University of Cincinnati

Date: 3/9/2020

I, Haingo Andriamasilalao, hereby submit this original work as part of the requirements for the degree of Master of Architecture in Architecture.

It is entitled:

Pro-Poor Tourism in Madagascar: Rural Development Through the Tourism Industry

Student's name: Haingo Andriamasilalao

This work and its defense approved by:

Committee chair: Michael McInturf, M.Arch.

Committee member: Elizabeth Riorden, M.Arch.



36678





Rural development through the tourism industry

Haingo Andriamasilalao

ProQuest Number: 28107992

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent on the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 28107992

Published by ProQuest LLC (2020). Copyright of the Dissertation is held by the Author.

All Rights Reserved.

This work is protected against unauthorized copying under Title 17, United States Code Microform Edition © ProQuest LLC.

ProQuest LLC 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106 - 1346





Pro-poor tourism in Madagascar:

Rural development through the tourism industry

Haingo Andriamasilalao, B.S. in Architecture

March, 2020

Thesis for Master of Architecture

School of Architecture and Interior Design (SAID)
Design, Architecture, Art, and Planning (DAAP)
University of Cincinnati

Advisory Committees:

First Chair: Michael McInturf, MArch Second Chair: Elizabeth Riorden, MArch

Abstract

How can the tourism industry of Madagascar bring an economic, cultural and architectural survival to the rural area of the country?

Being one the most famous touristic countries in the world, the tourism industry of Madagascar has become a vital asset to the economy of the country. Tourism is one of Madagascar's sources of growth along with agriculture, textile and mining. Unfortunately, because of the poverty and the on-going political crisis of the country, the tourism sector suffers which only impedes its potential to greatly develop and to be fully exploited. According to the World Bank however, the sector has displayed impressive resilience and the economy of the country is forecast to grow positively in the future. But even so, for a developing country like Madagascar, where the rural poverty of the country is widespread, it is not enough to assume that the benefits of economic growth will trickle down automatically to the poor.

Tourism can contribute to development and the reduction of poverty in a number of ways. This thesis will focus especially on Pro-Poor Tourism (PPT) which is defined as tourism that generates net benefits for the poor. Benefits may be economic, but they may also be social, environmental and cultural. The strategies for this kind of tourism looks specifically on unlocking opportunities for the poor within tourism and making sure that tourists' travel money is to stay and benefit the local people.

A visitor does not need to go deep into a specific village to see the poverty of the country. The main problem is the non-relationship between the formal and the informal sectors. To assure "professionalism" the private/ formal sectors (hotels, lodges, restaurants, tour operators and transport providers) feel the need to shield tourists from the locals (the poor) therefore, the villagers are denied significant access to participate in the tourism market resulting in them hawking and touting as the tourists pass by them on the highways and many others touristic sites.

The project will look at the national routes RN4 and RN6 which lead to the Northern part of the country and will focus on a specific private sector along the way with which the new "attractions" can be created to generate employment at all skill levels, particularly where there is existing capacity. These new attractions will be done by observing the specific selected sites of the project and studying the surrounding villages and villagers. It will be a study of what they can offer as a village such as skills, land products, land attractions, etc.... and not only create employment through them but new architecture as well. This creation of mutually beneficial linkages between the formal and the informal sector is critical. This partnership will help the locals to have access to the tourism market as well as help with new micro enterprises to generate employment. This will not only help these communities economically but can also strengthen the cultural and environmental assets of the country.





Background of writer

Why Madagascar you ask? I was born and raised in Madagascar. My parents moved my brother and I to the United States when I was 12 years old. Back when I was in Madagascar, I knew that it was a poor country but I didn't know just how much until I lived here in the U.S. Due to the cost of traveling. I was not able to visit again until 11 years after moving here. Fortunately, because we finally had the means to do so, we were able to do some of the "touristic" stuff this time which was something that we were not able to do when we lived there. While traveling around Madagascar, I saw its beauty and its richness but I saw even more the poverty and the unevenness of the development of the country. I saw how my own people saw me as a "tourist" and how just "valuable" we are to them economically. Ever since, I set a goal for myself, a long-term goal, to go back someday and make an impact for the benefit of the country and help out, especially the locals. There is definitely a lot of problems there that I cannot tackle and will never be able tackle, but there has to be some way to start even if it is in a small way. Hopefully this thesis and the "sweat and blood" poured unto this will be the start of this long-term goal.

00

Abstract Background of writer Acknowledgment Abbreviations List of figures

03

Tourism in Madagascar

- 3.1 | Tourist attractions
- 3.2 | Tourist numbers
- **3.3** | Statistics of tourism
- 3.4 | Development of tourism

06

Project Introduction

- **6.1** I Precedent studies
- **6.2** | Project and architectural issues



01 Introduction

- 1.1 | Purpose and limit of thesis
- 1.2 | Layout of thesis
- 1.3 | Conceptual definitions

02

Madagascar

- 2.1 | History
- 2.2 | Government and economy
- **2.3** | Geography, climate and ecology
- 2.4 | Culture

04

Tourism as development tool

- 4.1 | Leakages and linkages
- **4.2** | Advantages of PPT in poverty reduction
- 4.3 | Case study #1 The Gambia
- 4.4 | Case study # 2 Humla, Nepal
- 4.5 | Conclusion

05

Site introductionn

- 5.1 | Beamilaka
- **5.2** | Current status of handcraft and street vendors
- 5.3 | Blue Vanga Lodge

07

Bibliography Cited Figures



Abbreviations

DFID Department of Trade and Industry

GDP Gross Domestic Product

MGA Malagasy Ariary (Madagascar currency)

PPT Pro-Poor Tourism

RN Route Nationale (National Route)

TIES The International Ecotourism Society

UNWTO The United Nations World Tourism Organization

WTO World Tourism Organization

NGO Non- Governmental Organization

List of Figures

FIG.1	Map of Africa with Madagascar
FIG 2.	Contribution to groth by sector, 2010 - 2018
FIG. 3	Map of the climate of Madagascar
FIG. 4	Traditional silk weaving
FIG. 5	Traditional wood carving
FIG. 6	Malagasy people participating in Hiragasy
FIG. 7	Graph of the total contribution of travel & tourism to GDP
FIG. 8	Grapth of the total contribution of travel & tourism to employ ment
FIG. 9	Tourism data of Madagascar
FIG.10	Graph of development of the tourism sector from 1995-2017
FIG. 11	Gross Domestic Product
FIG. 12	Diagram of the sectors of Madagascar
FIG. 13	Map of the touristic stops along the national routes
FIG. 14	Site plan of Beamilaka
FIG. 15	Drawings of the culture
FIG. 16	Picture of Blue Vanga Lodge
FIG. 17	Picture of Blue Vanga Lodge
FIG. 18	Picture of Blue Vanga Lodge
FIG. 19	Picture of Blue Vanga Lodge
FIG. 20	Picture of Blue Vanga Lodge
FIG. 21	Picture of Blue Vanga Lodge
FIG. 22	Project Site Plan
FIG. 23	Picture of the Gando School Library by Francis Kere
FIG. 24	Picture of the Gando School Library by Francis Kere
FIG. 25	Picture of the Gando School Library by Francis Kere
FIG. 26	Picture of the Gando School Library by Francis Kere
FIG. 27	Picture of the Gando School Library by Francis Kere
FIG. 28	Picture of the Songtaaba Women's Center
FIG. 29	Picture of the Songtaaba Women's Center
FIG. 30	Picture of the Songtaaba Women's Center
FIG. 31	Passive Design and Material Diagram
FIG. 32	Passive Design Diagram



المنسلون للاستشارات



المنطارة للاستشارات

1.1 | Purpose and limits of the thesis

How is it that a country can be so rich ecologically, culturally and socially but still economically be poor? This is the case for Madagascar, one of the poorest countries in the world. According to the World Bank, approximately 69 percent of the population lives below the national poverty line threshold of one dollar per day in Madagascar. Currently Madagascar relies on its agriculture, the extractive industries as well as the tourism industry as its main economic resources. Tourism, especially, is becoming tremendously popular in the country with tourists being more and more attracted to Madagascar's diverse and endemic biodiversity as well as its unique culture. With this growth of tourism, the economy has also been positively growing and is forecasted to thrive even more. However, according to the world data, the poverty rate is barely touched—from 77.7% in 2014 to only 75.1% in 2018. The poverty is seen a lot in the rural areas of Madagascar. Most notably along the highways where tourists spend a good amount of their time travelling around the country.



So how can tourism be exploited even more to make sure there is an even and equal sustainable development—socially, culturally but especially economically—throughout these locals and not just the touristic destinations of the country? The goal of this thesis is, therefore, to look more closely into the tourism industry of Madagascar and how it can be an enormous help to the economic stage of the locals, ultimately concentrating on how this can be done through ecotourism specifically through pro-poor tourism. Here ecotourism, or sustainable tourism, is not just looking at the ecological sustainability but especially the social, cultural and economic sustainability and how this tool can be implemented in Madagascar. Pro-poor tourism, on the other hand, will be looking at how the poor can have full access to the industry and benefit from it as well

As a result of mass tourism, especially in developing countries, ecotourism has been adopted to promote "environmentally friendly travel that seeks to protect the tourist destinations from pollution, garbage and ecological damage that may result from irresponsible and uncontrolled tourism.' (Ghosh, Siddique and Gabbay, pp 1) Later on, ecotourism started being more than about protecting the ecological damage of the tourist destinations and became about the sustainability of the economy, the culture as well as the social. Many countries have attempted to address this issue of ecotourism usually with the help of some organizations such as TIES. The International Ecotourism Society, or TIES, is one of many organizations that has undertaken various projects throughout the world by using ecotourism as a tool for bio-cultural conservation. According to TIES, these projects are "financed by both international agencies (such as InterAmerican Development Bank, World Bank, UN Environment Programme, and USAID) as well as by philanthropic foundations (such as Ford Foundation, MacArthur Foundation, and Summit Foundation)" (TIES website). TIES, many times, also engages in partnership projects and programs with other Non-Governmental Organization or NGOs, international agencies, and the private sector.

