible to the public. According to the department of spatial planning the plan is finished, but the authorities haven't accepted it yet. Swisscontact also interviewed local authorities about this issue and they said a zoning plan does not exist. The maps of the fundamental research as well as the strategic plans are not accessible by the public but have been seen by the author.

199 Interview with Richard Sontani, 24.08.2019

200 Bundesministerium für Nachhaltigkeit und Tourismus (2019)

201 Remmer, Stefanie (2016: 52 et seq.)

202 Badan Pusat Statistik (2016, c)

Strategies have not been formulated, the map presentations are analyses rather than strategic plans. The content of the plans are therefore not fulfilling the requirements of a sustainable development for Manggarai Barat. Goals are not mentioned and the consequences of the current development is not clearly identified yet. Conversations with different local stakeholders showed that they approve of the current progress and do not necessarily see the point of a controlled development. This is also very concerning since the awareness is very low.

4.3.8.2. SETTLEMENT STRUCTURES IN LABUAN BAJO

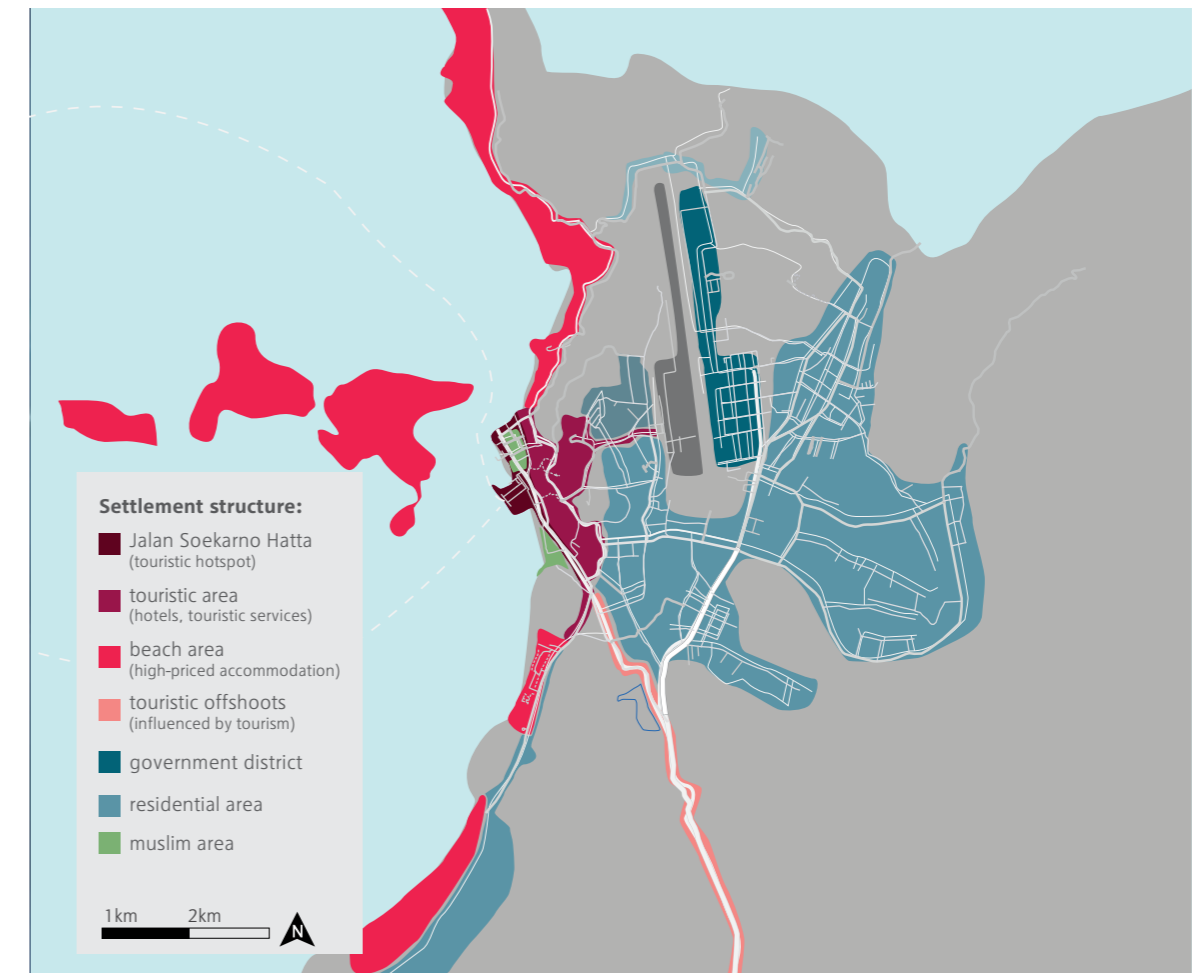


figure nr. 34: Settlement structure of Labuan Bajo²⁰³

Labuan Bajo is characterized by various cultures which originate from different parts of Indonesia. I identified six heterogeneous village structures which are represented within the agglomeration area. These village structures show some typical usages and building structures, hereafter they shall be explained:

Areas with predominant tourism:

» **Jalan Soekarno Hatta:** *The bursting centre of Labuan Bajo has transformed over the last years. International restaurants have settled down and most pedestrians are Western tourists. While the area is very heterogeneous, some typical houses can still be found but are slowly replaced by multilevel buildings. Due to the high frequency of pedestrians many*

203 Figure nr. 34: own elaboration, based on aerial photos of Google Maps and Bing, own observation

shops, restaurants, tour operators and hotels have settled down in this street. At some places the Muslim areas are right next to Jalan Soekarno Hatta, in these areas the typical building structure has remained. Houses for locals are seldomly found. The one way street is suitable for motorbikes and cars, a pedestrian walk which was built in 2018 protects pedestrians from road users.



photo nr. 3: Jalan Soekarno Hatta



photo nr. 4: Jalan Soekarno Hatta

» **Touristic characterized area:** While Jalan Soekarno Hatta offers a wide range of supply, most low and middle budget hotels are not directly situated at the main street, but can be found nearby. The hill next to the street is where tourists stay, close to the centre but a little more quiet than at Jalan Soekarno Hatta. The building structure is looser and lower than in the previously explained area and bungalows as well as houses for locals can be found. Since there are no bigger streets leading through this area, most houses are connected to the main road. Shops are seldomly found, residential use is predominant. Due to the heterogeneous building structure and the non-existent streets as well as the similarity to the touristic area a specific building character cannot be recognized.



photo nr. 5: Hotel Cecile in Labuan Bajo



photo nr. 6: Gardena Hotel

» **Beach area:** Direct beach access is an important asset for hotels in the luxury sector. The building style can not be summarized under one criteria, it ranges from freely arranged one-storey bungalows to multi-storey buildings with sometimes 30 levels. Depending on the price segment and the distance to the city centre, restaurants and similar attractions exist. Characteristic for the settlement structure is the high amount of free space, often

used for pools or gardens. Sometimes houses of the upper class can be found close to the beach, but mostly this area is reserved to hotels.



photo nr. 7: Private Beach North of Labuan Bajo



photo nr. 8: Pantai Pede – last remaining public beach

Residential areas:

» **Muslim villages:** The Muslim villages are located in the centre of Labuan Bajo. Historically these people were fishermen and come from the neighbouring islands of Labuan Bajo. To pursue their businesses, they moved close to the coast and that is where these villages can still be found. According to the department of spatial planning, this area is labelled as “green area” in strategic spatial planning documents. The settlement structure is characterized by a very high density, which can hardly be entered by motorbike and impossible to pass through by car. The buildings usually contain one or two storages, the first level was originally not inhabited, the residents lived in the second level. Since the villages are so close to the sea, the houses were built on stilts. Due to the modification of the harbour and the flood protection, the ground level can now be used for residential use. Many families rent out rooms for immigrants seeking for jobs in Labuan Bajo. Since the community is very religious and conservative, issues occur between the inhabitants and tourists. The proximity to the harbour is a point of conflict.



photo nr. 9: Kampung Ujung, “Escape Bajo” in the background



photo nr. 10: Kampung Air

» **Traditional villages:** *The majority of the Eastern area of Labuan Bajo is not influenced by tourism yet. Aside the main streets, where shops and restaurants are situated, little streets lead through the residential territory. Detached houses for families and little gardens shape this area. Some of them sell products for the daily need. Foreigners are seldomly seen and attract attention.*



photo nr. 11: Village South of the centre



photo nr. 12: Village East of the centre



photo nr. 13: Area around the airport



photo nr. 14: North of the centre

» **Government district:** *The government district is located east of the airport where all official buildings are situated. Close to their workplace many public servants also live in this area, which makes it the desired area of the upper social class. Buildings are usually low, maximum two levels with a high share of free space. Fences seal off the buildings from the wide, much frequented streets. Little buildings in front of the houses serve the doormen.*



photo nr. 15: North-East of the centre



photo nr. 16: Private gardens of representative buildings

Aerial view of Labuan Bajo over the years:



figure nr. 35: Comparison of the northern coast line of Labuan Bajo: 2002, 2013 and 2017²⁰⁴

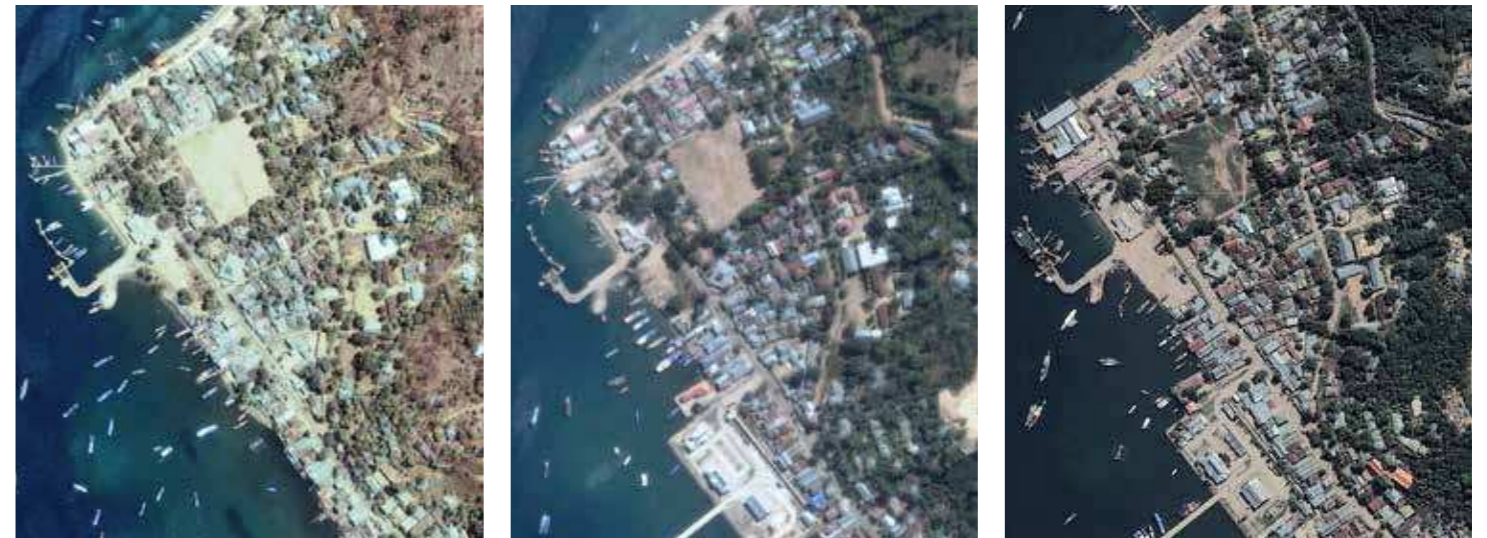


figure nr. 36: concentration of settlement development, reclamation of the harbour area in 2004, 2005, 2010, 2016, 2018

²⁰⁴ Figure nr. 30, 31: Aerial view on Google Earth

Almost 14% Manggarai Barats land is permanently settled, which means it is cultivated, e.g. being used for settlements and agriculture like fields and plantations.²⁰⁵ The historical imagery on Google Earth gives a very good insight of how much land has been occupied during the last years in Labuan Bajo. While there were not any hotels at the northern coast line of Labuan Bajo in 2002, 2017 there is no public beach access anymore since all the beaches have been bought by entrepreneurs. The densification of the settlement structure and the changes from small-scale structures to large-volume buildings are visible as well. The increasing demand of land and the availability of wealthy investors also led to an increase of the land prices. Another issue is the limited space, since most of the land with profitable location is sold and used by the touristic industry.

4.3.8.3. LAND USE

The demand of private beaches and their development of buildings does not only affect the life of the locals, it also destroys breeding grounds for marine life. In turn this also threatens the local community who loses their daily income. To show how much land is being occupied by accommodation in the high price sector, a survey was made in which 13 rather luxury hotels in Labuan Bajo were closer examined and especially their land use was measured.

	Number of rooms (=2 beds)	Type of accommodation	land use (m ²)	Land usage per bed
The Jayakarta Suites	72	rooms	23.930	166,18 m ²
Puri Sari Beach Hotel	21	rooms	35.354	841,76 m ²
Luwansa Beach Resort	35	rooms	16.527	236,10 m ²
Hotel Bintang Flores	61	rooms	11.872	97,31 m ²
La Prima	88	rooms	11.582	65,81 m ²
Villa Selini on the Hill	8	bungalows	1.300	81,25 m ²
Hotel Sylvia	78	bungalows and rooms	38.696	248,05 m ²
Garden Bayview Hotel	16	rooms	4.080	127,50 m ²
Waecicu Beach Inn	16	bungalows	10.053	314,16 m ²
Seraya Hotel and Resort	26	bungalows	20.998	403,81 m ²
Plataran Komodo Resort	12	bungalows	22.248	927,00 m ²
Waecicu Eden Beach Hotel	12	bungalows	4.409	183,71 m ²
Ayana	205	rooms	17.528	42,75 m ²

Table nr. 7.: Land use per hotel and bed²⁰⁶

By literature research²⁰⁷ and own measuring the average land use per bed for each accommo-

²⁰⁵ Fanggidae, Apriana (2017: 16)

²⁰⁶ table nr. 7: own elaboration, data base from: University of Technology, Sydney (2017)

²⁰⁷ Gössling, Hall, Scott (2015)

dation type was calculated. Low budget hotels, such as hostels, used about 30m² of land, the homestay sector needed around 50m² land, the middle budget sector doubled this number and the calculated average land use is around 100m². The highest amount of land was taken by the luxury sector with a median of 290m² per bed. Due to different building structures, from bungalows to hotel towers, the land use varies in this sector, the highest amount by the analysed hotels was Plataran with 927m² per bed. The requested demand on building land impacts the prices of properties. Interviews with locals have shown the issues of residents who cannot afford building land in Labuan Bajo anymore. By closer examining the online real estate market, the high level of prices gets visible. CGS-CIMB, an Asian financial service provider, summarized all available properties in Labuan Bajo at one webpage. At www.labuanbajo.co²⁰⁸ 1 m² of land is traded from 45.000 to 2.000.000 IDR²⁰⁹.

4.3.9. TECHNICAL INFRASTRUCTURE AND ITS USAGE

4.3.9.1. ROAD NETWORK



figure nr. 37: Road network in Labuan Bajo²¹⁰

²⁰⁸ PT Labuan Bajo (online)

²⁰⁹ Paradise Property Group (online)

²¹⁰ Figure nr. 37: Road network Labuan Bajo: own elaboration, based on: Google Earth, OpenStreetMap

The “Trans Flores” leads from the West to the East and connects Labuan Bajo with Larantuka. It is the most important street in Flores and also in good condition due to frequent maintaining. Currently Trans Flores is being extended from the centre of Labuan Bajo to the North, where it connects the coastal area and its villages. Heavy rainfalls and floods are threats to the street network in Labuan Bajo, which is often quickly built and thus shows a lack of quality.

On Jalan Soekarno Hatta, the main touristic street in Labuan Bajo, new pathways were built in 2018, with guidelines for people with visual impairments. This is not often seen in Indonesia and is therefore an indicator for development. Touristic areas are more likely to be connected to the public road system. Majaga, which lies South of Labuan Bajo is currently developed as a new touristic spot. Until 2018 the village was only accessible by boat, the ride to Labuan Bajo took more than one hour.

4.3.9.2. PUBLIC TRANSPORT

There is a wide range of possibilities to get from a point to another. Beside the ferry and ships on the sea, there are buses and taxis to transport tourists on the main land. While most visitors chose private transport which is either provided by hotels or tour operators, there are also buses from Labuan Bajo to other cities in Flores. These buses are seldomly used by tourists since the quality is not equivalent to western countries and their timetable is not very transparent. Private taxis can be easily organized by asking at the taxi stand. “Angkots” are little buses in the city centres and work more like taxis. People can stop an “Angkot” on the street and the driver drops the person off at his or her prioritized destination. An “Angkot” goes to the places on demand, there is no schedule. If an “Angkot” goes somewhere else than preferred, the customer needs to wait for the next stopping taxi. The customer pays depending on how far the destination is away and how many people need to go there. There are about 6-9 seats in an “Angkot” so the capacity is lower than in usual public buses.

4.3.9.3. HARBOUR

The harbour is one of the main entrance points of Labuan Bajo and Komodo. Over the last years it has been expanded continuously. While at the beginning only fishing boats anchored at the harbour, now the main users are tourism operators and ferries to Java and Bali. Due to the quality of the road infrastructure, many villages are only connected by the sea route, hotel guests from North and South Labuan Bajo often arrive by boat when they need to go to the city centre. Over the last years the number of fishing boats decreased and the number of tour operators increased. The offer ranges from day trips to Komodo, snorkelling or diving trips to multi-day tours on sailing boats.

4.3.9.4. AIRPORT

Labuan Bajo was difficult to reach before tourists discovered the island. Beside the harbour the airport has expanded continually since 2013. In September 2013 the first Boeing 737-800 landed and took off successfully. 2015 a new terminal was opened, before the capacity had been 150.000 arrivals a year, now capacity was extended to 1.5 Mio arrivals a year.²¹¹ In 2020 the new

²¹¹ IndonesiaAirport.com (online)

international terminal will be finished and it is expected that planes from Australia and other Asian countries head for Labuan Bajo.²¹² The airport is run by UPT Ditjen Hubud, an agency under Ministry of Transportation (central government). Interviews with people showed that employees are from Jakarta and own observations showed most of the staff wore a headscarf, which is uncharacteristic for Labuan Bajo, where a high share of the inhabitants are Christian. The power of the central government and the close relation to religion becomes visible again.

4.3.9.5. ENERGY PRODUCTION AND CONSUMPTION

The district Manggarai Barat almost entirely relies on fossil fuels. The central power station is located east of Labuan Bajo and is connected to the centre of the city. With the new power plant PLTMG a changeover from diesel to gas will take place. This increases the productivity and guarantees a continuous supply of electricity.²¹³

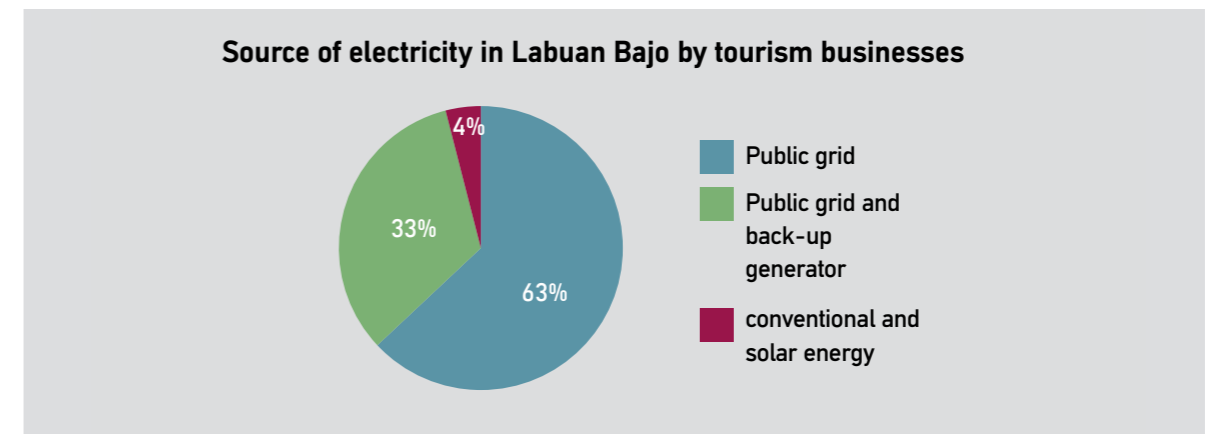


figure nr. 38: Source of electricity in Labuan Bajo²¹⁴

Smaller villages are not fully connected to the public grid, so alternative sources of energy have to be used like solar energy or generators. Interviews with locals in Majaga, a small village South of Labuan Bajo which now will be developed as a touristic spot, showed that the inhabitants see the attachment to the public energy grid as a progress, because they will not rely on sun anymore as an energy source. The sustainability of their current energy consumption was not considered as a benefit. Being connected to the public grid is seen as an economical progress and an increase of their welfare.

4.3.9.6. WASTE MANAGEMENT

According to the WWF every day there are 12.8 tons waste produced in Labuan Bajo, 0.65 tons per day in Komodo National Park.²¹⁵

The public awareness for waste in Labuan Bajo is much higher than in other regions in Indonesia that had been visited. Interviews revealed a high consciousness of the impact of tourism on the environment regarding littering. Some groups like “trashhero” took action to avoid further

²¹² The Jakarta Post (2019, b)

²¹³ Monavita (2019)

²¹⁴ Figure nr. 38: Remmer, Stefanie (2016: 57)

²¹⁵ WWF (2018)

damage and raise awareness . There are weekly meetings for collecting trash around the coast line, especially local families and travellers participate. The group usually consists of people who are aware of the issue already. Results of interviews with hotel staff showed that the issue has not been taken seriously by other sectors yet. During the research on site about 15 different hotels had been visited to find out how they are handling waste. About half of them assured that they take care of their waste in order to bring it far away and burn it where it does not harm any of their hotel guests. Only a few of them ran measures to recycle the produced waste. A survey by Swisscontact revealed that the majority of tourist businesses do not use recycle measures for waste. About a quarter of the interviewed businesses offer waste reducing or recycling methods like water refill-stations. Tour operators are known for dumping their waste into the sea on their way to Komodo National Park.²¹⁶ Other operators offer “eco-dives” where divers collect trash in the ocean. In 2018 the opportunity to refill water bottles increased since “trashhero” implemented stations in almost every restaurant and café.

