



Swiss Programme for Research
on Global Issues for Development

Voices of Land from Southern Myanmar:
Kanpauk Oil Palm Estate and Palm Oil Mill Project

Voices of Land from Southern Myanmar: Kanpauk Oil Palm Estate and Palm Oil Mill Project of Myanmar Economic Holdings Limited



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Cover photo: Kanpauk Oil Palm Estate of MEHL, Myanmar (by Lara M. Lundsgaard-Hansen)

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**Swiss Programme for Research
on Global Issues for Development**

The Swiss Programme for Research on Global Issues for Development (r4d programme) is a joint funding initiative by the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF). The r4d programme supports research aimed at solving global problems with a focus on least developed as well as low- and middle-income countries. The r4d programme consists of five thematic modules and a thematically open module.

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Please note: This report is fully grounded on KOPP's perspective only. It does not include the voices of villagers, civil society organisations, government representatives or other stakeholders. Also does it not represent the perspective of the project team. It solely represents the voice of the palm oil company KOPP, MEHL.

Abbreviations

FD	Forest Department, or Department of Forestry of Myanmar
FFB	Fresh Fruit Bunch
KOPP	Kanpauk Oil Palm Estate and Palm Oil Mill Project
MEHL	Myanmar Economic Holdings Limited (current name)
PCD	Perennial Crops Division
r4d	Research For Development (project)
UMEHL	Union of Myanmar Economic Holdings Limited (previous name of MEHL)

Preface – The research project

The Swiss Programme for Research on Global Issues for Development (**r4d programme**) is a joint funding initiative by the Swiss Agency for Development and Cooperation (SDC) and the Swiss National Science Foundation (SNSF). The r4d programme supports research aimed at solving global problems with focus on least developed as well as low- and middle-income countries.

Within the r4d programme of SDC and SNSF, we run the six years project with the name “*Managing telecoupled landscapes for the sustainable provision of ecosystem services and poverty alleviation*”, in short “**Telecoupled Landscapes**”.

This project builds on research partnerships in Laos, Myanmar, and Madagascar. The overall goal is to come up with innovative strategies for people and regulations in order to secure ecosystems and the wellbeing of people. The research includes ecosystem services assessments, land governance analysis, land use mapping of the past and the present, landscape modelling of the future, and social learning among land stakeholders. The project officially started on January 1st 2015, and is expected to last for six years.

The overall project is coordinated by the Centre for Development and Environment (CDE) of the University of Bern, Switzerland, under the lead of Prof. Dr. Peter Messerli. The research team in Myanmar is coordinated by the Environmental and Economic Research Institute (EERi), represented by Dr. Win Myint.

Throughout the duration of the project, we will produce various publications and databases together with our partners. We will also upload stories, pictures and videos on our website and social media channels.

Website: www.telecoupling.unibe.ch

Facebook: www.facebook.com/R4DTelecoupling

1. Aim of the research project and working papers

1.1. Aim of the research project “Telecoupled Landscapes”

The debate about Sustainable Development Goals following the United Nations “Rio+20” reveals the difficulty of simultaneously addressing social and economic development challenges and the degradation of Earth’s life support systems. Land systems in the humid tropics illustrate these challenges prominently. Local people’s land use strategies are facing competition from large-scale land acquisition, logging etc., but also biodiversity conservation. Remote decision-makers can reshape flows of ecosystem services to their benefit, whereas the consequences hardly reach them. Land change scientists have recently conceptualized this phenomenon under the term “telecoupling”. Our research project within the Swiss Programme for Research on Global Issues for Development (r4d programme) pursues the overall goal of devising and testing innovative strategies and institutional arrangements for securing ecosystem service flows and human well-being in and between telecoupled landscapes at study sites in Laos, Myanmar, and Madagascar.

1.1.1. Main research objectives of the international research project

The project is guided by the following four objectives:

- 1) Social-ecological systems (SES) at different stages of telecoupling are assessed and understood in terms of their capacity to provide ecosystem services for human well-being.
- 2) Recurrent processes of telecoupling are identified and generalized from case study research as a basis for predicting pathways of land use transitions and for strategy planning at different spatial and temporal scales.
- 3) Multiple stakeholders learn and adapt their land use decisions based on knowledge sharing, joint model development, and future scenarios.
- 4) Adaptations of actors’ decision-making on SES are systematically monitored, understood, and shared.

1.1.2. Specific research questions for this series about land in Myanmar

Within the international project *Telecoupled Landscapes*, one research package focuses on **land governance in Myanmar**. The case study area is located in Yebyu Township, Tanintharyi Region, Southern Myanmar. From various land uses and land use changes, we draw a network of included and excluded stakeholders in land use decision-making. We analyse these stakeholders based on their strategies, activities, and resources, and combine this information with the flows of money, products, information, and people between the organisational stakeholders, as well as the formal and informal institutions that they adhere to. For this research package, we collaborate with various stakeholders in land governance, what forms the basis for this series of working papers.

The overall **research question** for this specific research package is: *How can a transformation towards sustainable land governance in Dawei area, Southern Myanmar, be supported?*

When analysing the case study sites in Southern Myanmar, the research package is guided by these three research questions:

- 1) What near and distant actors are connected to the land governance in the case study area, and how are they interlinked in terms of flows and institutions?
- 2) What and who are the key forces in this land governance network?
- 3) What factors facilitate and hinder multi-stakeholder social learning processes for a transformation towards sustainable land governance?

Throughout the duration of the research, we speak to various stakeholders. Each of them is connected to land, land use, or land use changes and has its own perspective on land use and land governance.

1.2. Aim of the series and working papers

With the publication of this series, we pursue the objective of knowledge dissemination for the public. The results of our research project will also be published in academic journals. However, these journals are usually limited in accessibility for the public. Therefore, the project team decided to launch this informal series of working papers, which focus on the prevailing situations on the ground.

The **series** aims at capturing different voices and opinions about land issues, land governance, and land use changes, with a focus on Yebyu Township in Tanintharyi Region, Myanmar. It is therefore very likely that different working papers will present different or even contradicting information.

This **working paper** at hand explains the situation of an oil palm company in Yebyu Township, Tanintharyi Region, told from the perspective of the palm oil company itself. It does not include the voices of villagers, civil society organisations, or government representatives. Also does it not represent the perspective of the project team. It solely represents the voice of the palm oil company.

2. Methodology

This working paper is based on a qualitative interview and a field excursion with U Saw Khin Maung Gyi, the director, and U Thet Sinn, the manager, of Kanpauk Oil Palm Estate and Palm Oil Mill Project (KOPP), Myanmar Economic Holdings Limited (MEHL), on 08.05.2017. The qualitative interview took place in the morning at the KOPP office in Gant Gaw Taung village, near Kan Pauk, in Yebyu township. The field excursion to the plantations, workers, and the mill was spontaneously organised for the afternoon by the director and manager in order to explain KOPP, MEHL, more in detail.

The main language of the interview and field excursion was Myanmar. The interview was recorded. During the field excursion, notes were taken.

After preparing the transcript and compilation of notes about KOPP, MEHL, the manager U Thet Sinn made two series of proofreading. He proofread the first draft until 17.05.2017 and the second and final draft between 17.08.2017 and 25.08.2017. He encouraged the authors to distribute this report as widely as possible. These documents were subsequently combined into this working paper at hand, which the manager did again proofread on 11.11.2017. The project received the permission from the manager on 11.11.2017 to publish this working paper through all possible channels.

