



STRATEGIC PLAN

2021-2023



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TFCA-SUMATERA

Forewords

Up to the end of 2020 TFCA-Sumatera has funded 80 projects with the total approved funds about Rp. 339 billion from the sources of funds TFCA-1 and TFCA-3. Within this total, it has also been recently approved from TFCA-3 source of funds a sum of about Rp. 100 billion (US\$ 6.9 million) to support projects to save Sumatran rhinoceros population from extinction. In addition, approval has also been given from the same source of funds a sum of about Rp. 36,25 billion (US \$ 2,5 million) to substantially reduce problems which have threatened the survival and viability of Sumatran elephant population.

In accordance with Forest Conservation Agreement (as amended), TFCA-Sumatera program would have ended by December 2023, unless the funds have not been entirely consumed. However, the projects on the field may run longer than this period depending on the work plan and the absorption performance of the projects. In the early 2021 at the end of the first quarter the remaining funds at the Debt Service Account which have not been committed for grant are US\$ 3.9 million from TFCA-1 and US\$ 2.4 million from TFCA-3. Assuming that the fund absorption by the grantees is about US\$ 1.5 million to US\$ 2 million/year, as was the case during the past ten years implementation, the remaining TFCA-Sumatera fund is expected to be totally consumed in 2024/2025.

During the past 10 years, with the 80 projects, including about 60 projects which have closed, there have been enormous outcomes and predicted impacts on conservation. There have been also enormous lessons and achievements which can be learned and even formulated into policy recommendations. These achievements have been compiled and documented to be compared with the objectives of TFCA and to take the lessons from the outcomes and conservation impacts of the program. Analysis was also undertaken during this process to identify gaps on the interventions, so that refocusing, and gaps filling can be constructed to build the current strategic plan and exit strategy, as this strategic plan will be the last one to conclude TFCA-Sumatera program.

In accordance with the OC's note at its 28th meeting, intervention focuses, especially which use TFCA-1 funds should be directed to few activities which would meaningfully increase the current conservation impacts. These could be:

- a) Strengthening community-based forest management, such as through social forestry program;
- b) Building a conservation-based business to support sustainability at project level and to build TFCA's legacy;
- c) Promotion of ecotourism as a model of social incentive for conservation; and
- d) Utilization of environmental services, such as micro-hydro as a benefit from forest protection.

The OC has agreed in principle the above-mentioned intervention focuses taking into account the general objectives of TFCA-Sumatera. In addition, the interventions should be taking into consideration the following approaches:

- a) Intervention on CBFM must support effective management and reduction of pressures on protected areas and key-endangered species population and habitat.

- b) Intervention on key-endangered species must also be connected to habitat protection, through activities such as facilitation of ecologically-based spatial and land use planning development;
- c) Projects sustainability must be taken into account during project design and implementation;
- d) Capacity strengthening of local organizations such as local NGOs and Community Groups, in integration with project sustainability;
- e) Exit Strategy must be built to anticipate the end of the TFCA program;
- f) Communication Strategy plays important roles in sending and dissemination of information and lessons-learned from the projects.

Surely, the Administrator of TFCA-Sumatera should refer to *Forest Conservation Agreement (FCA)* on the program expiration, namely end of 2023. However, this plan is designed to be valid until 2025, to anticipate if the fund is not fully consumed by the end of 2025 as guided in the FCA. However, it must be underlined that grant decision must have been taken as soon as possible before the end of 2022.

Jakarta, May 2021

Iman Santoso
Chairperson, Oversight Committee

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1. Introduction

Tropical Forest Conservation Action for Sumatra (TFCA-Sumatera) program is a debt for nature swap mechanism developed under bilateral agreement by the Government of the Republic of Indonesia and the Government of the United States of America. The Forest Conservation Agreement was signed on July 2009 (referred to as TFCA-1 source of fund) with the involvement of two Non-Government Organizations, namely KEHATI Foundation and Conservation International as the swap partners. Scheduled payment of Indonesian government's debt of US\$ 30 million (principal and interests) was redirected to a Trust Fund to finance forest conservation activities in Sumatra. The funding is in the form of grants to eligible local non-government organizations and universities. In September 2014 the agreement was amended to include additional fund of about US\$ 12.6 million (principal and interests) to finance mainly key-endangered species of Sumatra: rhinoceros, tiger, orangutan and elephant (referred to as TFCA-3 source of fund). These funds are administered by KEHATI as mandated through Forest Conservation Agreement to manage the grant program of TFCA-Sumatera and oversights by Oversight Committee (OC) as the highest decision making board of TFCA-Sumatera program. The permanent members of the OC consist of four representatives from respectively the Ministry of Environment and Forestry, USAID, KEHATI dan Conservation International-Indonesia. The OC membership is added by three designated members who represent independent organizations, currently represented by Indonesia Business Link, University of Syiah Kuala dan one representative who has not been designated since the resignation of the representative of Transparency International-Indonesia.

TFCA Sumatera is a grant program to fund forest conservation activities in accordance with six authorized purposes, namely: 1) the establishment, restoration, protection, and maintenance of parks, protected areas, and reserves; 2) the development and implementation of scientifically sound systems of natural resource management, including land and ecosystem management practices; **3) training programs to increase the scientific, technical and managerial capacities of individuals and organizations involved in conservation efforts;** 4) the restoration, protection, or sustainable use of diverse animal and plant species; 5) research and identification of medicinal uses of tropical forest plant life to treat human diseases, illness, and health-related concerns; and 6) development and support of the livelihoods of individuals living in or near a tropical forest in a manner consistent with protecting such tropical forest. In practice, the forest conservation programs are focused on the funding of conservation activities in 13 priority landscapes in Sumatra¹.