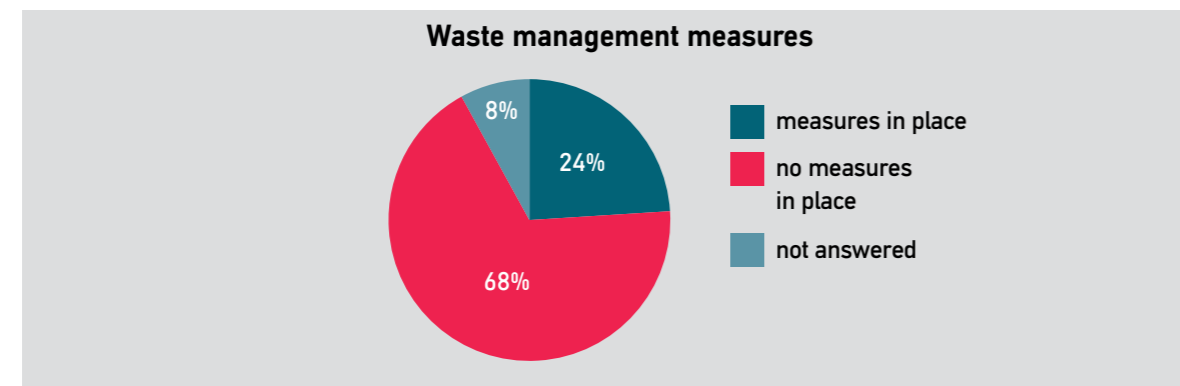


figure nr. 39: Waste reduction measures of tourism businesses²¹⁷

Although there is a public waste management, it can not be considered as solving the problem properly. The waste is being collected and disposed in a landfill, without separating it and recycling useful parts. Therefore WWF founded KSU – Koperasi Serba Usaha, an organisation which collects garbage, separates it in its useful parts and sells it to another company in Bali which recycles waste. However, KSU is too small to cover all of Labuan Bajo and they require the costumers to bring them their rubbish because they lack of the resources to collect the waste from every house. A few hotels are taking part in this initiative.

4.3.9.7. SEWAGE MANAGEMENT

While waste management is a frequently named issue among tourists and locals, sewage management seldomly becomes a topic in discussions. In 2018 a new sewage channel was built at Jalan Soekarno Hatta. It is an open construction right next to the pedestrian walk. While hotels often have their own water treatment facilities, sewage management in residential areas is an open channel where black water is directly discharged. Since most of them do not have a natural slope, the water stands still which creates a perfect environment for mosquitoes. When the department of environment of Labuan Bajo was questioned by Swisscontact they stated that the water of the roadside ditches is not managed by the city council, but is released to the river or sea.²¹⁸ In the course of the measures in context of “10 Bali Baru” sanitation work was also

²¹⁶ Remmer, Stefanie (2016: 58 et seq.)
²¹⁷ Figure nr. 39: Remmer, Stefanie (2016: 59)
²¹⁸ Remmer, Stefanie (2016: 66)

a priority which took place in the form of the construction of a Waste Water Treatment Plant (WWTP) with a capacity of 170 m³ / day.²¹⁹



photo nr. 17: sewer in the centre of Labuan Bajo

According to information provided by Swisscontact only large hotels at Pede Beach - South of Labuan Bajo - are obligated to install water treatment facilities. Except for these hotels only a handful other businesses claimed to have water treatment facilities installed.

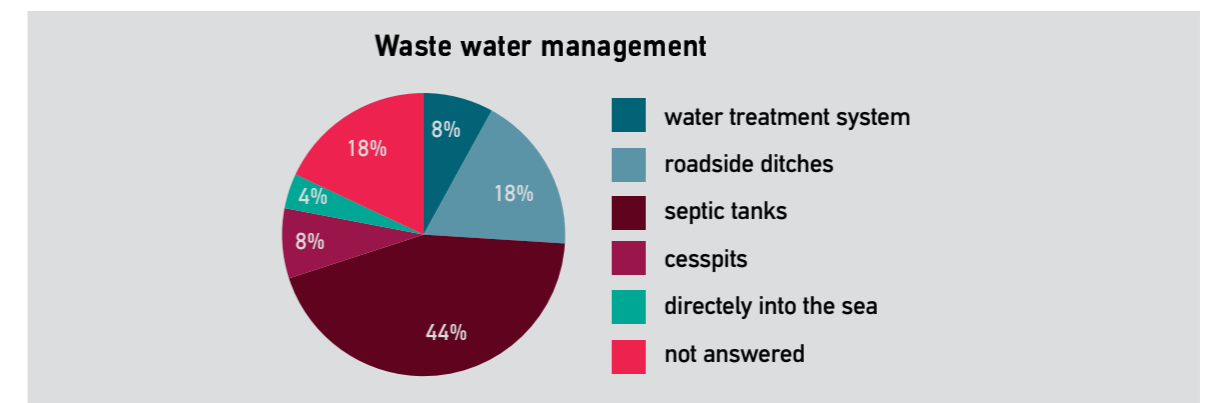


figure nr. 40: Waste water management treatment²²⁰

²¹⁹ CNBC Indonesia (2019)
²²⁰ Figure nr. 40: Remmer, Stefanie (2016: 66)

4.4. HOW SUSTAINABLE IS LABUAN BAJO?

Tourism has a big impact on the development in Labuan Bajo. Positive and negative balances occur described by Berg. These effects, described in chapter “3.3.4. effects on local conditions”, were applied to Labuan Bajo to see how the city influenced by tourism.

positive balance effect:	
reduction of regional disparities	little impact
improvement on living standards	little impact
growing diversity of economical sectors	great impact
improvement of infrastructure	great impact
improvement of the image	great impact
negative balance effect:	
focus on image	yes
pollution	yes
focus on one touristic spot	yes
pressure on limited resources (price increase)	yes
season variety	yes
competition through foreign investors	yes

Table nr. 8.: Balance effects in Labuan Bajo corresponding to Bütow²²¹

As the table above shows different effects can be noticed in Labuan Bajo. While the positive balance effects do not reach the whole community, all the negative balance effects took place. While tourism is expected to balance the regional and social disparities, this has not yet occurred in Flores. The living standards have improved, locals are pleased with the current development, but most of them do not even get paid the minimum salary while the prices of goods and accommodation are comparable to European and Australian standards. Other than Komodo and Labuan Bajo different spots in Flores are seldomly visited. Most people come from Bali and only spend 2-3 days in Labuan Bajo before they go back. The impact on the economy can be spotted very easily and is confirmed by the statistics of the official statistic office. Also the infrastructure has been improved and extended due to tourism. Labuan Bajo’s image has turned into a popular holiday destination where people of all age groups and ethnics are welcome and comfortable to stay. It is not perceived as a rural region which is only visited by backpackers anymore, but a internationally known town close to Komodo.

Generally speaking the negative effects have a higher impact on Labuan Bajo, but are hardly noticeable or can not be recognized in the short term. The central government is focused on Labuan Bajo’s image as a holiday destination, other aspects are not important enough to be taken into account. This involves pollution, the number one topic of local NGOs which are fighting for more awareness and sustainability, especially concerning the missing waste management. As mentioned before other destinations in Flores are not promoted so the pressure on touristic spots in Labuan Bajo is very high. Land grabbing and water availability are serious problems which affect the local communities. Due to climate change the dry season lasts longer every year, during low season hardly any visitors are interested in visiting Komodo

²²¹ table nr. 8: Berg, Eisenstein, Gardini, Kristges, Schulz (2014: 17)

National Park which results in a inequality of income during the year. Foreign investors are pushed to invest in the city, the 3-hours-program helps to implement big projects fast.

The basis of the two scenarios which give a realistic image of how Labuan Bajo will develop in future form the “ideal state” of the situation, which are defined according to the 9 indicators of sustainable development by Steven Wheeler. The method of Schönwandt, which is described in chapter “2.6. analysis of challenges and resolving problems” is used to determine the “ideal state” and find the causes why this state has not been reached yet. The central point in the graphic is the targets for sustainable development and the ramification visualises the problems which occur and have to be solved to achieve the ideal state, like Schönwandt describes it:

$$\gg P = A [+] \vee M [?] \vee B [-]^{222}$$

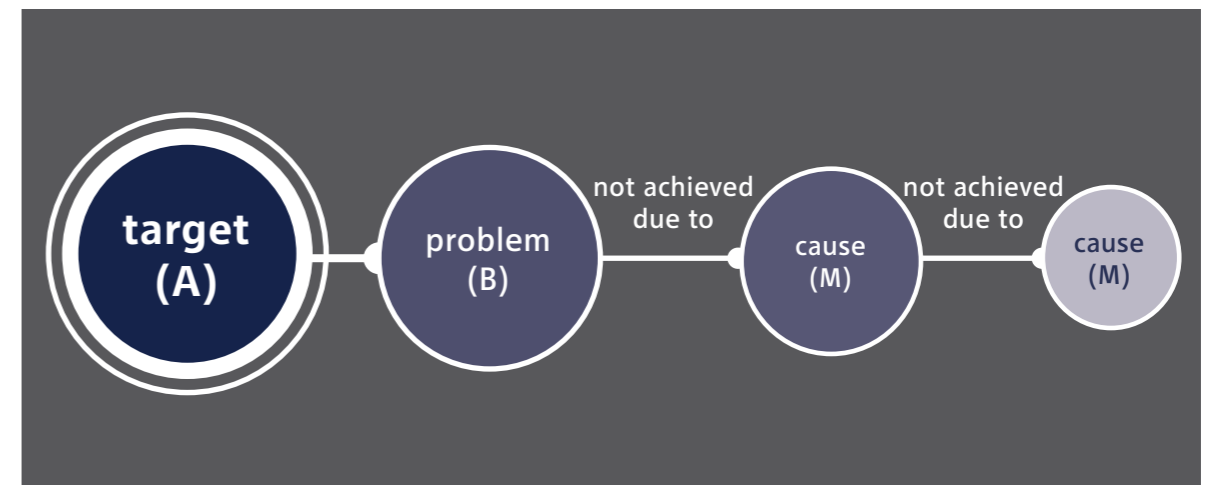
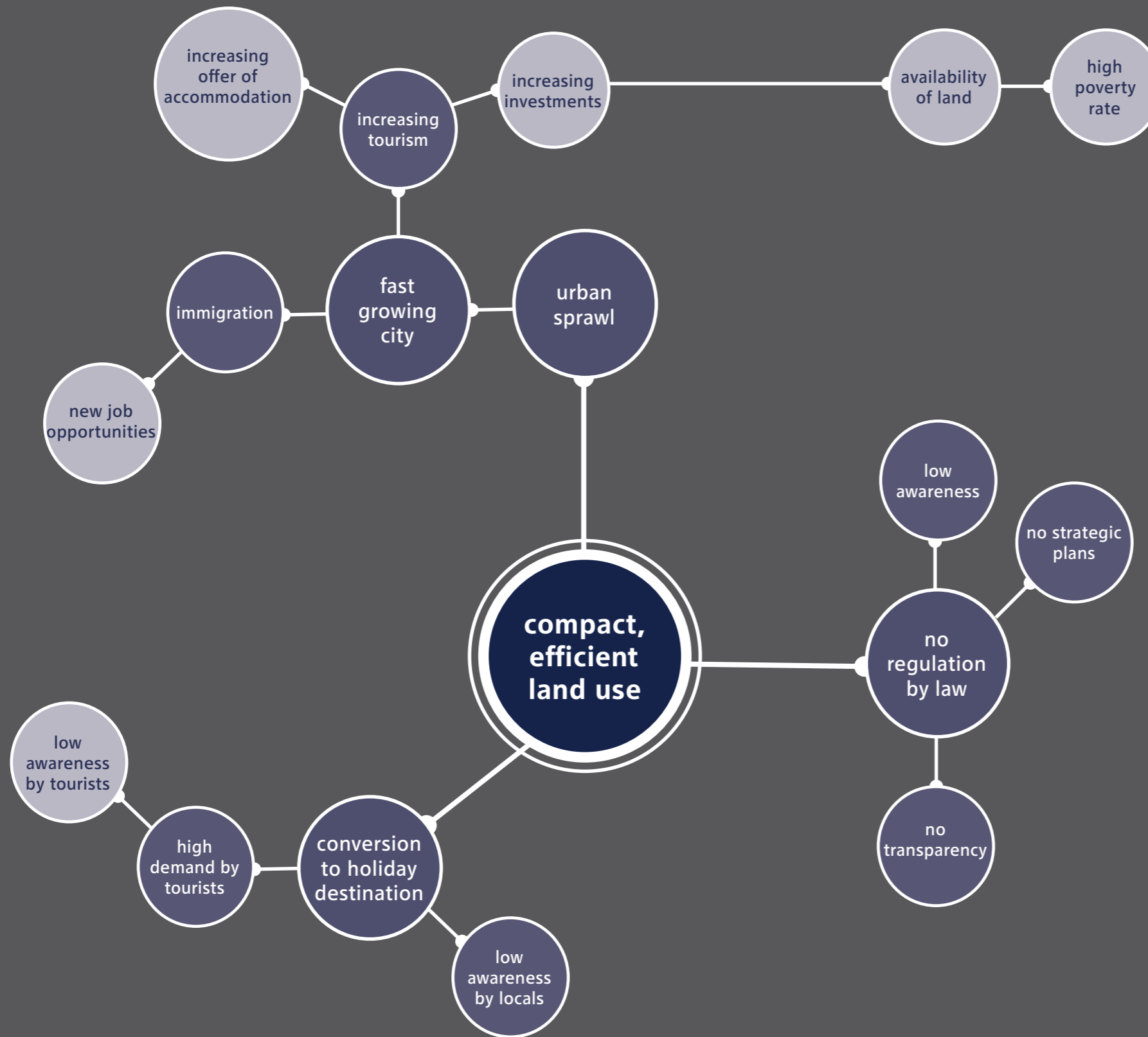


figure nr. 41: (and nine following figures)
System of the interdependencies of the not achieved target, the problem and the cause²²³

The central circle represents the objective, the first cycle, which is visualized slightly brighter than the previous one outlines the problem, the cycles connected to this one are the causes, they are again visualized slightly fairer. The size of the cycles are the result of the lengths of the words and do not have a specific meaning.

²²² Schoenwandt et al (2013: 43 et seq.)

²²³ Figure nr. 41: own elaboration

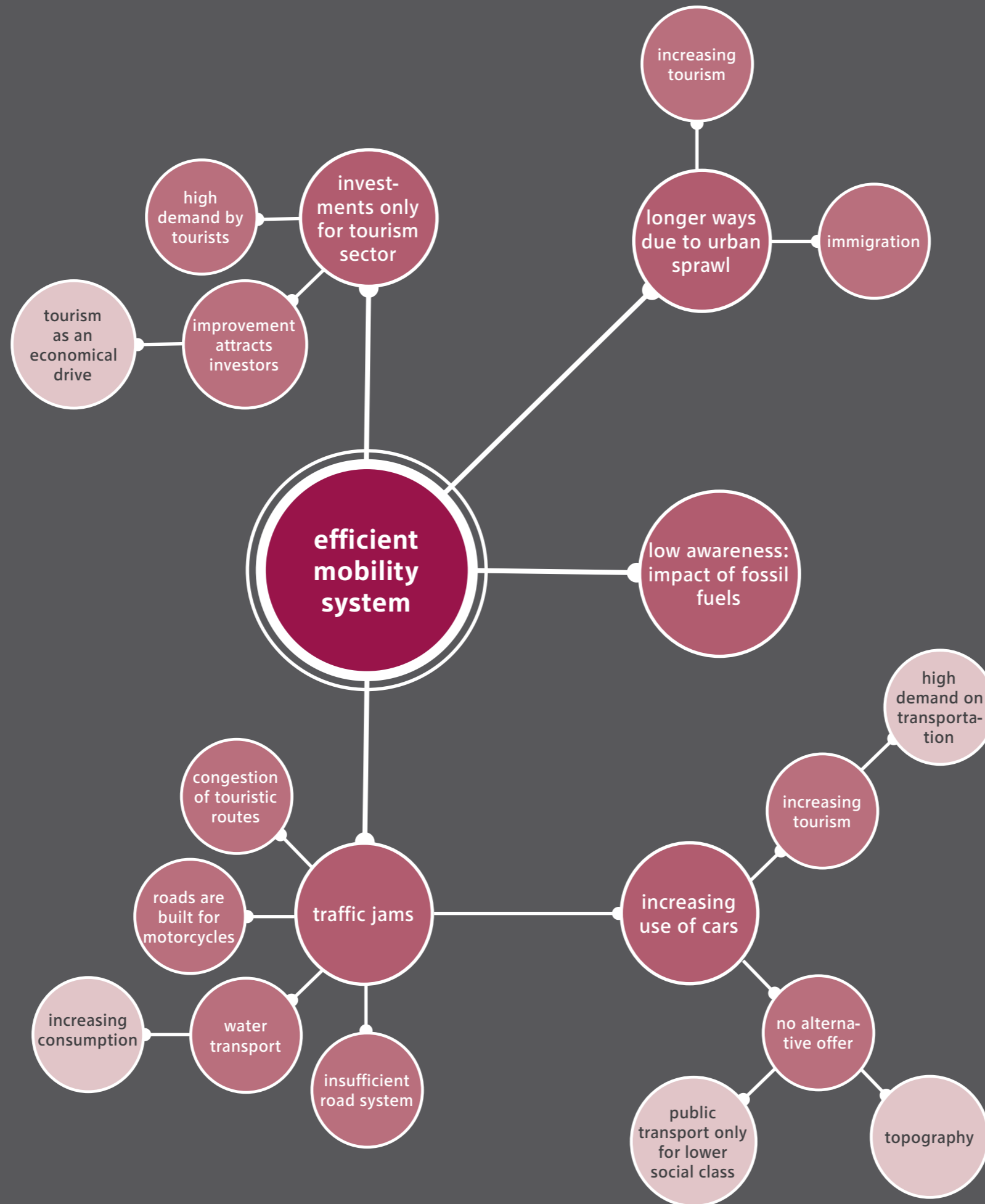


1. Compact, efficient land use:

Labuan Bajo is facing a tremendous growth with a high immigration rate. Due to this and the high interest of investors the pressure on building land is very high and results in urban sprawl. Immigration is expedited through a growing economy with new job opportunities. This arises from the expansion of the tourism sector, which in turn contributes to the rise of land prices.

The traditional villages are very compact, as seen in “Kampung Air” in the city centre and the South-Western part of Labuan Bajo, while hotels, especially in the luxury sector, take up disproportionately more space. This also changed with the shift to a typical holiday destination, since many visitors come from western countries and the demand for western accommodation is rising. The low awareness comes with the little contact of tourists with the local conditions, since many hotel complexes are sealed off from the urban area. Large bungalow complexes contradict to the compact settlement structures of the existing villages.

In addition there is no regulation by law, since the competences for the “10 Bali Baru”-destination lies with the central government and many investors do not have to comply with the general rules. A “strategic plan” for spatial development exists, but is not accessible for the public. Furthermore these plans do not include strategic objectives, but deal with fundamental research only.

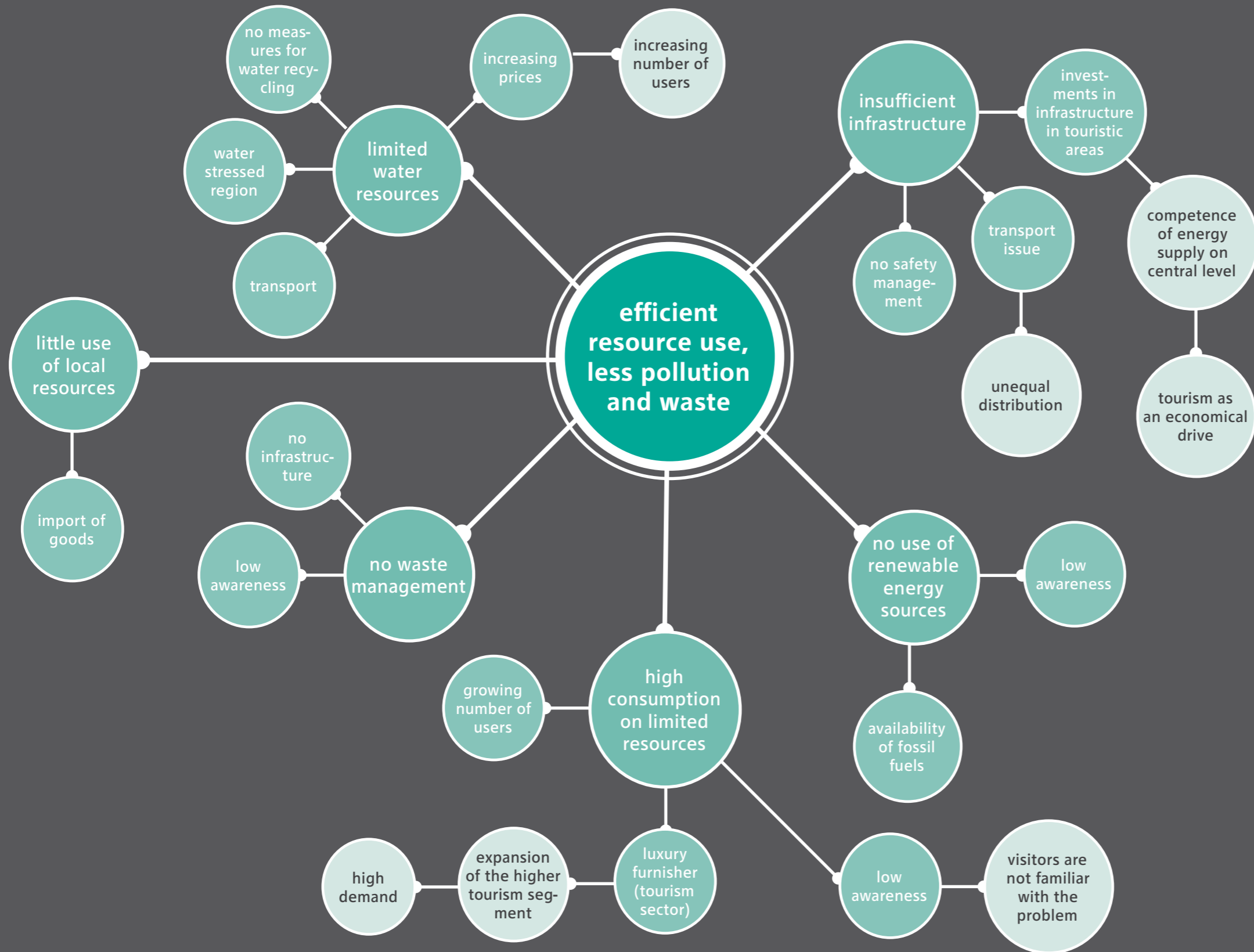


2. Efficient mobility system:

The increasing number of cars and motorbikes as well as other vehicles leads to the issue of traffic jams. The enormous growth within a short time, the shift from motorbikes to cars as well as the demand on transportation for tourists contributes to a higher utilisation of streets. Public transport is available in the town centre but is mostly used by school kids or people with low income. Since Labuan Bajo struggles with long periods of drought, they are dependent on water trucks from the region of Ruteng to provide the rising number of users with fresh water.

Moving closer to the working areas is hardly possible in Labuan Bajo, since the touristic area will not leave any space for local communities. Wheeler also recommends bicycle routes, which can be implemented in Labuan Bajo. Biking and walking has a low popularity in Indonesia. However, this does not comply with the attitude of tourists, which are likely to walk longer distances than locals. The improvement of the pavements, or rather the building of pedestrian walks shows, how much impact the tourism has on the local conditions. The touristic centre is comparatively very compact in contrast to the rest of Labuan Bajo. The urban sprawl results in longer distances between work, home and other destinations.

Since the central government contributes a great share to the infrastructure in tourism destination, these are only made in strategically interesting spots. Villages, which are not important in these sectors, do not experience the same investments as others, which makes it hard for them to be part of the process.



