

SUSTAINABILITY REPORT 2023

MUNDUK MODING
PLANTATION NATURE
RESORT & SPA



Munduk Moding Plantation
Nature Resort & Spa

Table of content

1. INTRODUCTION	3
2. ENVIRONMENTAL ISSUES	4
2.1. Energy Consumption	4
2.2. Water Consumption	5
2.3. Waste Management and Waste Reduction	6
3. MMP's MAJOR SUSTAINABLE INITIATIVES	7
3.1. EWWTF	7
3.2. Plastic Recycling Center	8
3.3. Solar Panels.....	9
3.3.1. Performance.....	9
3.3.2. Future Energy Plans.....	10
3.4. Green Team.....	10
3.5. Vegetable and Spice Garden	11
3.6. Sustainable objective for the coming year	11
4. SOCIAL ISSUES.....	12
5. MMP's SOCIAL INITIATIVES	12
5.1. Respect of Local Population	12
5.2. Kids English Class.....	12
5.3. Kids Dance Class.....	13
5.4. Offering Scholarships.....	13
5.5. Local Employment	13
5.6. Respect of Traditions	13
5.7. Local Communities' Development.....	14
6. QUALITY	15
7. HEALTH AND SAFETY.....	15
8. OBJECTIVES FOR 2024	16

1. INTRODUCTION

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, 2,1 million in 2022, 2,9 million in 2023 (as of June 2023), and further growth forecast in 2024, 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. The income generated from international tourism represents the lion’s share of the island’s economy. For this reason, 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 Bali’s 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, 1230 meters above the sea level, Munduk Moding Plantation has welcomed guests since June 2009. Offering five villas and suites in 2009, it now comprises 37 villas and suites and has reached the size outlined in the original architectural master plan. MMP has made the conscious choice to keep density very low, offering guests as much privacy as possible. The resort is also keen on 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 always improve guest services while furthering its social and environmental goals. In September 2014, the resort has received its first Green Globe certification. We are also on the certification process as a Sustainable Accommodation by Travelife. 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 sixth sustainability management report of Munduk Moding Plantation. It sets out the hotelowners’ 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.

2. ENVIRONMENTAL ISSUES

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 and Travelife Sustainable Accommodation 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 works closely with neighbor association to improve awareness on tourism sustainability.

2.1. 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 respectively 1500 kWh, 237 kWh (drastically decreasing due to the pandemic), 835 kWh, and 1304 kWh. The daily average consumption in the first half of 2023 is up to 1525 kWh. The slight increase in energy consumption compared to 2019 is due to the commissioning of plenty of new room capacity. We have managed to limit this increase through an ambitious policy of controlling electrical device. We will continue to monitor electricity consumption and its main divers.
- We installed 111 solar panels in March 2023 which cover 15% of our daily consumption (see below).
- 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 pumps 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, such as Eco Mantra.

- 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 switched off when not used.

Objectives for the coming year:

MMP aims at reducing the average daily energy consumption (electricity and natural gas) by 5% compared to 2019 by August 2024 at the latest.

2.2. Water Consumption

Current situation:

- We have our own well since the construction of the hotel in 2009. Since June 2014, water consumption is recorded daily. The latest record shows that the daily average consumption of water in 2022 is 37m³, while it is 60m³ by the first half of 2023. The objective set for 2024 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 m³ and 5 m³, respectively. Recently, we have added two smaller water containers of 9m³ 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 2024 is to no longer 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 EWWTF (Ecological 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 in guest rooms, and we have a policy to fix leaks as soon as possible in the entire plantation.
- Linen's policy: Linens are changed only on request of the guests.
- 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 2024 at the latest; MMP will be continuously add more trees on the forest area at least five hundred more per year.