Overlapping yet different from ecotourism, pro-poor tourism is still relatively untried and untested. It is not a specific product or sector of tourism, but is still just an approach with no official blueprint. Many case studies of pro-poor tourism have been done throughout the world. The focus has been more on countries of the South, not on mainstream destinations in the North because poverty is the core focus. PPT still needs a lot of promoting especially from the government, the private sector of the destinations, non-governmental organizations and the community. Many countries are still using the "learning by doing" approach, many of which seem to show some positive return but could get better "if future local incomes, non-financial benefits, and pro-poor policy changes were valued." (odi.

org). This thesis therefore, will be looking at both ecotourism and pro-poor tourism together as a way to increase the scope for wide participation, especially the participation of the informal sector. What are ways of providing considerable opportunities for linkages? Linkages, meaning finding some solutions on how the poor can partner with the private sectors or with some organizations to provide employment opportunities to the locals and yet be authentic.

It will not, however, focus on the poverty of the country as a whole nor look into a way to improve this poverty. Although it is the stem of this thesis, it will not be about trying to fix Madagascar or its economy. It will be glanced at, but will not be the focus of the writing.

1.2 | Layout of the thesis

This thesis aims to present many of the issues and debates associated with different aspects of ecotourism and pro-poor tourism as questions. To some of these questions there will be my own interpretations to others there may not be a response.

The first part of the paper introduces Madagascar as a country starting from its history, to the government and the economy, to its geography, to its climate and ecology, then finally looking into its culture. This introduction will bring a better understanding for why Madagascar has a lot to offer as a country with diversity. The second part of the paper will zoom into the tourism industry of Madagascar more. It explains where the industry is today including various statistics concerning its development. This will bring an understanding of who comes to the country and the reasons for their visits. The third part of the paper will define key concepts and the different types of tourism and ecotourism. It also reviews research on tourism in developing countries and looks at how the industry can be a development tool especially in the rural area of Madagascar. It will look specifically at pro-poor tourism (PPT) and some strategies that can be implemented in Madagascar to alleviate poverty in poor communities. In this section, there will be some case studies to look at how other countries have tackled the issues. The fourth and final part of the paper will be the introduction of the project and some strategies and initiatives that can bring growth to the economy of the poor rural areas of Madagascar. This will be looking at the architectural problem of the thesis.

1.3 | Conceptual definitions: poverty and the poor, tourist, tourism and pro-poor tourism

Before moving forward, it may be best to get some conceptual definitions



of the following words that are essential to the rest of this paper: poverty and the poor, tourist, tourism and pro-poor tourism.

"Poverty is a multidimensional phenomenon that consists of a 'lack' of certain things upon which human health, well-being, and autonomous social functioning depend, including the ability to meet 'basic needs' (i.e., food, shelter, clothing, etc.)" (Cattarinich, p2). This may be lack of income, lack of consumption or assets, lack of entitlements, lack or rights or even lack of security. Therefore, by these, there are both material and non-material dimensions to poverty.

Some of the non-material-based form of poverty may consist of lack of assets like human capital (e.g. education, skills) and social capital (e.g. organizational networks and organizational strength). Many times, this means there are entitlement failures. Essentially, "an entitlement is a claim upon resources that is sanctioned by formal or informal socio-cultural, political, legal, or economic mechanisms." These failures occur when certain people are denied access to the resources upon which they depend for their health and well-being. Which also means that these people are denied access to human rights; rights to personal dignity, autonomy, and social inclusion; right to equality between social groups, and of the right to political freedom and security (ODI and AIRD, 1999, p7). Poverty is a lack of voice for these people. Of course, the issues of rights and entitlements goes back to another central component of poverty which is the issues around power and powerless.

Poverty can also consist of the lack of material assets like physical and environmental capital (e.g., facilities, land and natural resource as well as financial capital (e.g., money and credit). These are the more material-based dimensions to poverty. The most widely adopted measure of poverty is the measure of income. According to World Bank, as of October 2015, the new global international poverty line is US\$1.90 which was used from 2011 prices. Over 900 million people globally lived under this line in 2012 and in 2015 it was projected to be over 700 million living in extreme poverty. However, a more reliable way for measuring the material dimensions of poverty can be seen in the way people are consuming. This way it is easier to assess shifts in the quantity of things that people use (e.g., the amount of food consumed and types of items purchased). This does not necessarily correlate with monetary income.

Tourists are the visitors who come from outside the destination for a period of more than 24 hours and less than one year, and visitors who spend less than 24 hours in the destination area are "same-day visitors (UNWTO). Tourists can be subdivided into three categories. Domestic tourists are those who reside within the destination country, regional tourists come



to the destination country from distinct yet neighboring countries, and finally the international tourists are those who come from other continents. Although this paper will focus primarily on leisure and recreation, the other motivation for tourist travel might also include: visiting friends and relatives, business and professional, health treatment, religion, and other. There are definitely many reasons to travel and tourism is more associated with leisure travel outside familiar greas.

Tourism refers to those industries that provide accommodation, transportation and other services (e.g. the sale of souvenirs and other goods, restaurants, guided tours, etc.). The United Nations World Tourism Organization (UNWTO) defines tourism as "an economic and social phenomenon." And Merriam-Webster defines it as "the practice of traveling for recreation" as well as "the activity of traveling to a place for pleasure." The two most common type of tourism are mass (or mainstream tourism) and niche tourism. Mass tourism is oriented toward large package tours and luxury hotels, while niche tourism, in theory, involves more specialized markets such as adventure travel, cultural tours, ecotourism, etc. This usually consists of smaller groups and very often "simpler" accommodation while being more culturally and environmentally sensitive. Mass tourism on the other hand has been perceived more as socially, culturally, environmentally and economically irresponsible.

Mass tourism is associated with some social irresponsibility by "allowing tourists to be an exogenous influence upon social change in an isolate community." (Tourism and Economic Development 26). It is culturally irresponsible because some cultures have differing attitudes to gender and sex and even customs. Not taking these into accounts while traveling to another country could create considerable tensions in a local and conservative community, which is exposed to international tourism. Environmentally or ecologically irresponsible because of the environmental impact of the tourist activities such as those that could endanger the species in that specific country. And finally, economically irresponsible because a lot of times, especially seen in developing countries, there is an uneven and unequal distribution of the benefits acquired from the tourists. Many times, in these developing countries, the money does not trickle down to those who are in great need of it.

As a result, a large number of people are now participating in alternative tourism to mass tourism, resulting in numerous mainstream operators to adopt "green" and "eco" tourism, one of the most popular of which is ecotourism. "Unlike traditional tourism, ecotourism promotes environmentally friendly travel that seeks to protect the tourist destinations from pollution, garbage and ecological damage that may result from irresponsible and uncontrolled tourism. Ecotourism is also known as



sustainable tourism. "Sustainable" is an important aspect of ecotourism in that it seeks to preserve the natural environment and the cultures of the local people. The International Ecotourism Society (TIES) defines ecotourism as 'responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education' (TIES 2015). Followed by "education is meant to be inclusive of both staff and guests." (https://ecotourism.org/what-is-ecotourism/).

Although this paper will not define and discuss every type of tourism, it is still important to draw attention to specific areas within the industry that have been promoted throughout many countries. There are many other terms that are often converge under the umbrella of sustainable tourism and ecotourism. Some of these terms are: community-based tourism, fair trade and ethical tourism and pro-poor tourism. In the book Tourism and Sustainability, these are the definitions of such:

- Community based tourism: seeks to increase people's involvement and ownership of tourism at the destination end. Initiates from and control stays with the local community.
- Fair trade and ethical tourism: fair trade tourism policies seek to create social, cultural and economic benefits for local people at the destination end and minimize leakages... The key focus is on changing consumption patterns in the First World.
- Pro-poor tourism (PPT): out to capture the emerging development consensus on poverty reduction by generating net benefits for the poor. Set to become the developmentalists' favorite; packed with the most upto-date technical development-speak.

In all, what these terms are concentrating on is the criteria often used for sustainability in tourism which are (1) sustainable (environmentally, socially, culturally and economically), (2) educational, (3) locally participatory and (4) an aid to conservation. TIES' principles of ecotourism sums this up well:

- Minimize physical, social, behavioral, and psychological impacts.
- Build environmental and cultural awareness and respect.
- Provide positive experiences for both visitors and hosts.
- Provide direct financial benefits for conservation.
- Generate financial benefits for both local people and private industry.
- Deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, environmental, and social climates.
- Design, construct and operate low-impact facilities.
- Recognize the rights and spiritual beliefs of the Indigenous People in your community and work in partnership with them to create empowerment.



Although these all sound very good for the tourism destinations, they are very different from the idea of pro-poor tourism. While sustainable tourism and community-based tourism in some cases can benefit poor people and seek to address economic, social and cultural concerns, they are not the same as pro-poor tourism (PPT). The reason they are not the same is because the poor is not the main focus of these types of tourisms, in many cases the benefits that accrue to local populations are just a bonus. "In contrast, pro-poor tourism aims to expand opportunities. Net benefits to the poor are a goal in itself, to which environmental concerns should contribute" (DFID, 1999, p2). Pro-poor tourism's main attempt is to put poor people and poverty at the center of the sustainable debate. According to DFID:

"Pro-poor tourism generates net benefits for the poor (i.e. benefits are greater than costs). Economic benefits are only one (very important) component—social, environmental and cultural costs benefit also need to be taken into account.

Pro-poor tourism strategies are concerned specifically with impacts on poor people, though the non-poor may also benefit. Strategies focus less on expanding the overall size of tourism, and more on unlocking opportunities for specific groups within it (on tilting the cake, not expanding it)" (DFID, 1999, p1).

PPT initiatives are all about transforming strategies and principles into concrete action. This is not restricted to community-based enterprises but to truly enhance the economic opportunities for the poor in tourism. "An organization attempting to operationalize that strategy at the destination level might provide employment or casual labor to the poor, it could establish supply linkages with poor merchants or farmers and outsource some services (e.g., laundry), training programs, or joint ventures with communities, among other options" (Cattarinich, 2001, p5). Government can also play some significant role in PPT by enhancing or protecting poor peoples' access to tourism markets through different policy instruments. "These could include making it compulsory to use local guides, establishing and enforcing ethical codes for labor and trade practices as well as zoning regulations, and promoting ethical consumption via public awareness campaigns" (Cattarinich, 2001, p5).

