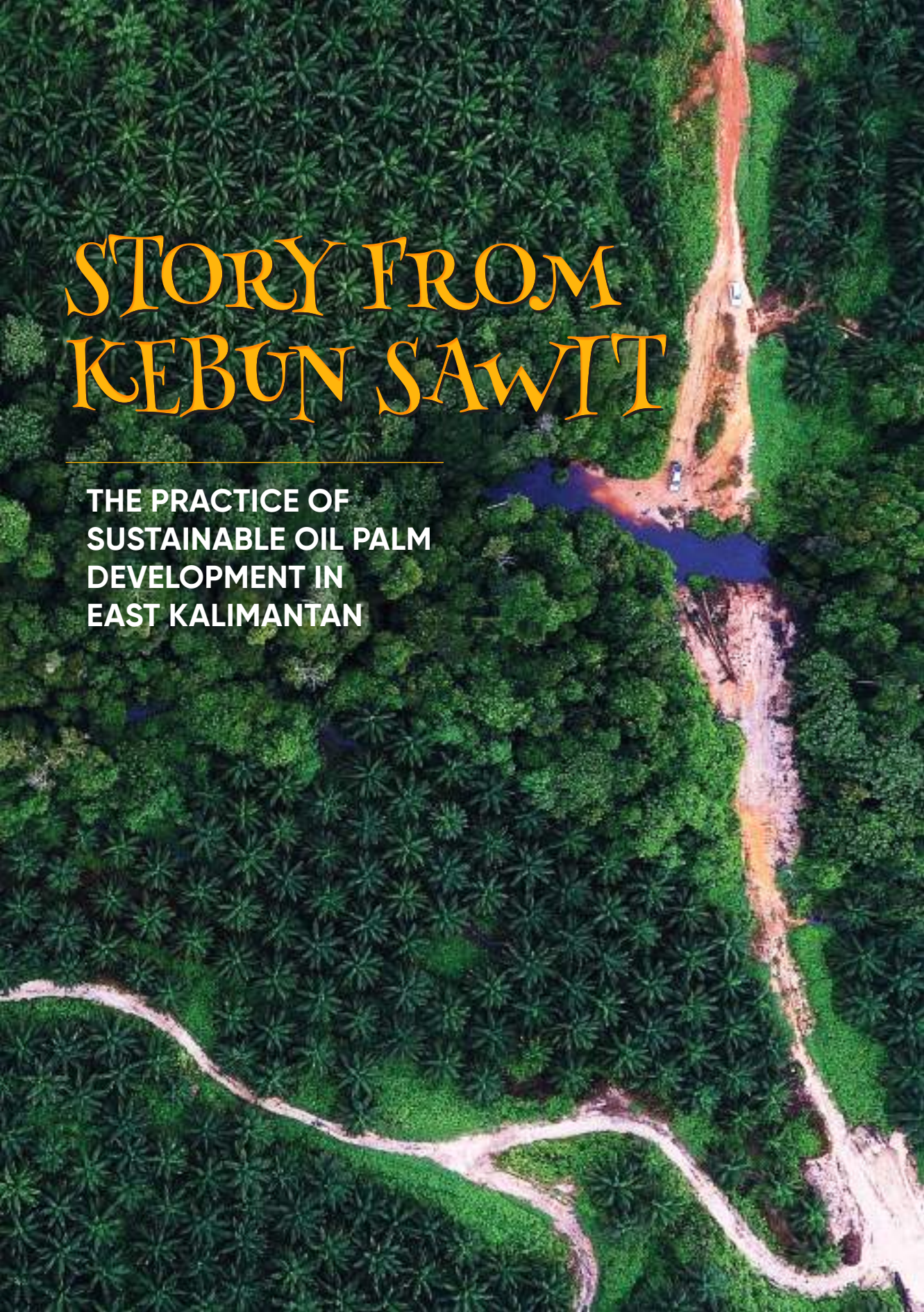

STORY FROM KEBUN SAWIT

THE PRACTICE OF SUSTAINABLE OIL PALM DEVELOPMENT IN EAST KALIMANTAN

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LIST OF ABBREVIATIONS

AoI	Areas of interest
APL	Other Use Areas
Baplitbang	Planning, Research, and Development Agency
Bappenas	National Development Agency
BMUV	Federal Ministry for Environment Nature Conservation, Nuclear Safety and Consumer Protection
BPDPKS	Oil Palm Fund Management Agency
BP2SDLP	Center for Research and Development of Agricultural Land Resources
BPN	National Land Agency
BPS	National Statistics Agency
BUMN	State-Owned Enterprises
CSF	Compensation Support Facility
$C0^2e$	Carbon dioxide equivalents
DDPI	East Kalimantan Regional Climate Change Council
Forum KPB	Sustainable Estate Crop Communication Forum
GHG	Greenhouse Gas
CPI	Climate Policy Initiative
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit

HCV	High Conservation Value
HGU	Cultivation Rights
IKI	International Climate Initiative
IUP	Plantation Bussiness Permit
ISPO	Indonesian Sustainable Palm Oil
Kaltim	East Kalimantan
KBNK	Non Forestry Cultivation Area
KLHK	Ministry of Forestry & Environtmental
KLHS	Strategic Environmental Studies
KPH	Forest Management Units
LEOPALD	Low-emissions Oil Palm Development in Berau District, East Kalimantan
Perbup	Bupati Regulation
Perda	District Regulation
Pergub	Governor Regulation
PSR	Smallholder Replanting Program
RPJMD	Medium-Term Development Plan
RPJMK	Medium-Term Village Development Plan
RPJMN	National Mid-Term Development Plan
RSPO	Roundtable Sustainable Palm Oil
RTGL	Land Use Planning
RTRW	Regional Spatial Plan
SDM	Human Resources
SIGAP	Community Inspiring Actions for Change
SIPRAMA	Independent People's Plantation Information System Application
SIP	Plantation Reporting Information System
SOP	Standard Operational Procedure
STD-B	Plantation Business Registration Certificate for Cultivation
UU	Law
YKAN	Yayasan Konservasi Alam Nusantara

Ir. Ujang Rachmad M,Si
Head of East Kalimantan Estate Crop Agency

To achieve the Green Economic Development concept in the estate crop sub-sector, the East Kalimantan administration recognizes the necessity of a multi-stakeholder involvement and collaboration to carry out its policies.

Therefore, the East Kalimantan Estate Crop Agency and its subsidiaries at District/Municipal levels understand the importance of collaboration with their development work partners with similar visions and programs regarding sustainable development. Therefore, YKAN and GIZ, their development partners since the early operative years in East Kalimantan, have supported the Government of Indonesia in nature conservation programs, including developing sustainable and low-emission estate crops.

The collaboration was first initiated while drafting the 2018 Bylaw No. 7 on Sustainable Estate Crop Development in East Kalimantan. After the bylaw was passed, it became a legal basis for implementing sustainable estate crop development concepts, activities, and other programs, as systematically narrated in this booklet.

I appreciate and welcome the initiative of the Yayasan Konservasi Alam Nusantara (YKAN) that has compiled and published this booklet titled: "Stories from Kebun Sawit: Sustainable Oil Palm Plantation Practices in East Kalimantan." This booklet is a reasonably valuable source of information about the historical facts, where the plantations are—especially oil palm and their processing industry, in their journey towards sustainability.

Finally, on behalf of the East Kalimantan Provincial Government and the East Kalimantan Estate Crop Agency ranks, I would like to express my sincere gratitude towards the YKAN leadership, especially the Low-Emission Oil Palm Development Project Team and GIZ-LEOPALD that have completed this challenging work. We hope YKAN and GIZ will continue to conceive indispensable innovations to safeguard plantation development, especially sustainable palm oil in East Kalimantan.

Samarinda, June 2022

Ir. Lita Handini
Head of Berau Estate Crop Office

Thanks to God. All praises, gratitude, and prayers we bestow to God Almighty. Because of His Mercy and Guidance, the booklet on "Stories from Kebun Sawit: Sustainable Oil Palm Plantation Practices in East Kalimantan" can be appropriately completed and published.

This small book contains information on the implementation of the Low-emission Oil Palm Plantation Development/ LEOPALD program in Berau and East Kalimantan, which our development partners carried out: the German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit or GIZ) and the Yayasan Konservasi Alam Nusantara (YKAN) from 2015 to June 2022. This booklet also summarizes lessons learned from the project implementation.

We all know that the development of the plantation subsector is inseparable from the utilization of natural resources, especially our lands and forests. That is why for it to advance, the plantation subsector must comply with management

rules and practices without neglecting the conservation of environmental sustainability. Berau's District Head-elect reflected this commitment in his first and second missions, emphasizing sustainable and environmentally-sound use of natural resources potential. The Berau Medium-Term Development Plan (RPJMD) for 2021-2026 also embodied these missions. The RPJMD targets a reduction in Greenhouse Gas (GHG) Emissions by 2,239,353 carbon dioxide equivalents ($C0^2e$), especially in Other Use Areas (APL), including those designated for plantations.

To achieve that target and ensure that all work on sustainable plantation development can run effectively, the District Administration via the Estate Crop Office sought to develop strategies and conducted a string of efforts to advance its achievements. For example, by agreeing on a Technical Cooperation involving Berau Planning, Research, and Development Agency (Baplitbang), the East Kalimantan Estate Crop Agency, GIZ, and YKAN integrates LEOPALD project activities into the Estate Crop's Agency strategic planning document. The agreement was effective from June 2017 and was extended again in June 2020.

We hope this booklet can be a source for reference and the latest information for stakeholders working in the sustainable estate crop sector, especially in Berau. The district is gearing up to implement a jurisdiction-based sustainability approach for oil palm commodities.