2.3. 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 2022 is 3270 kg and 4991 kg by the first half of 2023. The objective set for 2024 is to reduce the weight of our plastic waste by 10% before August 2024. We will strictly monitor it on a monthly basis in order to reach our goal.
- We are sorting out organic and non-organic waste.
- We launched our own plastic recycling center in 2022 (see below in section 3.2). MMP is collecting plastic waste from its hotel and from local communities. This waste is processed in our Plastic Recycling Center to make new sustainable products from the recycled plastic. We are also recycling glass.
- 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 keep hazardous waste in separate boxes, under the control of the environment department of the regency.
- MMP is trying hard to reduce waste:
- Cotton bags are used for purchasing instead of plastic bags.
- Containers are used to stock food in fridges and freezers, instead of plastic bags.
- Bamboo straws are provided at restaurant, instead of plastic straws.
- Used papers are used as drafts or for double sided printing, instead of new sheets of paper. We also launched a handicraft workshop where guest can make a photo frame made entirely out of used paper. These recycled photo frames can be found everywhere in the hotel.
- 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.
- Old furniture, linens, etc... are given to local community or staff.
- 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 2024 at the latest; MMP aims at reducing the weight of its plastic waste by 10% by August 2024 as we now have our own recycling center. Moreover, MMP's goal is to compost all its organic waste and keeping the overall weight of all its waste that leaves the plantation at below 30% of August 2019 levels.

3. MMP's MAJOR SUSTAINABLE INITIATIVES

3.1. EWWTF

MMP has invested in an Ecological Waste Water Treatment Facility (EWWTF) in June 2021. The used water from the rooms, restaurants, laundry, and other buildings is channeled to the EWWTF. By using the Anaerobic Baffled Reactor System, the water is sufficiently cleaned to irrigate our gardens. The benefits of our Wastewater Treatment Facility are two-sided. First, MMP is reusing used water which is more economical and ecological for the hotel as we are buying less water from the water supply network. Secondly, many hotels in Bali are discharging sewage into rivers. Our EWWTF has also a positive social impact because the used waters are not thrown into rivers which pollutes the water for lower-lying villages and the local fauna.

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

Name 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.

3.2. Plastic Recycling Center

Plastic waste is a huge concern in Bali as the island produces approximately 1.6 million tons of trash per year. The Indonesian natural environment and particularly the beaches have been increasingly invaded by plastic pollution for quite some time. The government has taken some actions to reduce this pollution, but Munduk Moding Plantation Resort & Spa wants to push actions even further. We decided to tackle the problem by collecting plastic waste from the hotel and from local waste banks.

This important initiative from MMP's sustainable department is the Plastic Recycling Center. MMP is collecting plastic waste from its hotel and from local communities. This waste is processed in our Plastic Recycling Center to make new sustainable products from the recycled plastic. The final products are diverse and useful for the hotel. These include wardrobe hangers, saucers, or even directional signs and keychains. Our plastic recycling process allows us to give a second life to plastic waste by turning it into new useful products for the hotel and beyond. The recycling process is explained in the following steps:

1. Sorting

The first step of the plastic recycling process is sorting the collected waste. The plastic waste is manually sorted by colour and serves as a base for the final recycled products. The remainder of the waste is transformed into "Ecobricks" which will eventually form part of the "Ecowall".

2. Shredding

Once the bottle caps are sorted by colour, they are shredded into small plastic granules.

3. Washing

The granules are then washed to remove the dirt and produce clean raw material.

4. Sheet press

The plastic granules are spread out on the sheet press to make big sheets. This machine will heat and press the plastic between 45 min to 1 hour at a temperature of 180°C. Once the granules are melted and the sheet is formed, it is cooled down.

5. Recycled Plates

This shows how the plates look after cooling down. The colour of the plates depends on the type of bottle caps used. 13kg of plastic granules are required to make one sheet. The sheets can now be used to cover a wall as an example.

6. Printing

The plastic sheets can be further processed by the CNC (Computer Numerical Control) to create new products out of the recycled plastic.