3. Background of KOPP and MEHL

3.1. Names in Myanmar and English language

The names for the company and oil palm estate are different in Myanmar and English language. In English, the official names are:

KOPP = Kanpauk Oil Palm Estate and Palm Oil Mill Project (KOPP)

MEHL = Myanmar Economic Holdings Limited (MEHL), previously also written “Union of Myanmar Economic Holdings Limited” (UMEHL)

In Myanmar language, the name of the company is U Pine (also written U Paing, U Pyine, U Pyne or similar)

Please note: The spelling of Myanmar names using the Roman alphabet is usually interpreted in different ways. This challenge concerns most names of companies, villages, towns, persons etc.

3.2. Organizational structure of MEHL Company

MEHL started in 1992. It was founded as a company for military veterans and previously wounded military staff. MEHL has three main departments:

- 1) Service
- 2) Trade
- 3) Productions

Under the production department of MEHL, there are 41 enterprises including factories. These are factories for the production of e.g. palm oil, sugar, soap, cement, and other. KOPP also belongs to the production department. Each factory or group has a director, but there is only one departmental head for the entire production department (for all factories). The name of the departmental head is U Win Kyi. U Saw Khin Maung Gyi is his assistant.

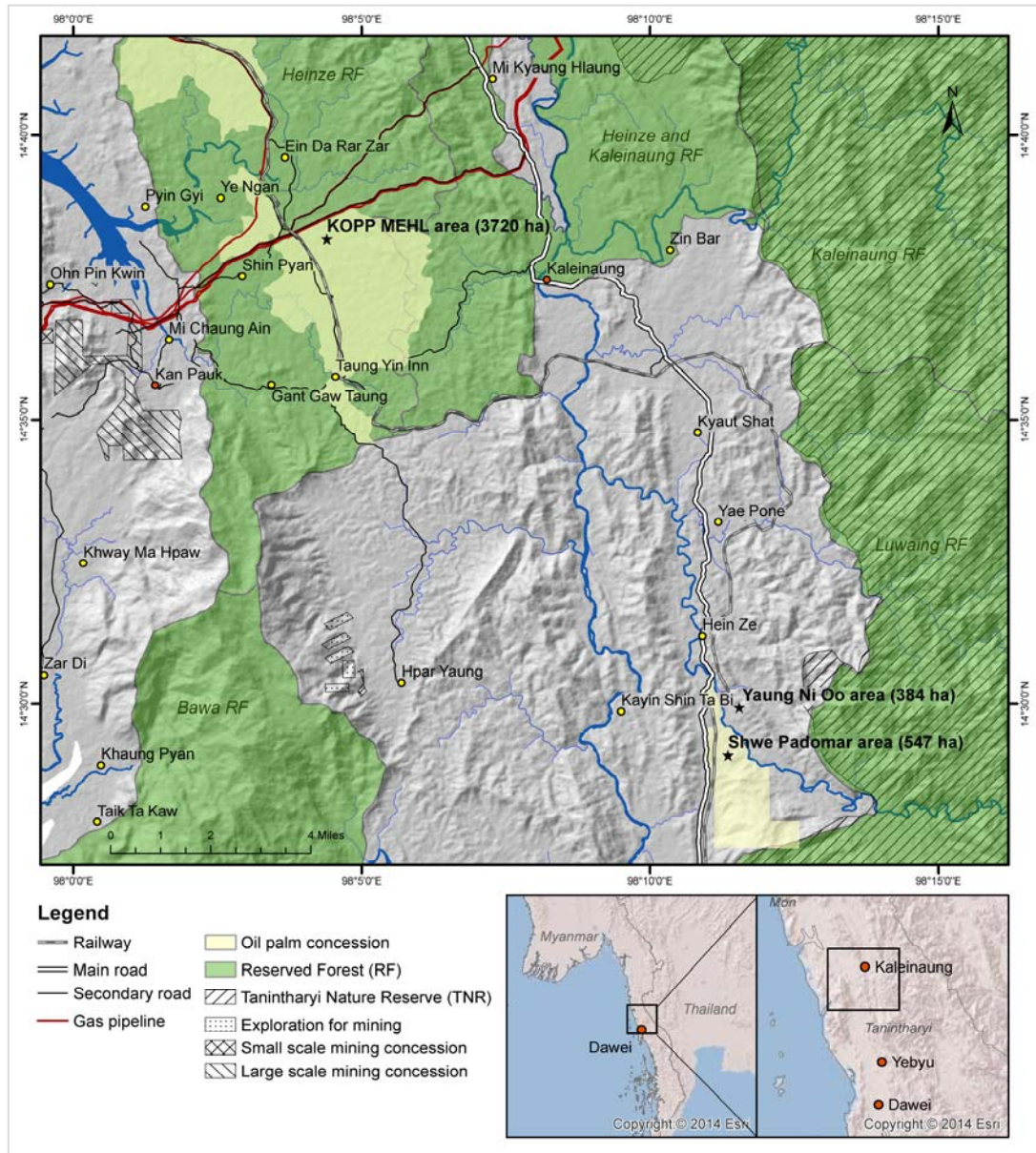
The English name of MEHL is Myanmar Economic Holdings Limited. It is not the same like MEC Company (Myanmar Economic Corporation), but MEHL and MEC have the same steering committee.

Since 1992, KOPP, MEHL has had 5 chairmen: former generals U Than Oo, U Win Myint, U Tin Aye, U Khin Zaw Oo and U San Oo. U San Oo is the current chairman.

KOPP, MEHL, needs to report once per year to the Chief Administration Department of MEHL and once per month to MEHL production department.

3.3. History of MEHL and KOPP in Yebyu Township

In 1999, the Government announced the plan that Tanintharyi should become a palm oil region. Companies could apply and they had to grow at least 20,000 or 30,000 acres each. Accordingly, the company called “Myanmar Skylink Agro- Forestry Company Limited” (short: Skylink) came to this area in 2000. They planned to grow approx. 30,000 acres, starting with a pilot area of 10,000 acres. In June 2001, they grew 4,500 acres; 2,100 acres in the Northern part and 2,400 acres in the middle part. But in 2002, Skylink was stopped again due to unpleasant actions towards the Government. The FD cancelled the contract with Skylink and re-acquired the land. After this expropriation in August 2002, the Myanmar Perennial Crops Enterprise (MPCE)¹ temporarily managed the oil palm plantations.



Map 1: Overview of the area in Yebyu Township where KOPP MEHL is located

¹ MPCE was at that time a state-owned enterprise under the Ministry of Agriculture and Irrigation (MoAI). Later, in 2004, MPCE was turned into Myanmar Industrial Crops Development Enterprise (MICDE), and in 2012 renamed again as Department of Industrial Crops Development (DICD), still under the Ministry of Agriculture and Irrigation. In 2016, DICD was put under the line management of the Department of Agriculture and received the new name Perennial Crops Division (PCD). [Confirmed in an interview with PCD in November 2017]

In 2003, Pa Don Mar soap factory had been built by MEHL in Motetama, Thaton District (in Mon state). Pa Don Mar soap factory is also under the production department of MEHL. But the raw oil was very expensive to import. At some point, the soap factory didn't have enough raw oil. Therefore, former general U Tin Aye reported the difficulties to the higher level and accordingly, it was decided to produce the crude oil within MEHL, for making the oil factory running as Myanmar needed soap. So KOPP, MEHL, started to produce the raw oil.