In summary, there are three core areas of focus that are needed and essential for PPT: the first and most important one is the increase of access of the poor to economic benefits, as mentioned many times earlier. This is the expansion of business and employment opportunities for the poor, providing training so they are in a position to take up these opportunities



and spreading income beyond individual earners to the wider community. Second is the importance of addressing the negative social and environmental impacts often associated with tourism such as lost access to land, coastal areas and other resources and social disruption or exploitation. And finally, the policy/process reform which can be done "by creating a policy and planning framework that removes some of the barriers to the poor, by promoting participation of the poor in planning decision-making processes surrounding tourism, and by encouraging partnerships between the private sector and poor people in developing new tourism products." (Roe and Khanya, pp 2).

02 Madagascar

المنسلون للاستشارات



المنطارة للاستشارات

2.1 | History of Madagascar

Madagascar is the fourth largest island, the second largest country island and the 47th largest country in the world. It is located in the Indian Ocean off the coast of East Africa with an estimated population of almost 25 million people. It is comparable in size to Texas which has about 28.7 million people. The country was colonized by the French in 1883 and gained its full independence in 1960, making French one of its first languages along with Malagasy. The country is composed of seven ethnic groups, divided into six provinces and subdivided into 22 regions.



Figure 1



Antananarivo, the capital city of Madagascar, is the largest city with approximately 1.4 million people. The presidency, National Assembly, Senate and the Supreme Court are all located there. It is the urban city of the country and has more universities, nightclubs, art venues, and medical services than any city on the island. Antananarivo is mostly driven by the growth of the businesses; 13 percent of Madagascar's gross domestic product (GDP) is largely concentrated in this city. Agriculture has always been what influenced settlement on the island. Therefore, only 15% of the nation's population live in the largest cities. However, with more people searching for more educational as well as better work "opportunities", there has been an increase in the rural migration to the capital city of Madagascar. Even so, unemployment and poverty are growing.

2.2 | Government and economy

Agriculture, fishing and forestry are the mainstay of the economy of Madagascar, accounting for 32 percent of GDP and more than 70 percent of export earnings. Approximately 80 percent of the population is engaged in agricultural activities, just 29 percent of Madagascar's GDP was constituted in the agriculture sector. The country's other sources of economic growth are tourism, textiles, mining and the extractive industries. Madagascar's natural resources and trade gives a significant boost to the Malagasy economy as well. These resources include a variety of unprocessed agricultural and mineral resources. Madagascar is the world's principal supplier of vanilla (supplying 80 percent of the world's natural vanilla), cloves and ylang-ylang along with other key agricultural resources such as coffee, lychees and shrimp. In 2009, exports formed 28 percent of Madagascar's GDP, the revenue deriving from the textile industry as well as these natural resources. Unfortunately, the country is still a very poor country with approximately 69 percent of the population living below the international poverty line threshold of one dollar per day.

According to the 2019 Index of Economic Freedom, "Madagascar is endowed with bountiful untapped natural resources and a mostly market economy, but it has not developed a capital market." (heritage.org) The country is so rich in a lot of things but the combination of a weak judicial system, convoluted administrative procedures, poor enforcement of contracts, and rampant government corruption impairs the business environment of the country. Even so, according to the World Bank, Madagascar has enjoyed sustained economic growth over the last four years. There has been an increase from 2.3% in 2013 to an estimated 4.2 percent in 2017 and the GDP growth has steadily improved and is projected to reach 5 percent in 2018. This positive economic growth has been so mostly because of the year-to-year growth of small but dynamic



private sectors that is performing particularly well in trade. It (trade) increased by 4.1 percent in 2017 and was projected to grow even more in 2018.

The problem, however, is that the agricultural sector contracted by an average of 0.8 percent between 2014 and 2017. Reports stress that these gains from economic growth have not been felt by a large majority of the population (which is mostly rural)—remember, about 80 percent of the population is engaged in agricultural activities. This population is struggling from the uneven and unequal gains from this economic growth and not experiencing significant improvements in their living conditions. "The agricultural sector is constrained by low productivity due to the minimal use of modern farming techniques, lack of connectivity to markets to facilitate the transportation of goods, and high vulnerability to climatic fluctuations." (worldbank.org) There is the problem of low productivity due to the minimal use of modern farming techniques but there are also the rural households who only have farming as the income generator.

[1] Figure 1: The services sector was the most important contributor to growth in 2017 Contribution to growth by sector, 2010-2018

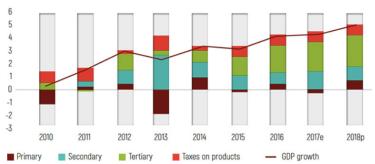


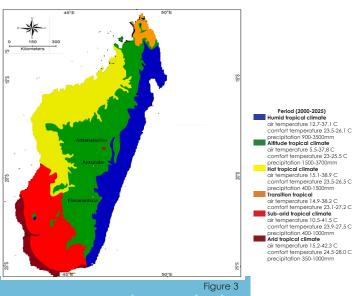
Figure 2

Therefore, when the unexpected rough climatic conditions come, such as drought, these households have minimal off-farming income generators.

2.3 | Geography, climate and ecology

Located in the Indian Ocean east of Mozambique—which is also the nearest mainland state—Madagascar is considered a part of southern Africa. Reunion, Mauritius as well as Comoros are the neighboring islands of Madagascar. It is a large island that has a narrow coastal plain with a high plateau and mountains in its center. The central highlands are where the capital, Antananarivo, is located. It is the most densely populated of the whole island and is characterized by the terraced, rice-growing valleys. To the east is the Canal des Pangalanes which is a chain of man-made natural lakes built by the French to be connected by other canals—most likely for trade. There are also the dry deciduous forests, the spiny forests as well as the deserts located in the western and southern sides of the country.

Depending on the location on the island, the climate of Madagascar varies. Along the coastal regions it is tropical, more temperate inland and arid in the south. It is a hot and rainy season from November to April with frequently destructive cyclones and relatively cooler dry season from May to October. The island's eastern coast gets much of their moisture from the Indian Ocean's rain clouds. The center highlands get more of both the



drier and cooler temperature, the west is drier and finally the southwest and southern are more deserted with a semi-arid climate. Madagascar is most well-known for its rich biodiversity and tropical rainforests. More than 80 percent of Madagascar's plant species are only found in the country, mainly as a result of the island's long isolation from neighboring continents. Along with its flora, its fauna is also diverse and are at a high rate of endemism. Because they are isolated in Madagascar however, many of these species are threatened and endangered by human activity such as deforestation and the increase of development. As a result, Madagascar now has many national parks, and nature and wildlife reserves to protect its species.

2.4 | Culture

Other than the many social beliefs and customs that are very common in Madagascar, some of the most popular culture of the country can be found in its art, music, and cuisine. Malagasy people use their local and natural materials to create various creative traditional arts. Some example is the tradition of silk weaving and lamba (garment) production. There is also the weaving of raffia which is used to create many of Madagascar's favorite products such as the practical items like floor mats, baskets, purses and hats. Wood carving is also very popular in Madagascar and distinct depending where in the country it is carved. Things like furniture and household goods are produced the most and are the most offered for the tourist market. The southeastern part of Madaaascar is known for its production of paper embedded with flowers and other decorative natural materials. This has become such a long-established tradition to that part of the community of Madagascar that the community has started to use it as a market to ecotourism. Embroidery and drawn thread work to produce clothing and tablecloths are popular as well. While traveling around Madagascar, these things are all found in the local craft markets of the various areas and are attracting many of the tourism industry. As a result, these local craft markets can only be afforded by the





Figure 4 Figure 5



"outsiders" because they are used as the economic drive of the particular area.

Mostly found in the rural area of Madagascar today is the tradition of theater and dance. These are usually done in the form of "hiragasy". Hiragasy is "a day-long spectacle of music, song, dance and oration performed by a troupe or as a competition between two troupes" (Wikipedia). The songs are many times used as a way to express some kind of message either culturally or politically. The audience then plays an active role in this particular tradition by surrounding the performers making sounds of cheers or disapproval to the messages being sang. Therefore, to fully participate in these performances it is important to understand what is being sung but many times, people just enjoy listening and watching the performances. It is a tradition only found in Madagascar.

Because of the diversity of the origins of the Malagasy people (Southeast Asian, African, Indian, Chinese and Europe) there are diverse influences in their cultures as well, one of them the Malagasy cuisine with which has many influences from Southeast Asia. Like the Southeast Asian culinary traditions, the typical cuisine of Madagascar throughout the whole country consists of a base of rice (vary) served with an accompaniment called "laoka". Laoka consists of a variety of vegetables, can include animal proteins, and typically features sauce flavored with ingredients popular in the country. The rice paddies seen throughout Madagascar is



Figure 6

evidence of this Asian influence as well. The African influence on the other hand, is seen in "the importance of zebu cattle and their embodiment of their owner's wealth" (Wikipedia). These are traditions, seen throughout the country especially in the rural parts of the country, originated on the African mainland.

O3 Tourism in Madagascar





المنطارة للاستشارات

3.1 | Why do tourists go to Madagascar?

Madagascar offers tourists a diversity of activities: wildlife viewing, scuba diving, scenic hikes, beach tourism, adventure sports, and cultural encounters. "Madagascar offers a wide range of natural and cultural tourism products that tend to appeal to 'discovery tourists', who travel in order to gain unique experiences." (World Bank). It is one of the world's few mega-biodiversity countries with about 95 percent of its animal and plant species endemic. Of course, among these are the 32 species of lemurs, which are the main attraction for many tourists. Some of the top touristic nature attractions in Madagascar are the national parks such as the Tsinay de Bemaraha located in the Melaky Region, northwest Madagascar, which consists of a spectacular karst geological formation; the Andringitra National Park; Isalo National Park and the Ranomafana National Park just to name some. Madagascar has over 50 national parks. It also offers a tremendous variety of scenic landscapes within its highlands, rainforests, canyons, and deserts such as the famous Avenue of the Baobabs in Morondaya, western Madagascar, one of the most visited locations in the country. Because it is an island, Madagascar also has world-class resort assets with nearly 5,000 km of coastline and a continental shelf that is equal to 20 percent of its land area. Its beaches are also a premier tourist spots attraction. One of the most visited locations, attractina thousands of tourists from across the alobe year-round is the small island of Nosy Be. Nosy Be has the typical tropical island beaches with the clear turquoise water. Other than these typical touristic places, there is also the capital of Madagascar, Antananarivo, where most of the cultural and historical sites are found, such as the

Royal Palace of Rova. Because of its biologically diverse areas however, Madagascar is internationally renowned as a wildlife tourism and ecotourism destination.

