

# MUNDUK MODING PLANTATION Nature Resort & Spa

BALI

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## SUSTAINABILITY MANAGEMENT REPORT 2022

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Since 2015 the report has been established by the Green Team, Management, and Owners of MMP.

# INTRODUCTION

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Bali is one of the most remarkable islands of Indonesia. Pulau Dewata (as it is called by local people, meaning “island of thousand gods”) has attracted international tourists for decades and fascinates people by its culture, its inhabitants, its relaxed rhythm of life and its beautiful landscapes.

With 6,2 million tourists in 2019, 1,89 million tourists in the first half of 2022, and further growth forecast after the pandemic, Bali is developing rapidly with large parts of the South of the Island under severe stress during the tourist high season. There is relatively little general awareness of the need to address this issue. As a result, its consequences are increasingly felt: the forest cover decreases and water supplies are not sufficient anymore for population and tourists, especially in the South of the island. However, Balinese depend heavily on the tourism industry and income from international tourism represents the lion’s share of the island’s economy. That is why it is essential to develop alternative solutions to better deal with the pressures on the Island. This should lead to genuinely sustainable tourism that is economically, socially, and environmentally viable and implies that we need to develop projects that maintain the inhabitants’ quality of life, protect the unique culture and the natural environment while guaranteeing economic resources for the Balinese.

Munduk Moding Plantation was created with these ideas in mind as a partnership between Balinese and Westerners in order to allow people to discover one of the most exceptional scenery and locations in the Bali hills while supporting local communities to live decently and protecting the natural richness of the area from undue human impact.

Located in the middle of six hectares of coffee plantation, 1200 meters above the sea level, Munduk Moding Plantation has welcomed guests since June 2009. Offering five villas and suites in 2009, it now comprises 33 villas and suites and has now reached the size outlined in the original architectural master plan. MMP has made the conscious choice to keep densities very low, affording guests the maximum privacy possible and keeping a substantial part of the plantation reserved for coffee in addition to offering a genuine wilderness area.

Munduk Moding Plantation is trying hard to improve guest services at all times while furthering its social and environmental goals. In September 2014, the resort has its first Green Globe certification. Munduk Moding Plantation aims at demonstrating that offering top quality customer experience can go hand in hand with meeting our social and environmental goals.

This document is the fifth sustainability management report of Munduk Moding Plantation. It sets out the hotel owners’ and management’s decisions and objectives to reduce Munduk Moding Plantation’s environmental impact (water, energy, waste) and to improve the local communities’ life (employment, income).

This document will be updated at least once a year and progress is monitored on a monthly basis.

# I. ENVIRONMENTAL ISSUES

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Munduk Moding Plantation is built on a coffee plantation and we are trying to preserve, as best as we can, the natural resources and the beautiful landscape in this area which, certainly compared to the South of the Island, has very limited international tourism. We want to embark on a journey to improve day by day and year after year our hotel's efficiency and to reduce to the maximum extent our impact on the environment. We have chosen to become Green Globe Member with this in mind. We have fully involved our staff in this decision and also provide information to our guests who are invited to participate:

- Water conservation, energy conservation, reduction of pollution, and waste management information is available for guests and they are invited to support us.
- Staff is trained in environmental management issues.
- MMP welcomes all suggestions on how our sustainability practices can be improved with real interest.
- MMP work closely with neighbor association to improve awareness on tourism sustainability.