We also would like to convey our utmost gratitude and appreciation to the ranks of the Estate Crop Office, the Planning, Research and Development Agency, the Environmental and Sanitation Office, the Village Community Empowerment Office, and the oil palm companies that actively interact with GIZ development partners and YKAN, the village communities around oil palm plantations, GIZ-LEOPALD, YKAN, and all parties who have provided their support during the implementation of this project.

Hopefully, GIZ-LEOPALD and YKAN will continue to conceive indispensable innovations to safeguard the development of sustainable estate crops and support constructive campaign policies to implement good estate crops practices, especially oil palm plantations in this Batiwakkal earth.

Tanjung Redeb, June 2022

Ade Cahyat
GIZ Chief Advisor for IKI-LEOPALD project implementation

"STORIES FROM KEBUN SAWIT: Sustainable Oil Palm Plantation Practices in East Kalimantan" narrates the accomplishments and lessons learned from the collaborative program "Implementation of Low Emission Sustainable Oil Palm Development in East Kalimantan." The collaboration involves the Government of East Kalimantan, Berau District, Yayasan Konservasi Alam Nusantara (YKAN), and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH/ the German Agency for International Cooperation (GIZ). GIZ's involvement in the collaboration was based on the assignment from International Climate Initiative (IKI), Federal Ministry for Environment Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), and Implementation Agreement with the National Development Agency (Bappenas) for the Low Emission Oil Palm Development Project in Berau District (LEOPALD).

In addition to advising the Government of East Kalimantan, GIZ's role in the collaboration is focused on strengthening (a) the Government of Berau District's capacity for land and plantation governance; and (b) the stakeholder's capacity for conflict mediation and partnership facilitation between the local community and plantation business owners in Berau District. In this role, GIZ has taken part in the effort to realize sustainable management of the plantation sector in the Berau District.

We hope the readers may peruse this publication as part of the reference in analyzing the challenges, approaches, achievements, and lessons learned in developing sustainability in oil palm plantation governance of a particular region. This documented story comes at the right time as regions where agriculture commodities are a mainstay have increasingly adopted sustainable jurisdiction approaches.

We want to take this opportunity to express our gratitude and highest appreciation to Bappenas, the Government of East Kalimantan, the Government of Berau District, YKAN, and other stakeholders for their collaboration to achieve these collective outcomes. We hope this collective achievement will provide a strong foundation for the Government of Berau to continue the transformation in its plantation sector. Based on the Berau District Plan for Sustainable Plantation 2021-2045 that had been jointly agreed upon by the stakeholders. Furthermore, the label "sustainable region" will prove to be an advantage for Berau District, not only in ensuring optimization of positive impact and minimizing the negative impact of plantation activities on the local community and the environment but also in enhancing the competitiveness of local agriculture commodities in domestic and global markets.

Herlina Hartanto, PhD.
Executive Director of Yayasan
Konservasi Alam Nusantara (YKAN)

We thank God Almighty for whose blessing this booklet titled "STORIES FROM KEBUN SAWIT: Sustainable Oil Palm Plantations Practices in East Kalimantan" has been properly compiled and finalized. This booklet describes the achievements and lessons from the collaborative program "Implementation of Low-emission Sustainable Oil Palm Development in East Kalimantan." The Government of East Kalimantan, represented by the Estate Crop Agency; the Government of Berau District, represented by the Development Planning and Research Agency and the Estate Crop Office; has collaboratively implemented the program with Yayasan Konservasi Alam Nusantara (YKAN), and the German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit or GIZ GmbH).

The Yayasan Konservasi Alam Nusantara (YKAN) supports the Government of East Kalimantan and Berau District in

developing improved governance for plantations, particularly oil palm, with a focus on the following four outputs: 1) Developing instruments for mitigation and compensation for the private sector; 2) Developing system and application to support data and information management by the government, specifically the East Kalimantan Province and Berau District Plantation Service; 3) Strengthening community capacity on village level using the Community Inspiring Actions for Change (SIGAP) in oil palm sector, and 4) Developing multistakeholder forum on the sustainable estate crop in East Kalimantan Province and Berau District. The process has taken seven years' worth of time, energy investment, and multistakeholder collaboration to tackle the challenges on the ground.

The achieved outputs convinced us that they would serve as an advantage for various players in the sector in implementing sustainable plantation governance. Therefore, we are optimistic that the booklet will inspire the readers to continue to support sustainable estate crop management. Because not only does it increases the local community's prosperity and the global competitiveness of agriculture commodities. It also ensures social and ecological balance continuance following the East Kalimantan vision of sovereignty.

We want to express our highest appreciation to the Government of East Kalimantan Province, the Government of Berau District, the German Agency for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit/GIZ GmbH), East Kalimantan Sustainable Estate Crop Communication Forum, and all stakeholders for their time, energy, data, expertise and extensive involvement in the execution of this collaborative program. We also would like to take this opportunity to thank the German Federal Ministry for Environment Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and International Climate Initiative (IKI) for the financial support that has allowed the Government of East Kalimantan Province and Berau District to develop low emission, sustainable estate crop.

Jakarta, June 2022

SUSTAINABLE OIL PALM TAKES ROOT IN BERAU & EAST KALIMANTAN

East Kalimantan, Berau District, and Oil Palm Plantations Potential

Humankind and nature are forever linked. Therefore, in principle, living in harmony with nature and using its resources responsibly are values deeply ingrained within the Indonesian people since the time of our ancestors.

Kalimantan is widely known as the "green" island for the lush and enchanting tropical rain forests covering the land. "Enchanting" is only one way to describe it. Within these forests is natural wealth that takes the form of germplasm resources and high biodiversity. Life and the balance of nature depend on it.

As human civilization progresses, our "living" area expands to accommodate our needs and demands. Hence, the spread of agricultural spaces materialized amid Borneo's wilderness.

In recent years, palm oil is one of the plantation commodities constantly in high demand due to its many purposes. For example, the food industry uses its many derivatives, such as cooking oil, as the main ingredient for chocolate confection, margarine, and other processed food; in cosmetics and their derivatives, including soap, shampoo, skin cream, and toothpaste. In addition, palm oil is also the main ingredient in fuel and lubricants.

As a plant-based ingredient that has become the main component of most consumers' products, oil palm is now the prima donna crop in agriculture. As a result, Indonesia has become one of its leading producers, with the Riau province and the Kalimantan island as top suppliers. East Kalimantan ranked fourth for the total area of oil palm plantation, after Riau, West Kalimantan, and Central Kalimantan provinces.

According to the National Statistics Agency (BPS, 2021), the East Kalimantan province has 1.36 million hectares of oil palm plantations sprawled all over its administrative regions. The number includes plantations owned by private companies, State-Owned Enterprises (BUMN), community-managed lands, and those under the "Plasma Program"—a government scheme encouraging joint ownership between smallholders and private corporations.

Berau, one of the districts in East Kalimantan, has started to vie on palm oil as its primary commodity. The region's economy has relied on the mining industry for decades. But now, they are turning to oil palm. BPS data for East Kalimantan mentioned that in 2020, the total area of oil palm plantations in the Berau district reached 39.35 hectares (Berau Estate Crop Office/Disbun, 2021). In the middle of the ongoing debate surrounding oil palm plantations and the rapidly increasing global demand, Indonesia's palm oil industry, especially in East Kalimantan and Berau, continues to thrive.

IN BERAU, SUSTAINABLE OIL PALM PLANTATIONS GROW IN SIZE AND NUMBER

The morning sun rises from the eastern horizon of the Berau district. East Kalimantan province's easternmost district has just started transforming its economy from extractive industry to agriculture. Instead of unsustainable and non-environmentally friendly practices of natural resources extraction, the Berau Government wants to rely more on agricultural endeavors to sustain the region's economy in the future.

Oil palm cultivation can be a very reliable sector. From 2012-to 2018, the total area of oil palm plantations has increased rapidly, from 40,000 hectares to 120,000. The oil palm tree has also

dominated 92 percent of agricultural and farm lands in the Berau district. (Climate Policy Initiative, 2018).

The Berau Estate Crop Office also recorded the accelerated growth of the palm oil industry, which also brought in a significant number of employees. According to them, in 2012, the palm oil industry employed an estimated 3,000 people. And, within just two years, in 2014, the number multiplied by seven times to 21,000.

It was no wonder that the Berau Government viewed palm oil as an essential commodity. However, Berau does not want the palm oil industry in its region to merely grow big and large. Instead, it wishes to have them maintained in a way that can sustain the existing natural resources. In other words, to employ oil palm plantation methods that are low in emission and can support the precious natural resources in its surroundings.

Berau's intention to produce sustainable and low-emission palm oil is bolstered by a 2018 East Kalimantan bylaw no. 7 on Developing Sustainable Estate Crop. The bylaw allows efforts by district governments to develop sustainable oil palm plantations. It mentioned that the development of estate crops must be done sustainably and encompass every aspect, including economic, social, environmental, and production.

The Berau government further cemented its commitment to developing sustainable oil palm plantations by officiating the 2020 Bylaw No. 3 on Developing Sustainable Estate Crop.

Henceforth, in Berau, the beginning of East Kalimantan's journey towards sustainable oil palm cultivation commences.

A GOOD BEGINNING

The Yayasan Konservasi Alam Nusantara (YKAN) was established in 2014 and is a non-profit organization in conservation and the leading partner of the Nature Conservancy (TNC). TNC has been active in Indonesia since 1991. As its leading partner, YKAN took up TNC's conservation programs after it stopped operating in March 2020. To achieve TNC's mission of protecting the lands and waters on which all life depends, YKAN supported the Government of Indonesia in deploying sustainable and low-emission forestry strategies. Through science-based programs and encouraging multi-stakeholder collaboration between the government, corporates, and the society in a harmonious partnership.