3.2 | Tourist numbers

The second largest export earner of Madagascar during the mid-1990s was tourism. The industry was damaged in late 2001 after a political crisis and an economic recession and is, slowly but surely, recovering at a steady pace. By 2016, tourists landing in Madagascar has increased about 20 percent compared to 2015. Since then, the number of tourists coming to the country has grown at an average rate of 11 percent each year and is forecasted to keep growing. There are also people, considered more as visitors or business travelers than tourists, who stay for a long period of time in the country and are interested in the country's botany, lemurs, birds, or natural history which can include some tourism activity as well. Out of the 200,000 people coming to Madagascar per year, only about 60,000 of them come specifically for tourism.

According to Madagascar's annual research from the Travel & Tourism Economic Impact 2018 of the World Travel & Tourism Council, the tourism industry of the country and its impact on the economy is looking good

MADAGASCAR: TOTAL CONTRIBUTION OF TRAVEL & TOURISM TO GDP



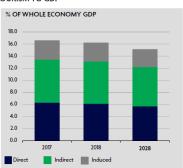
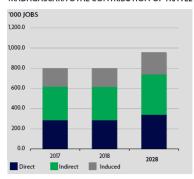


Figure 7

for the next few years. The direct contribution of Travel & Tourism to GDP in 2017 was 6.3 percent of GDP, which primarily reflects what is generated by industries such as hotels, travel agents, airlines and other passenger transportation services. It is forecast to rise by 2.4 percent in 2018 and is expected to grow 4.1 percent by 2028. As far as the contribution to employment goes, Travel & Tourism generated 287,500 jobs directly in 2017 which is 5 percent of total employment. It is forecast to fall by .5 percent in 2018 to 287,000 jobs. By 2028 however, Travel and

Tourism will account for 342,000 jobs directly which is an increase of 1.8 percent over the next ten years. And finally, again according to the World Travel & Tourism Council, the visitor's exports and investment has also been increasing. In 2017, Madagascar generated MGA 3,152.6bn in visitor exports and in 2018 it was expected to grow by 2 percent in which the country is expected to attract 345,000 international tourist arrivals. And by 2028, international tourist arrivals are forecast to total 580,000, and increase of 3.9 percent.

MADAGASCAR: TOTAL CONTRIBUTION OF TRAVEL & TOURISM TO EMPLOYMENT



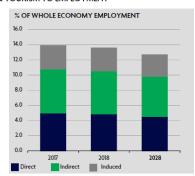


Figure 8

3.3 | Statistics of tourism

The peak months of tourism in Madagascar are between the months of July and August where about 21% of tourists arrive, and between the months of September to December where about 37% of tourists arrive. The lowest month is recorded to be in February after which arrivals build up steadily to the peak months. Because of culture and historical links between the countries and flight routes, 60 percent of Madagascar's tourists are French. After France, with recorded number of people in 2017 of about 60,144, is Mauritius with 3,732, followed by China at 3,083, then Comoros, United Kingdom, Italy and finally the United States at about 2,621 recorded.

According to the 2000 visitor survey, the average length of stay for foreigners visiting relatives is 24 days whereas for the leisure tourists it is 20 days. Also, according to the survey, the majority (64 percent) of tourists traveling to Madagascar are men and over 60 percent of them are between the age of 30 and 49. Many of these visitors are professionals or heads of enterprises. It can then be concluded that there is a high chance that many of Madagascar's visitors are looking for business and opportunities hence coming to the country not only for leisure purposes.

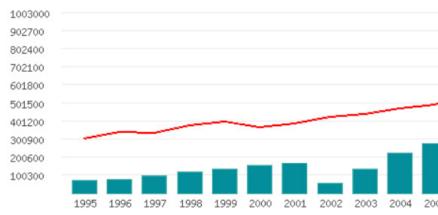
3.4 | Development of tourism in Madagascar

The tourism industry of Madagascar is very important to the country, both economically and culturally. But while the importance of tourism to economic growth in many developing countries is generally recognized, the continuing success of tourism would depend on the availability of: (1) infrastructure including adequate transport and communication systems, suitable accommodation such as hotels and motels; (2) a safe law and order situation; and (3) facilities for shopping and entertainment for tourists (Tourism and Economic Development pp 16). This is especially true in Madagascar where there are areas more developed than others. The more developed areas are mainly the touristic areas, the infrastructure and the facilities are more developed therefore are more accessible for tourism. "Madagascar's natural resources—and, therefore, its asset base for tourism—are much studied and have received considerable international financina and technical assistance for their conservation," (worldbank.org). This leaves a bia portion of Madagascar poor and underdeveloped and the development of tourism can bring a development to these underdeveloped areas.

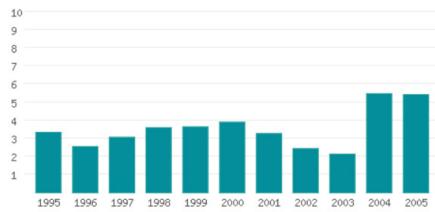
Madagascar has an undeniable tourism potential, yet its growth has been impeded due to the political instability of the country. One of the most damaging political incidents emerged in March 2009 and the strong growth of the industry after years before gravely dropped by about 57 percent, from 375,010 to 162,697 (Ministere du Tourism (2013) Statistiques

Year	Number of tourists	Receipts	% of GNP	Expences per person
1995	75,000	106.00 m \$	3.4 %	1,413 \$
1996	83,000	102.00 m \$	2.6 %	1,229 \$
1997	101,000	110.00 m \$	3.1 %	1,089 \$
1998	121,000	136.00 m \$	3.6 %	1,124 \$
1999	138,000	137.00 m \$	3.7 %	993 \$
2000	160,000	152.00 m \$	3.9 %	950 \$
2001	170,000	149.00 m \$	3.3 %	876 \$
2002	62,000	109.00 m \$	2.5 %	1,758 \$
2003	139,000	119.00 m \$	2.2 %	856 \$
2004	229,000	239.00 m \$	5.5 %	1,044 \$
2005	277,000	275.00 m \$	5.5 %	993 \$
2006	312,000	382.00 m \$	6.9 %	1,224 \$
2007	344,000	395.00 m \$	5.4 %	1,148 \$
2008	375,000	440.00 m \$	4.7 %	1,173 \$
2009	163,000	328.00 m \$	3.8 %	2,012 \$
2010	196,000	425.00 m \$	4.9 %	2,168 \$
2011	225,000	507.00 m \$	5.1 %	2,253 \$
2012	256,000	596.00 m \$	6.0 %	2,328 \$
2013	196,000	609.00 m \$	5.7 %	3,107 \$
2014	222,000	740.00 m \$	6.9 %	3,333 \$
2015	244,000	696.00 m \$	7.1 %	2,852 \$
2016	293,000	913.00 m \$	9.2 %	3,116 \$
2017	255,000	849.00 m \$	7.4 %	3,329 \$

du Tourisme 2012, Antananarivo). Even so, arrivals have grown the following years despite the lack of resolution to the crisis and economic slowdown in Madagascar's principal source markets. "This is testament to Madagascar's enduring appeal, as well the section's ability to adapt to challenging conditions." So, taking advantage of this ability, how can the tourism sector generate additional income and employment and become a significant contributor to the economic revival?

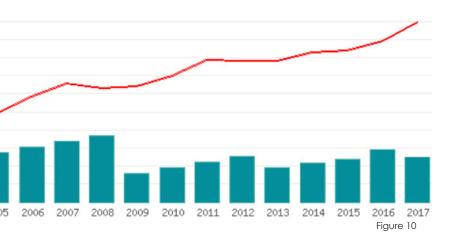


Development of the tourism sector in Madagascar from 1995 to 2017 (The red line represents the average of all countries in Eastern Africa)



Annual receipts as percentage of the gross national product





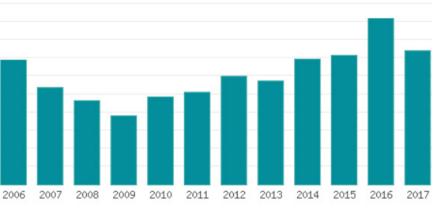


Figure 11



04 Tourism as development tool

المنسلون للاستشارات



المنطارة للاستشارات

4.1 | Leakages and linkages

The terms "leakages" and "linkages" are important for this section. Leakages is used to refer to the amount spent on importing goods and services to meet the needs of tourists. Leakages occur when the local economy is unable to provide a reliable, continuous, competitively priced supply of the required product or service and of a consistent quality to meet the market demand. Leakages which reduce the development impact of tourism are (World Tourism Organization, 2002, pp 38):

- Imported skills, expatriate labor
- Imported commodities, goods and services
- Imported technology and capital goods
- Increased oil imports
- Repatriation of profits
- Advertising and marketing efforts abroad
- Transporting tourists to the destination country

If looking at the perspective of local economic development and poverty reduction, what matters more is the expenditure spent, or not spent, in the local economy rather than the tourist's total expenditure spent on a trip. "It is when the local economic linkages are weak that revenue from tourism receipts in a local economic area leaks out." (World Tourism Organization, 2002, pp38).