## 1. ENERGY CONSUMPTION

### Current situation:

- Electricity and natural consumption are recorded monthly since June 2014. The daily average consumption of electricity in 2019, 2020, 2021, and 2022 is 1,500 kWh, 237 kWh (drastically decreasing due to the pandemic), 835 kWh, and 1305 kWh consecutively. The reduction in energy consumption compared to 2018 was achieved despite the bringing on line of new room capacity through an ambitious policy of controlling electrical device. We will continue to monitor electricity consumption and its main divers.
- Because of our ideal geographical situation, air conditioners and heaters are not provided in rooms and premises. Curtains can be closed if the weather is too hot and electric heaters and blankets are available at the reception if guests prefer this during the dry season (when nights are especially cold).
- Lights are switched off when not used.
- Lights and computers are switched off after 11 pm when they are not used.
- Most of our buildings use heat pump for hot water.
- MMP is working with "Nusa Solar" to find sustainable solutions for electricity in an efficient and cost-effective way, as well as beneficial for the environment. Since solar energy is a clean, green source of energy, it is also a great way to reduce our carbon footprint. In addition, we are also working with various energy consultants to maximize energy efficiency at our Resort.
- MMP aims at progressively introducing local electricity generation capacity on the plantation;
- All of the lights around the plantation have already been upgraded to LEDs.
- All electricity panels at unoccupied room are switch off to save energy.
- Heat pumps are immediately switch off when not use.

### Objectives for the coming year:

MMP aims at reducing our average daily energy consumption (electricity and natural gas) by 5% compared to 2019 by August 2023 at the latest.

## 2. SOLAR PLANT

MMP is committed over time to minimize our carbon footprint and that we are therefore putting strong emphasis on reducing energy use and relying as much as possible on clean energy. Our solar plant is the largest solar roll out at a hotel in North Bali and it is the first step of our journey to rely as much as possible on clean energy.

The objective is to finalize this by the end of the year and that it aims at substituting some 20% of the electricity consumption of the plantation. We will also monitor this carefully and expand the capacity in line with needs and the functioning of the system.

## 3. WATER CONSUMPTION

### Current situation:

- We have our own well since the construction of the hotel in 2009. Since June 2014, water consumption is recorded on a daily basis. The latest record shows that the daily average consumption of water in the first half of 2022 is 30m<sup>3</sup>. The objective set for 2023 is to reduce our water consumption per room by 5%. We will strictly monitor it in order to reach our goal.
- Two large underground rainwater containers are available on the plantation of 42 m<sup>3</sup> and 5 m<sup>3</sup>, respectively. Recently, we have added two smaller water containers of 9m<sup>3</sup> each, allowing us, to rely less on water from our well for watering plants and trees. We will further extend the availability of water containers. Our objective for 2023 is no longer to use any water from our well for our garden.
- Sprinklers are in place on garden hoses and our gardeners water potted flower before 9 am.
- The rest of our plantation is naturally watered. We also use purified water from our Waste Water Treatment Facility (see below);
- Sprays are used on kitchen faucets. They automatically stop.
- Toilets have dual flush.
- Our housekeeping team is careful about leaks on guest rooms and we have a policy to fix leaks as soon as possible in the entire plantation.
- Linens policy: Linens are changed only on request for the same guest.
- Towel policy: Only towels on the floor are washed.
- Leaking taps are immediately fixed.
- Every year MMP plants a large number of new trees (between 500-1000) to help increasing the production of clean water at the spring.

### Objectives for the coming year:

MMP aims at reducing average daily water consumption per room by 5% by August 2023 at the latest; MMP will be continuously add more trees on the forest area at least five hundred more per year.

## 4. WASTE MANAGEMENT and WASTE REDUCTION

### Current situation:

- The weight of our waste has been recorded daily since June 2014. The latest record shows that the average monthly consumption in the first half of 2022 is 737 kg. The objective set for 2023 is to reduce the weight of our plastic waste by 10% before August 2023. We will strictly monitor it on a monthly basis in order to reach our goal.
- We are sorting out organic and non-organic waste.
- Organic composites are composted on our plantation since mid-July 2014.
- Non-organic waste is split between plastic, paper, cans/glass and the rest.
- MMP works with a recycle company named “Gobleg Go Green” in Gobleg (Northern Bali). We send our non-organic waste there and they are taking care of the recycling of our plastics, papers, glasses and cans.
- MMP keep hazardous waste in separate boxes, under the control of the environment department of the regency. At a later stage, the Environment Department will advise MMP to deliver the waste to recommended recycle places.
- MMP is trying hard to reduce waste:
  1. Cotton bags are used for purchasing instead of plastic bags.
  2. Containers are used to stock food in fridges and freezers, instead of plastic bags.
  3. Bamboo straws are provided at restaurant, instead of plastic straws.
  4. Used papers are used as drafts or for double sided printing, instead of new sheets of paper.
  5. We purchase soap, bath gel and conditioner by 20 liters and offer them through locally produced and refillable dispensers, instead of relying on plastic small sized.
  6. Old furniture, linens, etc... are given to local community or staff.
  7. We use reusable containers to collect garbage in the room instead of plastic.

