



# INTEGRATED FORESTRY & FARMING SYSTEM

# PREFACE FROM THE EDITORS

Peace and sustainability for all of us.

In the four years since we've implemented Desa Makmur Peduli Api (DMPA) also known as Integrated Forestry & Farming System (IFFS) mobilizing villages and communities to take part in sustainable forest management as well as to improve their economic situation in a sustainable manner, we have slowly seen the results of our efforts.

We have collected stories from the villages and the communities that have implemented the IFFS Program, and the many positive benefits that they have enjoyed are presented in this edition. The IFFS program, a strategy for managing sustainable forests, has opened the minds of the village communities to continue to preserve the forest responsibly. The achievements presented in this edition demonstrate the importance of a collaboration between the communities, companies, regional governments, non-governmental organizations and academics.

The implementation of the IFFS Program will be expanded as we are serious in the realization of APP Forest Conservation Policy.

## ***The Editorial Team***

*Global Communications Division APP  
Social and Security Division APP*



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# IFFS Program Background

One of the accomplishments of APP's Forest Conservation Policy is the constructive engagement of customary and local communities in an attempt to resolve social conflicts as well as the socio-economic development of communities living near the forests.

The community has to be actively involved in sustainable forest management efforts and exercise economic activities that are both sustainable and responsible. With this in mind, APP embraced the customary and local communities to attain these goals.

At the end of 2015, APP introduced Integrated Forestry & Farming System (IFFS), which is an improved program

stemming from previous community development programs.

Through IFFS, APP hopes that villages and communities can play an important role in sustainable forest management, accompanied by the achievement of common prosperity.



# Six Pillars of IFFS

The IFFS program is founded on the collaborative principle involving the active participation and coordination among all stakeholders: villagers, village administrations, partnering village institutions, non-governmental organizations, academics and of course, APP and its suppliers managing local concession areas.

In order to realize the commitments of APP's Forest Conservation Policy and the complexity of conditions and issues unique to the target village, the program is upheld with a six-pillared structure.

Above all, the six pillars of the IFFS program are designed to accommodate the contemporary conditions and contexts unique to the target village as they are applied in progressive stages.

## Pillar Programs



Participatory Mapping of Resources & Borders



Resolving & Preventing Local Conflicts



Transferring Technology & Knowledge



Partnering in Product Marketing



Protecting & Maintaining Forest Areas



Improving Forest Management & Livelihoods

## Objective of IFFS



To improve livelihood and food security of village households;



To map village resources within the area and utilization of their land;



To strengthen the harmonious relations between the company and village communities (as well as to prevent disturbances in the forest);



To strengthen and support the APP Forest Conservation Program.

## Benefits of IFFS

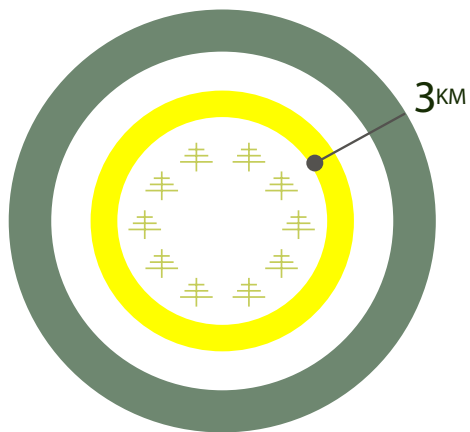
In applying these six pillars to actual practices in the field, the IFFS program aim to contribute towards:

1. Increased earnings and economic welfare of beneficiaries;
2. Improved food stock and food security in targetted villages;
3. Harmonized relationship between the village community and APP/ supplier companies;
4. Resolving conflicts (internal and external) and preventing new ones;
5. Focused functioning or establishment of local economic institutions;
6. Increased active engagement of villagers and the village administration in forest management and conservation efforts.