MEHL received the cultivation permission from FD in May 2003. In October 2003, MEHL started to manage 1,200 acres on a plot in the middle part of the area. Also in October 2003, U Saw Khin Maung Gyi was assigned as the director of KOPP, MEHL. In 2004, the MPCE handed over the entire already planted 4,500 acres from previous Skylink to MEHL. Actually, MEHL had received the permission for the entire 30,000 acres previously promised to Skylink. But by the time MEHL arrived to the area, the villagers had already re-occupied the unplanted approx. 20,000 acres. MEHL did not insist on these 20,000 acres as they didn't want to go into conflict with the villagers. However, instead of using the land for themselves only, the villagers also sold it to investors. This is the reason why there are so many rubber plantations around KOPP that are belonging to outsiders.



Map 2: The KOPP MEHL area is located near several villages in the forest land zone (Reserved Forest)

In 2006, the extension of more plantations started, but some areas also had to be continuously replanted, as many plants had died due to growing difficulties of the palm trees and therefore needed to be substituted. Between 2007 and 2010, KOPP, MEHL, extended the oil palm cultivations by 500 acres per year. Today, KOPP, MEHL, is in charge of fully planted 6,791 acres. Another 2,402 acres of land are impossible to use for oil palm cultivation because the land is unsuitable (slopes, creek etc.) or used for infrastructure (roads, mill etc.). Accordingly, KOPP, MEHL, in total manages 9,193 acres.

3.4. Contract of KOPP, MEHL

As the plantation is located in a Reserved Forest area, KOPP, MEHL, has a 30 years contract with the Forest Department (FD) for the oil palm cultivation land, signed in June 2011. KOPP, MEHL, has the possibility to apply for a contract extension with FD afterwards. The surface stated in the contract is 6,791 acres.

The following rules and regulations for KOPP, MEHL, have been extracted from their contract with FD and translated into English for this report:

- 1) The company is given the permission to grow oil palm for 30 years.
- 2) Starting from the day of the contract, the Palm Oil Company must give 100 MMK per acre to the Forest Department every year.
- 3) On the day of contract, the Palm Oil Company must pay the tax for the first year. Starting from the second year, the tax must be paid at the end of every year.
- 4) The Forest Department has the right to choose and modify the tax amount.
- 5) The land cannot be used to grow anything else except oil palm.
- 6) After 30 years, if the company decides to cut the oil palm trees, it must do so according to the rules and regulations of Forest Department.
- 7) The land cannot be used for other business matters except those that are related to palm oil business.
- 8) In the permitted area, activities such as mining, extraction of stones and sand and other operations alike cannot be done.
- 9) In the permitted area, activities such as doing shifting cultivation and growing other cash crops cannot be done.
- 10) The permitted area cannot be leased, handed over and/or sold. If the company does not wish to use the land any more, it must give the land back to the Forest Department.
- 11) The company must not cut trees if the land (on which the trees grow) is infertile. If the company cannot grow the oil palm after cutting the forest, it must plant forest trees according to the rules and regulations of the Forest Department.

- 12) The contract is exclusively applied to the Forest Ministry, Forest Department, and the director of MEHL and the palm oil grower, General U Saw Khin Maung Gyi (retired), whose NRC number is 10/ YaMaNa (NAING) 021864.
- 13) The contract will be terminated if the company is found violating any of the above rules.

For the full contract, please consult the annex.

3.5. The programme director of KOPP

U Saw Khin Maung Gyi is the programme director of KOPP, MEHL, palm oil production group. He started in 2003. He is a former Colonel. He is very interested in the research project and believes that research is beneficial for the country's development. There are many environmental challenges in this country, which should be targeted. An example is the gems extraction. It is good for the present situation, but not for the future. The plants are important for our next generations, they should not be destroyed.

U Saw Khin Maung Gyi will be retired in June 2017. However, he plans to further support KOPP, MEHL, with his advice. He is also a friend of the former Tanintharyi regional government chief minister. Previously, he served as a governmental staff in Southern Shan State. He has worked in peaceful as well as conflictive areas.

3.6. Exchange and reporting with government departments and other companies

The Perennial Crop Division of MOALI (under the Agriculture Department) is responsible for the palm oil sector. Like many other palm oil companies, MEHL has to annually report to the Perennial Crop Division, especially about the production and land extensions. Not all companies need to report; only the most important ones. And they can read each other's reports. But many companies don't report reliably. Every time that there is a necessity for meeting or exchange, the Perennial Crop Division contacts the companies. This was also the case for the OneMap meeting.

As a matter of knowledge exchange, many oil palm companies could make an excursion to Kawthaung and Bokpyin in 2005. Other companies also visited KOPP, MEHL, for exchange.

4. Plantations

4.1. The aim – palm oil for soap production

In 2007, KOPP, MEHL, could also start its own crude oil factory (mill). Until 2012, the crude oil could be sent to Pa Don Mar soap factory in Paung township, Thaton district. But then, in 2013, the soap factory was closed because of a conflict. Ever since, KOPP, MEHL, is sending the raw oil to Yangon by private buyers' arrangement. KOPP, MEHL, sends the oil itself to a depot in Bayint Naung Market in Yangon. Like this, the price is better but the administration is very complicated when they send the oil to Yangon. Sometimes the depot owner said that they don't need oil currently. Therefore, KOPP, MEHL, had many difficulties for sending the oil to Yangon. KOPP, MEHL, also knew that there are many middle men from Yangon in Dawei who would buy the oil. If they come and collect the oil at the mill site by truck, they would get only 600 MMK per viss. If they send it themselves, KOPP, MEHL, gets 800 MMK per viss. Two months ago, the soap factory Pa Don Mar in Paung township could re-open. Currently, they are still using already stored oil. But in one or two months, the factory will again accept new crude oil. Therefore, KOPP, MEHL, is currently storing its oil in the mill (status of May 2017) and will send it all to the factory as soon as it accepts the fresh supply. The price will be better there compared to the buyer in Yangon. If the soap factory runs well, KOPP, MEHL, will produce even more palm oil. In this case, KOPP, MEHL, will re-maintain the more neglected areas and replant some areas. The original plan was to extend up to 30,000 acres in order to provide enough oil to the factors. But KOPP, MEHL, will not do extensions anymore, only replanting and improved maintenance.



Picture 1: Kanpauk Oil Palm Estate of MEHL, Myanmar (by Lara M. Lundsgaard-Hansen)

There are many rodents (Myanmar name: kyut) on the oil palm cultivations. They can destroy the roots and the fruits of the palm trees. If workers kill such rodents, they get a reward of 500 MMK per animal. They can prove the killing by bringing the gnawer's tail.

4.2. Palm tree varieties

KOPP, MEHL, has different oil palm varieties:

- Costa Rica variety: Skylink had planted this variety. Nowadays, KOPP, MEHL, does not plant them anymore, but can still use these trees. One seed costs 1 USD.