The Indonesian tropical rainforest, aside from being an enclave for high biodiversity, is the third-largest tropical rainforest after Brazil and Congo. Kalimantan, the world's third-largest island, is one of the islands that is home to natural

tropical rainforest. However, the forest coverage has constantly shrunk due to changes in land use and unsustainable management of resources.

The East Kalimantan government realized that it needed to balance the demand for growth to push the economy forward and the necessity to maintain the conservation of natural resources. As a provincial area with the fourth largest oil palm plantation in Indonesia, East Kalimantan is setting the track towards employing sustainable oil palm plantation practices.

YKAN with the support of the German Ministry of Consumers Protection, Nuclear Safety, and Nature and Environment Conservation (BMU-IKI) and its partners in East Kalimantan: German development agency Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and Climate Policy Initiative (CPI) assisted the provincial government and the Berau administration in the development of sustainable oil palm plantation for seven years, from 2015 to 2022. YKAN supported the employment of sustainable oil palm development practices because it can slow down the damage to forests and land while reducing carbon emissions.

Around 75 percent of the total area in Berau, or approximately 1.6 million hectares, are forest lands. Consequently,

HCV area of PT Mulia Inti Perkasa.

the grounds suitable for oil palm plantation development are primarily primary and secondary forests. If the area were fully converted, it would cost 60 million tons of carbon emissions from forest loss (CPI, 2018). However, sustainable oil palm development can reduce that cost and preserve areas with high conservation values.

The seven-year work program managed to bring together government agencies, the private sector, community groups, and farmers to develop and implement a sustainable oil palm program at the district level. This program demonstrated that oil palm plantations could be developed more responsibly and on a bigger scale. One of the significant achievements of this program is the issuance of the 2018 East Kalimantan bylaw No. 7 on Developing Sustainable Estate Crop. This regulation directs the implementation of sustainable estate crop in all districts and cities in East Kalimantan.

IT BEGINS WITH WELL-PLANNED ESTATE CROP AND ROBUST DATABASE

The development of sustainable oil palm plantations is not going to become a reality if it does not start with good planning. A well-planned estate crop will only become a reality if all parties, especially the government as the regulator, have good data. These are the foundation of sustainable oil palm plantations.

Good estate crop planning begins from accurate and current data sources. One of them is web-based or online geospatial data. The web-based geospatial data will provide information on the plantation area, including its borders, and identify the status of its permit, whether it is still valid or not. In addition, at the provincial and district level, geospatial data also provide information on the condition of a plantation, including if it was on fire or not.

These geospatial data will also become a reference in developing the 'One Map Policy' in East Kalimantan province and the Berau district. A 2011 law on geospatial information mandated such policy, an essential and urgent need in the era of regional autonomy.

The provincial and district administrations need integrated and cross-sectoral spatial data comprising forestry, plantation, agriculture, and mining. In addition, centralized geospatial data is necessary for deploying planning for development areas, primarily land-based. Therefore, development plans can become more accurate, with no overlap of policies and interests.

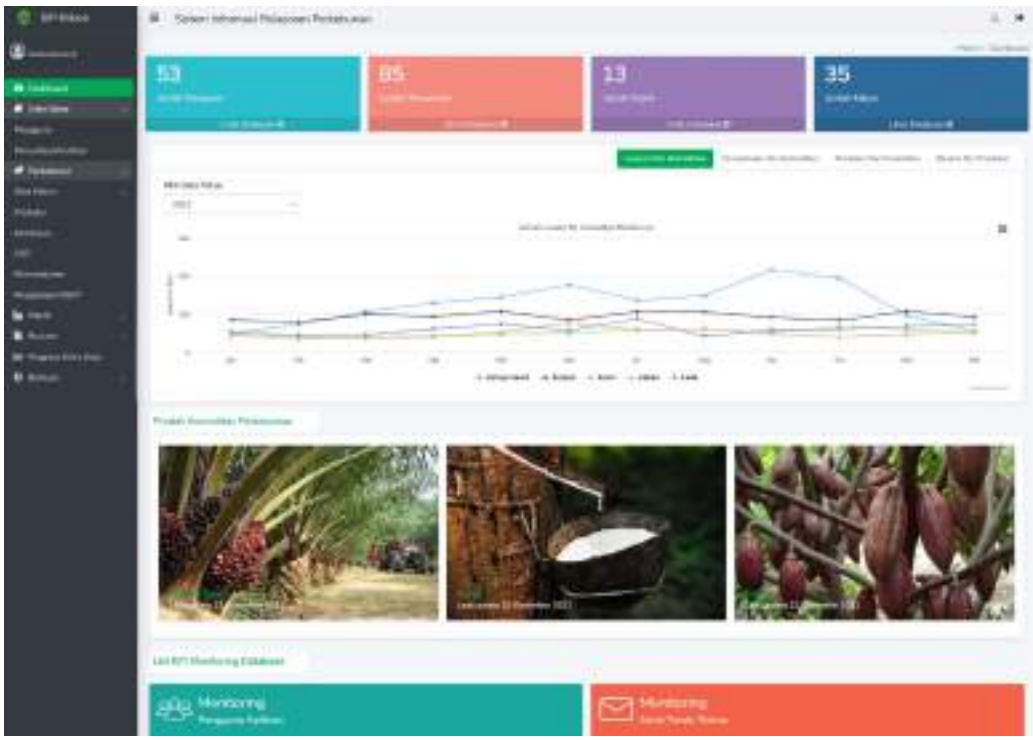
YKAN and GIZ view that a service system based on information technology and online plays a vital role in forest resource management, including oil palm plantation. Therefore, this system is also urgent to be applied soon.

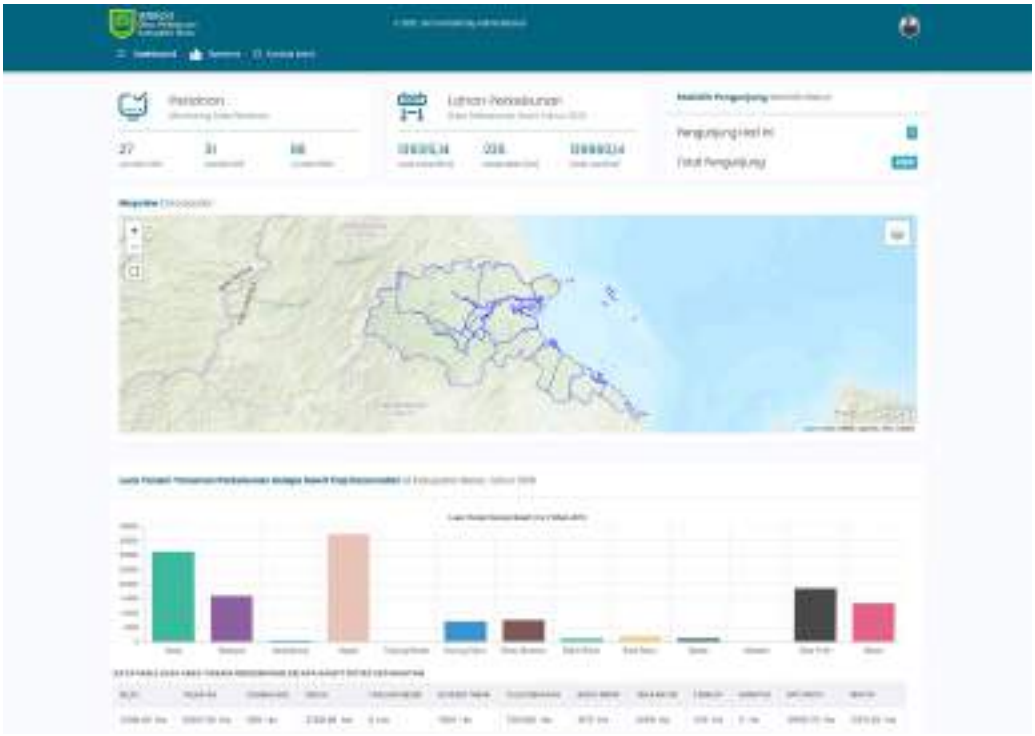
To support good planning with a service system based on information technology and online, YKAN and GIZ provided training to strengthen technology and human resource. For example, YKAN and GIZ supported 24 training on geospatial data management and web, land coverage monitoring, and the use of land suitability spatial analysis application, Pratinjau.

YKAN and GIZ also conducted capacity building for the existing Satu Data (One Data) system. We carried them out through improvements on work processes by compiling a Standard Operational Procedure (SOP), including policies and a management system. Following the SOP, the support also took form in developing digital applications and training job holders involved in the new work process.

So far, limited spatial data and lack of transparency have created many licensing issues in land-based natural resource management. In the long term, this condition can cause further losses

The website of Plantation Reporting Information System (SIP-Kebun) in Berau District, East Kalimantan.





The website of Estate Crop Office WebGIS in Berau District, East Kalimantan.

due to overlapping data and wasted time synchronizing different analyses.

This data overlap resulted in conflicting permits in land-based sectors, instigating a mounting number of tenurial disputes in East Kalimantan, especially in the Berau district. As a result, the quality of service from state officers will potentially decrease in related offices due to the inflated time consumed to manage the conflicts that arise between local communities and plantation companies.

These web-based geospatial data captured data from private and state-owned significant companies and oil palm smallholders who manage less than 25 hectares of land. In addition, with the SIPRAMA program or Independent Community Plantation Information System, land data belonging to community farmers are now also available. Therefore, all oil palm plantation data are mapped, from dozens, hundreds to thousands of hectares. These data are the groundwork for developing sustainable oil palm plantations in Berau and East Kalimantan.