7. End Product

Our plastic recycling process allows us to give a second life to plastic waste by turning it into new diverse and useful products we can use on the resort and beyond. These include wardrobe hangers, saucers, Key chains or even directional signs.

3.3. Solar Panels

MMP is committed over time to minimizing our carbon footprint and 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 rollout at a hotel in North Bali and it is the first step of our journey to rely as much as possible on clean energy. Therefore, the hotel installed in March 2023, 111 solar panels which are producing for about 15% of the daily consumption depending on the weather conditions. The solar panels are located on the roof of the horse stables and on the plastic recycle center. The aim on the long term is to power the entire hotel's activities with renewable energy generated by solar panels.

The word photovoltaic means "light-electricity". Its etymology is two sided, it comes from photo, derived from the Greek word for light, and volt, from electricity pioneer Alessandro Volta. And that's exactly what photovoltaic systems do -- turn light into electricity!

3.3.1. Performance

Daily average electricity consumption of the hotel is approximately 1.60 MWh. In comparison, an average household in Europe consumes between 3 and 5 MWh a year. Moreover, the maximum production capacity of our solar plant amounts to 59.94 kWp. It

stands for kilowatt ‘peak’, which means that our solar panels with a peak power of 59.94 kWp which is working at its maximum capacity for one hour will produce 59.94kW.

Unfortunately, our solar panels are underperforming because of the weather conditions. The clouds prevent the solar panels from working at full capacity. The solar panels have a capacity of 59.94 kWp and are producing electricity from 6 AM until 4.30 PM (10h30 in total per day). This means that they could produce at full capacity up to 629, 37 kWh in one day. With a daily average output of 250 kWh, we can estimate that our solar installation is producing about 40% of its overall capacity.

The table below depicts the estimated CO2 emissions saved and the estimated trees planted per day, week, month and year.

Period	CO2 emissions saved (kg)	Equivalent trees planted
Day	72	2-3
Week	504	15
Month	2160	65
Year	25920	775

3.3.2. Future energy plans

Installing our first solar panels is only the start of MMP’s ecological transition. The hotel is dedicated to pursuing its effort to become more sustainable.

In the coming months, the goal is to extend our solar panels deployment and collect as many data about our electricity consumption as possible to maximize the use of our solar energy.

The aim on the long term is to power the entire hotel’s activities with renewable energy generated by solar panels.

3.4. Green Team

Our Green Team continuously works with the local community to reduce environmental stresses. Examples of our efforts concern: waterfall and lake clean-ups and removing plastic dumps and hazardous waste. The Green Team has provided waste bins to the village allowing waste to be sorted and therefore more safely processed. In addition, the Green Team also contributes 1000 trees to the neighbourhood every year to preserve its natural beauty and protect the groundwater tables. We believe that the best way to do so is to take concrete actions, alongside a well-themed symbolic ceremony. This should help transform the mindset to be more caring, loving, and appreciative of Mother Nature.

3.5. Vegetable and spice garden

In line with its ecological convictions, MMP builds its own ecological vegetable garden and spicy garden. Most of the vegetables served in the Balinese restaurant are coming from our gardens. We are not using any chemicals or pesticides, but only natural fertilizers such as our compost for example. Moreover, we have also 8 egg-laying hens. We are using their eggs during the healthy drink workshops.

3.6. Sustainable objective for the coming year

MMP wishes to ultimately become a zero-carbon resort. 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. Moreover, MMP has continued to extend its activities. The hotel has carried out new building projects in 2023 which include the presidential suite room, new Bamboo Gym and the Soap Tree Workshop Hall which were inaugurated in May 2023. These multiple projects over the past few years imply that the 2018 strategy must be adapted to this new situation.

4. SOCIAL ISSUES

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.

5. MMP's SOCIAL INITIATIVES

5.1. 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.