- Ghana variety: Skylink also had already planted this kind. KOPP, MEHL, does not plant them anymore, but can still use these trees.
- Malaysia variety: KOPP, MEHL, started to buy and plant this variety.
- Lame variety: Skylink also had already planted this kind. KOPP, MEHL, does not plant them anymore, but can still use these trees.
- Local Myanmar variety called ARCPC: Skylink had not yet used this kind. KOPP, MEHL, buys these seeds from Mawlamyine, from the provider ARCPC (Applied Research Centre for Perennial Crops, owned by the Perennial Crop Division of MOALI). 1 seed costs 50 MMK.

The local variety is good for the climate and the soil. It is also more resistant. But the foreign varieties are more productive (fruitful). As a comparison, the Costa Rica variety produces 4 tons of fresh fruit bunches (FFB) per acre, while ARCPC produces only 1 or 1.5 tons per acre.

4.3. Other plants besides oil palm trees

Besides oil palms, KOPP, MEHL, also grows two other plants:

- Rubber: Originally, KOPP, MEHL, planned to cultivate 3,000 acres of rubber in the South-eastern part. But there were problems with the villagers. Now, KOPP, MEHL, grows 100 acres (owned by KOPP) and 100 acres for staff welfare (KOPP provides the land, but does not own the plants). The workers can grow nursery, sell the saplings and keep the money. KOPP, MEHL, fostered this initiative in 2012, because the salary is sometimes not enough for the staff to survive. Between 2010 and 2014, 30-40 acres had been planted each year (in the Southern-eastern part). Out of these total 200 acres, 5 can already be harvested. The staff hire labourers for tapping, processing and selling the rubber sheets themselves to depots in Kan Pauk and Kaleinaung township (see more about this in the afternoon-section from the field excursion).
- Roof-leave palms (taung htan): These plants are grown by KOPP, MEHL. They are only used for KOPP's own purposes such as housing of staff and labourers quarter, as wind stoppers and sometimes along the road to improve the aesthetics (see more about this in the afternoon-section from the field excursion).

4.4. Chemicals and environmental impacts

KOPP, MEHL, does not produce any negative environmental impacts. For the irrigation, dams are needed. Otherwise, there would not be enough water in hot season (before the rain arrives). Villagers complain that KOPP, MEHL, is responsible for a water shortage in the area. But this is not possible. They also report that KOPP, MEHL, pollutes water, which is also not possible. KOPP, MEHL, only uses fertilizer once a year. It is put into a hole next to the roots of the palm tree at the beginning of rainy season. The holes are covered up. This year the KOPP, MEHL, oil palm cultivation needs 800 tons of fertilizer. The headquarter of MEHL is in Yangon. KOPP, MEHL, has to report to the headquarter whatever they need. When KOPP, MEHL announces open tenders for fertilizers, companies such as Mar

Lar Myaing, and some fertilizer shops from Bayin Naung market in Yangon compete. This year's winner is not known yet (status of May 2017).

Besides fertilizer, KOPP, MEHL, also uses herbicide, but no pesticide.



Picture 2: Inside an oil palm plantation of KOPP, MEHL (by Lara M. Lundsgaard-Hansen)

5. Labour on the plantations

This chapter explains the labour situation of permanent and temporary workers on the plantations. The labour at the mill is explained in chapter 6.

5.1. Labour

KOPP, MEHL, wanted to take the labour from the surrounding villages but the villagers were and are not willing to work for KOPP, MEHL, because they prefer to get the salary in USD. Accordingly, some villagers work in the gas companies and some migrated to Thailand. In total, KOPP, MEHL, has approx. 200 labourers. They come mostly from Ayeyarwady Division, Twantay township (near Yangon) and Bago Region. They form three main groups. In Ayeyarwady Division, most of them come from Myanaung township, Hinthada district. In 2003, the people in Ayeyarwady area got only 600 MMK per day for working there, so they were very happy to come to KOPP, MEHL, where they earn more. At that time KOPP, MEHL, gave 1,500 MMK for female and 2,000 MMK for male (today it is more). The labourers are mostly relatives of the staff managers. Former major U Myint Aung, who was the first manager (2003), was from Ayeyarwady, so he took his relatives as labour from Ayeyarwady. U Hla Win Kyaw, who was the second manager, was from Twantay so he also took his relatives from Twantay. The current staff manager is the former captain U Khin Oo. He arrived in 2007. By that time, the younger oil palm trees could be harvested. So, for increasing the harvesting, he took the labour that was very familiar with him from Ma U Bin district in Ayeyarwady region.

KOPP, MEHL, also has permanent staff in the office, a nurse etc. They earn on average 1.8 lakhs per month (180,000 MMK).

KOPP, MEHL, is like a family business. The workers and the management staff are all very familiar with each other and support each other, also in the case of sickness (see more about this in the afternoon-section from the field excursion).

KOPP, MEHL, does not keep the ID cards of its staff. Other oil palm companies make a three-years contract with their employees and keep their ID cards for this period. However, KOPP does not do that. KOPP, MEHL, also never fires its labourers. When there was not enough work in the past, labourers usually found a new job themselves at a different plantation owner or construction site. Labourers stay with KOPP for 3 to 5 years on average.

The people from Kan Pauk area are not very interested to work for KOPP, MEHL, permanently. If at all, they prefer to work temporarily.

5.2. Salary of workers

The workers are often relatives (also related to the managers). We visited one household. This couple originally comes from Yangon division, Kaut Mue township (near Twantay township). They feel like a family. Their usual salary is 3,000 MMK per day for men (can be up to 4,000 MMK) and 2,500 MMK per day for women. So, in total 90,000 MMK per month for men and 75,000 MMK for women. This is attractive for them because in their native origin, they would only earn 600 MMK per day (especially Ayeyarwady division). In harvesting season, they earn up to 20,000 MMK per day if they can harvest 200 fresh fruit bunches (FFB) per day. KOPP pays their workers 100 MMK per harvested FFB.

Sometimes, the workers also clear the bushes. In this case, they earn a little bit more. If there are not enough workers for clearing the bushes, additional casual labour is hired from nearby villages. Whenever they clear the grounds / bushes, the workers can keep the materials for their housing etc.

5.3. Support of workers

In some areas and sometimes along the road, the KOPP, MEHL, grows the roof-leave palm tree (taung htan). KOPP, MEHL, bought seeds and raised the nursery. The workers can then buy the leaves from the company for their housing. It costs 100 MMK per leave. At the market, it would cost 300 MMK. This is a non-profit business of the company, for its workers.

KOPP, MEHL, also has a primary school for its workers' children. Until recently, KOPP, MEHL, has sponsored the teacher, but now it is provided by the government (governmental staff).

The workers on the plantations are all responsible for a certain area. They have their houses on separate plots, each taking care of their surroundings. It is quiet there. The people can also grow some vegetables in their garden. They can also grow cash crops on their own for selling purposes: betel leaves and rubber nursery. The company knows that the salary is sometimes not enough for living. So, the company encouraged the workers to also do their own business (betel leaves and rubber). At the beginning, in 2012, the company sponsored the fertilizer for the rubber. But afterwards, the workers had to make the expenses themselves. But they can use the land without any costs. Nowadays, they are already selling some rubber nursery and betel leaves. There is a place for the rubber nursery at KOPP, MEHL. One plant costs 500 MMK.

The children of the workers call the director "grandfather". The entire working community is like a family with him being the head of the family.

6. The milling

KOPP, MEHL, installed its own mill in 2007 and can run it since 2008. KOPP, MEHL, produces crude palm oil only, no purified palm oil or kernel oil.



