



MECK Fund is an for-profit agriculture investment fund that preserves biodiversity and high conservation value forests by utilizing capital and utility gain that comes from restoring degraded land

**INTRODUCTION: PALM OIL PRODUCTION IN INDONESIA**

Palm oil is the largest produced edible oil in the world, and Indonesia leads production and exportation with roughly 18 million metric tons of crude palm oil exports valued at US\$21.6 billion in 2012. World production of palm oil is expected to increase by 32% to almost 60 million tons by 2020, highlighting the importance of sustainable practices.

**THE PROBLEM: SUSTAINABILITY CONCERNS ON MULTIPLE LEVELS**

Unsustainable palm oil production in Indonesia has led to many devastating results including loss of high conservation value forest (HCVF), most critical of which are peatlands, and biodiversity loss of rare and endangered species. Many levels of stakeholders, both local and international, have expressed concern with current palm oil production practices.

**THE SOLUTION: MICROFINANCE LENDING FOR DEGRADED LAND SWAP**

Provide microfinance loans to smallholders with degraded land to invest in palm oil production, therefore investing in land swap. Sustainable palm oil production is necessary, but must be done on degraded land that is swapped and then nurtured back into farmable soil. Degraded land can be classified as land with reduced carbon stock. Development of this land will neither increase GHG nor decrease HCVF or biodiversity. Changing the legal classification of this land by encouraging the use of previously degraded soil (land swap) increases utility and value, and improving upon multiple existing levels of the palm oil production in Indonesia.

**INVESTMENT STRATEGY: EMPOWER THE SMALLHOLDER**

Past studies found 3.3 million hectares of potentially suitable land for sustainable palm oil production in Central Kalimantan, which is about 21% of the province’s total land area of 15.3 million hectares. The fund will invest in 5,000 hectares of farmland held by 1,000 smallholders with an average of 5 hectare each.

**Figure 1:** Impacts of new land vs. improvements of degraded land use

ECOLOGICAL IMPACTS	ECOLOGICAL IMPROVEMENTS
New land for palm production (acquired) found by cutting down new forest, even if not HCVF.	No new land needed. Previously unfarmable land will gain utility and value.
New land for palm production (acquired) found by replacing current crop, usually food crop.	No new land needed. Previously unfarmable land will gain utility and value.
Peatlands and endangered animals continually threatened by deforestation.	No further endangerment to precious biodiversity.
SOCIAL IMPACTS	SOCIAL IMPROVEMENTS
Landowners have to choose between food crops and cash crops.	Landowners only get improvement on their land.
Degraded land brought nothing to the owner, nothing to the community.	Degraded land conversion process brings new social programs to the farms and the community. Outreach through education.
ECONOMIC IMPACTS	ECONOMIC IMPROVEMENTS
Landowners distressed with unfarmable property.	After swap, land is farmable and income-generating for owner.
Land with zero revenue for community ([or]but zero ecological or social benefit)	Once the land generates income for the owner, the owner will generate income for the community through taxes.

The first four years of the fund will be in the form of capital investment until the harvesting period starts (assuming no climate change impact). In the following three years the fund will subsidize the farmers with a working capital loan. Total loan given to a farmer with 5 hectares land will be \$32,500 USD. In return, the farmer will be sharing 70% of its return from the crop yield for the back payment of the loan until the 15<sup>th</sup> year of the operation. When all proceeds are calculated a farmer with an average of 5 hectares of land will yield around 7% IRR to the fund.

The fund will invest in smallholders who own degraded land of less than 10 hectares and with previous experience in farming and agriculture. The farmers should be willing to insure the crop and provide crop as collateral to the loan.

Target investment pool is Indonesia-based governmental organizations and sovereign wealth funds, pension funds, IFC, private companies that want to invest in sustainable palm oil farming including corporations owing a stake in the business and high net-worth individuals interested in philanthropic actions.

**Figure 2:** Structure of target investment pool for MECK Fund



### THE DUE DILIGENCE PROCESS

Auditing will be an integral part of our ground-level team and critical to our success. To ensure appropriate due diligence, to the best of our abilities, we will partner with respected non-profit organizations such as the Roundtable on Sustainable Palm Oil (RSPO) and use their principles, criteria, and certificates when appropriate to best serve the needs of our stakeholders, smallholders (farmers), partners, and clients.

Auditing processes will be classified into four categories: micro scope, legal, environmental, and commercial audits. Micro scope financial and legal audits shall be performed by our team during initial investigatory interviews with the smallholders. The audits will evaluate smallholders for not

only creditworthiness, but their ability to perform as a sustainable farmer. Environmental and commercial audits will be carried out to understand the status of the land and forecast future income potential. We will seek third party involvement during the environmental audits accompanied by a technical staff from our team.

### RISKS & RISK MANAGEMENT

IMECK Fund recognizes the risk of working with unfarmable land but identifies it to be a strategic risk to find strategic gain in an already thriving industry. As Indonesia participated in the United Nations' Conference on Desertification, MECK will utilize the goals of this conference to manage this risk through education of local farmers in land swap and sustainable farming practices. Financially, MECK Fund understands the risk to the lenders should borrowers not repay the loans and the risk to borrowers due to crop insecurity. MECK is committed to researching the use of climate-based insurance metrics to minimize risk to farmers should environmental factors, such as drought, plague a farmer's crop. Additional risks that may be faced through the development and implementation of this fund include political instability, price volatility, competitive markets, risk to industry, and government inclusion.

### THE FUTURE: NEXT STEPS

In order for this fund to provide truly sustainable investing, social, economics, and environmental impacts must all be considered. The Global Impact Investing Network has an Impact Reporting and Investment Standards (IRIS) catalogue that will be used as a basis for metrics for social impact. With the use of IRIS, the MECK Fund will be able to measure operational impacts such as training and sustainability assessment, environmental performance, social policies, governance and ownership, as well as product impact and financial performance. MECK Fund will use these metrics as a benchmark for developing the initial measure of the fund's progress with plans to extend and adapt these metrics to fill our needs. These metrics will be used to ensure positive gains in utility and social value to farmers using degraded land swap.

Indonesia has 7.3 million hectares of degraded land of which approximately 45% can be utilized for land swap. As a next step, MECK Fund will engage in land acquisition and expand its offering to farmers eager to break into the sustainable palm oil market, shifting the fund's focus from landowners in possession of degraded land to entrepreneurs. Furthermore, the investor pool will be broadened to attract major corporate consumers of crude palm oil who currently are timid about investing in sustainable products due to risk.

1. CME Group. An Overview of the Edible Oil Markets: Crude Palm Oil vs Soybean Oil. 2. World Resources Institute. How to Change Legal Land Use Classifications to Support More Sustainable Palm Oil in Indonesia. 3. World Growth. The Economic Benefit of Palm Oil to Indonesia. 4. Roundtable on Sustainable Palm Oil. National Interpretation of RSPO Principles and Criteria for Sustainable Palm Oil Production, Republic of Indonesia. 5. World Resources Institute. How to Identify Degraded Land for Sustainable Palm Oil in Indonesia. 6. Greenpeace. End of Destructive Palm Oil. 7. Why do farmers prefer oil palm? Lessons learnt from Bungo district, Indonesia. 8. Developing palm-oil production on degraded land Technical, economic, biodiversity, climate, legal and policy implications