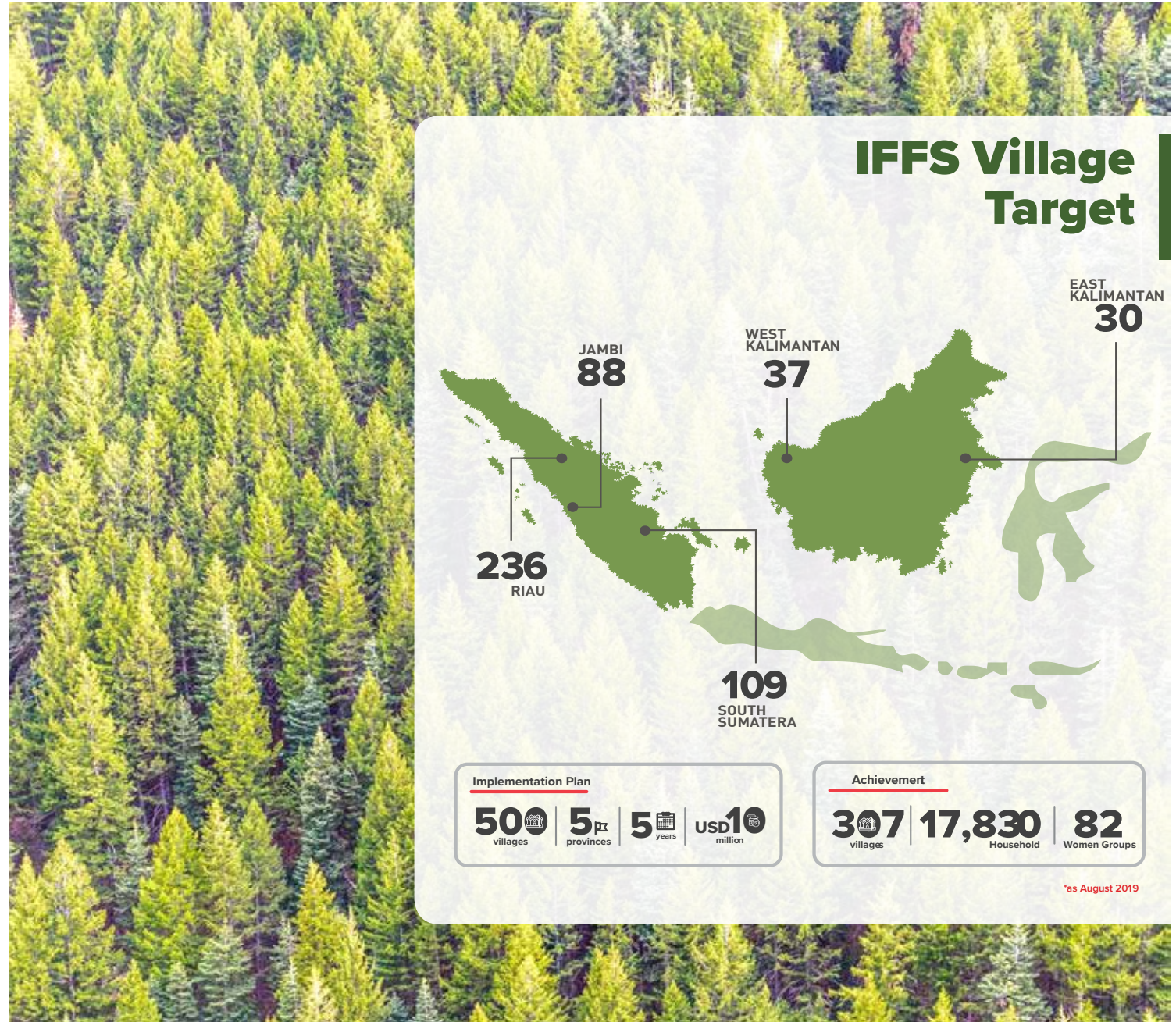
# IFFS Village Selection

1. Villages have to be located inside the concession area or within a radius of three km outside of the concession;
2. The village community has a strong connection with the forestry resources in the concession;
3. An incidence of land and forest fire within the past three years.

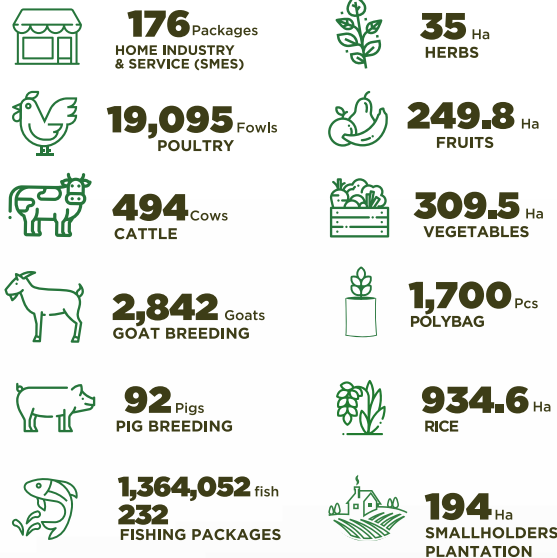
The villages are located in five provinces in Indonesia: Riau, South Sumatra, Jambi, West Kalimantan and East Kalimantan.