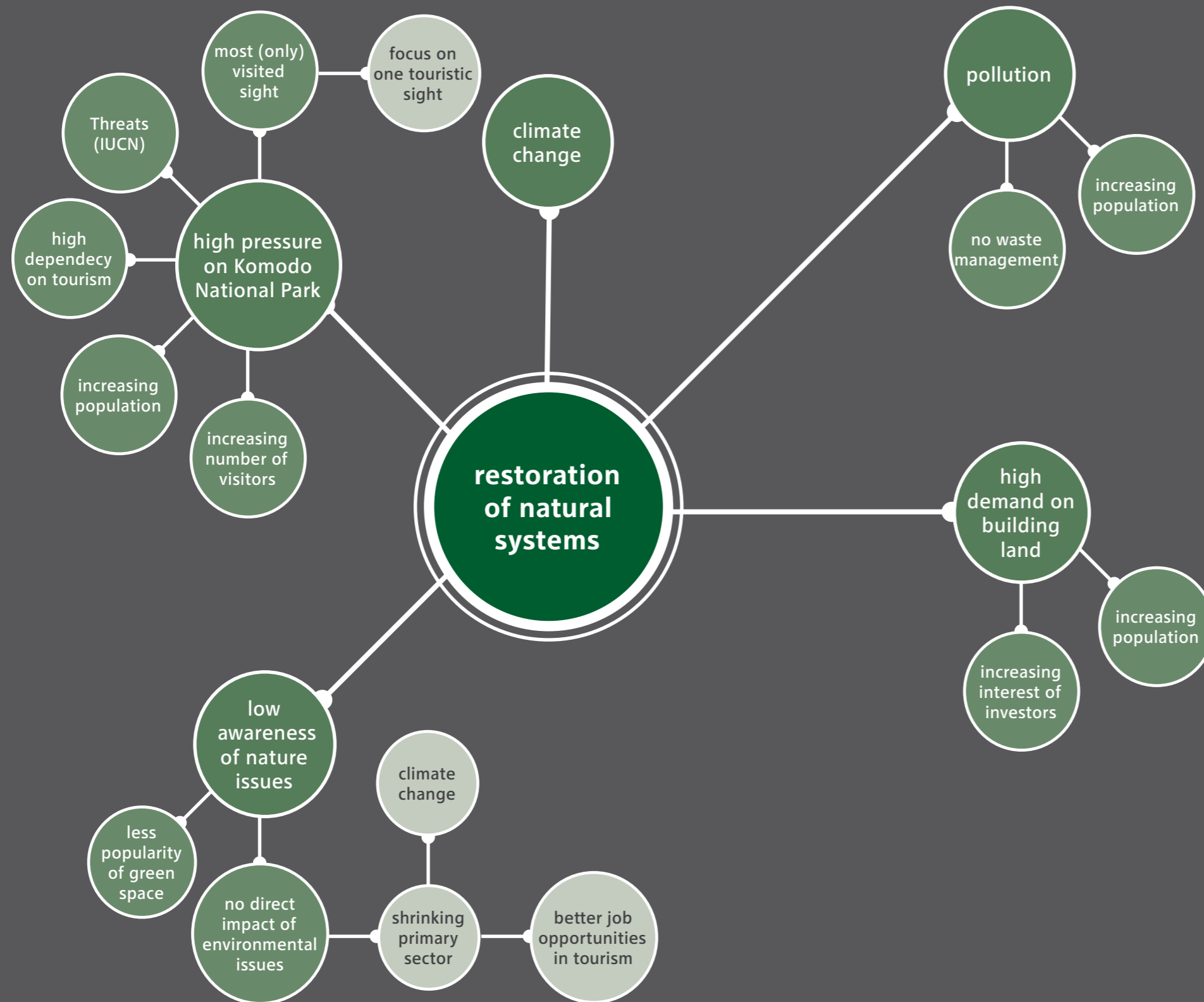
3. Efficient resource use, less pollution and waste

Considering Indonesia's approach and awareness towards sustainability, the use of resource, pollution, waste and sewage management are the most serious challenges.

The five mentioned issues are the most urgent ones to be solved. The lack of awareness towards limited resources adds to the rising number of users and is a big issue in all of the nine specified objectives. Due to climate change the period of droughts last longer every year and the water reserves shrink. While the guests of high class hotels are not aware of the finite resource and do not have to fear the consequences, the locals suffer from the increasing prices and low availability of water.

As the power supply in Indonesia has been very precarious in the past years, investments by the national government improved the energy provisions a lot, especially in the touristic areas. The new conditions lead to a higher consumption and less awareness, but production of energy still relies on fossil fuels.

The poorly developed waste and sewage management in most communities leaves no other option than burning rubbish on the spot, or draining water in the sea. This also contributes to the hygienic standards of the city.

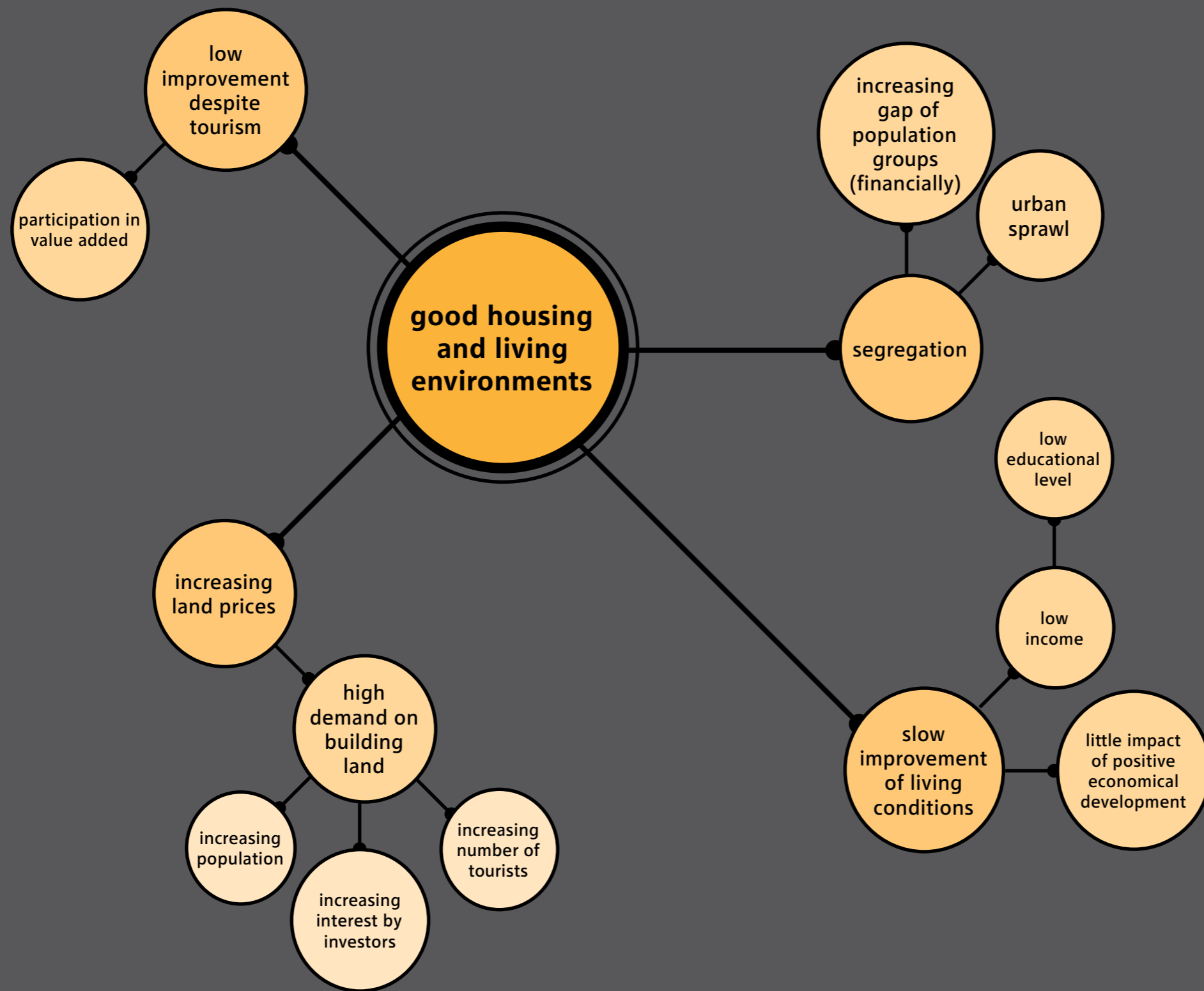


4. Restoration of natural systems

Urbanism is progressing, natural systems can only be seldomly found within Indonesian settlement structures. The importance of green areas is not very significant, most natural areas – especially beaches, which are not visited by tourists and located close to villages – are highly polluted. With the rising job opportunities in tourism, the primary sector, which relies on a functional ecosystem, is shrinking. This results in a vicious circle where farmers need to give up their land due to the poor harvest. They sell their land to investors to ensure livelihood, which results in rising number of tourists and thus pollution.

A serious concern is the condition of the Komodo National Park. The IUCN delivered warnings about the vulnerable flora and fauna in Komodo, which are not heard. The central government wants to increase the number of visitors even more, which also results in a rising population due to job opportunities in Komodo.

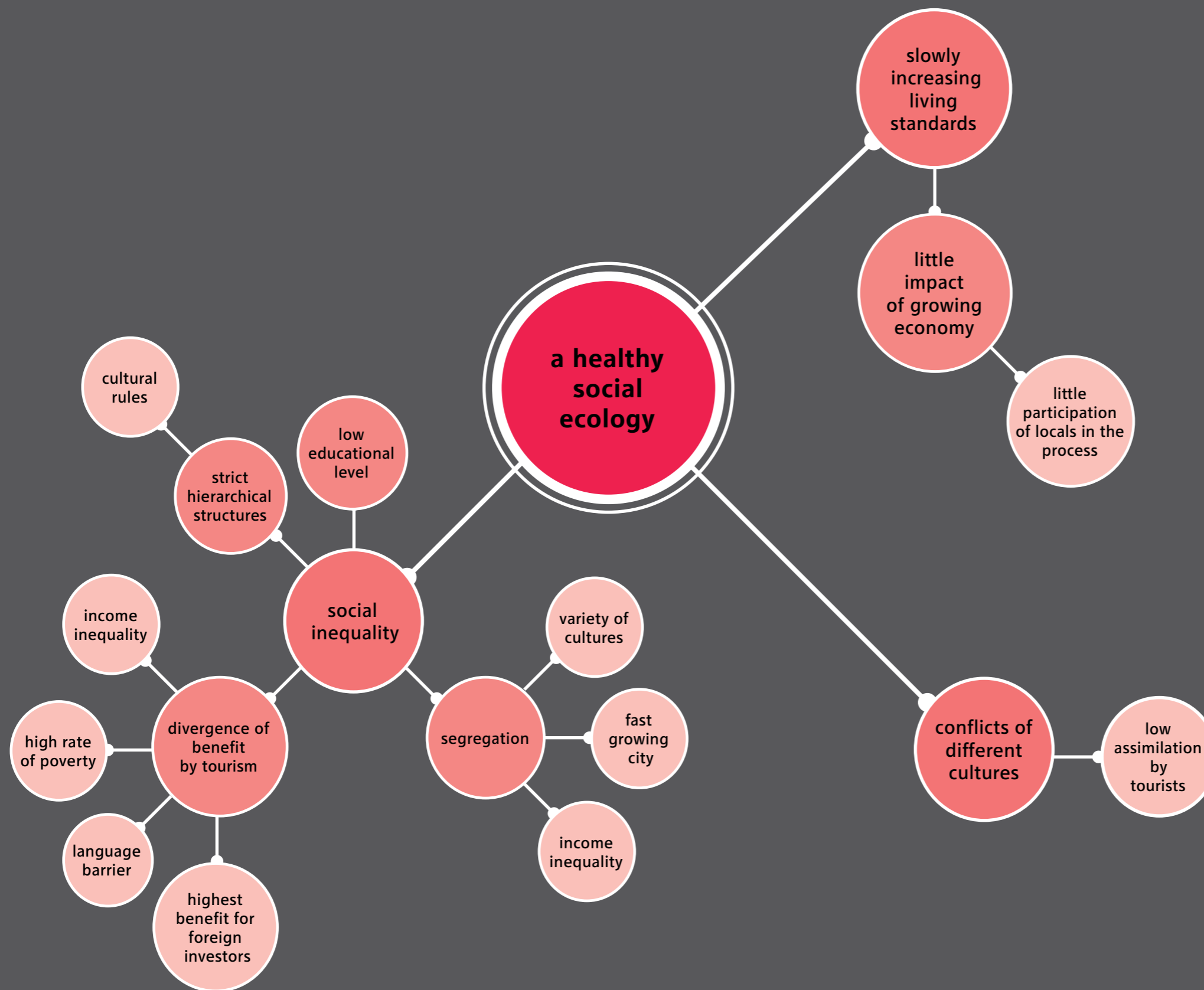
Free space within the cities is very seldom. Since the beach areas are mostly sold to investors, the locals have access to very limited public space. Due to the increasing population and number of tourists, some neighbourhoods are very dense already and the living conditions not satisfactory, especially in the touristic area. The growing population contradicts the compact land use, the city expands very quickly.



5. Good housing and living environments

Immigration as well as rising visitor numbers exert pressure on the available land. Therefore locals are forced to move outside of the city centre since the area around the main street Jalan Soekarno Hatta is inhabited by tourists and tourism operators, which in turn affects the land prices. This leads to segregation. The department of spatial planning focuses on the development of the city rather than creating affordable housing, which is more of a private matter. The analysis showed that the value, which is produced by tourism, does not affect the local conditions as much as expected. Overall the economic situation has improved, but the living standards are only rarely affected by the development. In addition the regimentation of fishing in Komodo National Park also hits the traditional communities rather than big entrepreneurs.

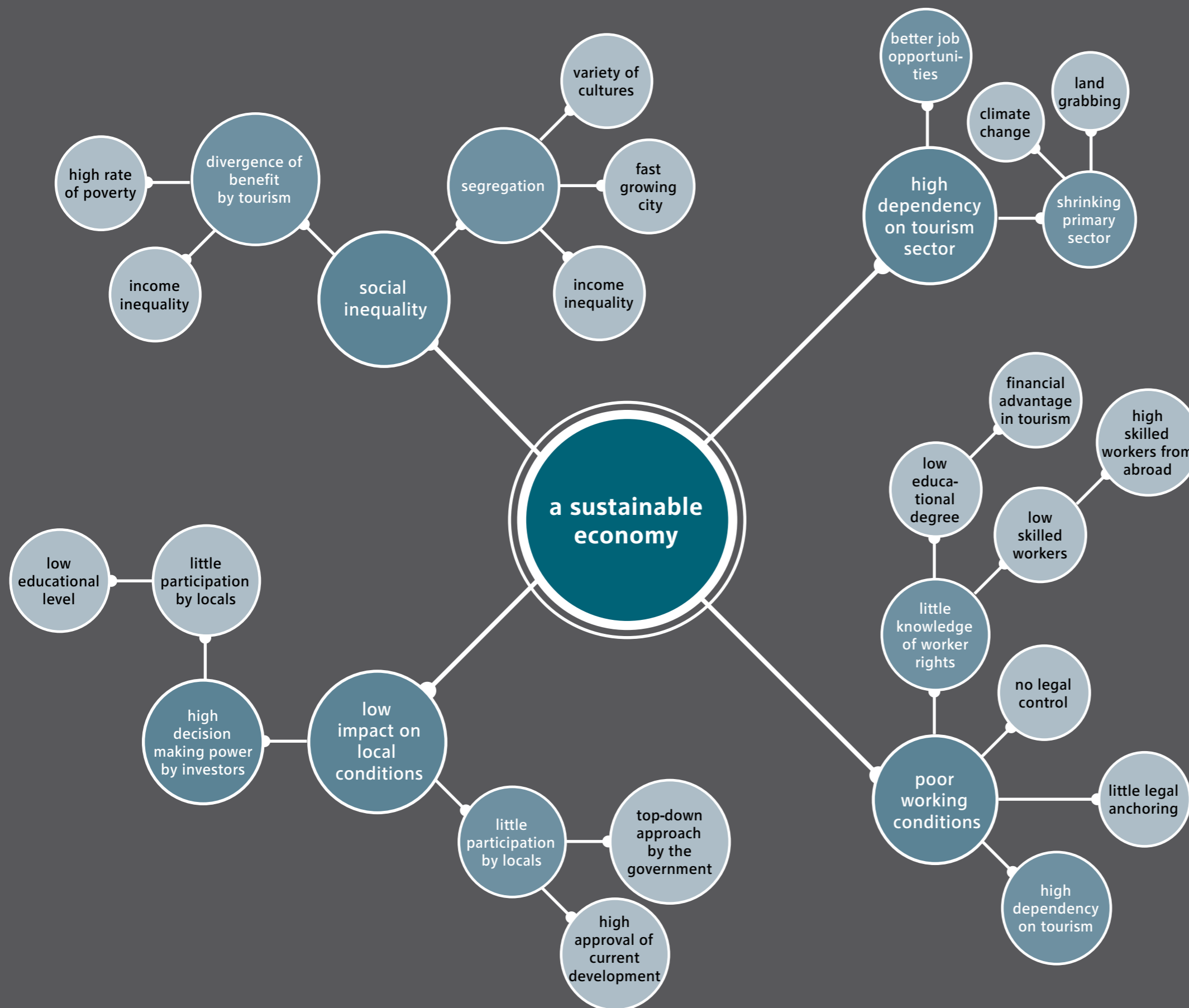
Some communities manage to be part of the progress, NGOs like Indecon and Trashhero push forward the participation and awareness of the population. One serious matter is the low expertise of the locals, due to the low average educational level.



6. A healthy social ecology

Some inhabitants benefit more from tourism than others, depending on their education, financial and family status as well as language skills. Adaption happens rather than integration, other cultures are often taken over rather than conserving own traditions. Within Indonesia hierarchical structures are very entrenched and seldomly questioned. The upper-middle-class was affected more by the changes than the lower social classes. If one were examine at the employees of tourism operators, it shows that a high variety of jobs have been created and especially lower skilled people have been hired by businesses. This results in a lower poverty rate, but the group which benefited the most still consists of foreigners and members of the upper-middle-class.

A high migration rate leads to segregation, foreign newcomers rather move to places where they find people like themselves. Different groups are formed and places for integration seldomly exist.

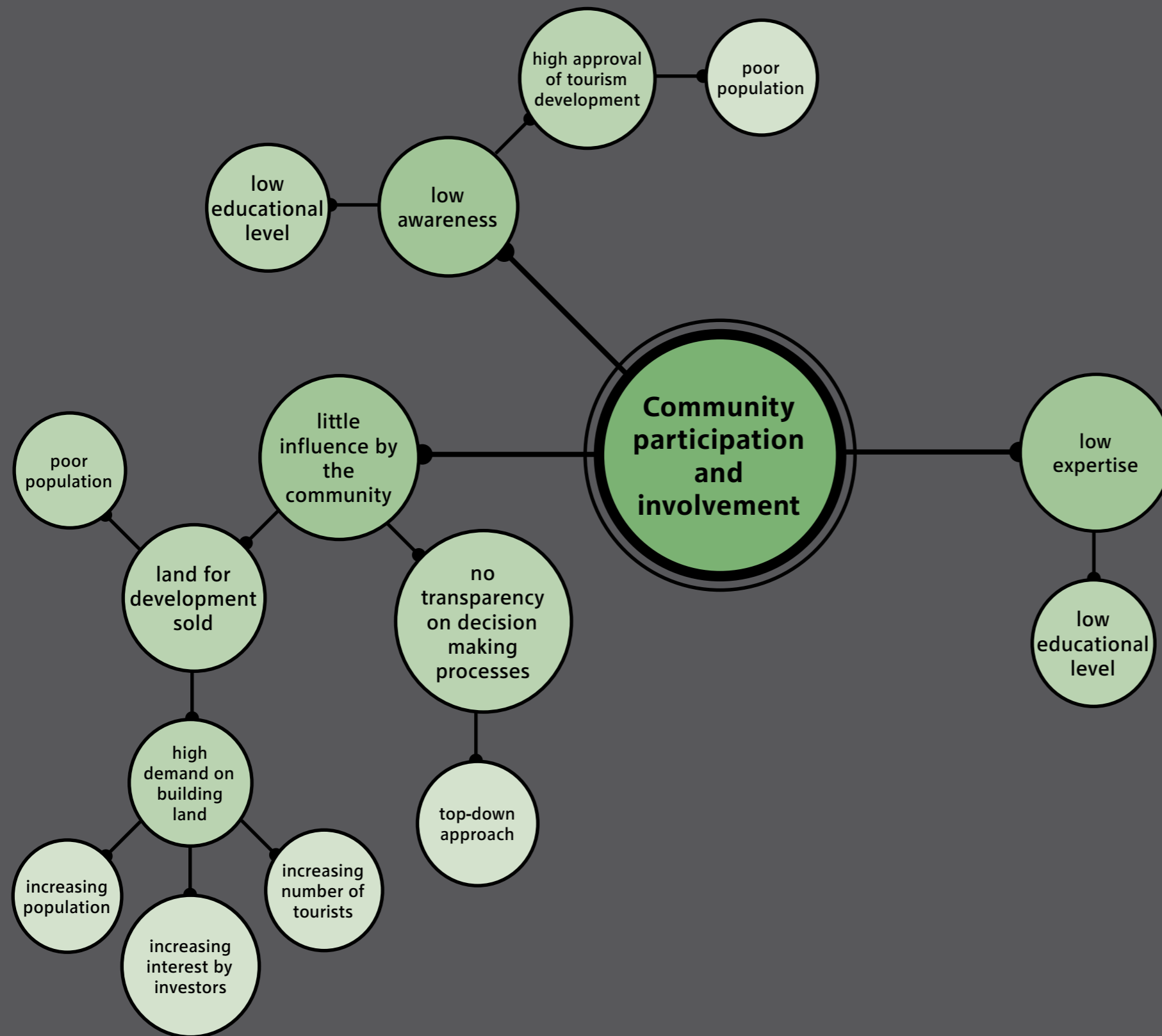


7. A sustainable economy

Since the government of Indonesia follows a top-down approach, usually local resources are not relevant to their national policies. Tourism in Labuan Bajo is rising because of the Komodo National Park. The unique selling proposition is the Komodo dragon, which is being used to attract more tourists, while it has not been taken care of the ecosystem in the national park yet. In the long-term perspective the national park loses its appeal due to the excessive tourism. The local economy depends on the tourism sector, if the USP is gone, the whole economy will collapse not long afterwards.

Social inequality and low impact on local conditions have been discussed already in the previous chapters but do have an effect on the aim of a sustainable economy as well.