To reduce leakage, however, it is important to make sure to engage with local suppliers, using local capital and resources and developing



the skills necessary to deliver consistently at an appropriate quality and at a competitive price. Linkages therefore, is looking at ways to increase the extent of linkages between the formal tourism sector (hotels, lodges, restaurants, tour operators and transport providers) and the local economy. If the linkages to the local economy can be increased, the extent of leakages will be reduced. The creation of local linkages is very important as part of the overall tourism development strategy; it needs to be focused and stressed by the governments of any developing countries and any other development agencies in the planning, construction and operational phases. According to the World Tourism Organization in Tourism and Poverty Alleviation there are three key sets of factors that are important in enhancing the extent of local linkages:

- The creation of employment at all skill levels and particularly where there is existing capacity.
- New "attractions" created though anti-poverty tourism development strategies need to be integrated into the tour programmes of the ground handlers and inbound operators... Visitor attractions, parks, cultural sites and hotels should be encouraged to provide information about local products and services by poor.
- The requirements of new micro enterprises for credit, marketing skills and a thorough understanding of tourist expectations need to be met. Micro enterprises may have particular difficulties in meeting health and safety, licensing and other regulatory requirements. Such regulations themselves need to be crafted to encourage inclusion through assisted education and training to ensure engagement by the poor in the industry.

Partnerships of the hotels and tour operators with the local communities, local government and NGOs at the destination level is the way to maximize benefits for the poor. These two sectors working together "can develop forms of tourism that bring sustainable development which contribute to poverty reduction and provide a richer experience for domestic and international tourists." (World Tourism Organization, 2002, pp 39). Tourism, therefore, will not only provide material benefits for the poor, but can also bring cultural pride, a sense of ownership and control and, through diversification, reduced vulnerability. (World Tourism Organization, 2002, pp 65).

4.2 | Advantages of pro-poor tourism in poverty reduction (Deloitte and Touche, IIED and ODI, 1999) (Mehtotra, 2019)

- Tourism delivers consumers to the product rather than the other way around. This opens up huge opportunities for local access to markets for other goods and services. Development strategies can enhance potential links to local enterprises and poor producers.
- Tourism does not face tariff barriers, although taxes on air travel can



have a similar effect.

- Tourism has considerable potential for linkage with other economic sectors particularly agriculture and fisheries. Realizing these linkages will increase the portion of tourism revenue retained in the host country.
- There is a possibility of other types of linkages, for example, demand for tourism may add sufficiently another sector's demand for the combination to provide a basis for introducing local provision of good and services, (e.g. transport)
- It may create an initial demand for a good or service that can then itself become a growth sector.
- Tourism provides opportunities for off-farm diversification. Tourists are
 often attracted to remote areas with few other development options
 because of their high cultural, wildlife and landscape values.
- Tourism provides relatively labor-intensive opportunities. It is more intensive than manufacturing and non-agricultural production, although less labor-intensive than agriculture. Its relation to the economy as a whole therefore depends on the relative weights of agriculture and manufacturing.
- Tourism can provide poor countries with a significant export opportunity where few other industries are viable. It appears to be more like manufactures, where comparative advantage can be created through a combination of identifying a possible product and creating a specialized demand.
- Tourism products can be built on natural resources and culture, which are assets that some of the poor have.
- The infrastructure associated with tourism development (roads, electricity, communications, piped water) can provide essential services for rural communities which would otherwise be excluded from general infrastructure provision.
- It has a high-income elasticity, and therefore offers a relatively rapidly growing market.
- Tourism may be expected to perform "better" than traditional commodities, but not necessarily better than newer exports such as manufactured products.
- It can take different forms, using different inputs, and is therefore available to a wide range of countries (and regions within a country).

4.3 | Case study #1 - The Gambia

The Gambia is a fairly traditional sun-sand-and-sea destination. Tourism is the most important sector of the economy in the country therefore tourism is critical. Because tourism is critical to the economy, The Gambia is vulnerable to any downturn in the industry and competition from other beach destinations. The UK seems to make up most of the visitors of The Gambia, representing 41% of all non-African arrivals. Because of this, the



UK government funded an initiative to improve the linkages between the informal sector (such as the fruit pressers, fruit vendors, taxi drivers, guides, craft workers and market vendors) and the formal sector hotels, ground handlers and tour operators. After a series of participative surveys done by the Association of Small Scale Enterprises in Tourism (ASSET) that were given to the tourists, tour operators, hoteliers and inbound operators as well as the informal sector groups themselves. The result of the surveys came as such:

- For the formal and the informal sectors, the major issues preventing positive dialogue and change was distrust and disunity. This resulted in a series of workshops to help the sectors talk openly about their problems and work together to come up with an agenda for action to agree upon.
- From the tourists, because The Gambia is mostly a traditional sunsand-and-sea destination, there was an increasing concern about the "beach bumsters" or the youths who sell a range of services to tourists. This resulted in number of tourists being intimidated by the "bumsters" and discouraged them from leaving their hotels and the outcome is tourists staying in their hotels and do only what the hotel (formal sector) has planned for them.

According to the result of the surveys, however, repeat visitors are less likely to engage in activities for which they would have to pay. This is partly because repeat visitors tend to not want to do anymore sight-seeing after the first two visits and would rather do something more independent. However, there seem to be a lack of other activities and new day excursion in The Gambia which then became "the area where the informal sector can make a significant contribution by diversifying and enriching the day excursion and activity offer." (World Tourism Organization, 2002, pp 59). And the visitors who took surveys in their hotels also showed an inclination towards paying for activities like a cultural show, a visit to a village, national park, museum, bird watching trip, fishing from a local guide and the most popular one was to visit the fields and to see agriculture and crops being grown all which can be an informal sector excursion.

The following are lists made after workshops and surveys of ways for improving access for informal sector groups to the market in the destination of The Gambia (World Tourism Organization, 2002, pp 61):

- Licensing is an important mechanism for legitimating the informal sector. One of the major barriers encountered by the informal sector is exclusion from the formal sector.
- Licensing and badging, backed by a code of conduct, is seen by members of informal sector groups as an important mechanism to secure access.



- Hotels could set up opportunities for craft vendors to have access to tourists inside hotel boundaries.
- Issues of insurance need to be addressed on a case-by-case basis.
- All ground handlers interviewed noted that quality and public liability insurance were key criteria in granting local product and service contracts.
- Local guides can play a very significant role in facilitating informal sector access.
- Visitor expenditure in the informal sector is significant and it can be increased.
- Craft stall holders keen to develop new products and to work together to counter aggressive bargaining by tourists.
- The problems experienced by the informal sector in general are mainly in access to the market, dealing with competition and commissions, and the fact that tourists do not have adequate information about them.

After implementing some of the ways to increase the extent of linkages and working on initiatives to help the informal sectors, some results are as follows:

- The fruit sellers saw an increase of some 60% in their earnings. A Code of Conduct was developed and the relationship between the informal sector and the formal sector were a lot better. They have also hired an artist to install and ensure a high-quality stall for the fruit sellers which has helped the nature of the relationship between the sellers and the visitors. They no longer felt the need to hawk at the visitors and the visitors did not feel attacked by some "bumsters" any longer.
- The licensed guides have also benefited both sectors which has helped in the reduction of conflicts between the guides, the taxi drivers and the formal sectors.
- The craft vendors have also benefited from these linkages with the help of some experts who worked with the markets and some individual traders to improve their products and merchandising techniques.



Figure 12



4.4 | Case study #2 - Pro-poor tourism in Humla, Nepal

Due to its lack of infrastructure and the severe cold mountain climate, the number of tourists in Humla is relatively low compared to the more accessible and well-known areas of the country. And similar to that of Madagascar, the majority of the people in Humla fall beneath the international poverty line of US \$1 per day and tourism accounts for only a small portion of economic and social growth.

The Dutch development agency SNV started a PPT interventions in Humla by operating a District Partners Programme (DPP) in Nepal with the objective of using tourism as a mean to benefit the women and the disadvantaged groups at village level. The main focus was at the local level—on specific enterprises and communities along a trekking trail—as well as engaging at the policy level with the Nepal Tourism Board. "The emphasis is on social mobilization through the development of community-based organizations; business planning and training designed to enable the poor to develop micro-enterprises and to take up employment opportunities." (World Tourism Organization, 2002, pp 78). The problem in this particular village where the trekking trail falls within, is that due to the lack of guaranteed local supply, many trekking companies bring all the food they need with them. This, therefore, became a significant potential for providing supplies of basic commodities such as vegetables, eggs, meat and fruit locally.

As a way to tackle this, through the DPP, a multiple use visitor center has been proposed. "This would entail a physical location where different stakeholders in the tourism trade may meet and exchange services, products and information and would facilitate the provision of local services such as transportation, portering equipment, horsemen for driving the animals, and the supply of vegetables, fruit, poultry and eggs could be coordinated through such a nodal point." (World Tourism Organization, pp 80) This could then be a way to allow the poor to enter the tourism market and to get some benefit from the market. However, similar to that of the first case studies, the private sectors wanting to please the tourists struggled with relying and trusting the local employees. And these jobs, many times, end up going to people who are often friends or relatives of the owners

The results of the PPT projects are still very significant to the locals. Community Based Organizations (CBO) has been a priority of the program and the members of this organization have gotten the potential to gain from tourism through the development of small business and the supply of goods and services that were previously done somewhere else. Some of the other Community Tourism initiatives that have been implemented



in Humla are campsite, tour guide to the local areas done by a local. Many of these jobs, however, are still not given to the poorest of poor because the biggest challenge is that they need to be educated more on entrepreneurial.

4.5 | Conclusion

Sustainable tourism, pro-poor tourism, community-based tourism—these are all ways to introduce the poor into the market of tourism, allowing them to benefit from the market, just like the private sectors do. To make this happen, there needs to be less leakages and more linkages at the destination area. Linkages make sure that the revenue from tourism is retained in the destination country. It is also when both the formal and the informal sectors work together to make sure that both sectors get to benefit from tourism, especially that the informal sectors get some boost from the private sectors as well as more opportunities for more significant access. This will give the informal, or the locals, the chance to be employed and make profits. The problem, however, is that there will always be some type of disagreement and trust issues between these sectors, but as it has been concluded from the first case study licensing and badging, backed by a code of conduct, is seen by members of informal sector groups as an important mechanism to secure access. This then means that the government has a big role in these kinds of tourism as well because the poor will not be able to do it alone, even if given the facility to do so. And not only the government but partnerships and organizations who will fund the projects as well.