Multiple parties can access the result from this web-based plantation geospatial data program on the geospatial web of the East Kalimantan

Estate Crop Agency. WebGIS Perkebunan (Estate Crop WebGIS) is an atlas that presents an existing map of estate crop areas. Everyone can access this map, specifically corporations or individuals who want to invest in a plantation. We can see which areas are allotted for oil palm plantations by accessing the internet. With WebGIS, time is more efficient. Previously, companies or entrepreneurs had to travel back and forth to the Forestry Ministry in Jakarta to check if they were allowed to develop an area into a plantation.

PROPER PERMIT, THE FOUNDATION OF SUSTAINABLE ESTATE CROP

Undeniably, the contribution of the palm oil industry to the economic sector is very significant. That is why in developing a low emission and sustainable estate crop, we must ensure that local communities can enjoy its long-term benefits. With the proper permit, the number of tenurial conflicts will decrease, and areas with high conservation value can be preserved.

In this sense, permit and licensing have become a foundation for sustainable oil palm plantation. In addition, the online geospatial data can be one data point of reference for land-based cross-sectors. Hopefully, processes for permits can be more efficient and easier to monitor.

To ensure that there will be no overlap in oil palm plantation permits, the Berau administration, in collaboration with YKAN and GIZ, launched an online-based application. The collaborative effort developed the Pratinjau application to facilitate the analytical processes on submitted requests for permits to be simple, fast, and online.

The Pratinjau application utilizes data from every regional data representative—i.e., regional government offices within the Berau district administration,

This HCV area is part of Tujuh Bukit area in PT Malindomas Perkebunan.

related agencies, and other relevant sources. These data are then managed and stored in the Berau data portal.

The Pratinjau application uses nine types of data sources. They include district spatial map data (RTRW-K) from the Public Works and Spatial Planning Office; maps of forest area status overview and land cover maps from the Ministry of Environment and Forestry; and map data for location permits from the Land Office and maps for Cultivation Rights (HGU) from the National Land Agency (BPN).

The application also includes three data sources belonging to the Estate Crop office in the analysis: map data of plantation business permits, land suitability for plantation commodities, and data indicative of high conservation value areas. The last is the village land-use planning map from the Community

Service and Village Administration Empowerment office.

Even though the analysis does not result in a permit/licensing document, it can provide an initial preview of the location in question. It also includes recommendations on how to follow up on requests submitted through the Berau office for One-Stop Integrated Licensing and Investment Service (DPM-PTSP). Therefore, applicants need to follow the regulations on the issuance of permits based on the type of permit. This commitment needs to be upheld by all entrepreneurs and applicants for oil palm plantation permits in Berau.

The Pratinjau application was developed in 2020 and will be very helpful to business people and investors when applying for business permits. It helps users in attaining initial information regarding the requested location.

Permit applicants will also receive information on the proposed location under several conditions, such as: in which spatial pattern does it exist based on RTRW K/P data; whether it holds a forestry area status or non-forestry based on forestry area data; whether there is an overlap with existing permits or not, according to current permit data; has what kind of land cover based on the latest land cover data; and the proposed land's suitability class. If there is a problem, the applicant can obtain factual information and its potential in the form of land area.

Finally, the applicant can check whether the proposed location is within the High Conservation Value (HCV) Area indicative map ranges. If so, the application will inform the applicant of how large it is and that they need to conduct a study at the site level.

The Berau district administration has used the Pratinjau application for sustainable oil palm plantation. This application has its legal basis with the issuance of 2021 Berau District Head Decree No. 213 on Management and Use of Pratinjau Application for Land-Based Permit Requests.
Furthermore, other districts and cities in East Kalimantan can replicate the operation of the Pratinjau application. Aside from aiding the local administration in permit issuance, the Pratinjau application helps business people and investors who want to develop sustainable oil palm plantations in East Kalimantan.

HUMAN QUALITY, FOUNDATION FOR SUCCESS

The collaboration between the East Kalimantan government, YKAN, and its partners not only resulted in the two online-based toolkits. In addition, we also created more online-based tools/ applications to assist the conceive of sustainable oil palm plantations in East

Kalimantan. They are the Plantation Reporting Information System (SIP Perkebunan) and the Approval Letter for Oil Palm Seeds Distribution (SP2BKS) application.

SIP Perkebunan is an upgrade of the previous plantation reporting system. It digitizes paper-based reporting processes that the Estate Crop Office had initially employed. Therefore, businesses and regional governments do not have to spend as many resources as before. As a result, the Estate Crop Office now has standardized data based on the reports from companies and government offices at the district and provincial levels, which also helps the office monitor compliance.

Meanwhile, the SP2BKS is a system built to track oil palm seeds in a website format. With a web-based SP2BKS, the service time to distribute oil palm seeds can be more efficient.

However, all of those applications and toolkits to support sustainable plantations need skilled human resources with the capability to utilize them optimally. Knowing this, ever since we developed the three web-based systems in 2018, YKAN and its partners have provided several training sessions for all parties who will use them.

In 2018, YKAN held training on web-based plantation geospatial information systems for districts and cities in the East Kalimantan province, with the Berau district as the pilot project. In the same year, YKAN also held SP2BKS and SIP-Kebun training. At the provincial and district level, training participants were officials from the Estate Crop Office, Environmental Office, Regional

A plantation worker is doing fertilization in one of the oil palm plantations

Development Planning Agency, the Office of One-Stop Integrated Licensing & Investment Service, and the National Land Agency's regional offices.

Moreover, in 2021 with funds from the Estate Crop Office, YKAN held training sessions for private companies to utilize the entire application competently. The office believed that the training would support further the development of sustainable estate crops.

During the program, there were 31 capacity-building activities on three main topics: Data Management, Plantation Planning, Conflict Management, and Negotiation. The total number of participants who attended the events was 536 people. As many as 264 people worked for regional government agencies, 127 people from the local communities, 109 worked in the private sector, and 36 from community organizations.

YKAN wished that with the ease of the system, regional governments at the provincial and district level could commit to upholding the results achieved since 2017.

REDUCING RISKS AND FINDING SOLUTIONS

A well-documented spatial data on plantation area and their borders and a one-stop data system will facilitate the management of the sustainable plantation. The data will also help the government control sustainable plantation practices on-site, including managing areas with high conservation values or HCV in oil palm plantation areas.

To create the development of sustainable oil palm plantations, since 2005, the Roundtable Sustainable Palm Oil (RSPO) has issued criteria so that its members can apply for sustainability certification. Aside from RSPO, other standardizations include Indonesian Sustainable Palm Oil (ISPO), which has become the gold standard for plantation business owners. To become a member of RSPO and ISPO means that the company has received certification for applying sustainable oil palm plantation practices.

The principles and criteria for RSPO 7.3 stated that new plantings from November 2005 could not replace primary forests or any area required to maintain or enhance one or more on 'High Conservation Value' (HCV).

The RSPO Principles and Criteria 7.3 aimed to conserve biological diversity and essential environmental and socio-cultural services and values. These principles also preserve required-to-maintain areas in expanding oil palm cultivation.

Employees at PT Sentosa Kalimantan Jaya are preparing for the morning meeting.

©YKAN2020

Even though the 7.3 principles and criteria existed for RSPO members, in reality, there are still oil palm land clearings by its members that disregarded HCV valuation. Hence, RSPO responded by developing remediation and compensation procedures.

RSPO designed remediation and compensation procedures to identify potential loss of primary forests or HCV due to the development of new plantings. One of the procedures is that compensation is compulsory for all land clearings after November 2005 without HCV assessment. It also aims to mitigate the risk of losing landscapes with high conservation value and find solutions for past non-compliance.

YKAN supported the East Kalimantan administration in developing an instrument called Compensation Support Facility (CSF). The web-based spatial data instrument helps companies measure the land area that violated RSPO 7.3 precautionary principles.

The CSF instrument can help oil palm plantation companies that are RSPO members to calculate liabilities or compensation. Therefore, they can estimate the amount of payment they have to disburse.

Generally, there are two options to meet this conservation or compensation obligations. Firstly, an equal area to the conservation end requirements,

ElWallace's eagle (*Nisaetus nanus*) is a type of bird of prey with limited distribution in the Greater Sunda (Peninsular Malaysia, Sumatra and Kalimantan); inhabits lowland forests with good conditions, although sometimes can be found on the edge of primary and secondary forest bordering primary forest.

managed by the company and/or a third party. The main goal is to preserve biodiversity inside and outside the area controlled by the company. Secondly, the company provided funding to a third party for projects or programs that support conservation objectives outside the area managed by the company. The total value of the financing has to be equal to the conservation end requirements in total hectares multiplied by 2,500 US Dollars.

Companies can carry out these conservation or compensation obligations within the areas of the Social Forestry, Essential Ecosystem Areas, and Forest Management Units (KPH). For that purpose, YKAN has compiled a compensation catalog as a source of information on the areas eligible for compensation from companies. The compensation catalog contains data from the three regions mentioned above so that it may assist the companies.

2

PRESERVING THE LANDSCAPE, KEY TO SUSTAINABLE OIL PALM

Managing Landscapes with
High Conservation Value

Development of plantations that pays homage to the aspects of the economy, socio-culture, and ecology is the definition of sustainable oil palm plantation practice. This practice can balance industrial and economic demands without negating the preservation of natural resources.

Berau is one of the districts of East Kalimantan with the most extensive stretch of lowland tropical rainforest in the province. The rapid growth of oil palm plantations in Berau requires consistency in the abidance of rules and practices in managing and preserving the sustainability of environmental functions.

