crop area belonging to the village, a 20 percent plasma plantation, expansion of rice fields, Village-Owned Enterprise (BUMK), and village maps. This stage can also be called the establishment of the village's vision and mission.

5. Design

In this stage, villagers design activities and a number of plans, including a conservation agenda, proposals for social forestry status, partnership forests, and forest-based economic development. Program facilitators, like in Gunung Sari Village, also involve stakeholders such as community leaders, village officials, and oil palm farmers.

6. Delivery (implementation)

natural resources around them and contribute to the achievement of Berau Forest Carbon Program (BFCP) targets. Karangan Village community, for example, carries out this stage by drawing up the Performance-Based Incentive (IBK) fund for village agreement, ,implementation plan, and reporting. Mangrove conservation activities and the cultivation of various types of plants are examples of the use of IBK funds.

7. Drive (celebrate and move)

The success of the villagers in carrying out their activities in this program inspires and moves them to make other positive changes. Communities become leaders and motors of change in their villages. Long Ayan Village community celebrated the success of their activities by holding a thanksgiving event inviting village leaders, sub-district officials, the village government, and the community.

STEADY STEPS TO BUILD A SUSTAINABLE VILLAGE

The SIGAP program was able to deliver positive impact on the communities of the early adopter villages, such as in Biatan Lempake, Karangan, Biatan Bapinang, Gunung Sari, and Long Ayan. Now they are able to plan development and, at the same time, maintain the conservation of natural resources, forests, and land that are assets of the village.

However, the existing commitments developed in these villages have the potential to recede or disappear due to pressure from oil palm expansions. Therefore, the development of the SIGAP program in the oil palm sector for the conservation of natural resources, village governance, and the economy of the village community, which has so far been limited in time, cost, and energy, should be pursued.

The development of the SIGAP program in those five pioneer villages must be followed by a sustainability



guarantee scheme supported by multi-stakeholders, both at the village, sub-district, district, provincial, and central government levels. Program facilitators also need to strengthen further their understanding of the 7D stages of the SIGAP approach and map out village stakeholders.

The positive impact of the SIGAP village program in the oil palm sector needs to be further advocated. This program can also be a national guide for the development of village-based natural resource conservation. This guide can also be developed into legislation that can bind the commitments of various parties, including oil palm companies and the government.

INSPIRING ACTION FROM THE VILLAGE

Sustainable forests and natural resources management can improve people's welfare. However, many villages and forest areas, the source of people's livelihoods, are also close to oil palm plantation concessions. Strengthening community capacity in land and conflict management can help them gain the benefits of oil palm plantations.

SUSTAINABLE ESTATE CROP

Yayasan Konservasi Alam Nusantara (YKAN) developed the Community Inspiring Actions for Change (Aksi Inspiratif Warga untuk Perubahan or SIGAP) approach in assisting villagers around oil palm plantations to improve their lives. The SIGAP approach relies on the collective villagers' activities in finding creative and innovative solutions to emerging challenges and strengthening their mutual wellbeing as a community. Through SIGAP, village residents, facilitators, and the government can monitor the development results.

YKAN has developed SIGAP through the facilitation of Long Duhung and Merabu Villages, Berau District,

since 2010. Apart from forests, the two villages are also surrounded by companies holding oil palm concession permits. The SIGAP approach helped villagers maintain forest areas and other natural resources while improving their livelihoods.

Konservasi Alam Nusantara

SIGAP was designed to target improvements in governance, natural resource management, and community welfare. The transformations that took place in Long Duhung and Merabu Villages were taken into consideration in replicating SIGAP in villages with various landscapes in East Kalimantan.

In 2015, YKAN developed a sustainable oil palm plantation management program supported by the German Ministry of Consumers Protection, Nuclear Safety, and Nature and Environment Conservation (BMUV-IKI). One of the targets of this five-year program is strengthening community capacity in managing land and efforts to resolve conflicts around oil palm plantations. YKAN also incorporated these targets in the SIGAP approach in the oil palm sector.