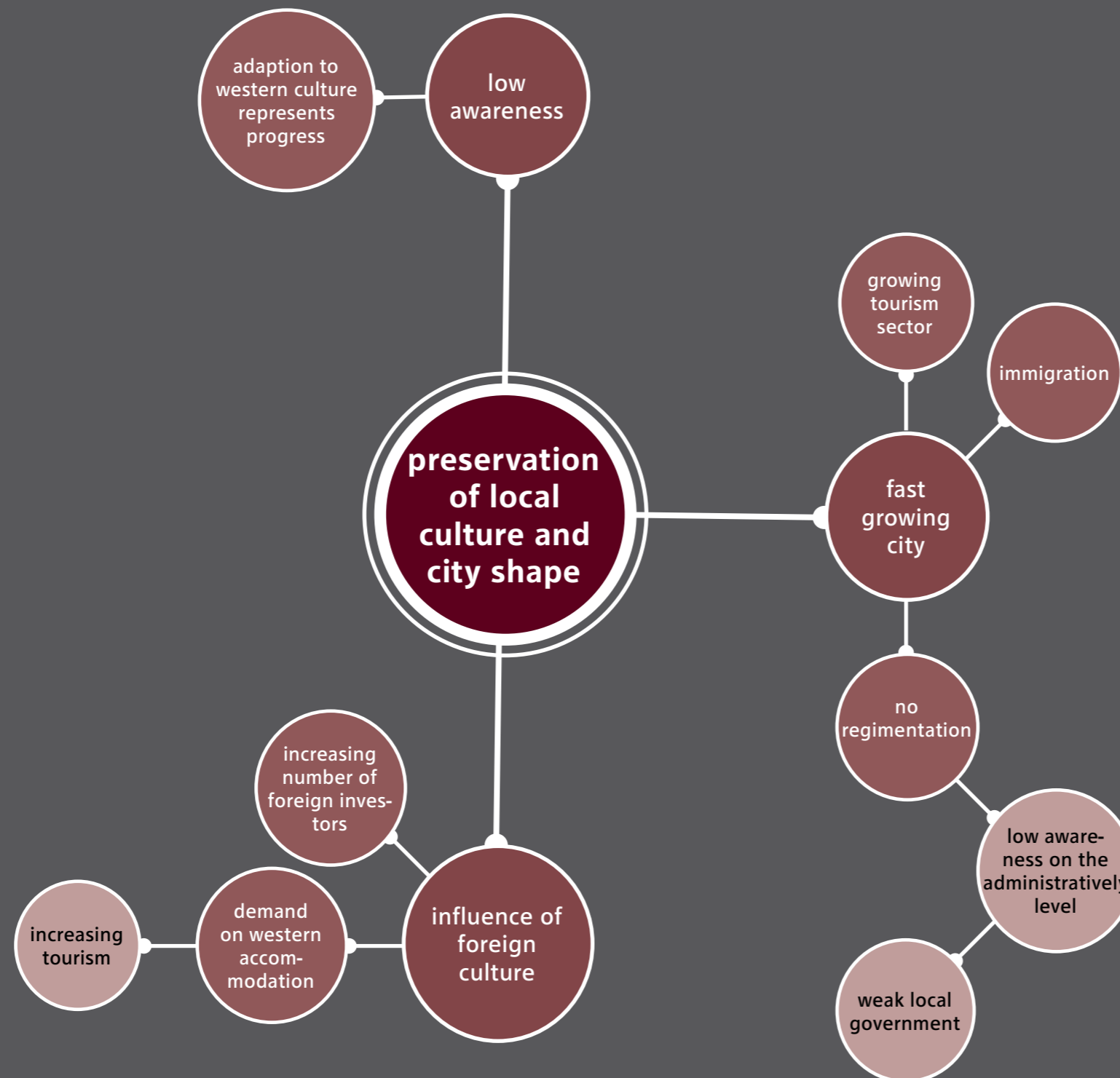
Through new measures the international market gets implemented in Labuan Bajo, big hotel chains, McDonalds and Starbucks invest in Labuan Bajo, while the local entrepreneurs are not able to cope with the large competition. Working staff which is needed is ensconced in the low cost sector. The legal working conditions are not fulfilled in most companies. The local level needs to be supported to ensure a long-term added value of tourism. Visitors are not aware of their lasting impact in the local economy and do not contribute to a sustainable economy. Awareness is missing on the local, entrepreneurs and the tourist side.



8. Community participation and involvement

While Labuan Bajo is changing rapidly, a large group is rarely involved in this process. An interview with Richard Sontani, the head of the spatial department revealed, that there is no formal instrument or even a willingness by the authorities to cooperate with the population. According to Mr. Sontani the local community is not ready yet to be part of the decision making process because of their lack of expertise. Since there is no approach to involve the community, the transparency is very low and it is very hard to come to know of what is happening on an administration level. The analyses additionally shows that a large share of the population is not involved in the value chain because of their lack in expertise.

Interviews with the communities revealed a high acceptance and approval of the current events. A high percentage of the interviewed people insured to benefit from tourism. The statements contradict with the results of the analysis, but by looking at the development it is clear, that the situation now is much better than a couple of years ago. The GDP increased as well as the employment rate. Compared with what would be possible with the rise of the creation value it also shows how little the impact effectively is though.



9. Preservation of local culture and city shape

The historical aerial view of Google Earth showed that the city shape has changed severely during the last ten years. The fast growth of the city as well as the influence of foreign cultures due to tourism made the development visible in the city's shape. The adaption to the western culture, also the architecture, represents the progress as well as the high acceptance among the population.

The local culture is the identity of a city. The city shape shall attract tourists and the special atmosphere should be the reason why foreigners come and spend their holidays there. It is also something which has gotten lost in most touristic destination, where white beaches and little bungalows represent the ideal holiday spot, regardless of its other potentials. Most visitors come to Flores because of the Komodo National Park, other attractions are of no interest and knowledge. Big hotel chains invest in Labuan Bajo and adapt to the demand of the western tourists rather than the local culture.

5. POSSIBLE FUTURE DEVELOPMENTS OF FLORES

Since strategic planning is essential for sustainable development, not only the current state shall be explained in this thesis, but the future outlook has to be given. What kind of tourism will be implemented in Labuan Bajo? What will happen if the aim of the central government becomes reality and there are 500.000 visitors per year at Komodo National Park? How will the nine indicators for sustainable development react to these changes?

Therefore two contrary scenarios of possible developments are outlined to give an impression what mass tourism or even no tourism would mean for Labuan Bajo. The first scenario is similar to the current scenario, but the trends and the objective of the central government is taken into account. The **laissez-faires scenario** displays the future without an intervention towards a more sustainable development. The current numbers are continued, since the majority of the local leading individuals are fighting for the implementation of mass tourism this scenario is very realistic to be put into practice. The second scenario, the **crash scenario**, deals with the collapse of tourism. This is similar to the state which Labuan Bajo had been 15 years ago. What will happen if Komodo National Park and the Marina Park cannot cope with the wave of tourists and the main attraction is not worth a visit anymore? Or external factors lead to a crash of tourist numbers, like natural disasters or a political crises? To avoid these two scenarios, **sustainable tourism** has to be approached. Therefore a master plan has been developed, containing objectives and measure to reach the nine goals of sustainable development.

5.1. MASS TOURISM – LAISSEZ - FAIRE

500.000 arrivals per year entail a massive burden to Labuan Bajo and especially Komodo National Park. If the current trends continue, the high price segment will increase which is the category with the most pollution. The population will grow and even more people will seek work opportunities in Labuan Bajo. Rising visitor numbers and the need for accommodation as well as tourism operators will impact the economy, which will lead to a flourishing economy.

In this scenario the distribution of the previous defined types of tourists will look like as follows:

- » **Backpackers** are seeking an adventure. They are interested in unexplored spots, which is not the case in Labuan Bajo anymore. Once they have seen Komodo National Park, they will leave Labuan Bajo and visit other locations in Flores. Due to the improving infrastructure, Flores can be toured easily.
- » Labuan Bajo turns into the perfect ideal holiday destination by western standards. The rising offer of beach resorts attracts many typical **holidaymakers**. White beaches, blue sea and interesting spots to visit and tours organized by the hotel, while giving the opportunity to leave the hustle of the city behind and enjoy the quietness, are only some of the advertisements by hotels to attract guests. Holidaymakers will be impressed by Labuan Bajo's development and will come in crowds.
- » Due to the ease of getting to Labuan Bajo and away, Komodo National Park will be an essential point of all Indonesian tours. The international terminal at the airport allows Asian guests to fly directly into Labuan Bajo and get a guided tour without much hassle. **Program tourists** are able to include Komodo within their tours without having to do a detour.

1. Compact, efficient land use:

Holidaymaker and program tourist demand high standard accommodation. Within the last

years the luxury sector has grown more rapidly than others in Labuan Bajo. The shift to a typical holiday destination requires a different building structure than the predominant one. Resources are needed to supply the demand, land is required to build bungalows and hotels, which take up more space than other price segments. Compact land use conflicts with the need for new accommodation. The increase of the number of visitors comes with a high employment rate, which leads to a population growth similar to the previous years. Coping with new and affordable housing will be a major challenge, urban sprawl will increase.

2. Efficient mobility systems

A growing number of inhabitants and tourists leads to an increasing amount of cars. Mobility and transport gains importance with on going urban sprawl. Due to the rising wealth of the inhabitants the share of motorbikes will shrink and be replaced with cars. Also transport of tourists needs to be ensured, beach resorts at the outcast of the city still have to offer transport to the centre. Increasing awareness towards fossil fuels is a global trend and has reached Labuan Bajo. Alternative energy systems will occur, but will not change the fact of the overload of main traffic routes. Other users of the roads are trucks which supply Labuan Bajo with fresh water. An increasing number of users will require more trucks. Local sources will be connected to the grid, but it will not be sufficient for the needs.

3. Efficient resource use, less pollution and waste

All kinds of resources are limited and challenge the authorities to provide their inhabitants and visitors with the essentials. The high price segment of accommodation, which is the fastest growing sector, leads to a substantial increase in resource use. Renewable resources will gain importance, current trends show, that the awareness among inhabitants is rising and also foreigners are interested in the sustainable use of resources. Since the limitation of resources is not experienced during a short stay, missing information will lead to careless handling. With the missing contact to locals, the tourists do not know about the water scarcity and missing waste management. New hotels likely dig their own well, but this also contributes to a lower groundwater table. Due to climate change the duration of the raining season gets unpredictable, which also has to be taken into consideration for future developments.

Nevertheless tourism taxes offer new possibilities for the authorities. Over the last years infrastructure has improved immensely and will hopefully continue in future. The more money is generated, the more will be spent on the expansion of infrastructure, especially waste management and efficient handling of resources.

4. Restoration of natural systems

Mass tourism comes into conflict with the restoration of natural systems. Pressure on Komodo National Park will increase since more and more visitors want to see it. The level of tolerance is already exceeded, tourism is a threat to the UNESCO World Heritage sight. Climate change will get more intense and will hit Labuan Bajo harder than other regions since it is already dryer than its surroundings. Threats of floods and heavy rainfalls occur and have a higher impact due to the settlement development. Increasing tourism and the growth of population leads to a higher pollution. New investments in infrastructure help limiting effects, but they can only reduce the issues. Settlement extensions are threatening the existing green space. Since the centre of Labuan Bajo is already very dense, there is not much potential other than the city outcasts.

5. Good housing and living environments

With an outlook on the basis of the current trends, where tourism is growing but the local population is only little involved in the progress, local standards will remain low despite growing wealth of the region. Due to the job requirements more people without a high educational degree are needed, but the number of vocational trainings is rising and with the improvement of the infrastructure, an increasing number of people will have access to education (e.g.: Majaga). Prospectively a higher share of the population will improve their living condition with growing expertise and education. Not everybody can be part of this development, which affects the social structures and results in segregation in the city. The more visitors come to Flores, the more foreigners are interested in investing, with their lack of expertise locals have little chances to compete. Since pressure on building land, especially in the centre of the city, will rise, the land prices will also increase. Living environment improves due to investments in infrastructure. Streets are built, sights are developed, international shops settle down, global goods are imported, Labuan Bajo has much to offer, also to the locals. The question is will locals still be able to afford life in Labuan Bajo with the increasing price level.

6. A healthy social ecology

Living standards are slowly increasing at the moment, but the enhancement will rise continuously. Despite this, inequalities will rise due to varying possibilities. A growing issue will be the clash of different cultures, especially at Jalan Soekarno Hatta and the Muslim villages right next to it. The more tourists there are, the greater the western influence. Fashion trends are passed on to the younger Indonesian generation which leads to conflicts within the generations. The spatial proximity of two extremes can become a big issue. Segregation is taking place already and will be intensified. Since there is no regulation or information about appropriate behaviour, the conflicts will rise and parts of the population will have their difficulties with the developments. Nevertheless an exchange of different cultures does have positive aspects as well. Younger people grow up with a wider acceptance of foreign cultures and knowledge will be exchanged too.

7. A sustainable economy

With a rising number of tourists and employment, the region will benefit from economical growth. The analysis showed that many locals already indicated their living conditions have improved. Nevertheless, problems which were identified in the analysis will stay stable. The dependency on the tourism sector will rise. Due to better job opportunities and unpredictable rain falls the primary sector will shrink further on. A high focus on one sector makes the economy very vulnerable. As explained previously, the system “tourism” is related to other systems and changes continuously. External effects like a political crises or climate change may lead to a decrease of visitor numbers, which will have an impact on the whole economy.

8. Community participation and involvement

The current trends of rising participation will continue, since more expertise and knowledge will be experienced and there is support from foreigners who live in Labuan Bajo. With rising tourism more responsibilities are passed to the central government, which affects the transparency of decision making processes. The central government follows a top-down approach due to hierarchical structures²²⁴ (see chapter 3.1 “Decision making process”), also foreign investors shall be attracted to bring money into the region. The demand on building land will

grow. Locals are still selling their land to gain short sighted wealth and this minimizes their chances to participate in progress in the future. Experience and knowledge about leading businesses will make it difficult for local entrepreneurs to compete. In a long-perspective locals will depend on jobs in tourism, since their livelihood was based on farm land, which is not available anymore.

9. Preservation of local culture and city shape

Foreign cultures can already be experienced in the city shape of Labuan Bajo. With rising tourism this trend will proceed. The typical building structure which is characterized by small houses will vanish in the city centre and will only be found at the outcast of Labuan Bajo. The demand for luxury accommodation (like the hotel “Ayana”) will increase and the accommodation sector will follow and increase the supply. These hotel complexes seldomly adapt to the local conditions. The awareness of the uniqueness of the cultural heritage will remain stable since the younger generation will be influenced by other cultures.

With the growing attraction of Labuan Bajo, the central government will be in charge of most processes within the touristic areas. This will not improve the instruments for spatial planning, since the preservation of the city shape is not a priority.

5.2. NO TOURISM - CRASH SCENARIO

Tourism is a dynamic system, which contains subsystems and interacts with other systems. As described in chapter 3.3.2. “tourism as a system” there are interdependencies with other systems. If elements or their relations change within one system it may have an impact on another system. By looking at the development of tourism in Indonesia over the last years, these relations get very clear. Tourism nearly collapsed in the 1990s due the financial crises, the number of visitors decreased again because of the “Bali bombings” in 2002 and 2005.

Labuan Bajo has only developed to a main touristic spot within the last years. Just about 10 years ago Manggarai Barat was one of the poorest regions in Indonesia. Tourism developed quickly, which made it hard for inhabitants to be prepared for it and be part in the progress. This scenario deals with the reconversion of Labuan Bajo. Due to the exploitation of resources Komodo National Park will suffer and will lose its image of a natural habitat of rare animals. The interest of tourists in Labuan Bajo will disappear as fast as it occurred. But also external factor can lead to a crash of touristic development in Labuan Bajo. A decrease of national funds due to a financial crises, an earthquake or tsunami which destroys the infrastructure. Or the image of Indonesia is affected due to these events.

Backpackers will explore Labuan Bajo again, but it will not be a popular holiday destination anymore. International investors are not connected to the city and will search for alternative places with a greater potential. Indonesia NGOs will stay and try to push the development further, but other organisation which were funded by foreigners who lived in Labuan Bajo will disappear.

Within the “No tourism” scenario the distribution of the previous defined types of tourists will look like this:

» **Backpackers** can be individual tourists again, they can dive into the local culture. The transformation to a typical Indonesian city takes place again and Labuan Bajo obtains its USP. Locals have enough expertise to preserve tourism, but the offer of accommodation

²²⁴ Lecture: Raumplanungspolitik, TU Vienna, lecturer: Hamedinger, based on: Eberlein, Burkhard & Grande, Edgar 2003: Entscheidungsfindung und Konfliktlösung. In: Bandelow, N.C. & Schubert, K. (Hrsg.): Lehrbuch der Politikfeldanalyse. München und Wien: Oldenbourg: 175-202

does not go beyond homestays and middle budget hotels.

- » *Labuan Bajo is a quiet Indonesian city, other than the backpacker the holidaymaker is not interested in middle standard accommodation and a preserved city structure. Beach resorts have left Labuan Bajo, the high life of the city centre does not exist anymore, other foreigners are seldomly found. Since Indonesia has other beaches to offer, the holidaymaker will rather choose Bali or Java to spend their vacation.*
- » *Komodo National Park does still attract nature lovers. **Program tourists** want to see the Komodo dragon and other sights Labuan Bajo has to offer. Their appearance will strongly depend on the infrastructure, and how easy it is to get around. Big hotels which can host large groups of people have moved to other locations so travel organisations have more difficulties to arrange the “stress free” sightseeing tours to Labuan Bajo.*

1. Compact, efficient land use:

Due to the decline in visitors, the interest in building land will drop and the settlement structure will remain in the current state. Since the local economy will suffer from the negative development of the tourism sector, the number of citizens will drop as well. Immigrants from other parts of Indonesia will leave Labuan Bajo, since the identification with the city is low. The characteristic building structure of Labuan Bajo is very dense traditionally, building properties do not take up as much space as western accommodation. This leads to a more compact land use for new buildings, but urban sprawl has already taken place and the vacancy rate of empty houses will increase.

2. Efficient mobility system

The number of car users will decline, since the Indonesians prioritized option is the agile and inexpensive motorbike. Big buses for tourist transportation are not needed anymore, backpackers, who will still find their way to Labuan Bajo, prefer motorbikes rather than buses. Due to the compact settlement structure social infrastructure will be centralized, usually every “Kampung” – the local communities, directly translated it means “village”. The distances within these “Kampungs” increased through tourism, but the lower population will still result in less traffic jams. Also the number of trucks which transport fresh water to Labuan Bajo decreases since less drinking water is required.

3. Efficient resource use, less pollution and waste

Infrastructure for waste management will improve since this is an Indonesian wide trend, but the impact of environmental measures implemented by foreigners will be reduced. The sewer system has been improved through the central government to meet the needs of tourists, further investments are unlikely without the potential of the region to contribute to the state budget. Holiday destinations in Indonesia are usually cleaner than rural areas, since tourists are not attracted by polluted beaches. Measures are usually only superficial and polluted areas still exist, but hotel staff cleans the hotel property in the morning to give the impression of a functioning nature.

Other than most tourists locals are aware of the limitations of water and handle it carefully. Luxury furniture like fountains or pools are seldomly found among local households, living standards are lower. Less people, less automobile use, high identification with Labuan Bajo and less trucks for water transport lead to a better environmental state.

4. Restoration of natural systems

Komodo National Park experiences less international interest, due to decreasing job oppor-

tunities the settlement development in Komodo will reduce and the National Park can be renaturalised. This also applies to Labuan Bajo. Green areas in the city will remain since no new building land will be needed. The connection to nature among locals will grow since there will be public beach access available again. Also an intact nature is more important since other income sources to replace tourism have to be found, which increases the importance of farming land. But environmental issues enjoy a low awareness in rural areas where other issues are more crucial. Connections between the quality of soil and pollution are seldomly made. If farming increases, it is necessary to separate between organic cultivation and other uses.

5. Good housing and living environments

The financial welfare in Labuan Bajo increased due to the growing tourism sector. With the rising number of visitors, new jobs were created and investments had taken place, the economy was pushed. With a decline of arrivals salaries will decrease, which might lead to a strengthening of other sectors.

The price index showed an increase over the last years, among others products for daily goods and land property were influenced the most. Tourists and job seekers led to a growth of the city. With the absence of people with higher purchase power, prices will decrease again which contributes positively to the living conditions of the locals.

6. A healthy social ecology

The local culture will not be influenced by foreigners anymore. Identification with local traditions will rise, also among the young generation. Since the local culture is patriarchal, foreigners had a positive impact on empowerment. Women participated in the job market almost equally to men, a trend which might not be continued with low influence from foreigners. Since the benefit of tourism varies strongly in the communities, the contrast between rich and poor will decrease again, segregation will be reduced. In contrary hierarchical structures will be strengthened.

7. A sustainable economy

Issues which challenge Labuan Bajo before tourism appeared will grow again. As one of the poorest regions of Indonesia, Flores was benefiting from rising tourism financially, the economy has boosted over the last years. Wealth will decrease and people with a weak tie to the city will leave and seek job opportunities elsewhere. Dependencies on the tourism sector is very high, many people quit their jobs and sold their land to participate in rising tourism businesses. Since farming land was sold, other job opportunities are rare and other sectors have to be reestablished. But the international exchange and the gained knowledge through tourism development taught the locals how to run their own businesses and be successful.

8. Community participation and involvement

The central government was interested in the Komodo region because it was a promising region, but with its involvement it also strengthened a top-down approach. With the decreasing number of tourists, local stakeholders gain more power again and shape the development of their region. Communities will be strengthened since they are not domineered over by the central government. External business men and women often had a major advantage due to their experience. Two phenomenon occurred because of this: Locals had the chance to learn from experts, but on the other hand they could not realize their own projects because they could not compete. With the disappearance of international investors locals have to act alone and start own businesses since less jobs are created by foreigners.

9. Preservation of local culture and city shape

Nearly all unsuitable buildings in Labuan Bajo origin from tourism, multi-storey buildings are entirely hotels, most of the time imported material was used to build them. With the decline in tourism, transformation will be stopped and new buildings will look like the traditional architecture of Manggarai Barat. But a decline of tourism also results in a high vacancy rate of former hotels and gastronomy. Infrastructure which was built for tourism and constructed for many users will be underutilized. This also affects the appearance of a city. Since there is less need for further regimentation since the number of construction sites decreases, this will not have a positive impact on implementing strategic instruments for spatial planning. A plan has to be worked out how to deal with the potentials of a shrinking city.

5.3. SUSTAINABLE TOURISM

Alternatively to these two contrary scenarios, sustainable tourism can be aimed. Sustainable tourism is one of the most effective ways to push development forward with a value added in other sectors and a positive impact on local conditions. Endogenous potentials are used to attract tourism, the identification with the location is very high among locals, it is less vulnerable to external effects than exogenous strategies and it is easy to implement. Labuan Bajo is a exceptional phenomenon: Within just a few years, the city went from backpacker tourism to a widely known holiday destination. Every month many changes take place thus it is hard to keep track. Currently the trend is going towards mass tourism, which had not the expected improvement regarding local conditions. This has to change towards a more compatible tourism with a greater impact on local wealth. The nine indicators of sustainability will be applied regarding to the ideal state of developments. Measures were created to reach these objectives.

All measures are described as follows: the nine indicators of sustainable development are the main goals, one level lower the aim of a measure is given. For the implementation process, responsibilities are divided. Organisations or stakeholders are mentioned who shall push forward the development and have the expertise and competence to put a measure into practice. Due to the time horizon the planning process and the actual period of implementation is clear. After implementing a measure, a time frame was chosen to evaluate the measures by the authorities which put them into practice.