### Objectives for the coming year

MMP aims at reducing average daily waste consumption per room by 5% by August 2023 at the latest;

MMP aims at reducing the weight of its plastic waste by 5% by August 2023 at the latest;

MMP aims at composting all its organic waste and keeping the overall weight of all its waste that leaves the plantation at below 30% of August 2019 levels.

## 5. MEASURES TO REDUCE POLLUTION

### Current situation:

#### Water pollution:

We built a Waste Water Treatment Facility (WWTF) to further upgrade the quality of our processed water. The unit was completed in June 2021 and that all the grey and black waste water from all the rooms, restaurants, laundry, and other buildings is channeled to the WWTF. Its end product is water that is sufficiently clean to irrigate our gardens.

#### **Name of the system used : *Anaerobic Baffled Reactor System***

##### *I. Function of each compartment*

- **Pre-Treatment Laundry**

It functions as an initial conditioning of laundry waste, so that it can reduce dissolved solids and also reduce phosphate levels contained in the detergents, so as not to pollute or kill decomposing bacteria in the main waste treatment.

- **Grease Trap**

This serves as a trap for oil or grease contained in the wastewater, so that it does not flow into the pipeline. This is to prevent pipeline blockage and ready for further processing.

- **Equalization Tank**

The main function of the equalization tank is to control and synchronize the overflow before it enters the next processing unit. So that the wastewater is ready to be treated in the waste water treatment plant.

- **Sedimentation Tank**

Its main function is as a deposition system for suspended substances or materials contained in wastewater, such as sand, food waste, mud, and so on.

- ***Anaerobic Baffled Reactor (ABR)***

Its serves as the main treatment unit before the aeration process. This system unit is designed to significantly reduce the organic content in wastewater, thereby reducing the processing load on the next unit.

- **Anaerobic Filter**

It serves as a place where the anaerobic micro-organisms attach and grow. Micro-organisms attached to the bio filter media will be able to decompose organic substances contained in wastewater and efficiently remove dissolved solids.

- **Aeration Tank**

It functions as a biological wastewater treatment, to dissolve air into the water so that it activates the aerobic bacteria.

- **Aerobic Filter**



The aerobic filter is filled with bio filter media so that aerobic micro-organisms can grow and attach to it. Micro-organisms attached to the bio filter media can decompose organic substances contained in wastewater and accelerate the nitrification process.

- **Secondary Clarifier**

It serves as a sedimentation tub of the material processed by micro-organisms from the results of biological processes. This tub is also often referred to as the final sedimentation tub.

- **Final Tank**

It serves to accommodate effluent from the WWTF processing and as a point of monitoring or sampling of waste for laboratory examination.

Air pollution:

- Aerosols are not used anymore. Lemongrass essential oil natural diffuser are used as natural fragrance and against mosquitoes.
- Our drivers close windows when air conditioners are on.

Objective for the coming year:

MMP wishes to ultimately become a zero-carbon resort. The objective for December 2022 is to develop a methodology for assessing MMP's carbon footprint; the objective for August 2023 is to develop a multi-annual master plan to achieve our strategic objective. The delay in meeting this target which was originally set in the 2018 plan is due to the significant impact of the Covid-19 pandemic and also number of building projects (i.e. new lobby, 7 bedrooms Tamarillo, and utility building) that were completed between April 2019 and February 2021 which implied that the strategy would have to be adapted to this new situation.

## 6. PURCHASING POLICY

Current situation:

- Cotton bags are used in order to avoid the utilization of plastic bags.
- Suppliers are selected according sustainable practices.
- Local and seasonal vegetables and fruits are preferred.