Therefore, the management and preservation of areas with High Conservation Value (HCV) inside concession areas belonging to oil palm plantation companies is necessary. HCV area is a land or an expanse of land with significant biological, ecological, social, and/or cultural values. Such areas are

priceless to the world, national, regional, and site levels.

The management of HCV areas is aimed at preserving, preventing, and regulating activities that may result in the extinction of plant and animal species. It also includes preventing conflicts between humans and wildlife. HCV area management is also carried out to preserve significant or essential ecosystem balance and robustness while integrating it with oil palm cultivation and plantation areas.

Another objective of HCV area management is to warrant the sustainability of the function and benefits of biological resources and ecosystem for the present and future generations. HCV area management practices will also maintain the harmony of the life of the people living within and around oil palm plantation areas.
Equally important is to protect the rights of individuals, communities, and the state to the area, ecosystem, and investment potentials within plantation and cultivation areas. Finally, it is also vital to utilize natural resources sustainably for the local community's livelihood.

By proper management of HCV areas, landscapes will be preserved. As stipulated in an agreement signed by seven regional heads representing all districts in East Kalimantan on September 27, 2017, they are committed to developing sustainable plantations. The district heads signed during a site event at a meeting of the Governor's Climate and Forest-Task Force (GCF-Task Force) in Balikpapan, East Kalimantan. One of the points of agreement was the preservation of high conservation areas (ANKT) of 640,000 hectares. In addition, the provincial government believed preserving forest and peat areas within designated agricultural lands is necessary to practice sustainable plantation principles.

CRITERIA FOR HIGH CONSERVATION VALUE LANDSCAPES

A landscape, in terms of a geographical entity, comprises interacting mosaics of land uses. Within it are the energy, materials, organisms, and institutions that combine to provide life's ecological, social, economic, and cultural benefits.

Since 2015, YKAN, its partners, and the East Kalimantan administration facilitated by East Kalimantan Communication Forum for Sustainable Estare Crop have collaborated to preserve landscapes with high conservation value. This collaboration resulted in two gubernatorial decrees in 2021 on High Conservation Value areas (ANKT) situated inside plantation areas.

The first was the 2021 Gubernatorial Decree No. 12 on the Criteria of High Conservation Value Areas. The second

The HCV landscape in one of oil palm plantations, Berau District, East Kalimantan.

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was the 2021 Gubernatorial Decree No. 43 on the Management of High Conservation Value Areas Inside Plantation Areas.

The criteria of HCV Areas specified in the Decree will guide the identification and inventorying of areas with essential and significant biological, ecological, social, and/or cultural values situated inside plantation zones. Furthermore, the goal of instituting the criteria for HCV Areas is to create and establish an indicative mapping of HCV Areas. This map will be the basis for plantation business owners to manage indicated HCV Areas on their property.

The gubernatorial Decree stipulated six types and criteria for HCV Areas in East Kalimantan that had been extracted from the High Conservation Value Resource Network (HCVRN) before outlining them in the East Kalimantan Gubernatorial Decree on the Criteria for HCV Areas. The HCVRN is a global institution that issues licensing for HCV Areas assessors.

The HCVRN interpreted a high conservation value as a biological, ecological, social, or cultural value of outstanding significance or critical importance. The six types and criteria of HCVs are HCV 1 – Species Diversity,

HCV 2 – Landscape-level ecosystems and mosaics, HCV 3 – Ecosystems and Habitats, HCV 4 – Ecosystem Services, HCV 5 – Community Needs, and HCV 6 – Cultural Values.

To put it simply, HCV 1 – Species Diversity is an area containing a concentration of biodiversity, including endemic and rare species categorized as threatened or endangered or identified as unique or extraordinary, that are significant at global, regional, or national levels.

HCV 2 – Landscape-level ecosystems and mosaics are areas that contain large ecosystems and ecosystem mosaics with intact forest landscapes. These areas are relatively untouched and may support viable populations of the great majority of the naturally occurring species and environmental values within the ecosystem.

HCV 3 - Ecosystems and Habitats are areas that consist of ecosystems, habitats, or refugia with an important role. It is essential because of their rarity, the level of threat that they face, their rare or unique species composition, or other characteristics.

HCV 4 - Ecosystem Services are areas where essential ecosystem services are under critical situations. They include water catchment, protected areas, and control against the erosion of vulnerable soils and slopes.

Oriental pied hornbill (*Anthracoceros albirostris*) located in one of the oil palm plantations' HCV area in Berau District, East Kalimantan.

HCV 5 - Community Needs are areas that refer to sites and resources that are fundamental for satisfying the necessities of the local community.

Lastly, HCV 6 - Cultural Values is areas that contain resources, habitats, and landscapes with global and national cultural values. Regions that have archeological or historical significance and/or critical cultural, ecological, economic significance, or religious/ sacred importance for the traditional culture of the local or indigenous communities. This value can be identified by directly involving the indigenous or local communities.

The East Kalimantan Gubernatorial Decree is expected to facilitate the development of oil palm plantations thoroughly and consistently and bring forth optimal economic advantage to business owners.

In addition, the people and regional also receive the benefits and gain the social advantage. No less important is having assurance for the protection of environmental sustainability.

YKAN, GIZ, and other local partners, together with the regional government—at the provincial and district level—believe that if sustainable oil palm plantations practices are implemented according to the procedure, the landscape in Berau and East Kalimantan as a whole can be preserved. Moreover, with our landscape sustained, the present and future generations will benefit.

MANAGING THE BOUNDARIES OF HIGH CONSERVATION VALUE LANDSCAPES

The agreement signed by seven regional heads at the Governor's Climate and Forest-Task Force (GCF-Task Force) in Balikpapan, East Kalimantan, in 2017 specifies the protection of remaining forest and peatland areas in zones designated for agribusiness as well as plots of land licensed for plantations as one of the policy directions. Accordingly, the agreement classified these areas as having High Conservation Value (HCV).

The local governments have prepared indicative maps to monitor and manage HCV areas in plantation zones on the provincial, district, and municipal levels. Indicative maps provide a spatial description of regions with high conservation values. The maps offer meaningful and comprehensive identification of the landscapes and/ or district and municipal areas. Data were collected from either licensed or unlicensed sites for plantations, provided they are situated in plots of land designated for plantations according to the regional agribusiness spatial plan. The maps must define the boundaries of landscapes with high conservation value and prevent land conversion. The resulting indicative

maps were prepared with inclusive and participatory consultation with various stakeholders.

The gubernatorial regulation on HCV area management specifies that HCV area indicative maps shall be drawn up at the provincial and district/municipality levels. Accordingly, the scale for plantation areas on the provincial map is set at 1:250,000. The scale for plantation areas on the district/municipal level is set at 1:50,000.

Existing HCV area maps require updating based on monitoring the condition on the ground. Provincial indicative maps are to be updated every five years. Indicative maps at the district/municipality level are updated every two years.

The indicative maps were prepared through a transparent and participatory process to ensure they will be appropriate for the government, businesses, and the public.

Community members that may bear direct and indirect impacts from development must be involved in preparing the indicative maps. The same applies to any corporation that may cause or take a direct and indirect effect from the enterprise. In addition, government partners and academics with expertise in biodiversity, ecology, and socio-cultural issues should also be involved in the preparation process.

The indicative maps will reference Strategic Environmental Analysis (SEA) and regional and district/municipality spatial planning.

Considering the maps' importance in landscape conservation, YKAN and its partners, including East Kalimantan Sustainable Estate Crop Communication Forum, have continued to call for East Kalimantan provincial and district/municipality government commitment to the preparation of indicative maps. As a result, six districts had passed local regulations specifying the coverage of

The KPB forum cannot be separated from the role of the community living around the oil palm plantation.

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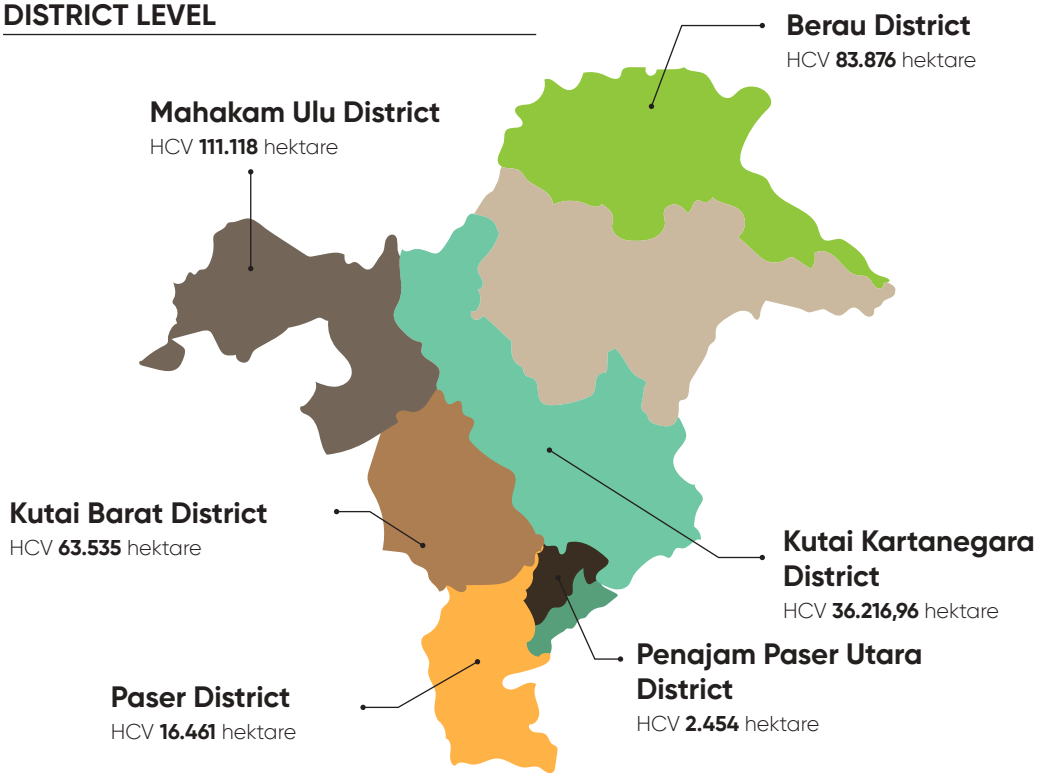
HCVA INDICATIVE MAP IN DISTRICT LEVEL



HCV area indicative maps. The bylaws took the form of a District Head Decree (SK) and were issued in Berau, Kutai Kertanegara, Penajam Paser Utara (PPU), Mahakam Hulu, Kutai Barat and Paser districts.