5.2. Kids English class

Kids English Class is an English teaching program aimed for elementary school students around MMP, living in Gobleg Village. Classes are held free of charge. In return, the students are required to bring plastic waste as a form of "payment". That way, in addition to educating English, we can introduce sustainability to the students and raise awareness of climate change and plastic waste. This class is regularly held on Sundays, and we provide opportunities for our guests to teach the students.

5.3. Kids dance class

Balinese traditional dances are the oldest form of performing arts in Bali. They can be divided into two types. The first is sacred dances which are performed at ceremonies, while the second type is the dances performed for entertainment purposes. In line with our commitment to empowering locals and preserving traditional Balinese culture, we invite the local kids from nearby villages to attend traditional Balinese dance classes at our resort. We provide a professional instructor as well as traditional costumes. The kids (typically girls) love it and we now have 50 regular pupils.

5.4. Offering scholarships

Next, the Munduk Moding Foundation has launched a major project since 2014. It is offering scholarships to 2 or 3 local children a year to help them access high school. The foundation is covering the student's costs for 6 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 based on the academic results and the family's financial situation.

5.5. 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.

5.6. 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 daily. 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

One of the offerings made to gods, ancestor spirits, or other supernatural beings that look after a location is the Balinese offering. These offerings usually appear in traditional Balinese rituals. If guests are interested to experience how to make and present it, they are welcome to join the "Learn How to Make Balinese Offering" workshop at MMP.

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.

5.7. 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. 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).

6. QUALITY

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.
- Guests can give online feedback at the end of their journey and share their experience on the ReviewPro platform. We attach great importance to the surveys and take corrective actions directly when needed.
- Reviews left by guests on various websites are monitored carefully (in particular comments on TripAdvisor and Google). We take time to answer to each comment and corrective actions are directly taken when it is possible.

7. HEALTH AND SAFETY

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.

8. OBJECTIVES FOR 2024

Munduk Moding Plantation Nature resort and Spa opened a sustainable department in September 2022 which undertook many different sustainable initiatives over the past months. MMP is committed to reducing its carbon emissions and is very engaged in sustainability. In this respect, MMP will continue to develop its sustainable and social projects and make from sustainability one of its main priorities.

First, our plastic recycling process is quite new. The objective for 2024 is to develop this project and accelerate the production of new sustainable products. We are willing to collect more plastic by making partnerships with NGO's and associations fighting against plastic pollution in the south of Bali. Moreover, the goal is to create more valuable products and artworks from this recycled plastic, such as furniture, chairs, tables, etc. For now, the recycle process is very costly as the machinery is consuming lots of electricity and because we are not enjoying the benefits of economies of scale. These more valuable products could be sold to other resorts and companies to at least cover the costs or even generate profitability from this project.

Next, MMP's goal is to create an art center and collaborate with various local artists, such as painters, wood/plastic carvers, musicians and dancers to showcase our products. The Soap Tree Workshop Hall already fosters creativity by giving the opportunity to local people to show off their talents. The beautiful carved landscape on the wall at the back of the room has been made by a passionate local artist. Furthermore, the concrete columns are covered with recycled plastic plates made in our Plastic Recycling Center. Finally, we are also processing used glass. Half the floor of the hall is made from this processed glass and cement.

Furthermore, MMP wants to expand its solar plant. We are planning on doubling the investment in solar energy which aims at producing up to 30% of the daily electricity consumption.

Moreover, MMP will also add new Biopori all over its plantation. Biopore infiltration holes are holes made perpendicular to the soil that are appropriate and environmentally friendly to deal with flooding. The biopore infiltration hole method is a hole with a diameter of 10-30 cm with a length of 30-100 cm which is covered with organic waste which functions to trap flowing water so that it can become a source of water reserves for underground water.

Finally, MMP is looking at the possibilities to create micro hydroelectricity from the collected gray water. The idea would be to pump the water up during the day by using solar energy and create hydroelectricity by letting it flow down at night. MMP is conducting researchers and exploring different possibilities. MMP's aim is to develop this technology and make it operational in 2024.