## 7. CONSERVING BIODIVERSITY, ECOSYSTEMS AND LANDSCAPES

Current situation:

- A re-vegetation policy consisting of replanting the area with native plants is in place. In order to restore the area as closely as possible to its initial state. MMP plants at least 500 new saplings every year and contributes 250 trees for the neighborhood. 25% of MMP's surface is allocated for forest, which helps significantly to keep water sources on site and attracts many birds and other indigenous animal which had become very rare previously.
- The property is not fenced off. Wildlife is free to cross and live on site. Hunting is prohibited.
- MMP is a very quiet resort and does not disturb the tranquility of wildlife.



## II. SOCIAL ISSUES

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The development of sustainable tourism includes respect of economic, environmental, and social values. The economic factor is important: the company must generate good salaries and benefits for those employed and remunerate the capital that has been invested in it. Environmental concerns have become an important issue around the world for the 15 last years. But the respect of local populations is often put aside in order to facilitate the growth of tourism.

Since its creation, Munduk Moding Plantation has been very concerned about the future of the local community and has worked very closely with them. The management team consists of locals who are particularly aware of and sensitive to this challenge. In MMP we try as hard as we can to not turn upside down local inhabitants' way of life and culture. Indeed, we make sure to know local community's concerns about our activities and know their real needs in order to provide a contribution to improve their quality of life. Furthermore, we make every effort possible to sensitize guests about the local culture so as to ensure that they have some understanding and respect for it.

### 1. RESPECT OF LOCAL POPULATION

#### Local environment

Munduk Moding Plantation is located on five and a half hectares of coffee plantation. We did not remove anyone from this area and we have strived not to jeopardise natural resources. The plantation is not fenced off by physical barriers and local people are free to cross or to come to the plantation. One of our wells is available for locals to fetch water and to bathe. We ask guests to respect the privacy of locals using this facility.

#### Local culture

Guides from MMP accompany guests on activities inside or outside of the plantation in order to make them discover this part of Bali while understanding and respecting its culture. Finally, information about local culture and traditions is available for guests in their rooms.

### 2. LOCAL EMPLOYMENT

#### MMP's staff

All MMP staff is recruited from Gobleg and Munduk areas, the village where MMP is located, and its direct environment, including management.

MMP has worked very closely with the local community by involving them as much as possible in the process of building MMP's facilities and maintaining the plantation. In fact, since 2010, all the facilities that have been constructed were fully completed by 100% local manpower.

### Local workers

MMP contracts with local farmers to harvest coffee of our plantation and to buy flowers to make welcome necklaces for guests. We also encourage guests to visit local craftsmen.

## 3. RESPECT OF TRADITIONS

MMP fully respects the Hindu religion of the staff working at the plantation. Like any other Balinese property, it has a “House temple” as well as several garden temples. Offerings are made every day and the Hindu religious celebrations are respected. The smallest version of offerings, called “Canang Sari” are offered to the various shrines all over the plantation on a daily basis. There are fifty four such shrines to be precise. The bigger version of the offerings take place during full moon and no moon. Together with the team members and neighbors, MMP also celebrates the Balinese version of its birthday called “Odalan” every two hundred and ten days (according to the Balinese moon calendar). Finally, on the two biggest Hindu celebrations in Bali, The Galungan and Nyepi day, guests are invited and join the celebration which take place at MMP itself and in the neighborhood. In addition, staff can take days off to participate in family and traditional ceremonies.

Every day, Munduk Moding Plantation proposes activities to guests in order to help them discover traditional culture. The “MMP experience” consists of a series of activities that are included in the room price to facilitate this:

### Offering making

Our staff teaches guests how to make offerings which Balinese people do on a daily basis. Guests can make different kinds of offerings with coconut leaves and flowers.

### How to wear Balinese cloth

Our staff teaches guests how to wear Balinese clothes to go to temples and ceremony as Kabayak (women’s blouse), Sarong (men’s and women’s fabric to wrap the legs) or Udeng (men’s headband).