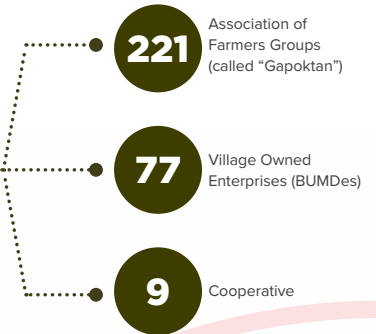
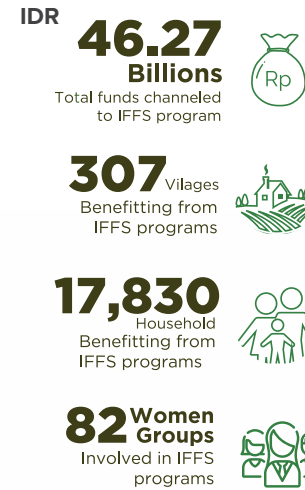
Priority area of IFFS Program



## Program Type Selection



## IFFS Program Implementation Progress



# ALEK

*The IFFS Farmer of Siak, Riau*

Alek Safirman (50) is one of the owners of Mutiara Indah Farm compost factory located close to one of Asia Pulp & Paper's suppliers, PT Arara Abadi concession, in Riau.



2014



NOW



***“The Integrated Forestry & Farming System (IFFS) allows the group to sell 100 tons of compost fertilizer to PT Arara Abadi every month, with a selling price of 113 million rupiah.”***

“It was sad and difficult. I only had one and a half cattle in 2009,” Alek said.

Alek started a business raising livestock with a friend, with only three cows. In 2014, the three cows had grown to 12 and the friend asked for his share. Alek found 10 other people who wanted to buy the cow, so he can keep the cow and the friend got his share.

In 2016, the Government assisted the group with 25 Brahman Cross cows and assist the group with training on composting. At present, the group has 115 cows which produce 1 ton of cow manure every day. They also buy cow manure from other farmers. There are about 1,000 cattles raised by farmers in Kampung Pinang Sebatang Timur, Tualang, in Siak Regency.

The Integrated Forestry and Farming System (IFFS) allows the group to sell 100 tons of compost fertilizer to PT Arara Abadi every month, with a selling price of 113 millions rupiah. At least, each member can get 10 millions rupiah per month.

“By giving fertilizer to the forest with cow manure, we are headed for mutual prosperity,” he said.

# SAFRIZAL

*The IFFS Farmer of Siak, Riau*

Safrizal (60) is a member of the Tani Jaya Group, a farmer group appointed to implement the Integrated Forestry & Farming System (IFFS) in Pinang Sebatang Barat Village, Tualang District in Siak Regency.



**“Safrizal produces a total of 6 tons of fish, with a selling price of 15 thousands rupiah per kilogram.”**

PT Arara Abadi, a forestry unit of Asia Pulp & Paper, helped Safrizal and other farmers to build fish ponds using heavy equipment.

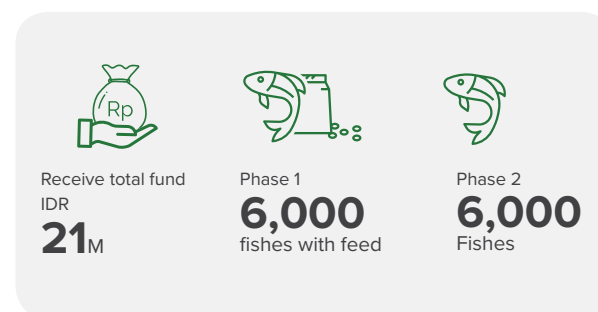
“In 2017 I got a loan to grow Patin Siam or Iridescent Sharks. The total fund was 21 millions rupiah. The fund was used to buy six thousands fish and feed. In the second phase, I added six thousand more fish, so there were a total of 12 thousands fish,” he said.

Safrizal produces a total of six tons of fish, with a selling price of 15 thousands rupiah per kilogram. From the profits,

now Safrizal’s business continues to grow with the enlargement of gourami fish.

The IFFS program is now growing with at least 20 hectares of land in villages that have been cultivated without burning, which consists of agriculture and horticultural business. There is also a livestock business that began with the development of a cattle and goat farm.

“In the future, with prosperous villages and communities, there will be no more forest and land fires,” Safrizal said.