Picture 3: Tanks of crude palm oil at the mill of KOPP, MEHL (by Lara M. Lundsgaard-Hansen)

6.1. Production steps of crude palm oil in the mill

The production of crude palm oil at KOPP, MEHL, encompasses six steps:

First step: 9 tons of FFB (6 wagons with each 1.5 tons) are steamed for 45 minutes.

Second step: The steamed FFB are put from the wagons on a conveyer belt, which brings the FFB into a stripping machine. In there, the fruits are separated from the bunches.

Third step: Digestion

Forth step: Squeezing the fruits in a press station. The waste is separated from the liquid.

Fifth step: Purifying; separating the clean oil from dirt, waste, water etc. The heavy materials sink, the pure oil is on top and can be harvested.

Sixth step: Fill the oil into the tanks and store it. One tank can be stored up to one month before it turns bad. Usually, KOPP, MEHL stores the oil for approx. 1 week (sometimes more, sometimes less), before they transport it to the destination.



Picture 4: 9 tons of FFB before the steaming (by Lara M. Lundsgaard-Hansen)

The production produces three types of waste:

- Bunches: They are used for making the fire in the boiler. The ashes are then used as fertilizer for the plantation.
- Fruit (after squeezing, solid parts): It could be used for producing fertilizer, but the costs are too high and it is not sure whether the fertilizer would be useful. KOPP, MEHL, studied the technique and it can be used coming year (expected in 2018).
- Shell of the seed (kernel shell): Could be used for making fire, but it produces a bad smell. So, nobody burns it. It can be used in muddy areas.

6.2. Production of the kernel

The kernel seeds are put in a cracking machine to open the shell. KOPP, MEHL, sells the kernel (without making the kernel oil). KOPP, MEHL, sells to the two depots, namely Shwe Myint Moe and Chan Thar Gyi (in Dawei). The depots come to KOPP, MEHL, to collect the kernels. KOPP gets 300 MMK per viss of kernel. If they made the oil themselves, KOPP, MEHL, could earn 1,000 MMK per viss. But the investment would be too high (not profitable). The waste of kernel oil making is often used for the fish industry (mixed with other substances).



Picture 5: The kernels after the production of crude palm oil (by Lara M. Lundsgaard-Hansen)

6.3. The mill

When it is peak harvesting time, the mill runs all the time. Outside the peak, the mill only runs 4 or 5 days a month. The capacity of the mill is 10 tons of FFB per hour.

The former General U Tin Aye bought this mill. He calculated well the capacity that is needed and decided to buy this model. It is very suitable for the capacity currently.

6.4. Labour for the milling

The mill was installed and started in 2007. 31 labourers are required when the mill is running in harvesting time. Skilful labour is needed, which is not easy to find. Therefore, they usually come from Yangon, but also from around these villages. Every time new labour is coming, they receive a training to obtain the skills. When the mill in Launglon stopped, the labour came to KOPP, MEHL.

U Than Htay is the current manager and engineer of the mill. He retired from Myanmar Navy 10 years ago. He was a Navy engineer. He joined the KOPP mill from the moment that the mill was started.

7. Investment and return

As explained in chapter 3, KOPP, MEHL, has a 30 years contract with the FD for the oil palm cultivation land since 2003 and the possibility to apply for a contract extension afterwards. KOPP, MEHL, so far lost 4,000 lakhs MMK every year. There is no profit. It is an investment in the future. The location of the plantation is actually very suitable. U Saw Khin Maung Gyi expects that the business will be profitable in the future.

Some numbers for costs and return:

- Maintaining one acre costs usually between 1 and 1.8 lakh (100,000 – 180,000 MMK) per year (incl. clearing the ground, taking off the old leaves, giving fertilizer etc.).
- One acre can usually produce 2 tons of FFB
- Selling the crude palm oil: 75 MMK per viss as return
- Producing the raw palm oil: 120 MMK per viss as investment
- Loss: 45 MMK per viss of crude palm oil
- The mill can process approx. 10 t FFB per hour
- Selling the kernel: 300 MMK per viss return
- Selling the kernel oil would be (they don't do that): 1,000 MMK per viss return (they don't do it because the investment would be higher than the return)

On some areas of the plantation land, we can also see bamboo growing between the oil palm trees. This is where the area has been neglected. KOPP, MEHL, could not maintain 2,000 acres over the past 5 because the price for the raw oil was too low. Bamboo and other wild plants grew quickly and many oil palm trees died. This might have had to do with the closing of the soap factory in 2012/2013. Now, KOPP, MEHL, is trying again to re-maintain these 2,000 acres and re-plant the oil palm trees because the soap factory seems to re-open in one month. The bush clearing of this neglected land now costs 35,000 per acre. Extra labour is hired for this purpose. They come from Taung Yin Inn and Shin Pyan.

KOPP, MEHL, does not use pesticide, but herbicide and fertilizer. The herbicide and fertilizer of last year were both bought at Mawlamyine Trading, Yangon, as they had won the tender.

8. KOPP and the region

8.1. History of Kan Pauk area

From 1988 to 1990, this area was an insurgent area (brown-black area). Roads were not used as it was too dangerous. In 1992, the railway was built. In 2000, the gas companies started to run their business. The roads improved and the area became more peaceful. Before that, the villages like Ein Da Rar Zar could not get to Kan Pauk by a direct road. Kan Pauk was founded for mining purposes. The main sources of livelihood for the villages in this area (except Kan Pauk) were fishing, shifting cultivation, paddy rice cultivation, cattle breeding and hunting. There are four races in Kan Pauk area: Dawei, Mon, Karen and Myanmar. At the beginning, many Indian and Chinese business people settled in Kan Pauk. For quite a long time, there was no security in this area because the law enforcement and the transportation possibilities were really poor. Usually, the KNU and NMSP solved the problems of the people with their own justice system. The people didn't go to a Myanmar court.

8.2. Interactions with villagers

The villagers were not satisfied when KOPP, MEHL, started using these lands. However, the land was technically not owned by villagers. They don't have any land ownership certificate for showing.

Regarding the villagers, KOPP, MEHL, had quite some troubles with the buffaloes. They often entered the cultivated area and destroyed the palm trees. They didn't have pasture land for the animals. The buffaloes destroyed 200 acres in total. KOPP, MEHL, tried to talk to the village heads so that the villagers would control their animals better. But it did not improve. Sometimes the police or guards of the plantation killed the buffaloes as threatened. In 2005 or 2006, most of buffaloes died because of a disease. By then, the villagers stopped the raising of buffaloes. The villagers also had to stop using the forest and stop hunting. But KOPP, MEHL, constructed the roads, one of which is directly connecting Ein Da Rar Zar with the main road to Kan Pauk. The villagers should be grateful for this.

KOPP, MEHL, would like to improve the relationship with villagers. They therefore allow in some area to grow upland rice under the palm trees. However, growing long-term or big plants would not be permitted as they would disturb the oil palm plantation.

8.3. Previous and current inquiries about KOPP, MEHL

There have already been NGOs coming to KOPP, MEHL, asking about human trafficking, because they think that KOPP, MEHL, traps the workers. But this is not true. One journalist also came by once and asked whether KOPP, MEHL, is planning to give back the land to the villagers. U Saw Khin Maung Gyi's answer was that the FD should manage this case and decide whether or not land will be distributed.