### Coffee processing

Our staff shows our guests the traditional way to make coffee. Using coffee beans harvested on our plantation (by local farmers), we roast them in a clay pan on an open fire, grind and filter them in order to make the finest powder possible; this is completed by a tasting session.

### Cooking class

Our chef teaches guests how to cook in the traditional style, in other words cooking Balinese dishes on an open fire.

### Kite making

Our staff shows guests how to make a traditional kite with bamboo, string and paper. And how to fly it.

### Traditional dances

Once or twice a week, young girls, from the local community, come for a traditional dance show during dinner.

## 4. LOCAL COMMUNITIES' DEVELOPMENT

Munduk Moding Plantation is concerned about local community development and acts in order to improve the quality of life of our neighbours.

Every Sunday, we welcome girls from 04.00 pm to 05.30 pm for a traditional dance class. MMP provides teacher. More than 50 girls participate.

Moreover, our hotel supports and finances local associations through the Gobleg Development Foundation which we have set up and which involves the local community:

The local volleyball team: Volleyball is one of the most favorite games played by many people in the area. Old or young, MMP has supported them with sufficient funds so that they can participate in tournaments in the Regency on a routine basis.

The local badminton team: MMP has helped the local community to offer facilities for Indonesia's national sport: we pay for training sessions and have contributed to the lighting of the sportshall.

The local self-defense club (Pencak Silat): MMP supports the group by financing the purchase of the necessary mattresses and contributes financially to help students purchase the necessary sportswear.

MMP is also actively involved in the Community's "Ogoh Ogoh" preparation (presented on the Eve of one of the most important days in Bali).

MMP supports the local Kinder Garden and on a monthly basis contributes to the development of the village by offering part of MMP's profit to support various projects (e.g. playground construction).

MMP has already launched a major project since August 2014: each year, we are offering a scholarship to two or three children from the local school to complete high school by covering the students' costs during six years. We leave the choice of the children to the schools and the local community (the Head of the Banjar) who we have asked to decide this on the basis of the scholarly results and the family's financial situation.

## III. QUALITY

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While improving the impact of MMP on the local culture and environment, Munduk Moding Plantation is trying to propose the best experience for guests. We are doing everything possible to improve the satisfaction of guests and the quality of the services offered.

- Advertising does not promise more than guests can expect.
- During the stay, reception and staff work hard to ensure that guests have a pleasant stay. All requests and suggestions are welcome and we try to answer as well as possible to all queries.
- Comment books are available on each room. We are monitoring and recording comments once per week. Corrective actions are directly taken when possible.

- Reviews left by guests on various websites are monitored carefully (in particular TripAdvisor comments). We take time to answer to each comment and corrective actions are directly taken when it is possible.

## IV. HEALTH AND SAFETY

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Since June 2014, MMP and Singajara's Health department offers a routine checkup for staff in order to monitor their health status.

Fresh water, pool's water, and Jacuzzi are checked regularly. Waste water will be metered and checked.

Fire extinguishers are available throughout the plantation; Kitchen, stores, pump rooms, and staff quarter.

## V. OBJECTIVES FOR 2023

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Upon reflecting on what we have done in recent years, there are several objectives that we want to achieve in 2023. They are outlined as follows:

- In collaboration with MMP's Green Team, the foundation aims at developing a plastic recycling center in relation to our sustainability program.
- The foundation aims at working closely with the local elementary schools to conduct sharing sessions with the kids in regard to plastic and hazardous waste.
- The foundation aims at expanding the supports to local arts and culture, not limited to the young kids dance group, but also to other talented artists from Munduk.

# VI. APPENDIX

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## **MUNDUK MODING PLANTATION**

### CODE OF BEHAVIOUR

This document sets out a number of core values that are shared by everyone at MMP.

#### Social conditions and anti-abuse provisions

Munduk Moding Plantation respects Human Rights scrupulously.