Tourism has so much potential in contributing to poverty elimination, especially in developing countries. It is important to remember that pro-poor tourism is all about unlocking opportunities for the poor. This may mean something as small as the fruit stall like that from the first case study, or helping them develop their skills, or revising policies. Or as big as making sure that there is external funding to cover the cost of establishing partnerships, developing skills, and revising policies.



05 Site Introduction





المنطارة للاستشارات

5.1 | Beamilaka

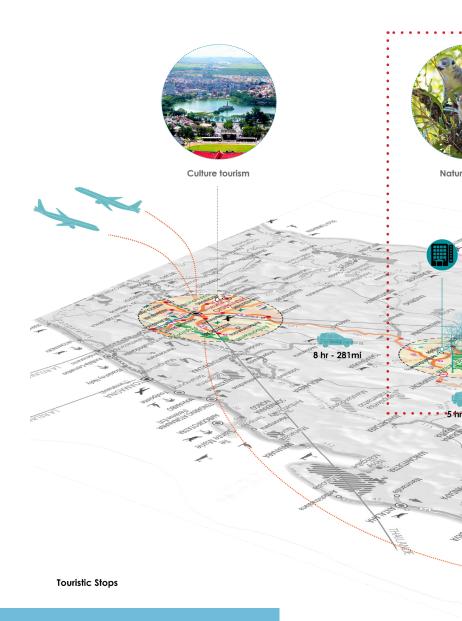
It is important to know the area and the site of where the project will take place. As mentioned earlier, this project will be looking at ways to introduce new "attractions" that will allow the locals of a touristic place to have access to the tourism market. It will be along the national routes RN4 and RN6, which are going toward the north end of Madagascar. The reason for the specific route is because it has many touristic stops along the way until reaching the most famous end destination, which is the small island of Nosy Be (sand-sea-sun tourism). Because it is an island and the majority of the time people relate an island to its perfect beach sites which only makes this route one of the most, if not the most, popular touristic circuits of Madagascar, therefore attracting many tourists. But before reaching that destination, there are multiple touristic stops along the way, many of which are nature tourism (tourism based on the natural attractions of an area) as well as some agriculture tourism or agritourism ("a commercial enterprise at a working farm, ranch or agricultural plant conducted for the enjoyment of visitors that generates supplemental income for the owner" University of California).

The first touristic stop is in Beamilaka, Madagascar. This is where visitors stay for a night and goes for a visit in Ankarafantsika National Park. The park is a dense and dry forest mosaic. It is well-known for its lakes, which are

the last shelters of some species. And of course, it also has some endemic lemurs and birds. Another stop is in the village of Ambanja. Ambanja is mainly well known for its cocoa plantation as well as the production of vanilla, pepper, ylang ylang and pink peppercorn. Then the small island of Nosy Be where the sea is the typical blue turquois, island vibe color. There are also many other small islands such as Iranja, Nosy Komba, Nosy Tanikely, Nosy Sakatia and the Mont Passot Reserve national park. The following stop is in Ankarana, located on the north tip of the country. This is yet another national park composed by karstic massif and covered by forests, caves and underground rivers sheltering endemic fauna and flora. Finally, the last stop, still in Ankarana, is the Tsingy Rouge which is composed of sandstone and limestone. A very unique place, only seen in Madagascar.

The project site will be in Beamilaka, the first touristic stop of the road trip. Beamilaka is in the town and commune of Andranofasika which has an estimated population of approximately 8,000 according to the 2001 commune census (ILO census data, 2002). There is only primary schooling available in the area, one of which is by the project site. The majority of the population are farmers (85%) while some others receives their livelihood from raising livestock (10%). Services and fishing provide employment for 2 percent and 3 percent (respectively) of the population. The most important crop in the area is cassava, while other important products are maize and rice. The Ankarafantsika National Park is the main drive of the place for tourists as well as the main drive of the economy. Places to stay are rather scarce. There are very few small hotels and lodges in the area because of this one touristic site. It takes a whole day to tour the park so tourists usually will only need to stay for a night or two, at the most, "The park occupies about 135,000 hectares and consists of patches of thick dry tropical forest interspersed with less dense areas. There are also savannah scrub and sandy eroded rock area." (Wikipedia) And of course, there are street vendors where the tourists travel. It can be concluded then that this particular community does not have a lot of access to the tourism industry although there are many potentials, especially with introduction of pro-poor tourism.

Again, the idea of pro-poor tourism is to support the concept of the formal and informal sectors working together which will help with more linkages and less leakages to the place. Linkages means using local capital and resources and developing the skills necessary to deliver consistently at an appropriate quality and at a competitive price. Partnerships are very important because not only does it provide employment to the locals but it also allows for entrepreneurial education to the people who do not know anything about it. The most important thing from all of this however is to make sure of the authenticity of the place and make sure it does not become just another touristic place. Of course, poverty impact is



المنسارات المستشارات

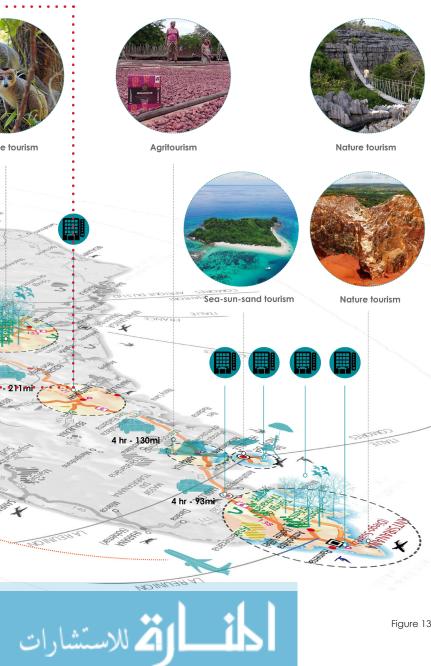


Figure 13



المنسلون للاستشارات



Figure 14

greater in remote areas but the tourism itself is on a limited scale. Location therefore very much matters with PPT. It works best where the wider destination is developing well.

5.2 | Current status of handcraft industries and street vendors in Beamilaka



In Madagascar, various villages specialize in handcraft of specific items and the commune of Andranofasika is no different. Knowing the status of the handcraft industries of the area is very important in PPT because many times in rural areas of countries like Madagascar, this is what the locals know best to do but are lacking in the specific technologies needed or even support which is a great area where PPT can be of help. It also becomes part of the culture of the villages. Many times, the materials used for these handcrafts are the scraps of leftover materials in constructions or even recycled materials such as plastics and tins. It could really be anything that they can use, especially whatever they have many resources of such as trees, clay or stone.

In Beamilaka specifically, the village has a lot of clay materials therefore many of the handcrafts are made out of clay such as pottery work, clay toys, pots and etc. Wood is also very common in this area with which the locals also specialize in wooden handicrafts such as small boxes, wood carvings, wooden toys, flowed pots, sculptures and etc. And of course, wooden materials are also very important for ox carts which are very common in the rural of Madagascar as part of the transportation means for the locals. They are especially used by farmers to transport goods. In



almost all of the villages in Madagascar, fabrics and hand embroidery are very famous especially as many women's work. It has become part of the culture and art of the country. These can be tablecloths, beddings (sheets, pillow cases...), doilies and dresses. Lastly, as mentioned above, these locals rely heavily on their crops, produces and livestock both as means of food to survive but also as means of extra income.



Figure 15

There are however many problems and serious challenges with these sectors, not just in Beamilaka but almost throughout Madagascar, if they are not part of the expensive private sectors. The reasons for these problems come down to, again, poverty but also the lack of government support and facilities. There is the lack of infrastructure and marketing facilities that results in the many road vendors. Not only do these locals lack buildings but many times the roads to many villages are impossible for cars to get to which results in another problem of the lack of buyers. There is also the lack of availability due to the lack of trained craftsmen because of labor mobility which also results in another problem of high costs. Aside from all of these there is the problem of lack of awareness and most importantly, illiteracy. The combination of all of these are the reason why the private formal sectors choose to not be in affiliation with the poor, informal sectors. Although it can be argued that these are the "new experiences" that many tourists are looking into going to a country like Madagascar, these locals are still very much relying on their craftsmanship and their produce to bring in the extra income to their households.



5.3 | Blue Vanga Lodge

What is then the PPT plan for Beamilaka? With PPT, first there will need to be some organizations (usually outside organizations) whose aim is to increase financial benefits to poor communities and are also the ones who are willing to finance the initiatives. From The Gambia case study above, for example, because the UK market represented many of the non-African arrivals, they funded the initiative to improve the linkages, as well as working together with the Association of Small Scale Enterprises in Tourism (ASSET). However, the main aim of these organizations should be to increase financial benefits to poor communities. All organizations are to work simultaneously at three levels (Ashley, Row and Goodwin, 2001):

- Local providing support in the form of training, finance, technical assistance and marketing to individual community-based tourism enterprises.
- Private sector lobbying for private sector support and patronage of community-based enterprises and facilitating the development of partnerships between the private sector and communities.
- Policy lobbying and advocacy for policy reform that supports community-based tourism, and providing a voice for marginalized groups.

Second is to choose the private sector with which both the locals and the organizations can be partnered with. This can be a hotel, a lodge, even just places where adventures occur (trekking trail, tropical adventures, etc....), just as long as there is high tourism in the grea. For Beamilaka there are not a lot to choose from but there are a few hotels and lodges therefore making the Blue Vanga Lodge the best sector to do the implementation of the linkages with in Beamilaka. Blue Vanga Lodge is a very exclusive place located in the border of the National Park of Ankarafantsika (about 10 minutes away by car from the park). It has been described by some customers as a newly built place hidden in a sandy back road. It is secluded, but surely peaceful, and away from the busy part of the town (which in the rural of Madagascar is always by the route nationals) although still at walking distance from its surroundings because Beamilaka itself is very small. The lodge is fenced off by bricks walls and a gate, mainly for security reason, making it even more secluded. It is surrounded by a few residences and its south side is buttina with what seems like a big field for the primary school right next to it.