5.3.1. COMPACT, EFFICIENT LAND USE

Measure nr. 1.: Urban sprawl and deformation

Objective: strategic spatial planning

How: The current development is taking place without strategic planning. The impact this will have in the future has not been investigated yet. Instruments for sustainable land use shall be implemented. A priority is to define areas where specific land use protects other territories which are prioritized for green space and farming. Building activities have to be categorized and conflicts shall be avoided by focusing usage with more emission to specific areas. Residential zones are defined to strengthen locals, create places of retreat and make land grabbing more difficult for investors.

For a better understanding, categories which were described in chapter “4.2.14. Settlement structure in Labuan Bajo” are used to explain the land use plan:

- » **Muslim villages (UR):** *The Muslim villages in the centre are a residential zone only and touristic activities do not take place here, even though it is right next to the main road Jalan Soekarno Hatta. The main utilization is living, it is an only residential area. Small shops and restaurants are the exceptions and the area needs to be sheltered from the tourism activities outside of it. The building structure is very dense (urban), hotels are prohibited in this area.*
- » **Jalan Soekarno Hatta (UT):** *This is the main touristic area with shops and gastronomy in every building. Due to the high frequency of pedestrians, motorbikes, cars and trucks the noise level is continuously high, which is why this area is not suitable for permanent residential use.*
- » **Touristic characterised area (RT):** *The noise level is slightly lower than at Jalan Soekarno Hatta, the main usage is characterized by tourism accommodation. There are hardly any shops and only few gastronomic businesses. The use is very similar to the residential zones, but hotels and tourism businesses are allowed to settle down.*
- » **Beach area (RN):** *Since the sea access needs to be ensured for all kind of users, these zones shall be characterized by a very low share of built-up area. Buildings shall be integrated in the nature, a high share of free space will shape the beaches. If new investors want to build here, they need to guarantee at least partly public access as well. Security spacing to the sea is obligated.*
- » **Traditional villages (RR):** *This is the main residential area for the inhabitants of Labuan Bajo. The main roads (UR) are characterised by little shops and restaurants on the side of the streets as well as retail parks, other than that there are mainly houses and apartments. Touristic activities do not take place yet, but compatible use does not exclude homestays. Therefore accommodation businesses up to 10 beds are allowed in these areas.*
- » **Government district (GOV):** *The government district is characterized by wide streets, and big properties with a high share on green space. All authorities are based in this area and important civil servants live here. The building structure shall remain low-dense and new buildings have to integrate. Tourism activities are not allowed.*
- » **Non building land:** *Green zones are important for recreation and absorption of emissions of a city. These areas have to be protected and therefore building activities are prohibited. Beach access shall be guaranteed for all kind of users and the North coast can be a spot for tourists as well as locals.*

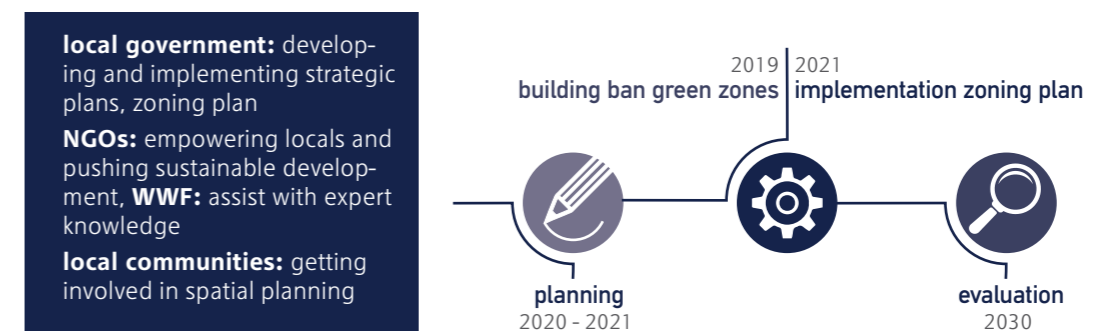














figure nr. 42: Urban sprawl and deformation, own elaboration

Zoning plan Labuan Bajo



Transport network

-  Trans Flores
-  main road
-  side road
-  airport

building land

-  touristic hotspot
(**UT**: Urban - Touristic)
-  beach area (**RT**: Rural - Touristic)
-  touristic area (**RT**: Rural - Touristic)
-  touristic offshoots
(**UR**: Urban - Residents)
-  muslim village
(**UR**: Urban - Residents)
-  central residential area
(**UR**: Urban - Residents)
-  residential area
(**RR**: Rural - Residents)
-  government district
(**GOV**: government)

non-building land

-  beach area
-  natural area

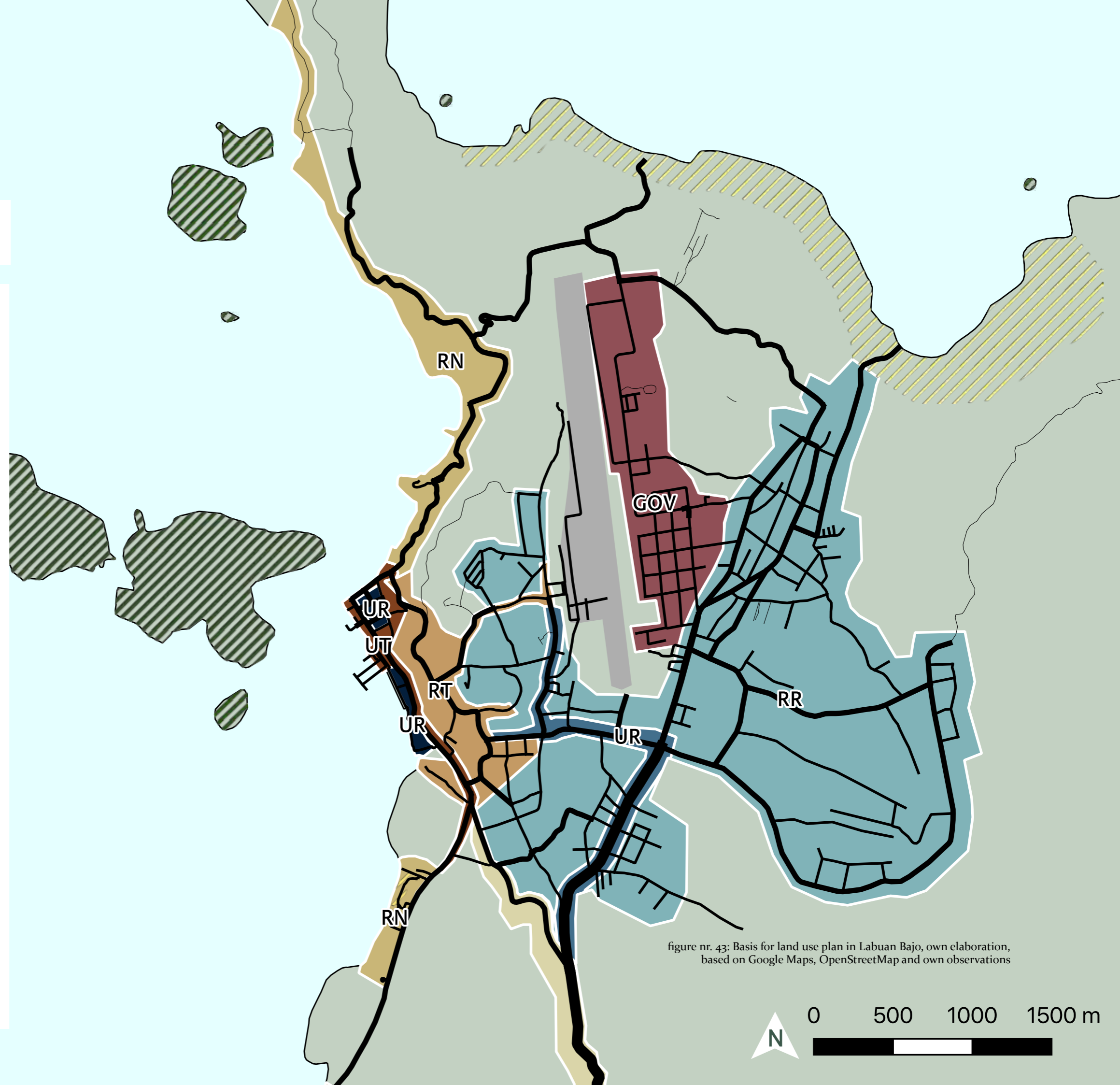
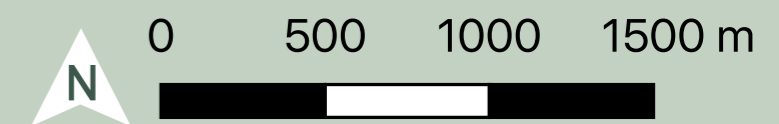


figure nr. 43: Basis for land use plan in Labuan Bajo, own elaboration, based on Google Maps, OpenStreetMap and own observations



Measure nr. 2.: Raising awareness among locals towards spatial planning

Objective: Local communities need to be educated about the importance of strategic planning, joint elaboration of characteristic structures which make up the identity of the city

What: At the moment locals are seldomly integrated in spatial planning processes. The authorities justify the lack of participation with missing expertise by the inhabitants and therefore they can not contribute significantly. So firstly inhabitants have to be empowered: Workshops should be organized to teach the basics of spatial planning and sustainable development. Labuan Bajo is a melting pot of different cultures, this could be used to create international exchange of experiences. Tourists, foreigners and natives from Flores take part and tell each other about their understanding of spatial planning. Secondly, locals have to identify what is characteristic for their city and what is important to them. International good practice examples can be used to visualize the objectives of spatial planning. Events can be workshops in schools and cafes, lectures in Mola's Cafe can be used to educate miscellaneous groups. This is how different target groups can get involved and the authorities can get a large variety of input.

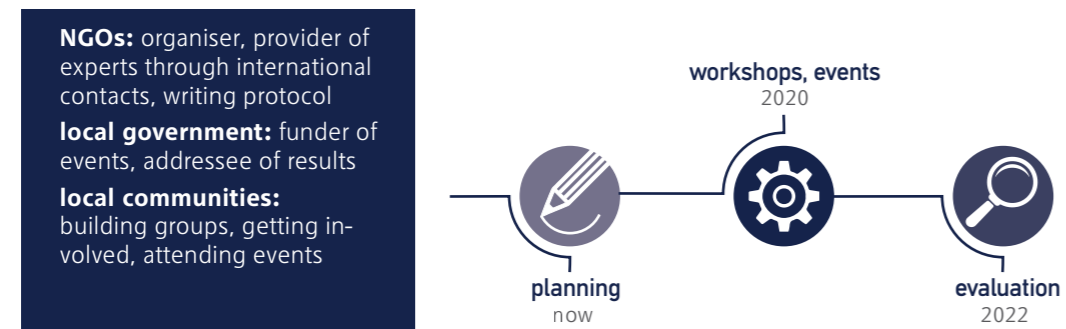


figure nr. 44: Raising awareness among locals towards spatial planning , own elaboration

5.3.2. EFFICIENT MOBILITY SYSTEM

Measure nr. 3.: Alternative Mobility in Labuan Bajo

Objective: Alternatives for mobility, animate people to use other means of transportation

Measure nr. 3a.: Public transport

Objective: Strengthening the existing public transport

How: Even though there is an existing public transport in Labuan Bajo, foreigners do not know about it. "Angkots" (little buses) need to be labelled to be visible for tourists and foreigners. Since the type of car is easily to spot compared to other vehicles, it is not necessary to put much effort in the transformation. Tourists can get information at their hotel or the tourist information. Other measures would include a zone for shared space at Jalan Soekarno Hatta (out of rush hour). These buses will go through the city centre, pick up and drop off tourists on the way. There is a turn-around point at Southern (Hotel Kalton) and Northern (Marina, night market) point where hotel taxis area allowed to park and wait for their guests. A terminal at the Marina will ensure enough room for the waiting buses.

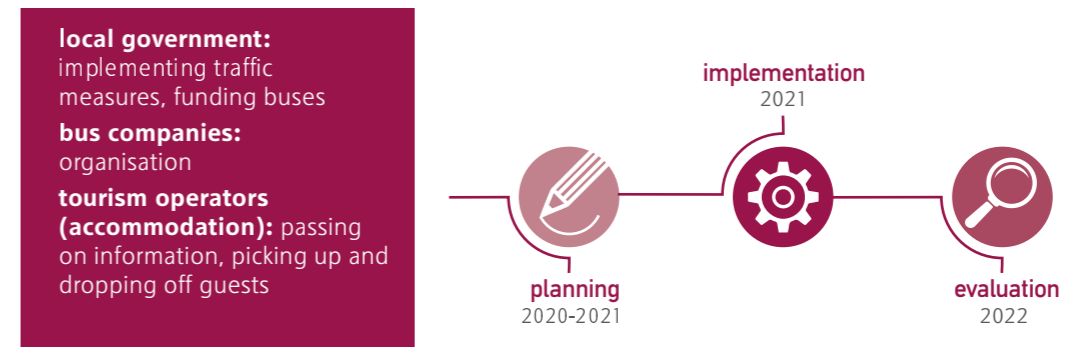


figure nr. 45: Public transport, own elaboration

Measure nr. 3b.: Traffic calming measures:

Objective: Traffic reduction at Jalan Soekarno Hatta

How: To reduce traffic at the touristic centre of Labuan Bajo, where most of the hotels are situated and many people are walking, Jalan Soekarno Hatta will be prioritized for pedestrians off-peak (10am - 3pm, 7pm-11pm). There will be parking facilities outside this area (mainly in the South) and buses which will bring people to their desired destination. Authorized cars and motorbikes, which have a reason to go to one place within this zone, are permitted to enter. Jalan Soekarno Hatta has always been a safety threat due to its many users, with this measure traffic safety can be ensured during the day and evening. Since Jalan Soekarno EAST, which is situated along the hill, is also a one way street, traffic measures have to be implemented to allow traffic in both directions. While there is more space to widen this part of the street, at some points an expansion is not possible. Therefore a barrier system needs to be established: During off-peak gates regulate the allowed directions. Along 1,2 km cars are allowed to pass and after 5 minutes the direction changes. During evenings (7pm-11pm), when there is the most action in the centre, trucks must not pass Jalan Soekarno Hatta.

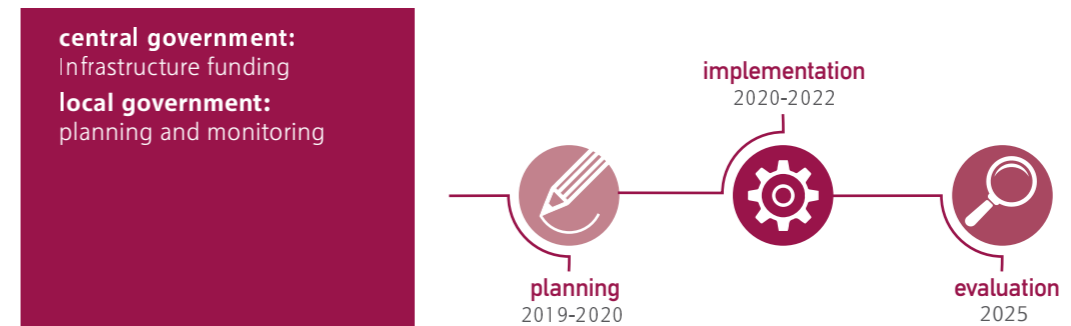


figure nr. 46: Traffic calming measures, , own elaboration

Measure nr. 3c.: Priority for pedestrians:

Objective: Increasing attractiveness of walking

How: Off-peak (10am - 3pm, 7pm-11pm) Jalan Soekarno Hatta will be a shared zone between pedestrians and buses. Previous described measures will support the implementation of traffic calming. Shared space will support interaction between different users of Jalan Soekarno Hatta. Pavements will be extended to other streets as well, right now it can only be found at the touristic centre on Jalan Soekarno Hatta.

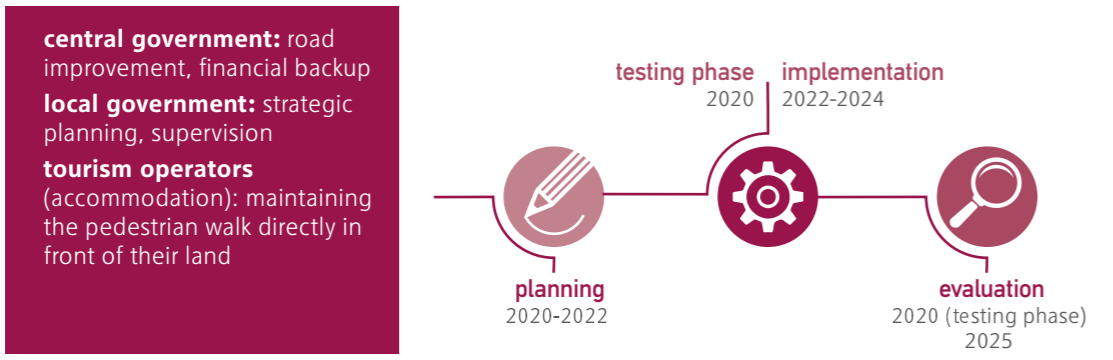


figure nr. 47: Priority for pedestrians, own elaboration

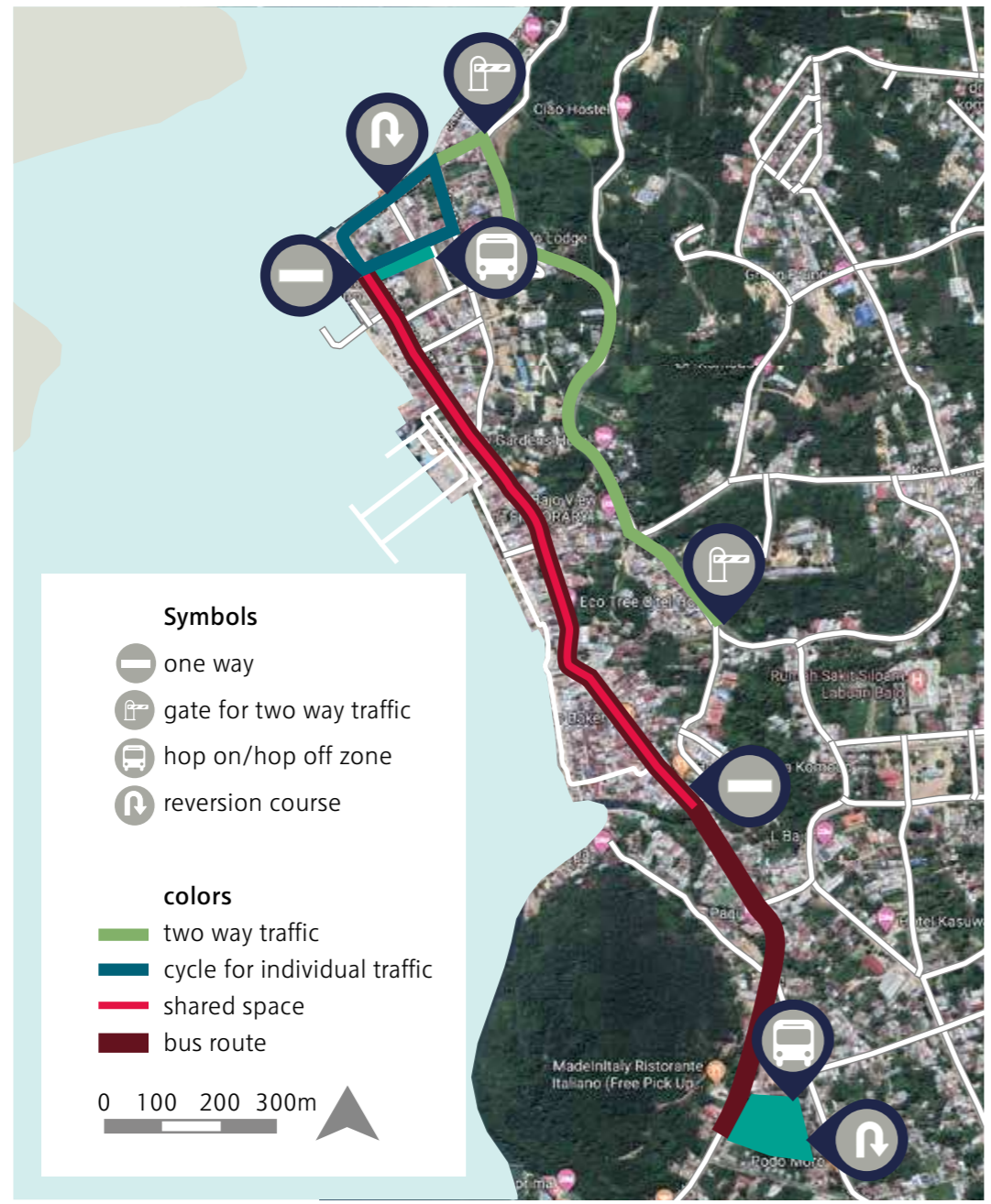


figure nr. 48: Traffic calming measures²²⁵

²²⁵ Figure nr. 48: traffic calming measures, own elaboration, background: Google Maps

Measure nr. 4.: Development and connection of other touristic areas:
Objective: Taking pressure off Komodo, better distribution of tourists, distribution of benefits

How: The central government improves regional and supra-regional infrastructure continuously. Trans Flores, which leads from West to the East, connects all important cities. Labuan Bajo experiences an increasing number of visitors, while other regions do not benefit from tourism at all. The good connection from Labuan Bajo to other parts of Flores can be used to promote these areas, to encourage travellers to see other parts of the islands besides Komodo. With a better guidance system, starting with a realistic time specification of how long it takes to get to the desired destination, more information about sights close by and tour operators who offer inland trips a better distribution of tourism can be achieved. Routes of public buses should run from the city centre of Labuan Bajo to near sights like Cunca Wulang, Batu Cermin Cave, Rangko Cave. Wae Rebo is one of the most visited sights, but it takes a long time to get there, therefore buses should take tourists from Labuan Bajo to Wae Rebo. A bus terminal for these tours will be located close to the Marina, at the drop-off-zone. Since these tours start in the morning, they will not disturb the regular business during the day.

Komodo National Park is not made for 500.000 visitors a year, according to WWF this number is beyond the tolerable level. A limitation of visitors, e.g. everybody has to register beforehand, is needed to manage the crowd. The application process can be completed with a register platform and an estimated date of arrival, the max. allowance of visitors will be set at 100.000, which is about the amount of visitors in 2018. The procedure will lead to a decrease of applicants since only people who are really interested in Komodo will apply for entrance.

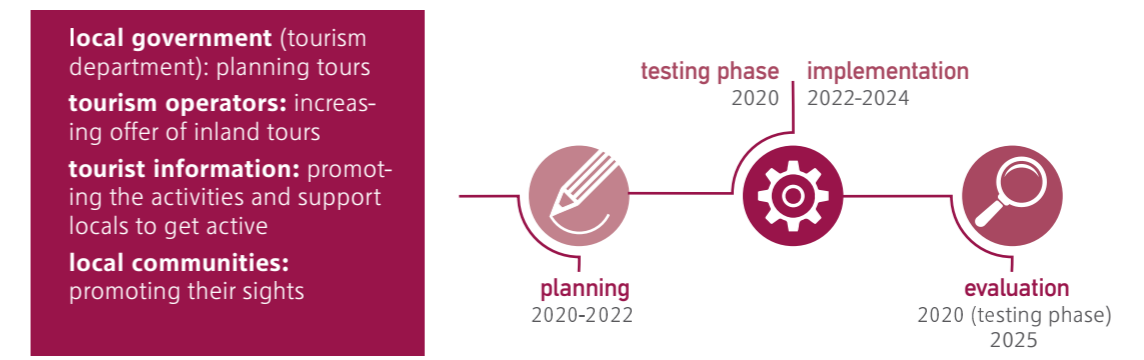


figure nr. 49: Development and connection of other touristic areas, own elaboration

Measure nr. 5.: Alternative ways of getting to Labuan Bajo:
Objective: Promote other routes to reduce pollution, distribution of tourism

How: Currently the most common way to get to Labuan Bajo is by plane. Since touristic sights in Flores are scattered all over the whole island, the preferred way to get to other cities is to fly there as well. Trans Flores connects all these cities and is well maintained, buses take tourists from Labuan Bajo to other cities, but are not well promoted. Getting to Labuan Bajo by ferry is also possible. However, most sailing boats are owned by foreigners and local boats often face safety issues. The safety standard on the sea route needs to be enhanced by regular checks through authorities. Boats have to take their maximum amount of guests seriously. Around Komodo, park authorities are often seen to check on boats. These checks need to be expanded to guarantee safety on the sea.