# SUGENG RIYANTO

*The IFFS Farmer of OKI, South Sumatera*

Sugeng Riyanto (40) succeeded in increasing the productivity of his rice field after switching into organic farming practices through IFFS.

Sugeng and the Wonotirto Farmer Group manage farming in the Livelihoods Zone provided by PT Bumi Andalas Permai, one of APP's supplier partner in Ogan Komering Ilir Regency of South Sumatra. The Livelihood Zone has an area of 1900 hectares which is divided into three villages: Simpang Heran Village, Bukit Batu Village, and Belanti Jaya Hamlet of Banyu Biru Village.

Before joining the program, Sugeng produced around 23 sacks of rice per hectare in one harvest season. Now, it has increased into 31 sacks per hectare. One farmer in his village even managed its rice field productivity from eight sacks to more than 30 sacks, with an average weight of 80 kilograms per sack.

"In terms of quality, the rice grains we produce looks clearer, denser, and has better quality," Sugeng said.

During his life as a farmer, Sugeng only understood that clearing land by

fire would reduce soil quality and negatively impact the environment. Sugeng felt that his land was no longer fertile. Then, he started to manage his rice field using more environmental-friendly practices.

His passion and his intention to protect the land to be more productive, Sugeng also joined the Integrated Forestry & Farming System (IFFS) Program in collaboration with the Ga Ga Go Organic Community (3GO) to promote organic farming

## *"Successfully Increasing Rice Productivity, Sugeng Riyanto Becomes a Pioneer in Organic Farming Practices in his Village"*

development in his village. He also invited other farmers to participate into the program.

At first, he had received several negative responses when he socialized organic farming to other farmers in the village. Organic farming practices are unusual for most farmers in Simpang Heran Village. Many people underestimate Sugeng's call for this organic practices.

"In the beginning, it was very difficult to talk about organic farming to my fellow farmers. Opening up agricultural land by fire has become the only way we have always done," said Sugeng.

Now, with the guidance and support from the IFFS Program and the 3GO Community, Sugeng and the Wonotirto Farmer Group, that he leads, have left the use of fire and replaced with manual slash methods.

Now that farmers can see directly the results of organic farming practices that are more cost effective, faster in achieving harvest time, and higher in productivity, then they begin to be more aware, "concluded Sugeng.

### **Vegetable Pesticides (Pesnab - Pestisida Nabati)**

The Wonotirto Farmer Group led by Sugeng Riyanto has developed organic farming by making vegetable pesticides (Pesnab), potassium, and hormones to stimulate plant growth. The entire manufacturing process also uses natural ingredients.

Pesnab is made using basic ingredients of animal manure, brown sugar, bintaro fruit, galangal, banana cobs, coconut water, and starter (additional ingredients used in the early stages of the fermentation process). Potassium is made with basic ingredients of fiber and coconut water, rainwater, and also a starter. While making hormones is done by using the basic ingredients of turmeric, milk, honey, chicken or duck eggs, sugar, starter, and coconut water.

"The ingredients in making Pesnab, compost, potassium, and organic hormones are all obtained from the surrounding environment, to reduce total cost in one harvest by 30%," said Sugeng.



# The Story of Sungai Keruh Village, Jambi

The community of Sungai Keruh Village, a village that is fostered by the Integrated Forestry & Farming System (IFFS) program under the guidance of the PT Wirakarya Sakti (WKS) a subsidiary of APP, in Tebing Tinggi District, Jambi, has now succeeded in improving the quality of life through a healthy and clean living program, and develop alternative livelihoods through the agriculture and tourism sectors.

According to the Head of Sungai Keruh Village, Suwarno, the process was not easy; it required a lot of effort and a time for socialization. One of the challenges is the development of healthy toilets for all households. However, their efforts produced results. Now all the community of Sungai Keruh Village have a toilet in their house.

This achievement has even succeeded in making Sungai Keruh Villagers the second national champion for the Healthy Clean Life Behavior Competition in 2019. In addition to having healthy toilets, other criteria have been met by Sungai Keruh Village to become PHBS Competition winner, among them are exclusive breastfeeding for newborn children, wash hands thoroughly, stop smoking, and consume fruits and vegetables.

For this reason, Suwarno and the community of Sungai Keruh Village also sparked other contributions to

encourage the welfare of villagers, including the Trade Corner.

## Smoking Corner

Sungai Keruh Villagers are prohibited from smoking at home and in public places. Community are only allowed to smoke in places that have been provided. They call the places Smoking Corner. Not only it protect other community members from exposure to cigarette smoke, this corner is also useful to prevent land fires triggered by cigarette butts.