Berau has indicative HCV area coverage of 83,876 hectares as the pilot district for sustainable oil palm development. Mahakam Hulu District has the most extensive indicative HCV area coverage at 107,446 hectares, followed by West Kutai with 86,658 hectares, East Kutai District with 75,239 hectares, Kutai Kartanegara District at 50,813, Paser District with 11,002 hectares, and lastly, Penajam Paser Utara District with 2,471 hectares.

We are preserving high-value landscapes categorized as HCV area ensures that sustainable, low-emission oil palm development may proceed according to plan. Commitment from every stakeholder is crucial in the implementation, as a well-preserved landscape is an essential key to sustainable oil palm management.

Asian water monitor (*Varanus salvator*).

3

COMMUNITY ROLE IN SUSTAINABLE ESTATE CROP

Community Initiative to Kickstart Changes for Sustainable Oil Palm

Changes to the landscape due to either natural or anthropogenic (resulting from human activities) causes will transform the people inhabiting the area. Nevertheless, the constantly growing human needs will inevitably lead to changes in the natural landscape.

While change is constant, people's livelihood can coexist with nature conservation. This belief is the foundation on which YKAN has developed environmentally sustainable strategies for managing forest resources, including the Community Inspiring Actions for Change (SIGAP) approach to empower the community at the on-site level.

YKAN based its SIGAP approach on the experience built on a systematic '7D' approach. The process begins with a physical, emotional, and logical path (Disclosure), followed by dialogs on the themes of change (Define), identification of strength

(Discovery), and declaration of dream (Dream). Next comes the detailing of plans for change (Design), making an effort for change (Delivery), and dissemination of the success story (Drive). SIGAP played an essential role in community development in Berau as it was implemented in community involvement in forest conservation and protection efforts with an emphasis on approaches based on the village's existing potential.

YKAN initiated the SIGAP approach in oil palm sector in 2017 to coach the community in climate change mitigation and adaptation efforts. SIGAP approach allowed the villagers, facilitators, and government to record, log, and document the various positive aspects of development in the area.

The SIGAP approach is highly suitable for implementing sustainable oil palm development. Multi-stakeholder collaboration is crucial to ensure the effectiveness of any development process where community participation is essential. Through SIGAP, the community and village authority may share with and inspire one another.

Berau District has been named the pilot location for implementing the SIGAP approach in oil palm sector. For five years (2017-2022), YKAN has implemented the SIGAP approach in five villages surrounding oil palm corporations.

The program's first phase in 2017-2019 took place in Long Ayan and Gunung Sari villages in Segah Sub-district. In 2020-2022 another three villages—

The good seed is one of the success key of sustainable estate crop.

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Karangan, Biatan Lempake, and Biatan Bapinang—replicated the success of SIGAP implementation in the previous two villages.

As a legal framework to support the oil palm SIGAP approach in Berau, the district government had passed Head of District Regulation No. 56 on the welfare of SIGAP activists. The regulation is a follow-up to the East Kalimantan Gubernatorial Regulation No. 26 of 2018 on SIGAP in Village Development.

SIGAP aims to address three main issues in developing community and village prosperity. These are improvement of village governance, sustainable natural resources management, and development of sustainable livelihood strategies.

In terms of village governance, implementing the SIGAP approach in the oil palm sector in the five target villages resulted in the drafting of the Medium-Term Village Development Plan (RPJMK). In addition, the villages are now equipped with improved village profiles and financial systems. Regarding natural resources management, they now have Land Use Planning (RTGL) maps, including proposals for social forestry and its governance. Also available are data on oil palm smallholders and mapping of HCV area areas.

To develop the village economy, SIGAP implementation in the oil palm sector resulted in the mapping of village potentials and assets, improvement of village-owned enterprises (BUMKam), and the push for the preparation of complete administrative documentation of each BUMKam.

SIGAP program in oil palm sector had served as the initial step for the residents of Gunung Sari, Long Ayan, Biatan Lempake, Karangan, and Biatan Bapinang villages to develop their governance of village assets in the form of natural resources, forest, and land. As a result, they have designated specific conservation areas as a source of germplasm for the residents.

Nevertheless, there is still the possibility that any existing commitment to sustainable natural resources management may disappear due to pressures from oil palm stakeholders to continue the conversion of remaining land into oil palm plantations.

Therefore, applying the SIGAP approach in the five target villages is insufficient. In addition, time, budget, and human resources constraints prove to be a challenge in replicating and scaling up the programs to other villages around oil palm plantations in Berau District. Thus, it is essential to follow

up on the development of the five initial villages with schemes to guarantee sustainability, starting at the village level and going up to the central government level.

One of the ways to ensure that the achievement will persevere is to conduct further advocacy so that the lessons learned from SIGAP implementation in oil palm sector may serve as a national guideline on village-based natural resources management. In addition, it is crucial to incorporate the lessons learned in statutes that bind the commitment of every stakeholder, including oil palm businesses and the government, from the central administration down to the village level.

MAPPING THE LAND, MAPPING THE PEOPLE AND THE CHANGES

Mapping the land essentially means mapping its inhabitants to prepare them for the changes incurred by development. However, while geared toward fulfilling the needs of humanity, development often entails overlapping interests in various locations. As a result, available land frequently becomes the object of dispute or prolonged tenurial conflicts.

Therefore, drawing up a land-use plan to properly designate areas from village to provincial levels is crucial. Therefore, East Kalimantan has started to draft Land Use Plans (RTGL) at the smallest administrative unit, which is the village.

Berau District government realized that villages must be encouraged to draw up their land-use planning (RTGL) map to minimize conflict between the community and corporations, particularly the palm oil industry. As a result, YKAN and GIZ assisted several villages in Berau District in preparing their RTGL map. Village bylaws even sanctioned some.

Villages drawn up their own RTGL include Kampung Long Ayan, Gunung Sari, Biatan Lempake, Biatan Bapinang, Karangan, Long Ayap, Long Laai, and Dumaring. They were followed by

The positive impact of the village land use map is that the village boundaries are more clearer now.

Merapun, Panaan, Muara Lesan, Lesan Dayak, and Sidobangen villages.

The RTGL map drafting allowed village authorities and the residents to get better acquainted with the assets in their possession. The drafting process may reveal tens of other local potentials, such as tourism, cultural, and economic potentials, which may be a reliable asset for the village's development.

The RTGL maps have the positive impact of clearly delineating the boundaries of the villages. In addition, the detailed borders lead to better relations, allowing collaboration in developing the villages' economy.

RTGL maps play an important role as it upholds the mandate of Law No. 6 of 2014 on Villages. The law stipulates that it shall give precedence to village-level policy-making, giving the village residents the authority to draft and implement their policies in their living space.

By participating in drafting RTGL maps, the villagers not only accelerated the process but also got the opportunity to learn a deeper meaning of their self and social identities in creating changes in their village. The RTGL map model also served as a foundation for the village to develop in a way that aligns with the local wisdom, potential, assets, and natural resources.

NEGOTIATION AND MEDIATION: KEY TO SUSTAINABLE OIL PALM SECTOR FOR THE COMMUNITY

On a closer look, the neat rows of oil palm trees belie a less orderly situation. Tenurial conflicts are common in oil palm plantations, especially those owned by large corporations. Large oil palm plantations that border villages and community land are frequently at the root of the conflict.

Proper land-use planning is one of the keys to unraveling the tenurial conflict in oil palm plantations. Part of the effort to minimize conflict is map analysis. Berau District Estate Crop Office has researched by superimposing the land use planning maps from several villages with the Berau District plantation licensing maps. In this way, it is possible to identify the boundaries of the agricultural zones.

With its capacity to show more precise boundaries, map analysis serves as supporting material in land use agreements between the community and agribusiness corporations in Berau District. For example, GIZ had facilitated a land-use agreement between oil palm companies with five villages in the district: Gunung Sari, Long Ayan, Long Ayap, Long Laai, and Dumaring.

GIZ assisted in the negotiation and mediation processes between communities and corporations. In

general, three instruments have been developed within the conflict management cycle: prevention, resolution, and post-conflict recovery. Based on the three instruments, approaches were made to identify the differences in community and corporate stance on land use plans, referred to as areas of interest (AoI). These differences represent potential conflicts that the two parties must negotiate.

A consultative negotiation follows to discuss the community plan for village land use and the corporate agenda for agricultural development. The process seeks to arrive at a consensus in the event of a conflict between the community and corporate on their plans for land use.