- We strongly condemn sexual tourism or child labor.
- We do not tolerate social, gender or racial discrimination.
- We comply with domestic labor laws and social rights.
- We treat everyone fairly and with respect. This means respecting all personal beliefs and choices, and recognizing the value of each individual.
- We give information about worker's rights, responsibilities and employment conditions, including working hours, remuneration and terms of payment.
- We pay fairly: total take home pay reflects the skills of workers and is well above minimum rates. Staff at MMP are covered by social insurance, health care provisions and permanent staff build up pension rights.
- We instill a culture of mutual support among our staff, management and owners, helping colleagues who are going through difficult periods and celebrating achievements together (at least one staff party is organized annually).
- Workers have the right to one day off every seven days and have at least 10 days of paid leave annually.
- MMP complies with occupational health and safety regulations.

#### Respect of local populations and culture

Munduk Moding Plantation attempts to support the local population and culture through its activities.

- Promote an attitude of tolerance and respect for the diversity of religious, philosophical and moral beliefs.
- MMP works in harmony with local traditions and customs.
- All our staff is from the Gobleg and Munduk areas.
- We support local projects through dedicated funds in order to raise the standard of living of the local population.
- We inform the local community about the activities planned to establish a meaningful dialogue to promote trust and understanding.
- We try to be integrated in the local community, interact closely with the local authorities and support them in reaching long-term social development objectives.

#### Respect of environment

Munduk Moding Plantation aims at minimizing the impact on the environment of its projects and operations.

- Maintain a continuous improvement process in order to lower the environmental impacts: we measure our water, gas and electricity consumption and aim to reduce it by improving efficiency and through dedicated management.
- We treat all our waste-water in a natural manner (through waste water gardens) to allow it to be re-used on the plantation. We turn all of our organic waste into compost; sort all our waste, rely to the maximum extent possible on bio-degradable cleaning products and minimize the use of plastics.
- We promote projects aiming at the long-term protection of the environment such as replanting programmes in our neighborhood.
- We define yearly environmental objectives.
- We will conduct environmental impact assessments for new projects and operations.
- We implement reinstatement and re-vegetation programs to restore the environment as closely as possible to its initial state.
- We promote the environment awareness among our employees.
- We review our environmental performance and actions plan at least once a year.

Dear Guest,

At Munduk Moding Plantation, environmental sustainability is a core value guiding our operations. Operating in a pristine natural environment, still largely untouched by large-scale economic development and tourism, we believe that MMP must contribute to maintaining the beauty of the area. Since August 2014, our Resort is certified Green Globe, an international certification programme for hotels aiming at protecting natural resources while offering high quality experiences to guests. We are working on the efficiency of our infrastructures and operations and we invite you to participate in this as well.



### ENERGY CONSUMPTION

MMP would like to reduce its energy consumption. During the night, computers, restaurant and reception's lights and most of the lights outside are switched off after 11 p.m or after end of operation. We are introducing LEDs throughout the resort and would ask you to please switch off lights when not in use and unplug unused personal electric devices.



### WATER CONSUMPTION

MMP is committed to reducing its water consumption. We ask guests not to leave taps running when not needed. Furthermore, we have a towel and linen policy in order to save water:

Only towels on the floor are changed

Linens are changed every three days; please inform reception if you would want your linens changed every day.

Please inform staff if you notice leaks.



### WASTE MANAGEMENT

MMP sorts out organic composites, plastic, papers, can and glass.

Two different dustbins are available in our room: one for paper and one for the rest.

For glass bottles and cans, please don't throw glass bottles and cans in the dustbin. You can leave it on the tables, our housekeeping team will remove them.



### REDUCING POLLUTION

MMP limits the use of anti-insect spray as much as possible and largely relies on lemongrass' essential oil diffusers as natural fragrance and to dispel mosquitoes. Situated in the middle of nature, we sometimes have a natural increase in insects living on the plantation, often in function of the weather. Housekeeping will take all necessary preventative action but please inform reception if you are particularly sensitive to insects. Moreover, our body care products (Bath gel, shampoo, conditioner and soap) available in your bathroom are made from natural ingredients.

We hope that you can help us during your stay and we thank you for your thoughtfulness!

Don't hesitate to submit comments, advice or indicate any possible problems to the reception – we will deal with it immediately.