Suwarno said, it was a long process and a hard struggle to run this program. On average the trans-migrants in this village earn a living as oil palm farmers, so the basic income they received is quite stable. After harvesting, it is common that the consumption of cigarettes among them increasing.

Efforts to continuously socialize the program are carried out through the activities of festivity, recitation, and other routine meetings. In addition, the smoking bans was also applied in the village office

## Community Economic Development Through Agriculture and Agro-Tourism

The farming activities in Sungai Keruh Village are unique, where people plant in their yard. The plants are also diverse, ranging from chili, eggplant, tomatoes,

## *“The community of Sungai Keruh Village won the championship by implementing clean hygiene behavior”*

and various other vegetables. The result is not only for family consumption but also for sale.

Some community plant melon, a type of plant that needs high attention, but the results are encouraging. Abundant harvests make citizens happy. “Usually buyers like taking photographs in melon gardens before buying. I see this as an opportunity,” explained Suwarno.

Exactly a year ago, he invited the community to plant more melons. He even allocated a 0.3 hectare village land as a trial project. As a result, in the first harvest, the land was able to produce as much as three tons with a selling price of IDR 45,000,000.

One melon farmer, Riyanto (34), often invites young people to plant melons on the land. He and his group worked hard to increase melon production with organic farming methods. As a result, they succeeded in harvesting as many as eight tons of melons in the fourth harvest. Sales are estimated to reach IDR 120,000,000, or up around 167% compared to their first harvest.

Now Riyanto no longer needs to bother looking for buyers for his garden products. Traders from the market also come to the Sungai Keruh garden to

collect melons themselves to be resold. Riyanto’s neighbors also began to follow in his footsteps. Previously, only 1,600 planted, now 3,600 melon trees have been planted on the land.

In addition to agriculture, some community also develop biofloc catfish cultivation.

## Water recreation

To increase happiness and maintain balance in life, the village administrator also developed water tourism named Wahana Tirta Sari for recreational facilities.

This tourist spot is always crowded with people, especially on Sundays. There are several rides such as duck boats, seesaw, slide, and gazebo, and are equipped with food stalls. So that community can spend time with family and release fatigue.

“In the past, people needed to travel a long way to Jambi. Now, they can enjoy this at Tirta Sari it self. When it was opened at Eid al-Adha Wahana Tirta Sari was like a gift for the residents,” Suwarno said. “Now it’s still free for the community. Later, if the facilities are more complete, then we will sell tickets to help with the the operational costs.”



The development of his village could not be separated from the IFFS program from PT WKS which helped to design the program and provide assistance to maximize the potential of the village and its people. The IFFS program is also a collaborative program between villages and companies to prevent forest fires, as promoted by Indonesian President Joko Widodo.

“We are very grateful to PT WKS for helping us improve the quality of life of residents. Assistance provided,

especially in terms of agricultural, livestock and tourism facilities and infrastructure, has been helping us to develop alternative livelihoods for community and reduces community dependence on forests. So people do not need to keep on opening new land, especially by burning. That way the potential for forest fires can be reduced,” Suwarno explained.



## Collaboration in Women Empowerment

Though Asia Pulp & Paper (APP) and Martha Tilaar Group (MTG) work in different sectors, we share common goals around sustainability and the desire to benefit our communities. APP’s aim to help its local communities to find alternative livelihoods to empower the communities is aligned to with MTG’s mission to empower women to be successful entrepreneurs. Through APP’s Integrated Forestry & Farming System (IFFS), MTG will now have access to communities in areas that were previously beyond their reach.

APP and MTG signed a pledge to collaborate on September 24, 2018 at the United Nations Headquarters in New York during the New York Climate Week 2018.

The program targets to train 1,000 women by providing them with sustainable alternative livelihoods. It contributing to Sustainable Development Goals (SDGs) related to No Poverty, Gender Equality, Decent Work and Economic Growth, and Partnership for the Goals.

The program duration is from January 29, 2019 until December 31, 2020. The collaboration program for women’s empowerment includes training to recognize and utilize local herbs as well as providing access to markets. In addition, MTG will provide scholarship and training for beauty class and spa therapist.