The community-approved map of areas of interest and the corporate agricultural development map serves as the basis for the negotiation and consultation process. In addition, a mediator may be present to provide technical assistance to the community and prepare recommendations on how to identify a solution to the community's

The oil palm landscape in one of the plantations of Berau District, East Kalimantan.

problem with the corporation. The final objective of mediation is to move towards establishing a mutually profitable partnership.

The parties will sign a contract following an agreement to reconcile the community plan for land use with the corporate development plan. The community and corporation are not the only signatories to the agreement, as it also involves the approval of neighboring villages that may be impacted by the decision, along with the government of Berau District.

Sustainable oil palm sector is essentially developed to benefit the community. Therefore, this development should not be in any way disadvantage the people who make their living and reside in the areas surrounding the oil palm plantation.

A mutually profitable solution will require supporting data and a lengthy process. It involves a land-use map prepared through a participatory approach and represents the interests of every stakeholder in the village, from the government and corporation

The Application of sustainable oil palm.

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to the community. Local facilitators are essential in guiding the negotiation process to find a consensus between the corporation and the community. The local government also plays an equally important role in ensuring that any agreement resulting from the process is legally binding.

The communities in the five target villages had used the RTGL map integrated into the village development plan in their land-use agreement with corporations, which is a significant achievement. The negotiation process is still ongoing in four villages, while one has reached an agreement. Land conflict mediation between the villages and a corporation has agreed whereby the company will remove 441 hectares from its lease/right of use.

The positive outcome is hoped to be replicated in other areas, even beyond East Kalimantan, to achieve sustainability in oil palm agricultural practices. For this, a technical guideline and a booklet on conflict management have been prepared to provide practical guidance for the parties involved in the land use mediation and negotiation process and facilitate the partnership. The national technical guideline targets five user groups: farmers, corporations, field assistants, government officials, and professional mediators.

4

QUALITY MAINTENANCE FOR BETTER PROSPERITY

Data Collection on Land Use by Independent Oil Palm Growers to Ensure Quality Yield

Indonesia's palm oil supply comes from large plantations operated by either the private sector or the state and smallholders. Smallholder or plasma/partner plantations represent a form of cooperation between smallholding farmers and corporations or independent oil palm estates.

Oil palm smallholders are farmers that operate oil palm plantations that are less than 25 hectares in area. They may be defined as plasma/partner farmers or independent farmers. Data from the Ministry of Agriculture Center for Socio-economic Affairs and Government Policy show that in 2017 smallholder plantations made up 52 percent of oil palm plantations in Indonesia. However, the data were numerical estimation that has yet to be supported with spatial data detailing the location and ownership of the smallholder plantations.

One of YKAN programs, in partnership with GIZ and CPI, assists the government, particularly the local Plantation Service, in collecting data for application for plantation registration certification (STD-B) for oil palm smallholders in Berau District. The data collection effort was made to identify the problems faced by oil palm plantations on-site, for instance, the gap between the size of the plantation and productivity.

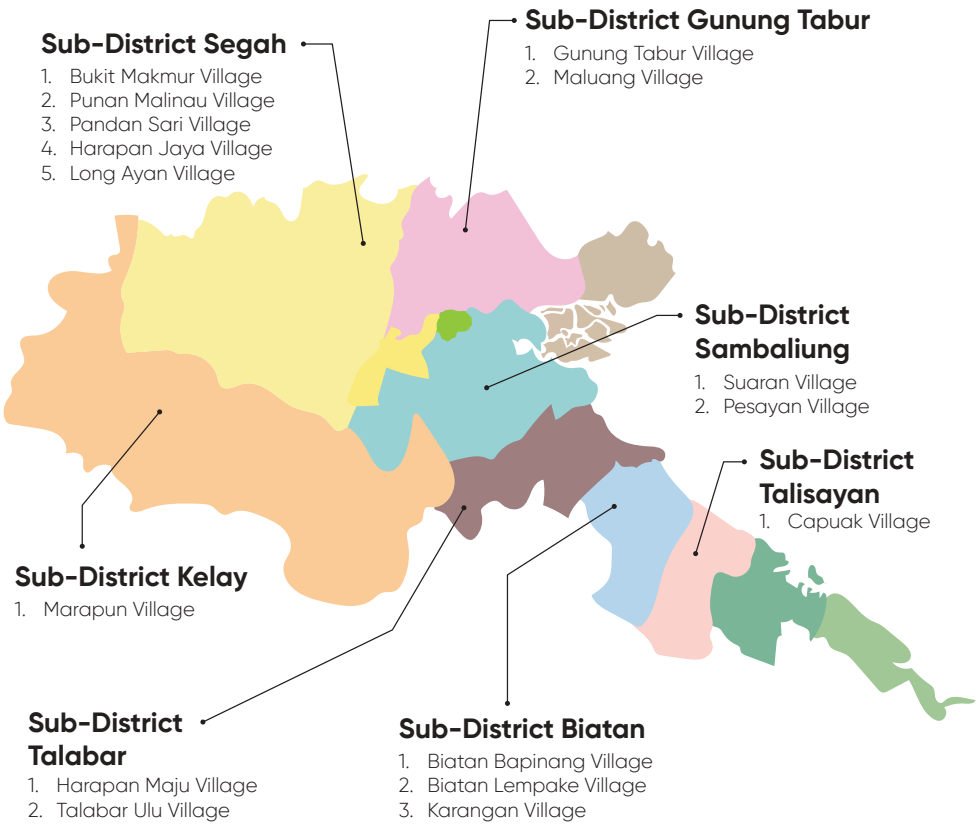
The lack of supporting data on the productivity of independent oil palm plantations compromises the effectiveness of various policies issued by the government to develop smallholder plantations. For example, the government has set up several programs for independent oil palm farmers, including plantation revitalization, replanting, seedling, and fertilizer assistance programs. However, none of this would run optimally without supporting data.

The problem has been a long-time constraint in developing oil palm smallholder. A case in point is the smallholder replanting program (PSR) implemented by Oil Palm Fund Management Agency (BPDPKS). Launched in 2017 across Indonesia, the program did not make an optimum impact due to a lack of data and information on oil palm smallholder. It is a regrettable fact, given that the program, funded by BPDPKS, was aimed at increasing smallholder plantation productivity, estimated to yield less than three tons/hectare/year.

To facilitate the collection of independent oil palm plantation data, YKAN, through GIZ, has developed an application called SIPRAMA. SIPRAMA refers to the geospatial website of the Independent Plantation Information System, which is a part of the independent plantation registration and data collection system. The application serves to facilitate data collection on plantations owned by independent growers.

Collecting data on oil palm smallhollders is to obtain accurate site data on the status, productivity, and ownership of the plantations and other technical data. Using the data, the plantation owner may file for STD-B certification. STD-B is one of the requirements in applying for Indonesia Sustainable Oil Palm (ISPO) certification for sustainable oil palm smallholder. In addition, the document provides essential data for plantation governance policy making.

At present, a compilation has been made of data from oil palm smallholders in 16 villages in Berau. Equipped with the data, mentoring programs for smallholders may be improved to allow them to improve the quality and quantity of sustainable oil palm production.



Distribution maps of SIPRAMA in 16 villages

SUSTAINABLE SUPPLY AND IMPROVED LIVELIHOOD

After relying on the mining industry as a source of local revenue for two decades, the government of Berau District realized that the region's economic future would no longer lie in the natural resources extraction industry but agriculture. Oil palm is a good commodity that has continued to increase. In only six years, the total area of oil palm plantations has grown from 40,000 to 120,000 hectares (CPI, 2018).

Berau District government has demonstrated its commitment to green development by launching the Berau Forest Carbon Program (PKHB). Berau seeks to reduce deforestation and forest degradation carbon emissions with this program. Since its declaration in 2008, PKHB has served as the local government guideline in drawing up development policies that align with the sustainable management of natural resources.

PKHB Strategic Plan states that the conversion of natural forest into oil palm plantations has attributed to some 70 percent of increased deforestation in Berau, with another 22 percent caused by the conversion

of natural forest into industrial plantation forest. As a reference, there are approximately 257,000 hectares of oil palm plantations in Berau (2021), representing 18.72 percent of the area of oil palm plantations in East Kalimantan (East Kalimantan Plantation Service, 2021). In comparison, data from 2014 showed that natural forests still cover some 75 percent of the area in Berau. Thus, to align oil palm development with sustainable natural resources management, the government of Berau District has designed a program for sustainable plantations.

Specifically, in terms of oil palm plantation, Berau District Estate Crop Office has now ceased to issue permits for opening a new plantation. In addition, the office has planned to execute several strategies. The first strategy is to enhance the productivity of existing oil palm plantations, followed by obtaining better data on industry players along the supply chain. The next step is strengthening smallholder organizations and developing partnerships and integration between smallholders and corporations.

To this end, YKAN has been working with Climate Policy Initiative (CPI) to conduct a study on scenarios for sustainable production to increase corporate and smallholder income.

Nursing oil palm seeds to gain maximum results.

Based on its study on sustainable oil palm supply chain in Berau, CPI identified a significant opportunity for land use optimization and supply chain improvement. The opportunity arises from the study's findings, revealing that a sizable area of concession land with low conservation value is yet to be cultivated. Furthermore, in the cultivated areas, the plants are still relatively young, between four to nine years old, while peak production starts around year seven. Based on these facts, as the plants hit their peak productivity by year seven, Berau will be able to realize 90 percent of its potential production capacity without having to expand the plantation area.

The second strategy encourages stronger partnerships between smallholders and corporate processing plants. Indeed, such partnerships can be established after smallholders improve the quality of their production. The collaboration will allow farmers to operate more efficiently. For example, smallholders will find it more efficient to deliver their harvest to the processing plant rather than transport their fresh fruit bunch (FFB) to the faraway market. In other words, the partnership allows farmers to find buyers without paying a significant amount on transportation costs. Furthermore, time efficiency is vital as FFB quality deteriorates significantly within two days after harvesting. Thus, a partnership is crucial in creating a more efficient supply chain.