Gunung Sari and Long Ayan Villages were included in the first SIGAP pilot program in 2017. Both were chosen because they are located in a forest landscape and surrounded by oil palm plantations. The SIGAP Village Program in Gunung Sari and Long Ayan lasted for two years.

The SIGAP program continued being implemented to coastal areas, in the Biatan Lempake, Biatan Bapinang, and Karangan Villages in 2020-2022. In its implementation, YKAN cooperates with Berau District Estate Crop Office, Berau District Village Community Empowerment Office, and Yayasan Peningkatan dan Pengembangan Sumber Daya Umat (YP2SU) as the local partner.

In the SIGAP program, the first scheme to be implemented is to collect data on high conservation value areas (HCVA) in each village. Then, the villagers, together with local facilitators, prepare participatory planning through three-dimensional maps and Land Use Plan (RTGL) maps. Furthermore, every village owning a development plan with data supporting the map will receive a Performance-Based Incentive (IBK). The use of these incentives was agreed for two sectors: conservation management and economic empowerment.

In the two years since the SIGAP pilot program began, this model approach has been implemented in 99 villages in Berau District through the SIGAP Sejahtera program. The villages are located around forests, coastal areas, close to oil palm plantations, and the district capital area.

OBJECTIVE OF SIGAP APPROACH

- · Strengthening the position of the village community in deciding the utility and activity of land conservation in itsarea
- Expanding opportunities for village communities to expand oil palm plantations by applying the principles of sustainable plantations to decrease new land clearing in natural forest areas.
- Strengthening the commodity alternatives of village community so they do not depend solely on the oil palm sector.
- Improving land use, preserving natural resources, decreasing deforestation rates in participatory and sustainable manner, and contributing to decrease greenhouse gas emissions in the agriculture and estate crop sectors.

TOGETHER MAKING INSPIRATIONAL CHANGE

Community involvement is the key to the success of the SIGAP program. This method relies on an appreciative inquiry approach to identify community capacities and manage them to make positive changes.

In the SIGAP program, the strategy for involving the community to make changes is to implement the 7D concept, namely:

1. Disclosure

Program facilitators and the community are open to each other in building relationships. Villagers shared their situation, challenges, and hopes for a better life. The initial data collection of the SIGAP program, including village profiles, oil palm companies, and oil palmsmallholders, was carried out at this stage. The facilitator also visited the village office and community leaders, explaining the SIGAP program.

2. Define (determine the themes)

The community and the facilitator discussed important themes for the sustainability of the villagers' lives

and their relation to the oil palm, including climate change, forests, and the Reducing Emission from Deforestation and Forest Degradation (REDD+) program. Community leaders and village government, as well as farmers, are involved in discussing the potential development of their area.

3. Discovery (recognize strength)

Villagers, at this stage, can identify their strengths and assets that can be used to make positive changes. Long Ayan Village community, for example, managed to map out potential natural and cultural resources to be developed as new sources of income. This potential includes tens of hectares of conservation and biodiversity areas, as well as Dayak Gaai culture in the form of dance, song, music, and traditional apparel.

4. Dream (vision)

Villagers discuss their vision and mission in utilizing shared assets. In Gunung Sari Village, for example, the community formulated their aspirations, including customary forest ownership, the legality of the estate

SIGAP PROGRAM PIONEER VILLAGES IN THE OIL PALM Kabupaten Berau **PLANTATION SECTOR**

• The Utau Dek Village Forest

Cultivation of rhizomes, citronella, and

various fruit trees as a new source of

training and business management

• Utai Dek Village Forest covering an area

potential maps, land use documents and

Village Medium-Term Development Plan

three-dimensional (3D) regional maps,

(RPJM) and Village Government Work

· Development of Village asset and

income. More than 20 thousand seeds

management

2. Conservation

of 15 hectares

Plan (RKP-Desa).