Currently, KOPP, MEHL, is a committee member of a regional oil palm concessions review, led by the Regional Government of Tanintharyi Region and accompanied by OneMap Myanmar Project.

References

No literature has been used for this working paper. It bases on the oral information received from KOPP, MEHL, director and manager [1 and 2]. In addition, PDC in Dawei [3] confirmed the information about the transition time between Skylink and KOPP, MEHL.

1. KOPP MEHL (a). 2017. *Personal Communication Interview*. Director U Saw Khin Maung Gyi and Manager U Thet Sinn. Kanpauk Oil Palm Estate and Palm Oil Mill Project (KOPP), Myanmar Economic Holdings Limited (MEHL). Gant Gaw Taung village, Yebyu Township, Tanintharyi Region, Myanmar; 08.05.2017 morning.
2. KOPP MEHL (b). 2017. *Personal Communication Field Excursion*. Director U Saw Khin Maung Gyi and Manager U Thet Sinn. Kanpauk Oil Palm Estate and Palm Oil Mill Project (KOPP), Myanmar Economic Holdings Limited (MEHL). Gant Gaw Taung village, Yebyu Township, Tanintharyi Region, Myanmar; 08.05.2017 afternoon.
3. PCD. 2017. *Personal Communication Interview*. Officer of Regional Perennial Crops Division, Regional Department of Agriculture, Tanintharyi Region. Dawei, Tanintharyi Region, Myanmar; 17.11.2017.

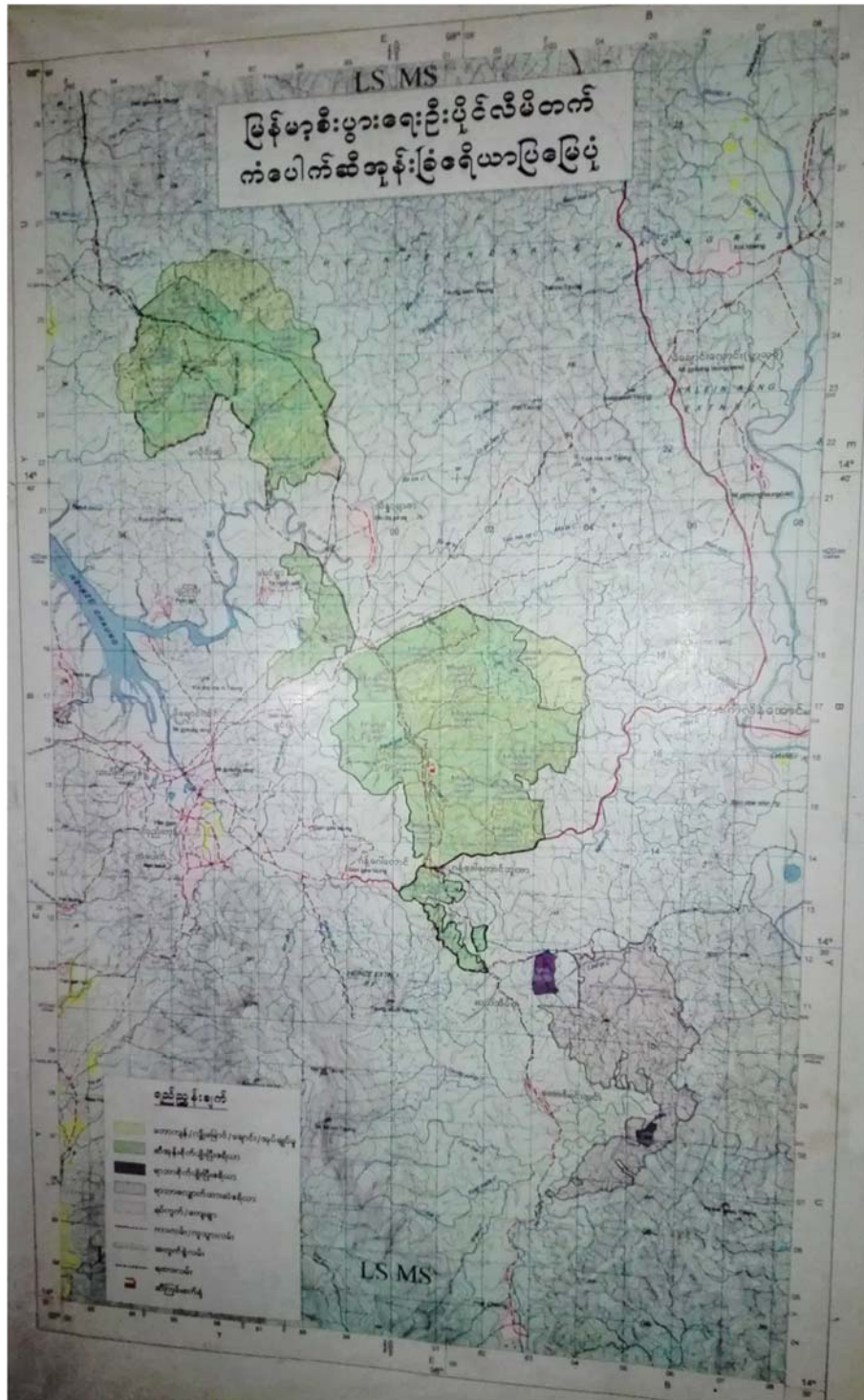
References for the maps:

The maps were created in February 2018 by Lara M. Lundsgaard-Hansen (r4d) and Florian von Fischer (OneMap Myanmar Project), in Yangon, Myanmar. The sources of data include:

Dataset:	Source:
Villages	Myanmar Information Management Unit MIMU (2015), edited by OneMap Myanmar (2018)
Roads	OneMap Myanmar (2017), digitized based on aerial imagery
Railway	Myanmar Information Management Unit MIMU (2015)
Administrative boundaries	Myanmar Information Management Unit MIMU (2015)
Reserved Forest / Protected Public Forest	Wildlife Conservation Society Myanmar WCS (2015)
Mining concessions	No. 2 Mining Enterprise (ME2) Tanintharyi Region: Tanintharyi Tin and Tungsten Exploration and Production concession list 2016 (2017)
Landcover classes 2015	Grant Cornette (Smithsonian Institution, Myanmar) (2016), edited by Onemap Myanmar (2017)
Oilpalm concessions	OneMap Myanmar (2017) source data: concession contracts, Forest Department Tanintharyi Region (2015)
Gas pipelines	OneMap Myanmar (2018), digitized based on aerial imagery
Rivers	OneMap Myanmar (2018)
Hillshade	Based on SRTM 30m NASA
World shaded relief	ESRI (2014)

Annex

A.1. Pictures of maps at KOPP office, MEHL



Picture 6: Overview map of KOPP, MEHL (pictures 6-10 taken by Lara M. Lundsgaard-Hansen on 8.5.2017 in the office of KOPP, MEHL)



Picture 7: Northern part, planted oil palm area



Picture 8: Central part, planted oil palm area



Picture 9: Southern part, rubber area



Picture 10: Legend of map

A.2. Pictures of contract of KOPP, MEHL

At KOPP, MEHL, office, we were allowed to take pictures of the contract between KOPP, MEHL, and Forest Department Union Level.