Farmers' organization becomes a critical issue regarding partnerships with corporations. Village co-operatives are a viable option in this case. Co-ops may provide farmers with financing assistance for technical training, fertilizer purchase, and seedlings procurement to increase plantation productivity. In addition, partnerships between co-ops and corporations may give the farmers further access to the oil palm processing industry. However, to achieve a mutualistic symbiosis between co-ops and the industry, they must first have equal bargaining power. Co-operatives can accomplish this by capacity building in management and the proper post-harvest treatment of quality fresh fruit.

In addition to co-operatives, farmers may opt for other organizations, including Village-owned enterprises (BUMKam). Organizations such as BUMKam have a better chance of successfully applying for loans from financial institutions since the application is made as a collective. In addition, access to various financial institutions may provide independent farmers with multiple financing opportunities.

Farmers will need to continue to upgrade their knowledge and skills in

The standard tools for harvesting will produce a more optimal quality of fresh fruit bunches.

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preparing a comprehensive business plan with productivity projections. Such a program must include projected production, market demand, and the cost of transporting harvested fruits to the buyers.

CPI 2018 study also revealed that including other sources of income besides palm oil might contribute to a better business plan. Therefore, farmers are encouraged to not only rely on oil palm but also to earn their income from other commodities, including corn, cacao, pepper, and cattle. These alternative sources of income may increase their chance of gaining access to financing institutions.

Increasing the productivity and product quality of oil palm smallholders will ensure a steady supply of fresh fruit. With guaranteed supply, smallholders may also stand to make a profit, and their livelihood improve.

5

WORKING TOGETHER FOR SUSTAINABILITY

Working Together for Prosperity and Sustainable Palm Oil Industry

The development of sustainable oil palm plantations in Berau District and East Kalimantan, in general, would not have progressed as smoothly without the synergy of the stakeholders

One of the most complicated issues in sustainable oil palm development is the cross-sectoral issue of the tenurial conflict. YKAN and East Kalimantan Regional Climate Change Council (DDPI) are aware of the need to engage the various stakeholders in a sustainable plantation in a single forum. Therefore, the Forum will serve as a hub where it may cultivate interparty communication to solve the problems and challenges of implementing a sustainable oil palm development program.

The Forum is sanctioned by the 2018 Gubernatorial Decree No. 52 on establishing a Sustainable Estate Crop Communication

Forum (Forum KPB). This multiparty Forum has members representing the government and the public sector, individuals, associations, and academics with interrelated interests in sustainable plantation.

In addition to serving as a communication hub, the Forum was tasked with designing, planning, facilitating, and finding solutions to plantation issues in East Kalimantan. In carrying out this task, the Forum continues to adhere to the principles of self-sufficiency, independence, and consensus while remaining within the constraints of its assigned primary duties and function.

Advised by the governor and chaired by the Regional Secretary, Forum KPB also aims at providing recommendations to support and develop strategies to accelerate sustainable plantation development and solve multisectoral problems faced by plantations in the region.

In addition to the one on the provincial level, with the support of East Kalimantan DDPI and GIZ, YKAN has established a similar forum in Berau District. Forum KPB in Berau was founded under the legal framework of the 2019 Berau District Head Decree No. 52 on the Establishment of the Sustainable Plantation Communication Forum. The Forum has provided insights into low-emission oil palm plantations.

A Good conservation area management is the key to the success of sustainable oil palm plantations.

Berau District government did not previously have any specific policy recommendation on low-emission oil palm plantations. However, following Forum KPB in the district, the issue of sustainable low-emission oil palm plantation has become an essential point in every discussion held in Berau.

It is expected that true to its function, the Forum will further facilitate sustainable oil palm development in East Kalimantan, particularly in Berau District.

Epilogue

SUSTAINABLE OIL PALM AND THE FUTURE

The task of developing a sustainable and low-emission oil palm industry progresses despite the challenges. East Kalimantan Province and Berau District, as pilot locations for the program, continue to organize and improve on the work that has already been done.

With adequate available data and a one-stop non-overlapping service, local government offices can implement an efficient licensing system to manage land-clearing permits, including for oil palm plantations. As human resources in the government, the private sector, and the community become more capable, efforts to establish sustainable oil palm plantations will roll out as expected.

In addition, compensation and remedy for the loss of Areas of High Conservation Value (HCV area) have now become a solution to restore natural balance. As a result, corporations and

A well-maintained ecosystem will have a good impact on oil palm plantations.

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independent smallholder plantations have become increasingly aware that protecting natural landscapes is critical to ensuring better oil palm production. Likewise, the government has grown more professional in monitoring and managing the HCV area.

There is a stronger sense of responsibility arising from the realization that humankind is the beneficiary of proper protection of the natural landscapes. That all the work we currently undertake is geared toward improving the livelihood of every group of people. When we conscientiously implement all of the schemes on sustainable estate crop initiatives, the people will reap the benefit.

Implementation of a sustainable oil palm program on-site still faces many obstacles. One of these is the less than optimum utilization of tools and the need for capacity building for human resources involved in the program. It is also necessary to educate the public and raise awareness of the need to implement proper practices and that all schemes are designed with the collective good in mind.

In Berau, a district in East Kalimantan, the development of sustainable and low-emission oil palm plantations began. It is hoped that the hard work that has been done here may be replicated not only throughout East Kalimantan but across Indonesia as well.

If we do not start here, the long journey towards sustainable development will never arrive at its destination. It is hoped that the stories unfolding in these oil palm developments will one day become part of the tale of how oil palm can benefit humanity while at the same time contributing to the conservation of nature.

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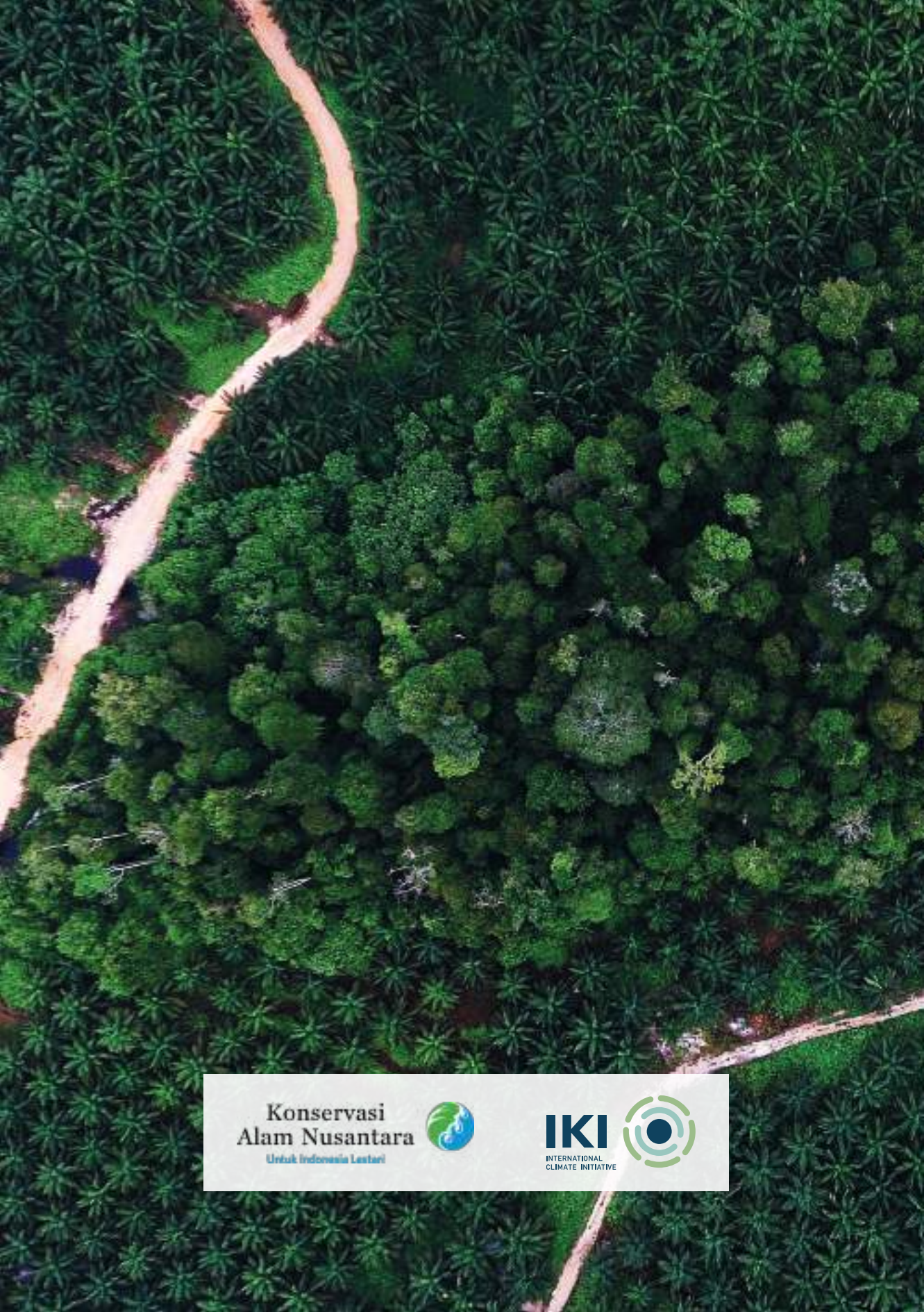
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