Training to recognize and utilize natural herbs

**409**  
women



Beauty class

**750**  
women



Scholarship program to become a spa therapist

**4**  
women



## IFFS Program Conduct Modern Market Training in The Era of Digitalization

As many as 60 participants both from community and MSMEs (Micro, Small and Medium Enterprises) of three Regencies of Siak, Pelalawan and Bengkalis have experienced a breakthrough from Integrated Forestry & Farming System program (IFFS) from PT Arara Abadi (PT AA) subsidiary of Asia Pulp & Paper (APP). On Tuesday, August 27, 2019, they participated in the Modern Retail Market Mechanism Training, which was held at the PT Arara Abadi Training Center in Bunut, Pinang Sebatang Barat Village, Tualang District, Siak Regency.

The training's resource persons were came from modern retail practitioners: Alfamart, Blibli.com from Jakarta, and Indonesian Ulema Council from Pekanbaru. During this one-day event, Tualang Perawang Sub-District administration that represented by the Secretary of the Sub-District Secretary

Yudha Rajasa SSTP was also attending, together with PT AA's IFFS Program Leader Joss Rinaldy, and Public Relations of PT AA Riau Region Nurul Huda.

According to Yudha Rajasa SSTP, this is one of the excellent breakthroughs from IFFS program, by bringing in the experiences from Blibli.com and Alfamart which are expected by MSMEs to provide sufficient knowledge and access to modern retail markets such as e-commerce and digital market.

Joss Rinaldy explained that this training is one of the six pillars of the IFFS, partnerships and marketing support. Since IFFS was implemented in 2016, it has support many programs for MSMEs product and development. However, the main challenge of MSMEs in modern market so far has been the product improvement and administration. Product consistency on quality when



*“This training is one of the six pillars of the IFFS program, partnerships and marketing support.”*

produced in big quantity, packaging, and the administration of PIRT (Home Industry Products) certification from the Trade Office and the LPPOM-MUI Halal Certification (Indonesian Ulema Council).

One of PT AA's role in IFFS is to bridge the experiences from the modern market practitioners to MSMEs farmers by facilitating such training. Through this training, all requirements and information needed to take part in the modern market can be figured out pretty well directly from the Alfamart, Blibli.com and Indonesian Ulema Council practitioners.

It expected that MSMEs which has PIRT and Halal certification can begin to penetrate the modern retail market. Certification process can be facilitated

collectively by responsible stakeholders in the region. “At this time there are around 60 participants from SMEs and the business community around Perawang requires training,” said Joss Rinaldy.

The training also discussed the online marketing system and its potential for MSMEs, as well as tips on getting products into the modern market. Alfamart and Blibli.com also explained the product packaging concerns in the their business. At the end of this one-day training, the participant also has networking session with various speakers.





## IFFS Program Village in Jambi Won the MEF Climate Village Program (ProKlim) Award

Dataran Kempas Village in Tebing Tinggi District, Jambi, recently won the 2019 Climate Village Program Main Award from Indonesia's Ministry of Environment and Forestry for community assistance in reducing greenhouse gas emissions. This is one of the fostered villages of the Integrated Forestry and Farming program System (IFFS) by PT Wirakarya Sakti (WKS), forestry unit of Asia Pulp & Paper (APP).

According to the head of Dataran Kempas Village, Asbar Nofendra, the award received would not have been possible without the support of APP. The

IFFS program provided opportunities for villagers to contribute to climate change mitigation efforts, and at the same time have been able to increase their incomes.

"After two years ago, many of the villagers made their livelihood by clearing forests for agriculture. However, after APP socialized the IFFS program, it has significantly improved the welfare of our village without damaging the forest. The IFFS program succeeded in generating more than 230 jobs with a total income of more than Rp1 billion per month," Asbar said.



The guidance provided in this village through IFFS is compost production, tilapia farming, sheep breeding, red ginger cultivation, horticulture, and plastic waste recycling. In the compost production program, residents learned to treat existing waste in the area around the village and livestock manure to be used as fertilizer with high sale value. As a result of these successful sales, villagers are able to earn more than the minimum wage in Jambi Province, sometimes twice the amount.

Challenges arise in early socialization, such as convincing residents to move away from work that does not provide sustainability practices and to participate in the IFFS program. In addition, other challenges arose during the process of implementing this program. But the villagers are not discouraged, because in the end they are people who have enjoyed direct benefits in the past two years, Asbar added.

"The Climate Village Program (ProKlim) is a program developed by the Ministry of Environment and Forestry in promoting climate change and greenhouse gas emissions. We hope this program can make people willing to support and actively participate in its development," said Director General of Climate Change Control, Rhuanda Agung Sugardiman. At the 2019 Climate Festival, where the award was presented.

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