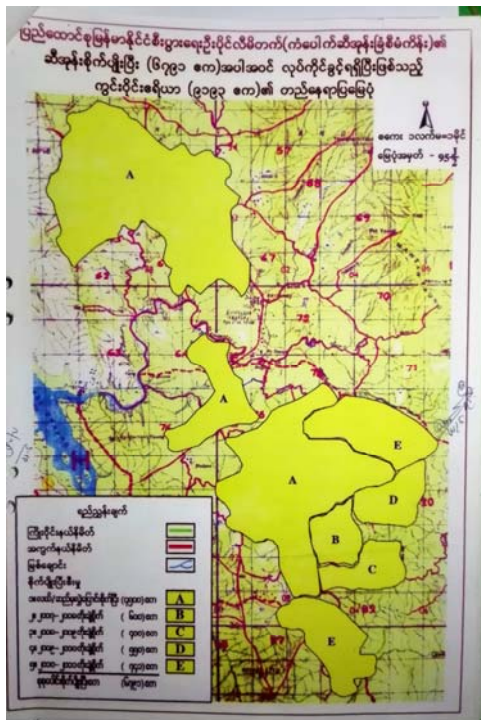
All pictures were taken by Lara M. Lundsgaard-Hansen on 8.5.2017.



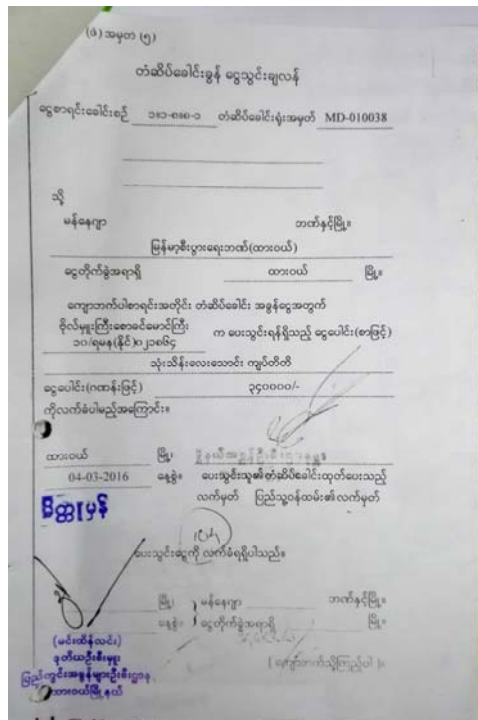
Picture 11: Page 1 of the contract



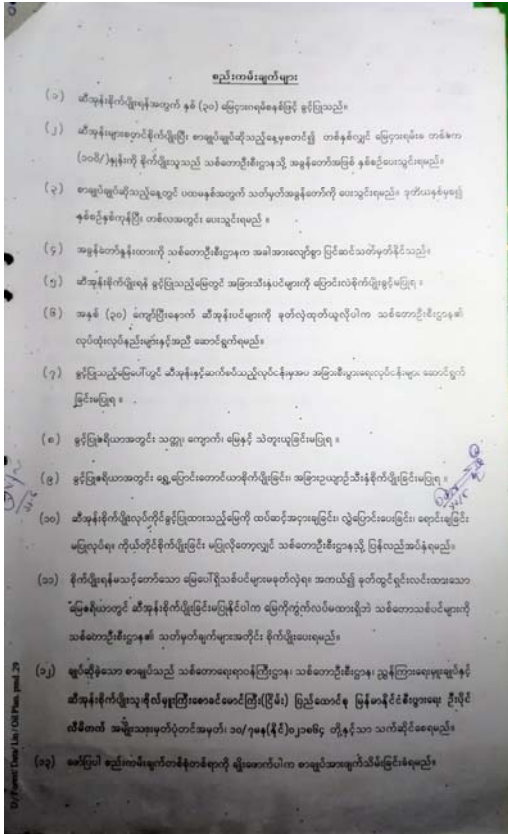
Picture 12: Page 2 of the contract



Picture 13: Page 3 of the contract



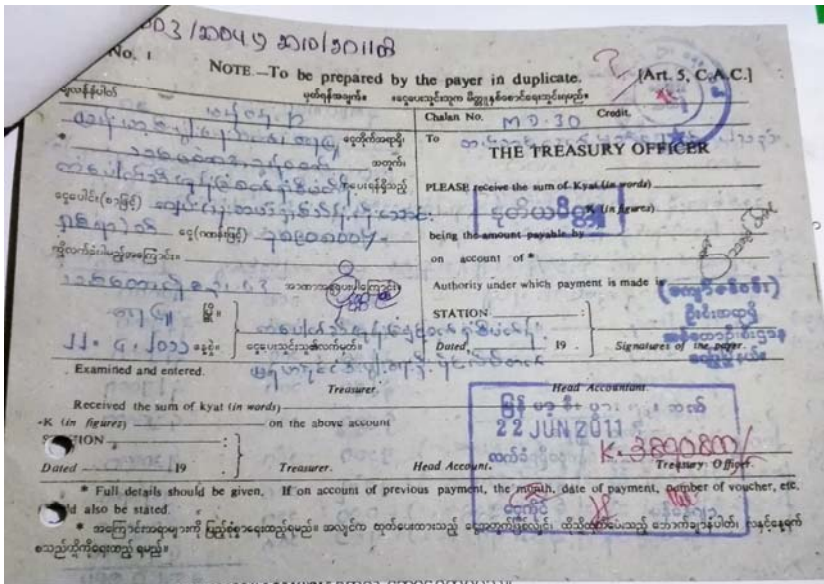
Picture 14: Attachment to page 3 of the contract