By slowing down the travel to Labuan Bajo, other places can be visited and the connection with the region will rise among tourists. Other villages can benefit by tourism as well and pressure is taken off Labuan Bajo. Pollution decreases by reducing the distance lowered by plane.

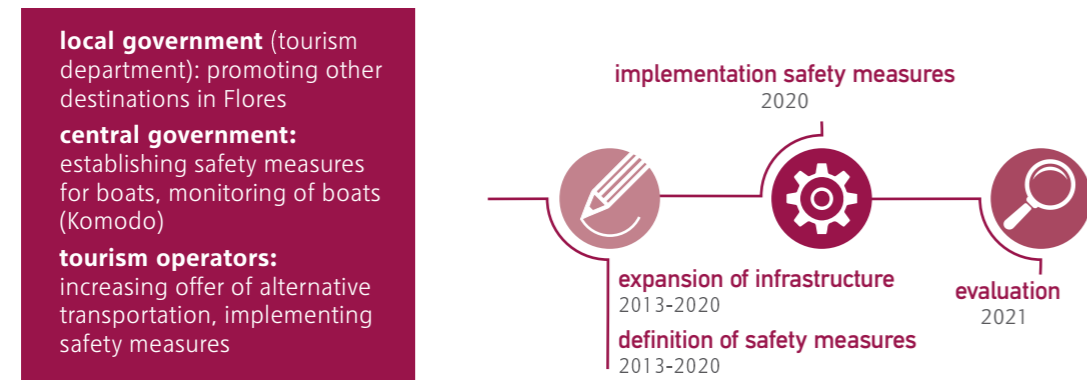


figure nr. 50: Alternative ways of getting to Labuan Bajo, own elaboration

5.3.3. EFFICIENT RESOURCE USE, LESS POLLUTION AND WASTE

Measure nr. 6.: Reduced use of water

Measure nr. 6a.: Decreasing water consumption

Objective: Implementation of water recycle measures

How: Water consumption in Labuan Bajo is one of the biggest issues due to its natural limitation and the costly transportation from Ruteng to where its needed. While locals are aware of the limitation because they suffer from rising prices, tourists do not know about the growing issue. Furthermore hotels in the upper price segment use more water than others, this increases the threat to the inhabitants, since this segment is expanding as mentioned in an earlier chapter.

Therefore buildings with more than 2000² net floor area need rules in order to recycle water. The minimum of net floor area was chosen to include bigger construction projects rather than private households with a lower income.

Measures to lower water consumptions could be the prohibition of flat roofs since gabled roofs facilitate the collection of rain water. Fresh water must not be used to water gardens and flushing the toilets, grey or black water shall be recycled for this purpose. Hotels with more than 15 guests (more than the average homestay) need an alternative way of generating fresh water, e.g. by building wells or make use of sea water (which needs to be run by solar power or other alternative energy production, since desalination of sea water is rather energy consuming).

Measure nr. 6b.: Safe transport of water

Objective: Maintaining water pipes

How: According to Mr. Sontani, head of department for spatial planning, water pipes can not be used to transport water since they are in a very bad condition. Locals illegally tap the pipes to get water which causes leaks in the infrastructure. Since water prices are rising quickly, poor families suffer the most from water limitation. A proper maintenance of water pipes can fight illegal consumption, an appropriate price level for private households abolishes the necessity to tap water.

Measure nr. 6c.: Fair prices for water

Objective: Adjusting the price of water for different users

How: Fair price levels can be accomplished by differing between the amount of water which is needed by households. The median water use per bed in tourism businesses is 117l per day. The highest amount was 770l, the lowest 20l per bed and day. To make water affordable for private households and boosts the implementation of water reduction measures among hotel owners, the price per litre of water below 120l per person living in the household or bed in a hotel should be subsidized by the government. The price per litre rises for every consumer who uses up more than the amount above mentioned. In 2018 the average price per litre was 77 Rupiah (0,005 €), this should be lowered by 20% to 60 Rupiah (0,0039 €). By consuming more than 120l per person and day, the price increases by 20% to 90 Rupiah (0,0059 €). If the consumption increases by another 120l, the price for water will be 150% higher and thus amount to 115 Rupiah/litre (0,0074 €). If the consumer uses the water to cultivate land, the price level stays the same. Therefore the user must prove the provision of at least the food for the number of people who live in the household (or beds of a hotel). Transportation companies who bring the water to Labuan Bajo by trucks need to keep track on how much water is delivered to a single address, to monitor the amount of used water.

Measure nr. 6d.: Raise awareness towards water scarcity

Objective: Raising awareness of scarcity of water among tourists

How: A large share of hotels already raises attention for the water issue. Signs are put up at toilets and bathrooms to raise awareness of the limited resource. These measures shall be expanded to all hotels. Since prices are going to rise for larger costumers, water needs to be saved for economic reasons.



figure nr. 51: Raise awareness towards water scarcity, own elaboration

Measure nr. 7.: Implementation of an efficient waste management:

Objectives: Reducing production of waste, raising awareness, using existing systems, less combustion of plastic waste, improvement of infrastructure

How: With KSU a recycling platform has been established which is a starting point for an efficient waste management. Since there is no functioning bigger infrastructure system, KSU can be expanded to separate waste and recycle it. Tourism is responsible for the growing environmental issue, tourism taxes can be used to diminish the negative impact it has on Labuan Bajo. Therefore a bigger storage for rubbish will be needed. The number of trucks needs to be increased and awareness for production and recycling of waste shall be raised by NGOs like Trashhero, which is already educating different groups of people. Workshops and discussions which already take place need to attract more people which can be reached the cooperation between hotels and tourism operators as well as locals.



figure nr. 52: Implementation of an efficient waste management, own elaboration

Measure nr. 8.: Sustainable energy use

Objectives: Prioritizing renewable energy sources, raising awareness

How: The prices for fossil fuels will rise and the necessity of alternative sources will eventually come up. Villages which are not connected to the public grid use solar panels for energy production and need to keep their source of energy rather than completely changing to the public grid. These small-scale structures need to be maintained and supported to supply villages with green energy. New methods for alternative energy shall be spread in Labuan Bajo, especially among tourism business operators. Green energy production is a relatively new subject in Indonesia and knowledge is required. Labuan Bajo is a melting pot of people with different origins and backgrounds. Knowledge shall be exchanged and locals encouraged to use alternative energy sources. Especially solar power has a strong potential in Labuan Bajo.

For buildings with more than 200m² net floor area measures for reduction of energy consumption need to be implemented. At new constructions materials should be used which cool down the micro climate, solar panels need to be put on the roof, natural ventilation shall be implemented (cross ventilation, open roofs with mosquito nets, special plants like citronella keep away mosquitoes as well). Natural shadow by trees can cool down the area as well as better orientation of the building to avoid direct sun light.

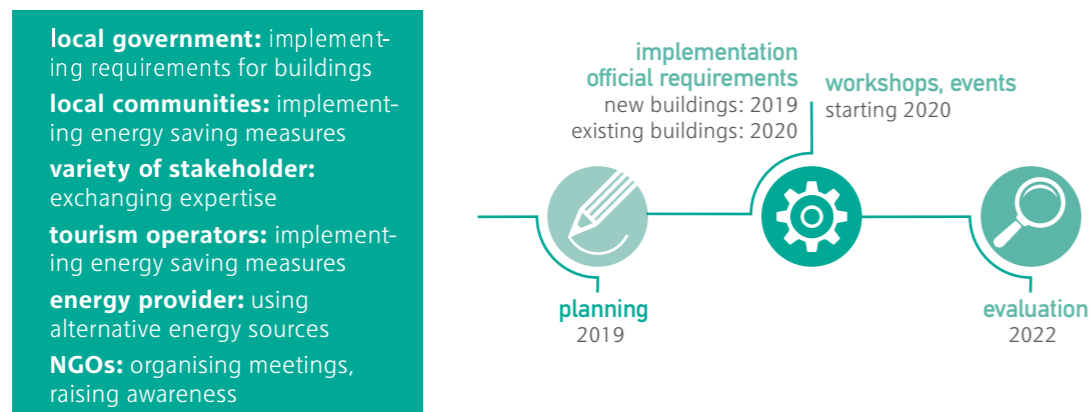


figure nr. 53: Sustainable energy use, own elaboration

Measure nr. 9.: Use of local resources

Objectives: use of local goods (food, building material), boost of local economy (measure for sustainable economy)

How: Indecon already works on the implementation of a regional economic cycle. This needs

to be expanded to support traders and tourism businesses to buy their products locally. Through indecon a monitoring authority already exists to guarantee reliability for costumers, which is one of the main issues concerning the use of local goods. If products do not have to be imported from Java or Bali, also the price declines and therefore a win-win situation is reached.



figure nr. 54: Use of local resources, own elaboration

5.3.4. RESTORATION OF NATURAL SYSTEMS

Measure nr. 10.: Protection of the Komodo National Park

Objective: restoration of Komodo, protection of flora and fauna in Komodo

How: Belize, which is situated in Central America, was registered as a world heritage in danger²²⁶. Threats were very similar to Komodo National Park and throughout international attention and support the National Park managed to recover again. Komodo is already part of the “red list” of IUCN, and threats shall be taken seriously by raising awareness for the current condition Komodo. The master plan 2025, which defined appropriate goals, needs to be put into practice and a new master plan to follow up on these objectives needs to be drawn up. The number of visitors needs to be limited to 100.000 per year. An application form needs to be completed by visitors to get an entrance ticket.



figure nr. 55: Protection of the Komodo National Park, own elaboration

Measure nr. 11.: Eco-impact regulation

Objective: Contribution of big businesses to local environmental conditions

How: Big investments bring a lot of money for entrepreneurs, while the environment suffers from rising pollution. To achieve a counterbalance, investments shall not only flow into buildings, but shall rather contribute to the environmental state of Labuan Bajo and Komodo National Park. Every building permit which is issued needs to make sure, that 1% of the

226 UNESCO (2015)

invested money is spent on compensatory measures, which protect the nature or contribute in another way to the environment. These measures have to be realized separately, improvements the project to be more sustainable are part of other measures in this master plan. Alternatively the local government can use the money to finance projects for the nature which were created by themselves.



figure nr. 56: Eco-impact regulation, own elaboration

Measure nr. 12.: Raising awareness towards environmental issues

Objective: Careful handling of nature, gaining knowledge about environment and the impact of pollution

How: As mentioned earlier the different groups which come together in Labuan Bajo offer a high potential of exchanging knowledge. NGOs can support interaction between interested parties and locals. Workshops and discussions need to be expanded to meet a greater audience.



figure nr. 57: Raising awareness towards environmental issues, own elaboration

Measure nr. 13.: Strengthening of sustainable farming

Objective: Protection of the environment, local circle of production

How: Interest in locally grown and organic food is increasing globally. Environmental awareness on holiday is usually lower, also because tourists do not know how to retain their behaviour in foreign countries. To raise transparency, locally grown food shall be promoted in gastronomy and accommodation businesses. Indecon already implemented a local value chain of sustainable farming and is establishing a trading system of its goods. Products are labelled, but name recognition is still very low. Starting with their products, all locally grown food gets a label so tourists recognize their origination. This should also be contained in the information brochure for tourists.

Flores Joyful Retreat works together with three restaurants in Labuan Bajo, their expertise can be used for similar projects which need to be supported and expanded.

NGOs – Indecon, Flores Joyful Retreat, EcoFlores: promoting their activities, raising awareness, establishing a label for all locally grown food
Tokoh Masyarakat: building networks with NGOs
local communities: establish within the local market
tourists: buying locally



figure nr. 58: Strengthening of sustainable farming, own elaboration

Measure nr. 14.: Protection of local flora and fauna:

Objectives: Reduction of imported plants, strengthening of existing local conditions

How: Hotels, especially in the upper price segment, with bigger gardens and different kinds of plants seldomly use typical plants from Flores. Beside the wastage of resource by importing these plants and energy is needed for imitating their natural habitat, also the connection to the local nature is lost. The USP of Flores also includes of its flora and fauna, this should be the reason why tourists visit Labuan Bajo. Awareness can be raised by replacing frangipani and palm with tropical crops, such as coffee, cocoa, bananas, durian, jackfruit, papaya and vanilla²²⁷. To protect local plants, hotels need to have a share of at least 60% of local plants in their gardens.

tourism business: growing local plants
local government: implementation of regiments

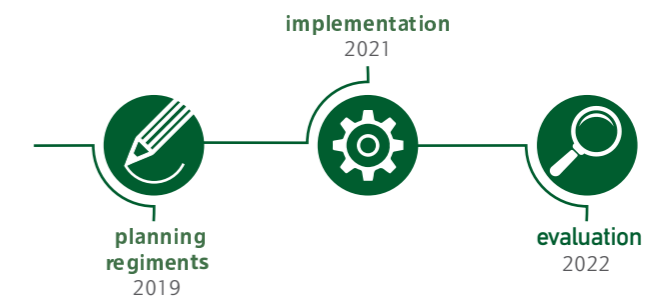


figure nr. 59: Protection of local flora and fauna, own elaboration

5.3.5. GOOD HOUSING AND LIVING ENVIRONMENTS

Measure nr. 15.: Implementation of adequate living standards

Objectives: Adaption of living standards towards the tourist accommodation standards

How: Living standards are rising, but compared to the economic wealth in Labuan Bajo, local conditions have not adequately improved. Land prices increase and locals can hardly afford new properties. With the measures aimed at an adequate participation in economy the financial status of inhabitants will improve. The land use plan defines areas for residential use only, properties in this area will not be interesting to investors and therefore prices remain stable.

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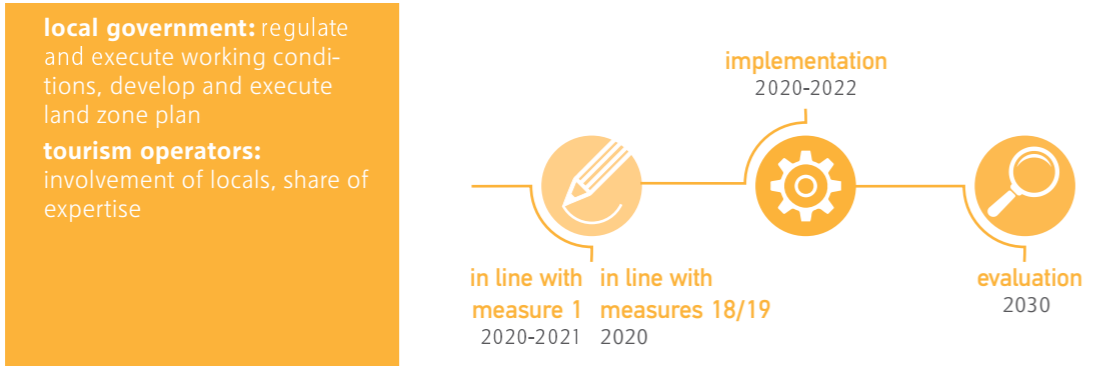


figure nr. 60: Implementation of adequate living standards, own elaboration

5.3.6. A HEALTHY SOCIAL ECOLOGY

Measure nr. 16.: Integration of different cultures instead of assimilation

Objective: Different ethnic groups shall benefit from each other, culture shall be preserved
How: An often mentioned issue between locals and tourists is the missing respect towards local rules. Especially adequate clothing is not respected by tourists, which leads to anger especially among the elderly generation. A conflict point is Jalan Soekarno Hatta, which is right next to two Muslim villages, which are very traditional and conservative views. The characterized zones in the land use plan (measure nr. 1) shall also include measures about the behaviour: residential zones (**RR**) are marked as non-touristic areas. While locals are usually very friendly towards tourists and exchange between groups is required to ensure respectful contact, within **RR** areas tourists need to accept local rules. Therefore an information brochure which is explained later on, will be handed out to every tourist to remind them of certain rules like clothing and respectful behaviour in certain areas.
 To attract tourists which are travelling through Indonesia for a longer period, Indonesian classes shall be offered, to allow tourists to learn the national language. Tourists are often interested in basics of Indonesians, but courses are seldomly offered. Trashhero already organizes English classes for Indonesians, where travellers support the team teaching English. This can be used the other way around, as a platform where tourists and locals exchange and both parties can improve their language skills.

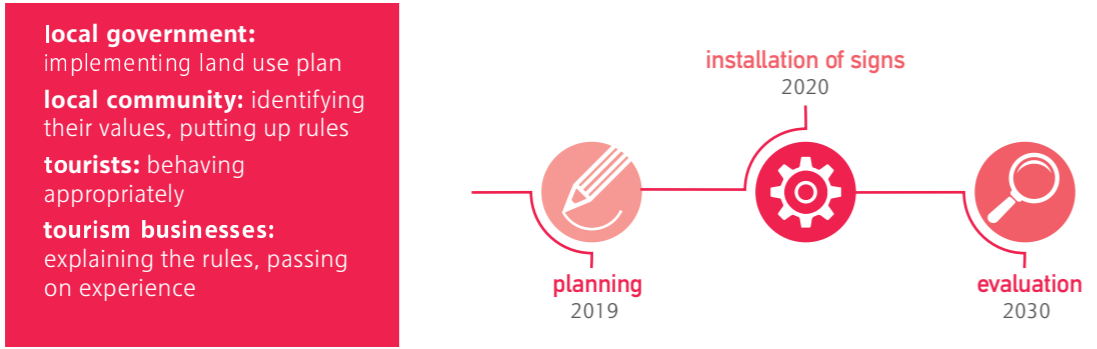


figure nr. 61: Integration of different cultures instead of assimilation, own elaboration

Measure nr. 17.: Identification with Labuan Bajo

Objective: Strong communities, strengthen bond with the region
How: Due to the improvement of economy, every year more and more people arrive in Labuan Bajo. Most of them seek new job opportunities and want to benefit from the wealth generated

by tourism. People come from other parts of Indonesia as well as from all over the world. They start a business and will stay in Flores as long as tourism is their main source of income. Awareness towards sustainable development is very low. Therefore it is important to create a bond between inhabitants and their city, so they strive for a healthy environment. Identification rises with the USP of a city, with special places that can not be found in another city, with meeting points to connect with other inhabitants and build a community. Labuan Bajo is famous for Komodo National Park and its beaches. These are two major attractions which shall be maintained. Therefore beach areas at the Northern coastline as well as Pantai Pede need to be preserved. Labuan Bajo's city shape - as far as its still existing - needs to be protected, new buildings shall integrate within the existing structures. Together with measure **nr. 24 Raising awareness of local architecture and settlement structures** identification spots of Labuan Bajo will be defined with the communities. Simply by defining these spots, the value of them gets visible to a larger group of people which leads to a stronger bond to the city.

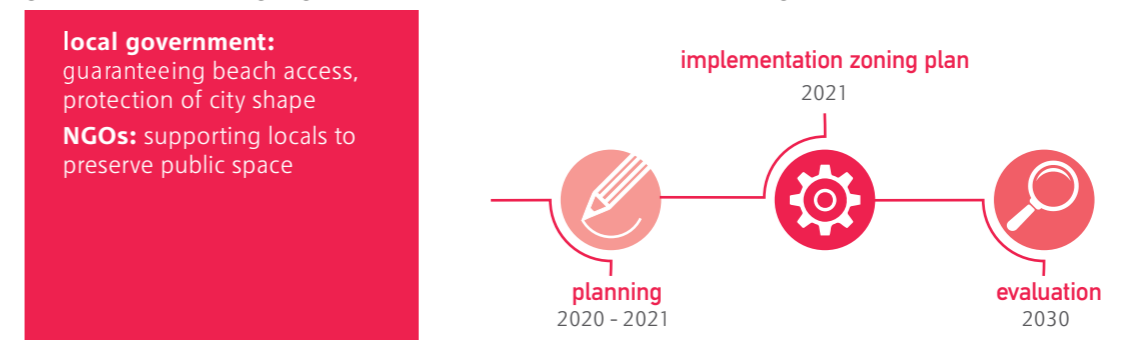


figure nr. 62: Identification with Labuan Bajo, own elaboration

5.3.7. A SUSTAINABLE ECONOMY

Measure nr. 18.: Integration of tourism in local value chain

Objectives: Utilisation of local resources, local networks, open access to markets, reliability of traders, broader impact of tourism in economy, green economy
How: Besides measure nr. 9 “use of local resources” and nr. 13 “strengthening of sustainable farming” local entrepreneurs need to gain expertise to guarantee reliability, which discourages traders from buying their products locally. Previously defined water measures counter the dry climate. With the expanded “local label” by Indecon, local products are going to be distinguishable for tourists which raises awareness. If tourism operators notice the demand for locally grown and organic food, they will certainly join in. The brochure will explain all about local value chains and their benefit for a sustainable economy. Through Indecon access to the market even for remote areas will be guaranteed. Their knowledge and expertise could be shared with other villages.

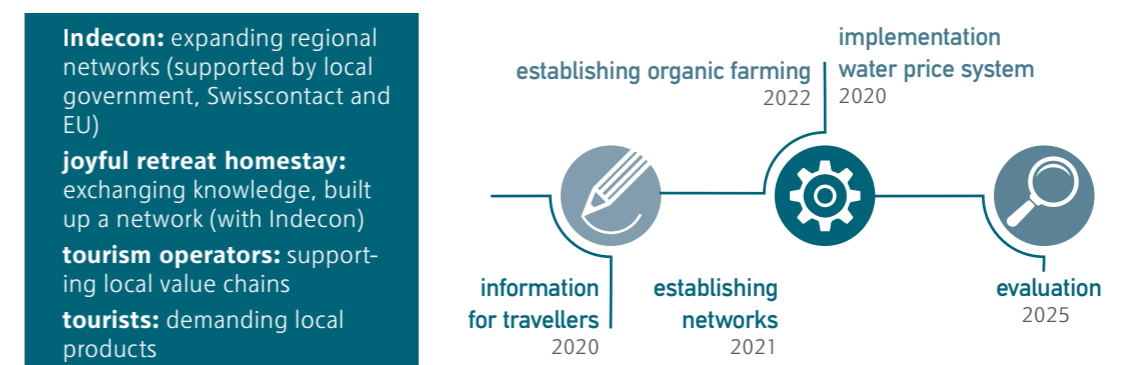


figure nr. 63: Integration of tourism in local value chain, own elaboration

Measure nr. 19.: Improvement of working conditions

Objective: Proper enforceability of minimum wage, health and retirement insurance

How: While tourism in Labuan Bajo is boosting, the average salary of employees has not adapted to the rising prices yet. There is a minimum wage guaranteed by law, however, most employers do not comply with said law. Often additional services like free food, diving courses or accommodation are offered in order to undercut minimum wage. Hotel and food prices are almost the same as in Australia or Europe, an average night in a hotel costs nearly as much as an employee earns for one month. Business owners can therefore afford to increase the salary of their staff. The easiest way to exert pressure is by raising awareness among tourists. If they boycott hotels where the minimum wage is not respected, employers are forced to adapt the salaries. The brochure will explain about the regional minimum wages so tourists are aware of their impact on the local economy.