1. LONG AYAN VILLAGE

Location

: Surrounded by oil palm plantations managed by PT Berau Karetindo Lestari, PT Natura Pasific Nusantara, PT Mulia Inti Perkasa, and PT Agrindo Sukses Sejahtera, as well as PT Inhutani which manages cacao plantations covering an area of 1,871 hectares.

: Utak Tin Forest, 149

HCVA

hectares HCVA Function: A place for hunting, storing sacred objects, water sources, habitat for lais fish (Kryptopterus spp), source of food for the community

Activity:

 Village-Owned Enterprises (BUMK) Geh Almin Maklau

2. GUNUNG SARI VILLAGE

Location

Surrounded by oil palm plantations managed by PT Malindo Mas Perkebunan, PT Hutan Hijau Mas, PT Satu Sembilan Delapan, PT Tunas Permata Hijau, and PT Hutan Sanggam Labanan Lestari.

HCVA

: Waterfalls at KM 16 and KM 18: Malamma's Nest

Cave.

HCVA Function: Waterfalls will be have been planted Participation in BUMK management

developed as tourist attractions; Malamma Nest Cave is a habitat for swallow birds and a conservation area.

Activity:

1. Economy

- · Bumi Banua Lestari Non-
- Governmental Organization (KSM). Cultivation of rhizomes and citronella, about 20 thousand seeds have been planted.

 Organizational and business management training.

2. Conservation

- · 500 hectares of village conservation
- · Development of village asset and potential maps, land use documents and three-dimensional (3D) regional maps, Village Medium-Term Development Plan (RPJM) and Village Government Work Plan (RKP-Desa).

3. BIATAN BAPINANG VILLAGE

: Surrounded by oil palm Lokasi

plantations managed by PT Andalas Nusantara Permai and PT Buana Muadantara.

: Hot spring area and high carbon stock (HCS) hill.

Activity:

ANKT

1. Economy

- · Mampanas Nuntulung Tourism Awareness Group (Pokdarwis).
- Cultivation of rhizomes and citronella. about 20 thousand seeds have been planted.
- · Organizational and business management training.

2. Conservation.

· Development of village asset and potential maps, land use documents and three-dimensional (3D) regional maps, Village Medium-Term Development Plan

(RPJM) and Village Government Work Plan (RKP-Desa).

4. BIATAN LEMPAKE VILLAGE

: Surrounded by managed oil Location palm plantations PT Buana Muadantara, PT Tanjung Buyu Perkasa Plantation, and PT Dwiwira Lestari Jaya.

: Forest area for tourism and education forest; mangrove conservation area

HCVA Function: A place for hunting, storing sacred/ancient objects, water sources, and the original habitat of lais fish (Kryptopterus spp), source of food for the community

Activity:

HCVA

1. Economy

- Biatan Lempake Mandiri Village-Owned Enterprise (BUMK).
- · Management of ecotourism, fishing services, dock construction, boat to support transporation and operations.
- · Data collection of the oil palm smallholders to register "Surat Tanda Daftar Budidaya"

2. Konservasi

- · Establishment of a survey and patrol team for mangrove management areas.
- · Development of village asset and potential maps, land use documents and three-dimensional (3D) area maps,

Village Medium-Term Development Plan (RPJM) and Village Government Work Plan (RKP-Desa).

5. KARANGAN VILLAGE

: Surrounded by oil palm plantations PT Tanjung Buyu Perkasa Plantation.

HCVA : Mangrove areas, water sources, spring protection

areas and river buffers. HCVA Function: Hunting grounds, storing sacred/ancient objects, water sources, habitat

for lais fish (Kryptopterus spp), source of food for the community.

Activity:

1. Economy

- Tunas Mandiri Village-Owned Enterprise (BUMK)
- · Crab captivity management in the silvofishery program.
- Human resource capacity improvement training.

2. Conservation

- Formation of a survey and patrol team for mangrove management areas.
- · Development of village asset and potential maps, land use documents and three-dimensional (3D) area maps, Village Medium-Term Development Plan (RPJM) and Village Government Work Plan (RKP-Desa).