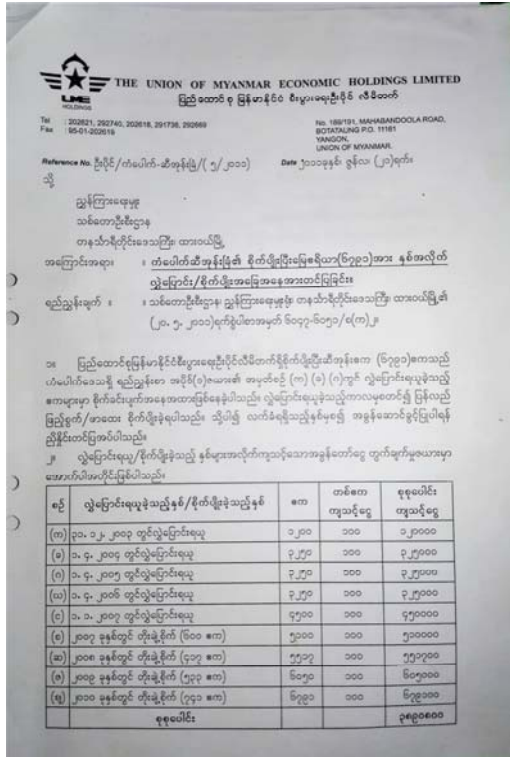
Picture 15: Page 4 of the contract



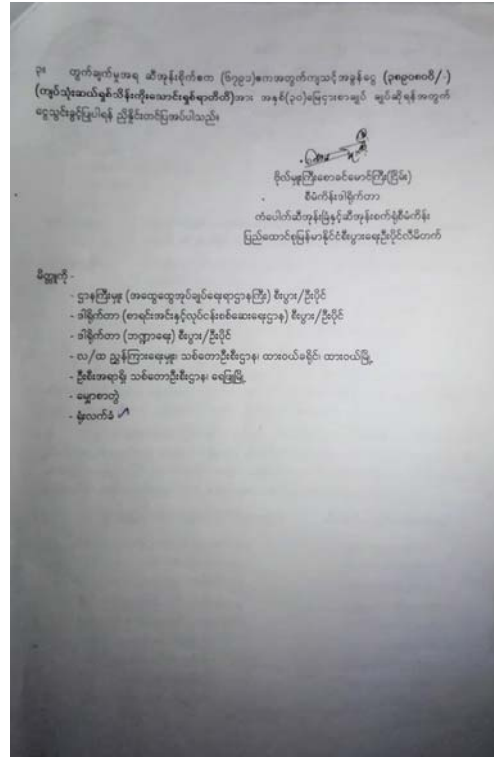
Picture 16: Page 5 of the contract



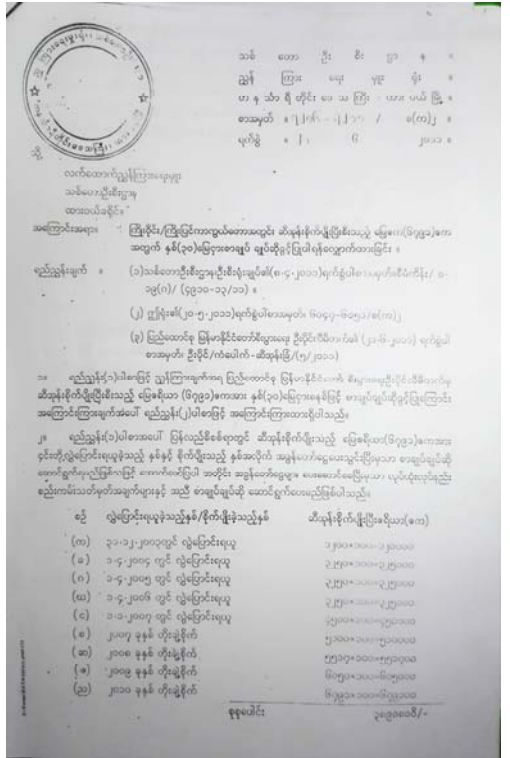
Picture 17: Attachment to page 4 of the contract



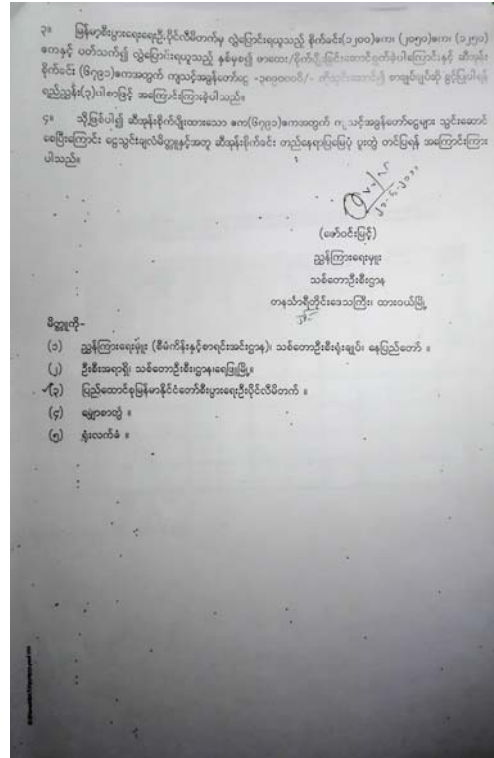
Picture 18: Page 6 of the contract



Picture 19: Page 7 of the contract



Picture 20: Page 8 of the contract



Picture 21: Page 9 of the contract

A.3. About previous director U Saw Khin Maung Gyi and manager U Thet Sinn

The longstanding director U Saw Khin Maung Gyi was retired in 2017. The board assigned a new director in around October 2017. U Saw Khin Maung Gyi himself might continue working as an advisor for the company in future. He feels of the palm trees as his children. He wants to treat them in the best way: Give enough fertilizer, make them grow and prosper, prevent them from being sick or dying.

The director learnt all these skills on the job. When he started, he had no experience with managing an oil palm plantation. He could visit Malaysia for 10 days, to learn about the cultivation and production. Afterwards, he also made some exchange excursions to Kawthoung, Myeik, and Bokpyin together with other palm oil companies.

The manager, U Thet Sinn, started working for KOPP, MEHL, three years ago. He was already very knowledgeable as he graduated in agriculture and had a lot of work experience. In the 90-ies, he was governmental staff. Skylink headhunted him and hired him as a manager. But Skylink was closed after three years because they acted against the Government. So he went to work with another oil palm company. But this one was also stopped. Afterwards, he went to work for the palm oil company Shwe Kambawza for another 3 years holding a general manager post. There he was too busy, because he had to find the labour himself. He sometimes had to go to Ayeyarwady villages and collect willing labourers. But often, they would only stay with Shwe Kambawza for one month and then return to their homes. After some time, he even got sued for doing human trafficking. But this was a misunderstanding. So he decided to resign from Shwe Kambawza. He was first jobless, but then met with a former General Khin Zaw Oo, who then told him to join KOPP, MEHL. U Thet Sinn is originally from Mawlamyine. Overall, he went to Malaysia several times for studying the palm oil cultivation and production, training and research.

A.4. U Thet Sinn's opinion and suggestions for all oil palm estates in Myanmar

I suggest that all companies understand the principle of sustainability through a learning-by-doing approach using higher assessment policies. We altogether can achieve much value and best opportunities.

I would like to present these 10 policies mainly related to the oil palm plantation industry.

Policies before planting:

- 1) Planting material choosing policy: Not to use poor seeds and uncertain seeds
- 2) Culling policy (in nursery): Correct culling, one time in pre-nursery and three times in main nursery
- 3) Land clearing policy: To control soil erosion and maintenance of the natural top soil
- 4) Legume crop policy: The leguminous plant *mucuna bracteata* can cover the whole area

Policies after planting:

- 5) Castration policy: 1-2 years after planting take out all flowers
- 6) Pruning policy: Leave one frond under the FFB and always control optimum fronds quantities, depends on age of the plant
- 7) Manuring policy: Weeding costs can be strongly reduced with green manuring practice. After cutting the bush, reuse the waste as green manure for palm.
- 8) Gradually reduce the inorganic fertilizer costs by substitution with organic manure policy.
- 9) Infrastructure policy: This includes physical infrastructure such as production road, inspection road, drainage, use of efficient mechanized vehicles, labour shelter and respective buildings
- 10) Intercropping policy: Inter-cropping or inter-cultivation with valuable cash crops to increase the level of profit

I would like to suggest the above 10 policies and expect that all oil palm companies following these would achieve a higher commercial stage.

Thank you.
U Thet Sinn, KOPP, MEHL
18.05.2017

Your Notes

With the publication of this series, we pursue the objective of knowledge dissemination for the public about land-related situations on the ground in Southern Myanmar. The series aims at capturing different voices and opinions about land use, land use change, and land governance, with a focus on Yebyu Township in Tanintharyi Region, Myanmar. It is therefore likely that different working papers will present different or even opposing information.

Please note that these working papers are grounded on the perspectives of the particular stakeholders only. They do not necessarily represent the perspective of the authors and the project team.

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The main authors are associated with the Centre for Development and Environment (CDE), Switzerland, and the Environmental and Economic Research Institute (EERI), Myanmar.



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