Certificates will be issued for entrepreneurs who comply with worker conditions. This includes the salary, health and retirement insurance, bonus services and vocational training. Employers who comply to the rules can apply for the certificate. Since legal frameworks for worker rights exist but they are not executed, this informal certificate is depending on the will of the travelers, that is why alternatively the brochure will be published to rise awareness.

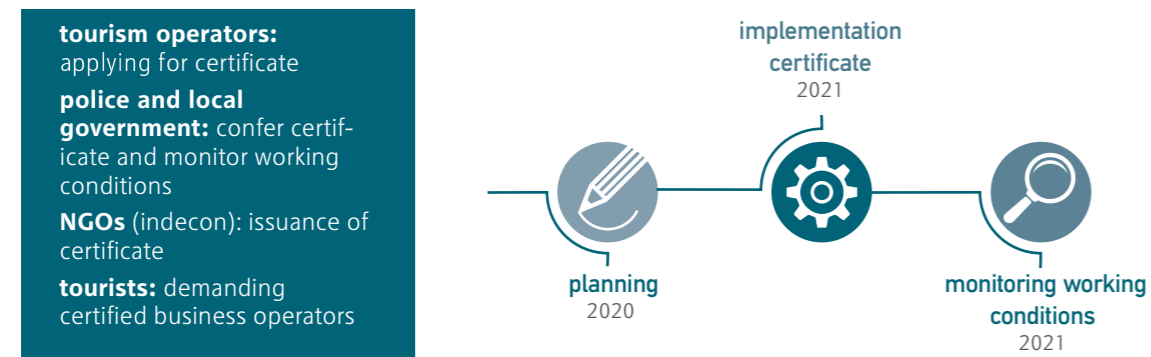


figure nr. 64: Improvement of working conditions, own elaboration

Measure nr. 20.: Micro credit for SME (small and medium-sized enterprises)

Objective: Locals start their own businesses, new job opportunities aside international hotel chains, creation of knowledge among local communities, support in competing with experienced business men and women

How: New job opportunities arise with increasing tourism operators, most of them origin from other regions in Indonesia or foreign countries. The number of locals who are employed in these businesses is high, only a few of them are self-employed. This also stems from the competitive market, where locals lag behind due to less knowledge or experience as well as low funding. To support the start-up community of Labuan Bajo and to strengthen other sectors beside tourism, micro credits shall be instituted. Money which had been generated through tourism shall be invested to support other businesses to establish a second source of income besides the tourism sector. Communities can apply to be supported by professionals in the process. In these villages community spirit is very strong. Inhabitants who work in tourism and therefore have a stable salary can contribute a share of their income which they get back later on. Other members can apply for a micro credit to establish a new business. Together they finance a project of one member or a group, where additional income is generated. With the earnings the borrowed money can be paid back and with the new business new jobs are created within the community.

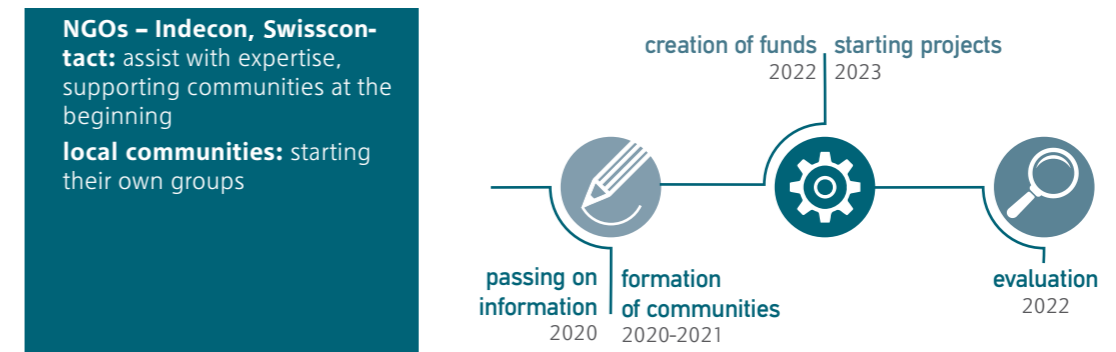


figure nr. 65: Micro credit for SME, own elaboration

5.3.8. COMMUNITY PARTICIPATION AND INVOLVEMENT

Measure nr. 21.: Local land owners

Objective: Locals keep their properties in Labuan Bajo

How: The land use plan which is described in measure nr. 1 “compact land use” defines residential areas. In these areas accommodation with a max. of 15 beds are allowed. Investors are therefore not interested in buying land in these areas which is why locals will remain land owners. Another measure concerns the preservation of natural areas. Beach access will be ensured and hotels can only be built in identified areas.

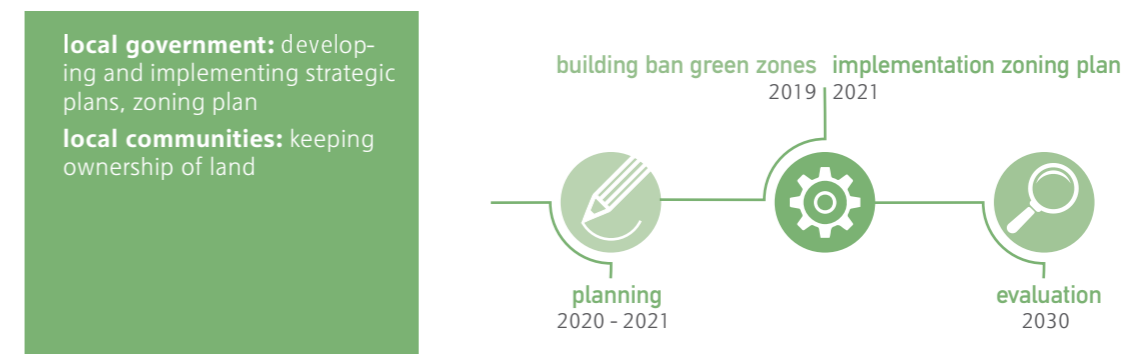
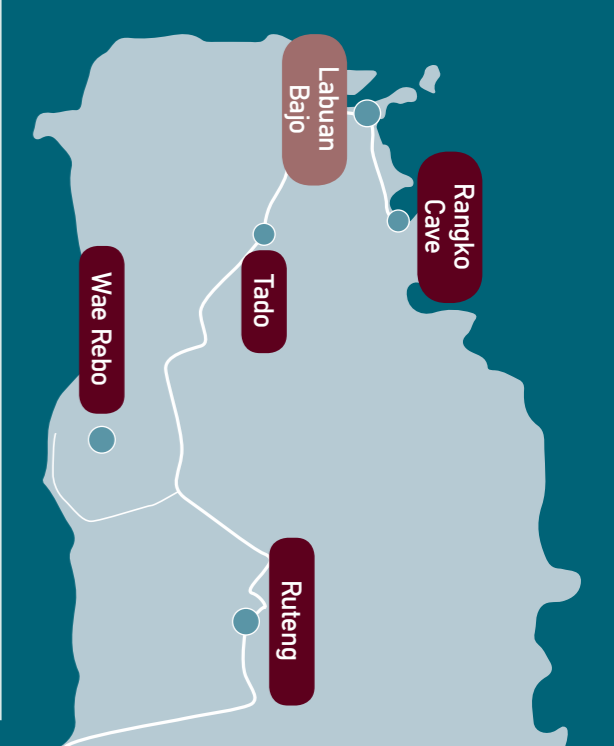


figure nr. 66: Local land owners, own elaboration

Measure nr. 22.: Empowerment of inhabitants

Objective: Reducing language barriers, clarification of realistic potentials of tourism

How: Interviews with inhabitants of Labuan Bajo showed that they appreciate the current development. Their appreciation refers to the rising wealth and job opportunities, just 10 years ago inhabitants of Labuan Bajo did not have any. However, if the money tourists spend is compared to the salary of employees, a big gap is revealed. Often they do not know about their potential salary, and because in their option they are benefiting already, they do not fight for their rights. Language barrier may be an issue and only higher educated staff or the owner gets in touch with the tourists. Also workshops and discussions where travellers, NGOs and experts are coming together, are often held in English. The first step will be to widen the opportunities to learn English for all population groups. Taxes which are eventually generated through tourism need to be used to invest in the region rather than lose it to the central government or foreign investors.



Tado Village:
This is a perfect experience for everybody who wants to dive deeper in the local culture. With the homestay and farming network the local community welcomes tourists from all over the world to share their traditions.

Wae Rebo:
Indonesian architects built this village based on the traditional settlement structure in Manggarai. A two hours walk from the parking lot takes visitors up to the village with an amazing view over Flores.

Ruteng:
Yet unexplored by tourists but with big potential to become a popular destination. The traditional town is home to the skeleton of the "Homo floresiensis", the oldest inhabitant of the island.

Rangko Cave:
Visited by many tourists, Rangko Cave ranks among the most popular sights of Labuan Bajo. Easy to reach by boat, travelers enjoy to swim in the glittering water.

UPCOMING EVENTS:

TRASHHERO

Friday clean up:

- » Every Friday, 4 pm, meeting point: Revinco Coffee Shop
- » Join us every Friday to clean up Labuan Bajo! Garbage bags and gloves will be provided, meet interesting people from all over the world and support locals to keep their city clean!

English classes:

- » Every Friday, 2pm, meeting point: Revinco Coffee Shop
- » Assist with your knowledge and help kids to exercise their English skills. Kids from the villages attend the classes to play games and sing songs in English. You are welcome to join us anytime!

WORKSHOPS

Participation:

- » Saturday, 7 pm, Molias Café
- » We want to empower locals to be part of the touristic development. Together we exchange knowledge about starting businesses and basics about service and accommodation.

Spatial Planning:

- » Monday, 6pm, Molias Café
- » A rising number of visitors results in new building activities. The centre of Labuan Bajo loses its typical settlement structure. But what are the essential elements of Floresese villages? How can these structures be protected? Locals and foreigners elaborate these elements together and share their expertise.

PRESENTATIONS AND DISCUSSIONS

Sustainability:

- » Friday, 7 pm, Kantor Bupati
- » Experts from Flores and abroad explain about sustainability and how different groups in Labuan Bajo can help to implement sustainable development. Afterwards there will be a discussion and the audience can ask questions.

LABUAN BAJO

MORE THAN JUST KOMODO



TOURIST GUIDE

Labuan Bajo is famous for its Komodo dragons and therefore attracts hundred thousands of tourists each year. But there is so much more for tourists to know. This information brochure shows you what is going on in the vibrant city which has a high variety of sights to visit and a long culture and traditions to share with its visitors.

For more information visit:
Tourism Information Center Labuan Bajo
address: Jalan Mutiara, Labuan Bajo, Komodo
telephone: +62 361 271145
opening hours: 9.00am - 17.00pm

As long as tourists are not aware of their impact on local conditions, they will not change. Hotels eventually offer what tourists demand. With measures about raising awareness among tourists, the demand for sustainable tourist operators will increase. The tourism information powered by Swisscontact offers these kind of tours, but hardly any traveller knows about their existence. Their offer needs to be promoted, which also happens through the tourism brochure.

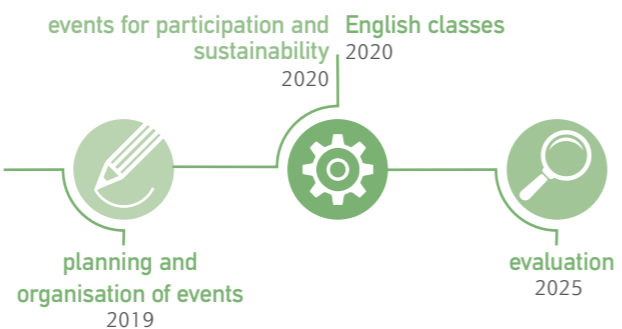


figure nr. 67: Empowerment of inhabitants, own elaboration

local government: investing tourism taxes in education
NGOs: organize events, supporting locals
local community: participating in events
tourists: demanding sustainable tourism offer

Measure nr. 23.: Sustainability brochure

Objectives: Making tourists aware of how their behaviour impacts the local conditions

How: Previously a "tourist brochure" was mentioned, which shall raise awareness among tourists. It shall contain information about traditions and the local cultures, explanation about water saving measures and recycle possibilities, a list of all existing labels and certificates about fair working conditions and local products, cultural rules for clothing and respectful behaviour, local tourism operators and some basics of Bahasa Indonesia. There will also be an information sheet about events which are happening in Labuan Bajo concerning sustainable development (discussions, workshops, lectures, movies, ocean clean up). Tourists are the first target group to change Labuan Bajo's development to a more sustainable one. If their behaviour changes, business operators have to follow.

The following brochure is an own elaboration. Illustrations and photos which had been used were created by the author.

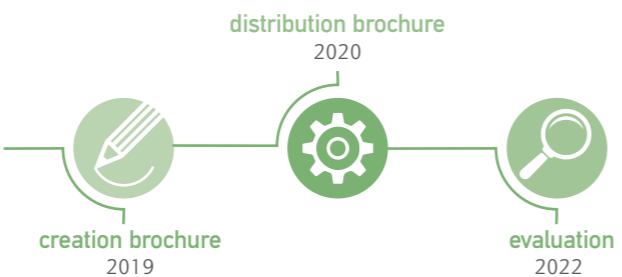






figure nr. 68: Sustainability brochure, own elaboration

local government and tourism development: funding and printing brochure
NGOs: passing out information brochure
tourists: target group for information

 A long dry season, poorly rain fall and a growing number of users result in water scarcity in Labuan Bajo. 1,000 litres of water cost 85,000 Rupiah, which is a high amount of money for locals. In contrast, hotels use up between 20 l to 770 l per day and bed. The tourism sector is mainly responsible for the rising consumption. Choose your hotel wisely and call attention to the staff if you see possible improvements regarding to their water usage.

 Flores has a long tradition of agriculture and fishing. Unfortunately, many products purchased in Labuan Bajo do not originate from the island. The origin of the products strongly relates with the origin of the business owner. Pay attention to where your food comes from. Products like coffee, rice, cashew nuts, fish and chicken are very likely to be bought from local farmers. The certificate "local label" gives you another hint.

 Like many regions in Indonesia waste management is improvable in Labuan Bajo. Protect the environment by recycling and reusing. One step is to reuse your water bottle by refilling it in restaurants and hotels – for free.

 While most inhabitants of Labuan Bajo are used to foreigners and their behaviour, some communities want to keep their values and require tourists to adapt to local rules. For a peaceful co-existence it is an essential requirement to respect these conditions. With adequate clothing – especially at the harbour area where tourists tend to enter the village with bathing suits – respect is shown towards the local culture. Be aware to always dress adequately!

CERTIFICATE: FAIR SALARY



While tourism in Labuan Bajo is boosting, the average salary of employees has not adapted to the rising prices yet. There is a minimum wage of 1.2 mio IDR guaranteed by law. However, most employers do not comply with said law. To increase transparency business operators which pay the minimum wage or above can apply for the certificate "fair salary". Tourists can contribute to the local living conditions by supporting businesses which pay fair salaries to their employees.

CERTIFICATE: LOCAL LABEL



20% of the fruit supply in Labuan Bajo is bought from Florenese farmers. The only products that are always purchased locally are coffee and drinking water. To support the local value chain and involve other economic sectors in tourism development the local label has been established. With this certificate consumers see where products come from and can therefore contribute to a more sustainable economy with more participation of local farmers.

Terima kasih	Thank you
Sama Sama	You are welcome
Yes / No	Ya / Tidak
Apa kabar?	How are you?
Kabar baik	I'm good
Tidak Apa Apa	No worries
Maaf	I am sorry
Bagus	Great
Hati-hati	Be careful
Ini apa?	What is this?
Jam berapa?	What time is it?
Selamat pagi	Good morning
Selamat siang	Good noon
Selamat sore	Good afternoon
Selamat malam	Good night
Sampai jumpa lagi	See you soon
Selamat jalan	Have a safe journey
Satu	One
Dua	Two
Tiga	Three
Empat	Four
Lima	Five
Enam	Six
Tujuh	Seven
Delapan	Eight
Sembilan	Nine
Sepuluh	Ten
Seratus	One hundred
Seribu	One thousand
Sejuta	One million

5.3.9. PRESERVATION OF LOCAL CULTURE AND CITY SHAPE

Measure nr. 24.: Raising awareness of local architecture and settlement structures

Objectives: Preservation of city shape, promote the unique city shape, traditional architecture
How: Wae Rebo is an example of successful restoration. It is a famous spot for visitors and even though it takes more than 3 hours to get there by car and a 2 hours hike, it attracts many tourists from Labuan Bajo. As a good practice example it can be used to show locals the value of traditional architecture. Mobility measures lead to a distribution of tourism, and typical structures are seen more clearly.

If the region around Komodo loses its USP, it will lose attraction to specific target groups who are interested in traditional structures. The centre of Labuan Bajo has transformed already and the typical settlement structure can not be experienced anymore. In rural areas these structures are still preserved and needed to form an identification point for locals. In workshops with foreigners the value of these structures needs to be elaborated. With an external look at the city foreigners can spot the uniqueness of a city shape while locals can define characteristics which shape Labuan Bajo. After defining these unique characteristics, they need to be preserved in the next step (measure nr. 25).



figure nr. 69: Preservation of local culture and city shape, own elaboration

Measure nr. 25.: Preservation of the characteristic city shape

Objectives: regulations for construction, protection of the typical city shape
How: In combination with the land use plan, a building zoning plan is going to be created, to protect typical settlement structures. Protection zones ensure the integration of new buildings rather than receiving the highest return for the property developer. Following the land use plan, different zones have been defined:

- » **Muslim villages:** This settlement structure is characterized by a high density. Streets are narrow and public space is rare, except in front of the mosque and at the main street. These zones do not leave space for new constructions and shall be preserved. Buildings must not exceed 2 storages, e.g. max. 7 metres. Roofs need to be hip roofs, flat roofs for main buildings are prohibited.



figure nr. 70: cross section of the building structure of a Muslim village, scale: 1:100, own elaboration

» **Jalan Soekarno Hatta:** *The touristic centre has a heterogeneous building structure, the original houses have been modified, small tin huts stand next to multi-storey buildings. Since this area has the largest potential for densification and original building structures hardly exist anymore, this area will be used for intense touristic development. Pedestrian walks have to be maintained, new buildings shall form a closed front at the street. Due to the uneven landscape buildings East of Jalan Soekarno Hatta shall be higher (max. 14 metres) to integrate into the topography. Buildings at the seaside need to adjust to the existing lower buildings in Kampung Air.*



figure nr. 71: cross section of the building structure at Jalan Soekarno Hatta, scale: 1:100, own elaboration

» **Touristic characterised area:** *This area is rarely inhabited by locals. Most of the hotels are located there, the building structure differs from hotel to hotel, most of the buildings are multi-storey hotels or bungalows. Some properties are still undeveloped, which makes it a potential for further touristic development. Due to a strict preservation of green areas, potential inner-city areas have to be defined for further development. Touristic characterized areas shall be used for new buildings. Due to the distinct underground new houses*

have to integrate into the topography, higher buildings are allowed at Jalan Soekarno Hatta, the density will decrease further up the hills.



figure nr. 72: cross section of the touristic characterized areas in the centre of Labuan Bajo, scale: 1:100, own elaboration

» **Beach area:** *Topography along the coastal line changes. Around the beach area bungalows with a low density are allowed. At the hillside multi-storey buildings are appreciated if they integrate into the landscape. Public access has to be guaranteed so only detached bungalows are allowed. Beaches in front of hotel properties need to stay free from buildings.*



figure nr. 73: cross section of the beaches around Labuan Bajo, scale: 1:100, own elaboration

» **Traditional villages:** *The traditional villages are differing from each other, depending on where they are located. Buildings close to the sea are usually built on stilts, up on the hill the traditional structures are bungalows with one, max. two storeys. The low density shall be remained, the high share of green and free space is typical for these areas. Every house is moved to the back, so a little front yard is formed.*



figure nr. 74: cross section of a traditional village, own elaboration

» **government district:** Big, voluminous buildings are typical for this zone. The large share of green private space with representative houses shape the government district. In front of these houses the small gatekeeper's cabin is located. A low density and a maximum of 2 storeys are legal guidelines for this area. The front main building line must be at least 10 metres in the back, small buildings, like the gatekeeper's cabin need to be located at the street line.



figure nr. 75: cross section of the streets at the government district, scale: 1:100, own elaboration

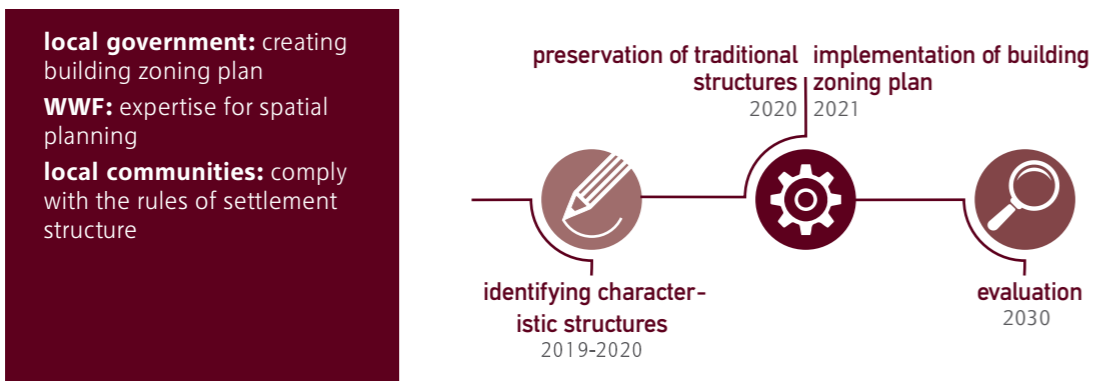


figure nr. 76: Preservation of the characteristic city shape

5.4. ACHIEVEMENT OF THE NINE OBJECTIVES FOR SUSTAINABLE DEVELOPMENT

	Mass tourism	No tourism	Sustainable tourism
Compact, efficient land use	○ ○ ○	● ● ○	● ● ●
Efficient mobility system	○ ○ ○	● ○ ○	● ● ○
Efficient resource use, less pollution and waste	● ○ ○	● ● ○	● ● ●
Restoration of natural systems	○ ○ ○	● ● ○	● ● ○
Good housing and living environments	● ○ ○	● ● ○	● ● ○
A healthy social ecology	● ● ○	● ○ ○	● ● ●
A sustainable economy	● ● ○	○ ○ ○	● ● ●
Community participation and involvement	● ● ○	● ○ ○	● ● ●
Preservation of local culture and city shape	○ ○ ○	● ○ ○	● ● ○

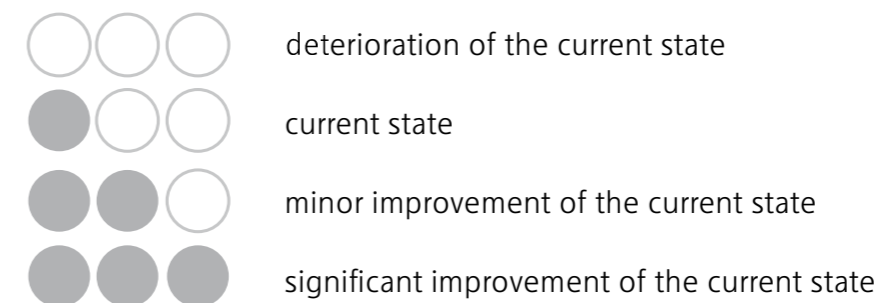


Table nr. 9.: Impact of the two scenarios and the master plan on local conditions according to the nine indicators of sustainable development by Steven Wheeler²²⁸

228 table nr. 9: own elaboration

1. Compact, efficient land use

With the continuation of the current trend, new hotels will take up even more space than existing ones. The first scenario therefore contradicts with the objective of sustainable development. Awareness among tourists and locals is low, workshops and exchange events which are needed to raise awareness for compact and efficient land use, do not take place yet without efforts. In the crash scenario there will not be many building activities, but the high vacancy rate contradicts with efficient land use. Due to the measures which will be put into practice in sustainable tourism, an improvement of the current state is expected.