The lodge consists of six bungalows, three with twin rooms and the other three with full size rooms; and a restaurant/ bar area that can fit up to 20 people and is mostly used for breakfast. For those looking for lunch and dinners, according to their policy, the kitchen is for rent where visitors will have to cook for themselves or hire others to do so. Each bungalow is









Figure 17



Figure 18



Figure 19



Figure 20



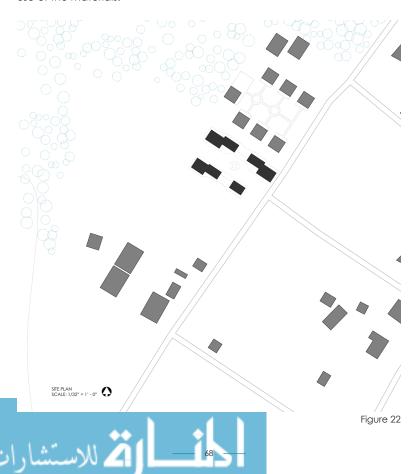
Figure 21

equipped with en-suite bathroom, with running water although the water is rare (most rural are) therefore the customers are invited to be mindful of that. The water is heated by the power of the sun through photovoltaics. There is electricity that would be turned off at a certain time of the night but no air conditioning, just fans, and no WiFi so definitely not the most luxurious place.

As far as building materiality goes, everything (including the "paved" exterior walkways) are made out of brick clay which is one of the most common material in Madagascar overall. The roofs are made out of thatched dry vegetation with the overhangs held by the wooden columns. The window openings are just that, openings. There is no use of glass, just wooden shutters accompanied by similar wooden doors. On the



interior, the walls are most likely (from the pictures) covered with cement finish then painted white. Finally, the floors are polished concrete (or similar) dyed red and extended to the small exterior patio. The landscape design of the lodge makes it a lot more formal and unique from its neighboring buildings. On the sides of each bungalows by the patios are vegetations. It consists of bricked pathways, elevated from the red dusty ground, that is only to formally show the ways to each bungalow. The walkways meet in the middle forming circular pathways and more vegetations. Overall, the style is meant to still have some of the Malagasy architecture and vernacular architecture, which is especially seen with the use of the local materials such as clay and thatched roof. As far as the practicality of the architecture goes, however, there does not seem to be a lot of thought into it such as the use of natural ventilation and the right use of the materials.



06 Project

المنسلون للاستشارات



المنطارة للاستشارات

6.1 | Precedent studies

There have been some inspirations while trying to figure out the concept and design of the project. Most of these inspirations came from one of the most famous architects in Africa: Francis Kéré. Kéré is also from a developing country in west Africa, Gando, Burkina Faso where many of his projects and focus are. According to the UN Human development Index in 2011, "Burkina Faso is the 7th least developed country in the world. Lack of education, low income and life expectancy hold back the country's development, and most people are subsistence farmers, remaining dependent on the harsh climate." (Wikipedia) Most, if not all, of his projects are looking into ways for architecture to be of help for the locals but especially ways for it to strengthen the cultural identity of the country. He does this by giving something to the people that will be theirs, something to be proud of. He also makes sure to be sustainable with the many inventive ways of using local materials and most importantly to be communal.

There are two specific projects of his that has been a big inspiration to the Beamilaka project. The first one is the Gando School Library. Again, as just mentioned, there is lack of education in Gando therefore many of Kéré's projects look into ways to help with this. This project uses compressed earth blocks made with local clay. It takes on more of an organic elliptical



shape to be of reminder of the traditional vernacular housing of the region and most interesting of all is the ceiling. The ceiling of the library uses a widely-recognized handcraft: locally produced earthenware pots. These are traditionally hand-built by the women of the village which were then sawed in half and then cast into the ceiling. Not only does he use local materials but the community also get to be involved in the making of the architecture.

These circular openings create a playful pattern and introduce natural light and passive ventilation inside the library. An overhanging corrugated iron roof sits above this ceiling, protecting the interior and surrounding spaces from sun and rain. The stack effect created by the hot metal surface draws cooler air in from the windows and out through the perforations in the ceiling. This provides a passive cooling strategy without the use of electricity. (kere-architecture.com).



Figure 23



Figure 24



Figure 25



Figure 26





The second project is the Songtaaba Women's Center, also located in Gando, Burkina Faso, a center for the Women's Association which provides an avenue for the local women to form a strong social and economic union. In Gando, women play a vital role (takes care of the house and children and working on fields) yet literacy among women is much lower than men. The center is therefore to perform two major functions: to provide sheltered space for the activities of the Women's Association and to provide dry storage for grain and other good. The center will have a kitchen, a classroom, an office, and a common meeting area. It is also the only weatherproof storage of the area where they can have a designated area to keep their excess harvested grain and be sold for profit. It will be many things to these women that can be a great profit for them as well. Again, it uses both local materials and the community to be a part of the whole project.

Architecturally, the Center lies on a concrete platform elevated by a series of concrete pilotis. The entirety of the structure and stored goods are thus kept safe and secure from water damage and rodents. Steel-reinforced columns and ring beams support elevated steel trusswork and an overhanging roof of corrugated metal sheet. The walls are built with clay and hand-made pottery produced locally by the women. The pottery is a local technology that has been used to store and transport water and grain for centuries. Cast into the walls of the Women's Center, the traditional technology is thus combined with more advanced techniques of building. (kere-architecture.com).



Figure 28



Figure 29





Figure 30

To conclude, being sustainable and using local materials in an inventive way, as well as the participation of the community to the project will also be implemented to the Beamilaka project. The project will be built to the community by the community, making sure that the identity of the place is still intact and the culture of the place is being magnified especially for it being a place where tourists are around.

6.2 | The project and architectural issues

Some questions that are important to be considered while tackling the architectural issues of the project are:

- 1. How can architecture bring opportunities to the poor to be able to have access to the tourism market?
- 2. How can architecture bring cultural pride, a sense of ownership and reduce vulnerability to the poor?
- 3. How can the project truly be authentic and not just another touristic site? How can it be done that it shows what Madagascar is about?
- 4. And how can a new structure bring identity to the specific site? Does it want to be like the existing structures that are already there or does it want to make a statement and be totally different?

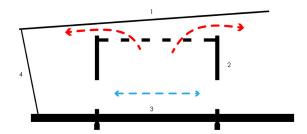
The majority of the local population of Beamilaka consist of farmers (85%), selling any excess crops at the market to make a profit. Everyone, men, women and children, all play vital roles in surviving in the village because there are not many other job opportunities for them. They rely heavily on their crops and produces and only five percent are working in jobs provided from the services and fish industry of the town. This can however be changed because of there is so much potential with the existence of the touristic site in the village and with the already talented people all around. All they need is a push and support, both financially and governmentally. Consequently, in order to improve quality of life and break the cycle of poverty, the project seeks to establish a platform for economic development but also educational campaign through the

implementation of linkages that will allow the locals to participate in the tourism industry as well. Both directly and indirectly.

Programmatically, the project will perform three major functions: to increase sourcing by providing micro enterprises, to provide a place where they can explore and invent new things through their crafts and to create an employment at all skill levels and where there is existing capacity. The project will consist of a storage space where locals can supply food for the lodge and open up the opportunity to add lunch and dinner to the menu instead of just breakfast. The food will be provided by the locals instead of being imported somewhere else. There will also be the addition of a new on-site laundry. This can be a draw to the tourists to stay in the lodge but also provide employment to the locals. This will still allow the locals to be themselves since in Madagascar it is a very communal thing to do laundry together.

MATERIALS





The next two programs are the craft making space and the ox cart inventory space. Since ox carting is very common in many parts of Madagascar, but especially in parts where farming is critical like in Beamilaka, there can be many inventive ways of using them through the tourism industry. One is that it could be a mean of transportation for the tourists around the town and second is that it could also be a way to cart around the handmade crafts since street vendor is part of the culture and should not be taken away but could definitely be improved. The project will then need to be equipped with a place to station both the carts and the zebus but also a shop for the carts. Finally, the last program is a library that is to support the school right by the site and to truly allow the whole project to have strong links with its neighbor. This library will also consist of a small room that will allow mentoring relationship with local partners.

Architecturally, since the project is by the existing lodge, it will be very similar to it especially materially. The walls are to be made out of local materials such as clay bricks, local woods but instead of the thatched roof of the existing lodge, it will be of corrugated roof. The clay will also be used for flooring. The design is very much dictated by both the existing surroundings as well as the climate of the area. Beamilaka has a hot tropical climate meaning there is more sun than rain therefore it is critical to have a passive ventilation design.

6.3 | Passive Design

Architecturally, since the project is by the existing lodge, it will be very similar to it especially materially. The walls are to be made out of local materials such as clay bricks, local woods but instead of using thatched roof like that of the existing lodge, it will be instead corrugated roof. Clay can be versatile therefore will also be used for flooring. It is also important to know that this is the area of Madagascar where the architecture of most houses is based on the locally available plants. Some other parts of Madagascar use more earth materials and other use mixed of both, or cob materials. The vast majority of the homes made out of plant materials are rectangular, low (one story), with a peaked roof. Some of these materials used for constructions include (obviously) wood, grasses, raffia and palms.

The design of the project will therefore be very much dictated by this environment of the area; not just the surroundings but especially the climate of Beamilaka. Beamilaka, as seen on the map, falls on the hot tropical climate. In tropical climates there are often only two seasons: a dry season and a wet season. This means the area experiences high temperatures all year- round (temperatures warmer than 18-degree Celsius or 64-degree Fahrenheit) as well as lots and lots of rain; the



precipitation in Beamilaka is between 400-1500mm a year. Because of this, there are five main design applications that will be very crucial to the project, not just for the aesthetic reason and the keeping of the cultural reason but especially for the comfort conditions of the building, particularly when dealing with the hot climate of the area.

With this high temperature most all year round, and it being in a rural area where electricity and water would not always be the easiest things to attain, the design calls for more of passive and sustainable strategies rather than active. Active generally means there is the use of electricity or another fuel, some examples would be air conditioners to cool in the summer and furnaces to heat up in the winter. Passive strategies, on the other hand, take advantage of nature to achieve comfort.