2. Efficient mobility system

Mass tourism will not contribute to a more efficient mobility system, the higher share of cars and the increasing number of road user will lead to a collapse of the traffic. Urban sprawl in the crash scenario results in long distances, only with the measures for sustainable development this trend can be stopped. However, the number of users will still rise, still there is no stop of tourism and corresponding construction activities.

3. Efficient resource use, less pollution and waste

Globally the trend for a sustainable lifestyle increases, awareness for climate change and limited resources grows. This is anticipated in both scenarios and will be strengthened by the described measures. With the increasing number of visitors and the pressure on natural space as well as the infrastructure, an ideal state seems out of reach, but the situation can be improved. The crash of tourism results in a decrease of pollution due to the shrinking number of residents. But the cultural exchange will also be lower and the number of NGOs which are working to improve the environment locally will decrease due to shrinking international attention.

4. Restoration of natural systems

The rising number of travellers interested in visiting Komodo National Park is a threat to the vulnerable nature. Moreover the sealing of green space in order to build new hotels will increase. This also applies if all measures are put into practice, although the impact is diminished. If all visitors leave Komodo National Park, the nature will regenerate, but other threats will follow. The extensive fishing activities are already an endangerment for the National Park, due to international and national attention and monitoring overfishing is reduced, but will increase again once the control is stopped.

5. Good housing and living environments

Prices of properties are boosted caused by a growing demand. Residents can therefore hardly find adequate living. Living conditions are slowly improving with rising salaries due to increased tourism. On the contrary, no tourism will negatively affect the number of jobs, thus the land prices will shrink again. The measures for sustainable tourism will contribute to adequate and affordable housing, but due to the demand on building land it will not reach the optimum.

6. A healthy social ecology

Following the current trend, empowerment will increase, but many different groups, like immigrants, tourists, foreigners who start businesses, ... make their living in the city. Segregation and the expansion of spatial structures are consequences of the growth of Labuan Bajo. This trend will not continue if no tourists visit Labuan Bajo anymore. Fewer groups result in smaller and fewer communities as well as less spatial expansion of the city. Since the income

equality will rise again due to similar salaries among the population, also the community life will be strengthened. Tourism brought money in the region and specific jobs in this sector were better paid. Unemployment on the other hand will increase as well, which will also affect the social equality. Measures concerning the integration of different cultures as well as the rising identification with Labuan Bajo will contribute to a healthy social ecology.

7. A sustainable economy

The inhabitants appreciate the current development because tourism brought wealth. The increase of welfare will remain with mass tourism, but so will the inequality between foreign business owners and local employees. Worse than the status quo will be the loss of tourism. While the economy boosted due to rising visitor numbers, tourism created new workplaces but displaced other branches, like the primary sector. The whole economy depends on one sector, since there are low spill-overs on other sectors. With a contraction of this sector, a high share of the population will be unemployed. Sustainable tourism uses the potentials of increasing value added but minimizes the negative impact of it. An improvement of the economy is expected.

8. Community participation and involvement

Similar to the previous aspects, the current trend already implicates a rising involvement and empowerment of the population. Trough to the shift of competences to the central government which follows a top-down approach, participation is not desired. Competition of foreign investors with more knowledge and experiences leads to paternalism of the population. The crash scenario presumes a recession of the economy, international attention will decrease and the locals are responsible for the development in Labuan Bajo. However, local land owners as well as the micro credit system will allow locals to be part of the economy, therefore an improvement of the community participation and involvement can be assumed.

9. Preservation of local culture and city shape

Building activities increase with a higher demand for infrastructure originating from a rising number of tourists. Due to the low income of locals, they are tempted to sell land for a comparatively high price. Urban sprawl and a transformation of the city shape is expected. Since demolishing of buildings is expensive and transformation has taken place already, the crash scenario does not contribute to a preservation of the traditional building structure. Sustainable tourism cannot undo the mistakes, but it can make sure future projects adapt to the local conditions.

6. CONCLUSIO

6.1. KEY FINDINGS – MASTER THESIS

The challenges of the “10 Bali Baru” – 10 priority destinations, defined by the central government of Indonesia, which shall be developed as tourism priority regions – are commonly known. Many national and international newspapers have written about the issues, over the last years, some students have chosen to write their master thesis about the arising challenges, and scientists have researched about the impact of this strategy on respective destinations. The rapid change these regions undergo cannot be summarized in one survey. What is more one does not contribute to a more sustainable development by listing the concerns and challenges.

In this thesis all different aspects which comply with spatial planning were analysed and written down. Besides the fundamental research, two scenarios visualize how Labuan Bajo will develop, if the current strategy is continued or if the number of travellers decreases again and the region is not visited anymore. Conclusively the identified problems and their causes were used to develop measures which will lead to a more sustainable development – thus avoiding both scenarios.

Before the conclusions of the analyses were made, fundamental knowledge about the local conditions had been acquired. At the beginning of this paper the system of spatial planning in Indonesia was explained, which follows the standard rules of sustainable development. The powers are spread over different levels to prevent corruption, the higher levels have responsibilities towards sectoral fields like infrastructure. According to the instruments, their objectives and measures it can be assumed that there are strategic documents which ensure sustainable progress. On-site interviews and observations have shown a different image. Growth is seldomly sustainable and strategic documents have rather turned out as fundamental research with contrary statements about the current structure – like labelling the Muslim villages as a “green zone”.

The control of the central government expanded with the definition of Labuan Bajo as a prioritized tourism region. Tourism is a globally growing sector, more than 14 million people visit Indonesia per year. However, tourism is vulnerable, different events diminished the numbers of arrivals. Nevertheless, over the last ten years the number of tourists have increased steadily and travellers have started to explore Flores and Komodo National Park. Tourism has created new jobs and the central government took the chance and promoted the country as a popular holiday destination.

With growing tourism challenges may arise too. Since endogenous potentials are used to attract interest of tourists, tourism is considered as a very sustainable way of boosting the economy. The definition of “sustainability” formed another main content of this thesis. To make sustainability measurable the “nine indicators of sustainable development” by Steven Wheeler were applied. The analyses as well as the master plan build upon these nine indicators. After the expected outcome of tourism development had been described, the progress in Labuan Bajo was closer examined. Literature research was combined with a visit on-site to learn about the different local aspects of tourism development. The region is famous for its Komodo dragons which is one of the must-see’s on a trip to Indonesia. Therefore tourism in Labuan Bajo is characterized by a short visit and a focus on the Komodo National Park. Due to the strong image Labuan Bajo has as the only point of destination of boats to the national park, other places are seldomly visited. Spill-overs from tourism are therefore lower than expected.

This also affects the economy: since there is a focus on the service sector, other economic branches are not impacted by the rising wealth. There is a large share of imported goods. Due to climate change and better job opportunities elsewhere, production in the primary sector has declined. Sectors which benefit from tourism are first and foremost accommodation, gastronomy, dive centres and tour operators who offer trips to Komodo. The construction sector grows as well, but the majority of the workers originate from other parts of Indonesia. Also agricultural products are often not purchased locally but transported from other parts of Indonesia. Due to such a big interest by foreigners, business men and women from other parts of Indonesia or foreign countries are attracted to invest in tourism sector, which makes it hard to compete for locals with little experience. Komodo National Park has become under increasing pressure, the underwater as well as the nature life suffers from the building activities and the increasing number of visitors. Monitoring of activities does not happen sufficiently, even though the strategic plan points out the threats of tourism.

However, tourism does not only have disadvantages. Cultural exchange for example is equally important for development. Other than expected, locals approve of the current developments since their living conditions have improved over the last years.

Given the current conditions without taking action towards a more sustainable development, Labuan Bajo has two options: either the number of visitors will rise even further and Labuan Bajo will become a mass tourism spot, or the opposite will happen. As the analysis showed, different events which had taken place in the past led to a crash of visitor numbers. Two scenarios were developed which consider these two possible ways. Both scenarios will have devastating consequences for the region. Mass tourism affects the nature and the vulnerable environment of Komodo National Park. By continuing the current trend, locals will not benefit from rising number of visitors. Furthermore international investors will be attracted, the city shape will transform and none of the original structures will exist anymore around the coastal areas. Contrary, the crash scenario will result in a high rate of unemployment due to the dependency of one sector: tourism. Exalting vacancy rate and the loss of cultural exchange are expected.

Therefore a master plan was developed, which corresponds with the nine objectives of sustainable development. Challenges were identified in accordance with Schönwandt’s “subjective challenges”. This means, every person perceives a situation differently and therefore behaviour varies. Thus there are no “objective” challenges and solutions, with a comprehensive analysis of the stakeholder and their needs a neutral perspective was pursued. A clear issue for example is the dry climate – locals suffer from long droughts and save drinking water which undergoes a price increase, while tourists are not aware of the limited resource and squander it. Foreigners on the other hand notice the missing waste management, which is not perceived as a problem by inhabitants. By identifying challenges and their causes, measures were developed in accordance to the “nine indicator for sustainable development” to use the potentials and meet the challenges. Every measure refers to a time frame for the planning and implementation as well as it is addressed to the stakeholder who is responsible for its realisation.

Conclusively the two scenarios as well as the expected outcome of the master plan was compared to see which one of them fulfils the nine objectives of sustainable development the most. Compact land use is mostly reached through a restrictive land use plan, where land grabbing is obviated. Due to traffic calming measures and a public bus in Jalan Soekarno Hatta the mobility system will be more efficient. Without tourism less pressure will be exerted on limited resources, but no measures will be taken to reduce waste and pollution. Mass tourism will lead

to a further deterioration of the natural habitat. With a reduction of the number of visitors Komodo National Park can be renaturalized. Settlement development will decrease due to less job opportunities. This also impacts the living conditions: with a growing number of visitors the demand for building land increases. Measures for sustainable development counteract with increasing prices, but new building land is still needed. In contrast with these two scenarios, a reduction of the number of visitors will lead to availability of former touristic used land which results in a minor improvement of the current conditions due to the sinking land prices. Empowerment of the locals and integration of tourists, especially through a regular exchange between different groups in Labuan Bajo and sensitization among travellers, will lead a social ecology with support of the master plan. In all three scenarios the improvement of the current state is presumed. Economical welfare is a consequence of growing tourism. Adding the adjective “sustainable” the current situation will improve, but will not lead to the maximum of economic growth. This is also a factor which changes significantly with the loss of the interest of tourists. Flores ranked among the poorest regions of Indonesia, tourism contributed greatly to the increase of the GDP. Over the last years and especially with the definition as one of the “10 Bali Baru” local participation decreased. Slowly and with support of NGOs locals are empowered and encouraged to engage in economic activities. Several measures strengthen this development. With rising interest of foreign investors and the demand of tourists to stay in hotels with “western standards” the local character disappears more and more. All three scenarios do not lead to a significant improvement, since a lot has changed already. A total loss of the typical city shape will become reality in the city centre, since building activities increase and new hotels do not match the characteristic settlement structure. Described measures in the master plan include building regulation based on the existing structures. However, this is in aspect which needs to be considered at the beginning of touristic development.

While all measures in the master plan are important for sustainable tourism, Labuan Bajo faces issues which are solved to more urgent than others. Water supply for example needs to be ensured before aiming for a rising visitor numbers. The insufficient waste and sewage management affects the environment more than e.g. traffic jams. The focus for further development shall be laid on reaching a high hygienic standard and providing basic supply for the people who live in Labuan Bajo.

Overall it can be said that sustainable development has a more significant impact on local economy than the other two scenarios. However, these might take some time to become visible. In the long run mass tourism will have a significant impact, which overshadows the current improving living conditions. The population cannot rely on a steady growing economy. Once tourists stay away, interest of foreign investors and the central government, which are the main driver for the economy, will decrease. With this master thesis not only the challenges were outlined, also measures had been developed which improve the current conditions.

6.2. KEY AREA – LABUAN BAJO

Labuan Bajo is just one of many rural areas with low economic activities and a comparatively poor population. Tourism is a globally growing sector, many regions take the opportunity to promote their endogenous potential by attracting visitors. Especially South-East-Asia is a region which is one of the fastest growing destinations regarding to touristic development. However, there is a fine line between benefiting economically and suffering from growing tourism. There are numerous destinations which are famous for being overcrowded, touristic activities were appreciated first but turned into a burden. Examples are Barcelona or Venice in Europe, or more regionally: Salzburg, Hallstatt or Zell am See in Austria.

Labuan Bajo is on the path towards an international well known tourist hot spot – with all its advantages and disadvantages. The analysis helps to understand, what a rapid development means to a region like Labuan Bajo. It also describes the consequences of a top-down approach and little involvements of local stakeholder. Labuan Bajo shall serve as an example of how to advance a region. Since most of the development has taken place already the Indonesian town also shows which projects brought the expected output and which approaches failed.

One of the main findings in this master thesis was the consequences of the lacking participation of inhabitants. Making use of endogenous potentials requires the involvement of local key individuals. In this case the central government promotes an endogenous potential, the Komodo National Park, but follows an exogenous strategy by providing perfect conditions for foreign investment in Labuan Bajo. Rather than generating a regional economic cycle, external elements are connected to the local system. This involves the establishment of international hotel chains and also the products which are not sourced locally. A Starbucks does not sell the local coffee, which Flores is famous for. McDonalds does not provide characteristic dishes from the island. As described at the beginning, the risk for exogenous strategies is much higher than using endogenous potentials with far less impact to the local conditions.

The central government has defined nine other destinations like Labuan Bajo, which are developed for mass tourism within the next years. This analysis shall help to predict possible challenges for all these destinations, but shall also serve as an international example of how tourism changes local conditions .

Key learnings – Epilogue

Before I started to write my master thesis I had been looking for interesting research questions for this thesis. Labuan Bajo aroused my interest because I heard many contradictory opinions about the local development. By foreigners it is considered as unsustainable, especially locals suffer from rising tourism. After reading some articles in local newspapers a different image was given. Among Indonesians the national strategy of developing “10 Bali Baru” was appreciated. The wealth of Balinese and the popularity of their island among foreigners is publicly widely known. The name of the strategy alone sounded promising to the inhabitants. During my research on-site interviews with the local communities were conducted, their approval of the current development became clear once again. Since tourism occurred in Labuan Bajo, local conditions have changed severely. A conversation with some employees of a bungalow complex, whose monthly salary was roughly the price for one bungalow for one night – and these people were aware of that – revealed that they live a much better life than they had used to ten years ago. However, it also showed that living conditions before tourists arrived in Labuan Bajo were so poor, that any change meant an improvement.

The main finding during the research stay was the development of large price differences, e.g. little profit for locals compared to the high prices for touristic goods. Dinner in a fancy restaurant and the monthly salary of an employee were almost of the same. Therefore the key is not only to make tourism more sustainable to protect the environment, but rather establishing a local value chain from which different branches and groups of inhabitants can benefit. By protecting the city shape and precious natural areas, the identification with the region shall be increased. What is more the land zone plan prevents the owners from selling their property to foreigners investors in traditional villages. Together with other measures they will benefit in the long-term, compared to a one-time profit by selling their property. Putting the master plan into practice means touristic development happens slower, but will still be profitable in ten years. These objectives can only be reached if inhabitants will be involved. Due to this the master thesis was sent to local stakeholders and it is expected that some of the measures are put into practice.

Being in close contact with locals was a major advantage during the writing of this thesis. Since a large variety of news are spread about Komodo National Park in international newspapers consultation with locals was of great importance. In the hopes of contributing to improve the local conditions with this master thesis I hereby thank all people involved in the process for their contributions with specific knowledge about Labuan Bajo.

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figure nr. 35 & 36: Aerial view on Google Earth

figure nr. 37: Road network Labuan Bajo: own elaboration, based on: Google Earth, OpenStreetMap

figure nr. 38: Remmer, Stefanie (2016): Tourism Impacts in Labuan Bajo, published by: Swisscontact within the WISATA II program, page 57

figure nr. 39: Remmer, Stefanie (2016): Tourism Impacts in Labuan Bajo, published by: Swisscontact within the WISATA II program, page 59

figure nr. 40: Remmer, Stefanie (2016): Tourism Impacts in Labuan Bajo, published by: Swisscontact within the WISATA II program, page 66

figure nr. 41: own elaboration

figure nr. 42: own elaboration

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figure nr. 44: own elaboration

figure nr. 45: own elaboration

figure nr. 46: own elaboration

figure nr. 47: own elaboration

figure nr. 48: own elaboration, based on Google Maps, <https://www.google.com/maps/place/Labuan+Bajo,+Komodo,+Kabupaten+Manggarai+Barat,+Ost-Nusa+Tenggara,+Indonesien/@-8.4493925,119.8292078,14972m/data=!3m1!1e3!4m5!3m4!1sox2db468a6d47ed641:ox87f524333c6a6e8d!8m2!3d-8.4538484!4d119.8728421>, last seen: 06.07.2019

figure nr. 49: own elaboration

figure nr. 50: own elaboration

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figure nr. 76: own elaboration

7.3. SOURCES OF TABLES

Table nr. 1: Bütow (20016) in Berg,Eisenstein, Gardini, Kristges, Schulz (2014): Grundlagen des Tourismus – Lehrbuch in 5 Modulen, 2. Auflage, Oldenbourg Verlag

table nr. 2: Remmer, Stefanie (2016: 43): Tourism Impacts in Labuan Bajo, published by: Swisscontact within the WISATA II program

table nr. 3: Distribution of taxes and fees to central and local government, by Remmer, Stefanie (2016: 43): Tourism Impacts in Labuan Bajo, published by: Swisscontact within the

WISATA II program

table nr. 4: own elaboration, data base from: University of Technology, Sydney (2017): A study of sustainable tourism, made available by: Senior Scientist Dipl.-Ing. Dr. Ulrike Herbig, measurements of the land use: Google Earth

table nr. 5: Berg, Eisenstein, Gardini, Kristges, Schulz (2014): Grundlagen des Tourismus – Lehrbuch in 5 Modulen, 2. Auflage, Oldenbourg Verlag

table nr. 6: Berg, Eisenstein, Gardini, Kristges, Schulz (2014): Grundlagen des Tourismus – Lehrbuch in 5 Modulen, 2. Auflage, Oldenbourg Verlag

table nr. 7: own elaboration, data base from: University of Technology, Sydney (2017): A study of sustainable tourism, made available by: Senior Scientist Dipl.-Ing. Dr. Ulrike Herbig, measurements of the land use: Google Earth

table nr. 8: own elaboration

table nr. 9: own elaboration

7.4. SOURCES OF PHOTOGRAPHS

All photographs in this thesis are own elaborations

7.5. GLOSSARY

Sepatuh Bali Baru: *Ten new Balis defined by the central government*

Black water: *Black water is sewage water with large organic loading.*

Grey water: *In most countries grey water is part of the sewage. It can be distinguished from black water by its smaller organic loading. Typical examples for grey water is kitchen or shower wastewater. It can be treated and re-used, e.g. for watering gardens.*²²⁹

Komodo Sail: *Komodo Sail is part of an Indonesian sailing event which took place the fifth time in Komodo 2013. It was part of the national strategy to accelerate economic growth in Nusa Tenggara Timur.*

Western World/Western countries: *the definition of “Western countries” goes back to the Greco-Roman civilization in Europe. Originally it described the geographical location of countries. Nowadays this term is also used to describe specific cultural values which are predominant in Europe, America and Oceania.*²³⁰

7.6. LIST OF ABBREVIATIONS

ASITA: *Association of The Indonesian Tours and Travel Agencies*

DOCK: *Dive operators community Komodo*

e.g.: *exempli gratia: for example*

²²⁹ Sustainable Earth Technologies (online)

²³⁰ McNeill (1997)

et seq.: *et sequens: and following pages*

GDRP: *gross domestic product*

GDP: *gross domestic regional product*

IUCN: *International Union for Conservation of Nature and Natural Resources*

KSU: *Koperasi Serba Usaha – Komodo Waste Management*

KNP: *Komodo National Park*

MB: *Manggarai Barat*

MP3EI: *Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia (Masterplan for Acceleration and Expansion of Indonesia’s Economic Development)*

NTT: *Nusa Tenggara Timur*

OECD: *Organisation for Economic Co-operation and Development*

KAPET: *Kawasan Ekonomi dan Strategis Nasional (National Economic and Strategic Areas)*

RPJPN: *Rencana Pembangunan Jangka Panjang Nasional (National Long-Term Development Plan)*

RPJMN: *Rencana Pembangunan Jangka Menengah Nasional (National Medium-Term Development Plan)*

RTRW: *Rencana Tata Ruang Wilayah (Regional Spatial Plan)*

SARS: *severe acute respiratory syndrome*

SME: *Small and medium-sized enterprises*

TU Vienna: *Vienna University of Technology*

UNWTO: *United Nations World Tourism Organisation*

UNESCO: *United Nations Educational, Scientific and Cultural Organization*

USP: *Unique Selling Proposition*

WWF: *World Wildlife Fund*

Master thesis

The central government of Indonesia has defined ten priority destinations, which shall be developed for global tourism until 2020. Flores, especially Labuan Bajo, is one of these “10 New Balis” aiming to attract up to 500,000 tourists per year, compared to 120,000 arrivals in 2018. This master thesis explores the impact of this strategy on a former remote area. It includes aspects about the spatial structures and their changes, the economic and demographic development as well as the environmental consequences of a growing tourism sector. To acquire knowledge about local conditions official statistics were combined with literature research and interviews on-site. Several noteworthy results are the deficiency of strategic planning and therefore the lack of sustainability, the poor integration of inhabitants in the economic cycle and the slow fading of the local heritage. These findings were used to generate two scenarios of possible developments in Labuan Bajo: the continuation of the current trend, in which Labuan Bajo faces mass tourism in a relatively short time or on the contrary no tourism, where the impact of tourism on local conditions comes clear. In order to avoid these extreme scenarios a master plan was created where objectives and measures with a specific allocation of responsibilities aim towards sustainable development.