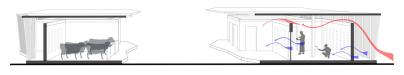


Figure 32

Passive design specifically takes advantage of the sun and the wind, which has also been the traditional methods that have been used for centuries. The first and most important design consideration while doing a passive design is the site orientation or the building orientation. It should be positioned to take advantage of the path of the sun. Since Madagascar is in the Southern Hemisphere, in the summer (November, December and January) the sun rises in the southeast and then sets in the southwest, to design therefore, "a simple latitude-dependent equator-side overhang can easily be designed to block 100% of the direct solar gain from entering vertical equator-facing windows on the hottest days of the year." (Wikipedia) Which brings to the second design consideration: the use of overhangs. Overhangs are important when it comes to blocking out the sun especially in passive design. For this particular project, there will be overhangs throughout the whole building. However, the overhangs will not be used just for the blockage of the sun, but will also allow some programs to the exterior which is very common for people in the rural to also do some work outside.

The third design consideration is the aperture of the building. Opposite to that of the Northern Hemisphere where south-facing windows are very important to capture the sun, in the Southern Hemisphere, the north-facing windows would let in plenty of solar thermal energy to the building. However, since the area (Beamilaka) is already in a hot tropical climate,



capturing the solar thermal energy would not be necessary although it will still be essential to let some natural light in. Therefore, again, the overhangs would be of help to block the sun from entering and heating up the building but still have good number of windows to let the light in. In addition to this, apertures are crucial because it allows for cross natural ventilation. Since there will not be any air conditioning whatsoever in this project, maximizing openings will be the best way to allow the wind pass through the building. Which then leads to the next (fourth) design consideration: the roof. The roof is essential to protect both during the hot and sunny days as well as the rainy days.

The roofs will not touch the walls below but instead will be elevated to add a gap in between to allow for natural ventilation. The roofs will also be designed in a way to be able to catch some of the stormwater that can be reused for the community. In a hot climate, it is preferable that the roofs are lighter colors so then the heat will not infiltrate too much in the building. And finally, the fifth and final design consideration: the sun shading. Still allowing natural lights in (the sun) means some sun will be penetrating inside the building which means heat will enter. Sun shading devices are the best solution for this. These devices can be screens, window guilts, drapes, shutters, movable trellises and etc.... These sun shading devices can be used to control the heat transfer when the sun is out during any time of the season. One way this is used in the project is with the use of wooden screens. Wrapping around the modules is a system of wooden screens. They are the shading element for the interior spaces as well as helping create a series of secondary informal gathering spaces for the people to be able to work outside.

6.3 | Project

The design for this project consists of seven modules to accommodate the mentioned above programs. One of the programs, the library, is not entirely tied to be a part of the lodge like the rest of the programs but instead will be a way to connect the existing school, the new project and the lodge together. The main idea behind this library is 1) for the project to be truly authentic where the locals are still able to do what they are good instead of and 2) the library will be emphasizing the importance of education in a community where kids are forced at young age to start working and quit school. The most important goals of the design are to serve as a catalyst for inspiration for the tourists, the students, and the surrounding community members. As architect Francis Kere concludes in one of his projects: "The architecture not only functions as a marker in the landscape, it is also a testament to how local materials, in combination with creativity and team-work, can be transformed into something significant with profound lasting effects." (kere-architecure.com) Let this



also be true to this project in Madagascar.

The idea is that this project can be a pilot of PPT in Madagascar. These implementations can be done throughout many other formal sectors in the country which can help out little by little with the poverty in the rural parts of Madagascar, especially those by touristic sites.

Bibliography-

- Akama, John S., and Damiannah Kieti. "Tourism and Socio-Economic Development in Developing Countries: A Case Study of Mom basa Resort in Kenya." Journal of Sustainable Tourism, vol. 15, no. 6, 2007, pp. 735–748., doi:10.2167/jost543.0.
- Bradt, Hilary, and Daniel Austin. Madagascar: the Bradt Travel Guide. Bradt Travel Guides Ltd, UK, 2017.
- Britton, S, (Ed.), 1999. Tourism, dependency and development: A mode of analysis. In Theuns, H & Go, F (Eds.), Towards appropriate tourism: The case of developing countries. Peter Lang Verlag, Frankfurt, pp. 93–116.
- Christie, Iain T., and D. Elizabeth Crompton. "Republic of Madagascar: Tourism Sector Study." World Bank, 2003, web.worldbank.org/ archive/AFRtrade/WEB/PDF/WP63.PDF.
- Mowforth, Martin, and Ian Munt. Tourism and Sustainability: Development and New Tourism in the Third World. Routledge, 2003.
- Deloitte and Touche, IIED and ODI. 1999. Sustainable tourism and poverty elimination study. A report to DFID, UK
- de Souza, Christianne Coelho, and Francisco Antonio Pereira Fialho.

 "Ecotourism and Sustained Development as a Third World Country Best Choice for an Enterprise." Proceedings of the Human Factors and Ergonomics Society Annual Meeting, vol. 44, no. 8, July 2000, pp. 65–65, doi:10.1177/154193120004400817.
- "Economic Outlook for Madagascar: Sustained Growth Needs to Be More Inclusive to Benefit the Poorest." World Bank, www.worldbank. org/en/country/madagascar/publication/madagascar-economic-update-fostering-financial-inclusion.
- EcoVolunteerism, T. "Pro-Poor Tourism Initiatives in Developing Countries: Analysis of Secondary Case Studies." Academia.edu, Apr. 2001, www.academia.edu/1434615/Pro-poor_tourism_initiatives_in_developing_countries_analysis_of_secondary_case_studies.
- Emmanuel, Alvin. Madagascar Art and Culture: Tourism, Migration, History, Tradition. Alvinston Publishing, 2016.



- "FAQs: Global Poverty Line Update." World Bank, www.worldbank.org/en/topic/poverty/brief/global-poverty-line-faq.
- Ghosh, R. N., et al. Tourism and Economic Development: Case Studies from the Indian Ocean Region. Ashgate, 2003.
- "Home." The International Ecotourism Society, 31 July 2019, ecotourism. org/.
- "ILO census data". http://www.ilo.cornell.edu/ilo/data.html. Cornell University. 2002. Retrieved 2008-03-02.
- Johnston, Alison. "Indigenous Peoples and Ecotourism: Bringing Indigenous Knowledge and Rights into the Sustainability Equation." Tourism Recreation Research, vol. 25, no. 2, 2000, pp. 89–96., doi:10.1080/02508281.2000.11014914.
- "Kéré Architecture." Kéré Architecture, kere-architecture.com/projects/ womens-association-centre-gando/.
- "Kéré Architecture." Kéré Architecture, kere-architecture.com/projects/ school-library-gando/.
- Lash, GYB & Austin, AD, 2003. Rural ecotourism assessment program. TIES (The International Ecotourism Society), Washington, DC.
- "Madagascar." Madagascar Economy: Population, GDP, Inflation, Busi ness, Trade, FDI, Corruption, www.heritage.org/index/country/madagascar.
- "Madagascar." Wikipedia, Wikimedia Foundation, 8 Sept. 2019, en.wikipedia.org/wiki/Madagascar.
- Mehrotra, Manisha Ashish. Poverty Reduction Through
 Pro-Poor Tourism: A Case Study of Handicraft Sector of Varanasi.
 2019. Research Association for Interdisciplinary Studies.
- Milazi, D, 1996. Ecotourism, conservation, and environmental sustainability in Africa. Journal of African Studies 10(1), 29–46.
- Roe, Dilys, and Penny Urquhart Khanya. "Pro-Poor Tourism: Harnessing the World's Largest Industry for the World's Poor." Eldis, May 2001, www.eldis.org/document/A10671.



Rogerson, C. M., and Gustav Visser. Tourism and Development Issues in Contemporary South Africa. Africa Institute of South Africa, 2004.

Tourism and Poverty Alleviation: Sustainable Tourism Can Be One of the Few Development Opportunities for the Poor, Let Us Use It Wisely and Soon! World Tourism Organization, 2002.



Cited Image-

FIG. 1 Map of Africa with Madagascar

https://www.aljazeera.com/news/2017/10/171010152426602.html

FIG 2. Contribution to groth by sector, 2010 - 2018

https://www.worldbank.org/en/country/madagascar/publication/madagascar-economic-update-tostering-financial-inclusion

Map of the climate of Madagascar FIG. 3

http://www.insightcore.com/journal/study-outdoor-environment-climate-change-effects-madagascar-modéste-kameni-nematchoua-2017. html

FIG. 4 Traditional silk weavina

https://milled.com/BrightonCollectibles/new-straw-bags-from-madagas-car-g8nuhc8ofxp5OPSA

FIG. 5 Traditional wood carving

https://madagascar-tourisme.com/en/the-must-see/world-heritages/ zafimaniry-art/

Malagasy people participating in Hiragasy

http://www.tsilavorapiera.com/wp-content/uploads/2015/06/HIRA-GASY-IMG_1639-1364x910.jpg

FIG. 7 Graph of the total contribution of travel & tourism to GDP

Travel and Tourism Economic Impact 2018, PDF

Grapth of the total contribution of travel & tourism to employ-FIG. 8 ment

Travel and Tourism Economic Impact 2018. PDF

FIG. 9 Tourism data of Madaaascar

https://www.worlddata.info/africa/madagascar/tourism.php

Graph of development of the tourism sector from 1995-2017

https://www.worlddata.info/africa/madagascar/tourism.php

FIG. 11 Gross Domestic Product

https://www.worlddata.info/africa/madagascar/tourism.php

FIG. 12 Diagram of the sectors of Madagascar

Author



FIG. 13 Map of the touristic stops along the national routes

Author

FIG. 14 Site plan of Beamilaka

Author

FIG. 15 Drawings of the culture

Author

FIG. 16 - 21 Picture of Blue Vanga Lodge

http://www.bluevanga-lodge.com/

FIG. 22 Project Site Plan

Author

FIG. 23 - 27 Picture of the Gando School Library by Francis Kere

http://kere-architecture.com/projects/school-library-gando/

FIG. 28 - 30 Picture of the Songtaaba Women's Center

http://kere-architecture.com/projects/womens-association-centre-gando/

FIG. 31 Passive Design and Material Diagram

Author

FIG. 32 Passive Design Diagram

Author