¹ Including Leuser Ecosystems, Seulawah-Ulumasan forest area, Batang Gadis National Park, Batang Toru forest blocks, Ecosystem of Angkola, Western Toba Watershed, Mentawai islands, Kerinci-Seblat National Park ecosystems, Tesso-Nilo National Park, Berbak-Sembilang National Park area, Kampar Peninsula-Siak-Senepis ecosystems, Bukit Barisan Selatan National Park, Bukit Tigapuluh National Park, Way Kambas National Park.

In the past Strategic Plan of 2015–2020, TFCA-Sumatera directed grantees to work on four levels of intervention. These would remain the same in the current Strategic Plan of 2021-2025 as follows:

- 1) Policy and Institution level. Strengthening policies and institutions at all administrative levels, at community level and private sectors are particularly important to build conservation foundation at site level. Development of management plans for protected areas and ecologically sound spatial planning at local levels (provinces, districts and villages) are among the most important areas of policy and institutions to be prioritized for improvement.
- 2) Landscape level. This level is central to conservation because all conservation problems relate and happen at and have implications on landscape. This is where human activities exist and where the impacts are. Sumatra suffers very much from deforestation, forest degradation and other unsustainable land uses. The drivers of deforestation include conversion, encroachment, and illegal mining. Inappropriate policies and governance may have also induced landscape level problems. This has led to significant loss of habitat and biodiversity and critically unproductive lands. Some prioritized activities include restoring critical forest areas, forest protection through patrols and increasing forest management effectiveness through the implementation of best management practices and resort-based management of protected areas, among other activities.
- 3) Species level. Declining populations of most species is attributable to habitat loss and trade (including poaching). Therefore, these issues are highly correlated with landscape degradation issues. Habitat loss and fragmentation have led to population decline of many endangered species. In addition, habitat loss and fragmentation has also led to human-wildlife conflicts, especially for large mammals such as elephants, orangutans and tigers. Furthermore, accurate data on population and distribution are yet, to be in place. Illegal trade and wildlife crime also contribute significantly to population decline. Therefore, priority actions to deal with species-related issues will be directed towards protection of populations and habitat, provision of accurate data, and supporting law enforcement to curb wildlife crime. Ensuring long-term viability of flagship, charismatic, endangered-key species of Sumatra, namely sumatran tiger (*Panthera tigris sumatrae*), sumatran rhinoceros (*Dicerorhinus sumatrensis*), sumatran orangutan (*Pongo abelii* dan *P. tapanuliensis*), and sumatran elephant (*Elephas maximus sumatranus*) is essential.
- 4) Local Community Socio-economic and Welfare level. Successful conservation action in Sumatradepends largely on local people involvement. Poverty and lack of education are often blamed as one of the main drivers of forest degradation and wildlife poaching. There have been numerous programs and projects on community development, poverty reduction, livelihood enhancement, conservation education and other local-based economic development. Successful community-based programs or projects can only be achieved when assistance to the community is carried out intensively and continuously over a relatively long time. Local NGOs are aware of the necessity to increase local communities' livelihoods through development of business activities at the local level. However, many of them are not sufficiently conversant to undertake such works. In this regard, TFCA should undertake capacity building for NGOs and local stakeholders.

Up to the end of 2020, TFCA-Sumatera has funded 80 projects with a total of fundings committed were about Rp. 339 billion. At the first quarter of 2021 period (Q1) there have been 89 projects with a total of about Rp. 401.3 billion funds from either TFCA-1 or TFCA-3 sources of funds. From this total, a sum of about Rp. 100 billion has been approved to fund sumatran rhinoceros rescue projects, and about Rp. 36.25 billion (US\$ 2.5 million) to save elephant population from extinction and control incidences of elephant-human conflicts. The rhinoceros projects have been started since the end of 2020 and early 2021 for the north (Leuser) and for the south (Lampung) areas respectively. Likewise, 11 projects to reduce latent problems of sumatran elephant have also been started on early 2021 with the ceiling budget of about Rp. 29.3 billion.

In accordance with the *Forest Conservation Agreement*, TFCA-Sumatera program will end on December 2023, unless the funds are not entirely consumed. When this plan is developed, total balance at the *Trust Fund (Debt Service Account)* which had not been committed for grant, was about US\$ 6.4 million, comprising of US\$ 3.9 million of TFCA-1 and US\$ 2.4 million of TFCA-3 sources of fund respectively². Assuming the rate of fund consumption at the project level is about US\$ 2 million (as currently the case) the fund is expected to have been totally consumed in about 3-4 years time.

With 89 TFCA-Sumatera's projects, which have mostly closed, there have been outputs or outcomes and even conservation impacts achieved in accordance with the TFCA-Sumatera's objectives in implementing facilitation of conservation, protection, restoration, and sustainable utilization of tropical forest in Sumatra. These achievements have been compiled in the forms of digital spatial information. Furthermore, these data would be reconstructed in such a way to learn how the achievements have formed a building of conservation success in accordance with the TFCA designed objectives. At the same time, a gap analysis needed to develop intervention refocusing and exit strategy, has also been conducted.

As discussed previously at the 28th meeting of the Oversight Committee regarding the focus of the TFCA Sumatra intervention in the near future, especially those using TFCA-1 source of funding, there are several groups of activities whose objectives were considered to have been achieved or have potentially meaningful impacts on conservation. These include:

- a) Strengthening community-based forest management (CBFM), including among others, social forestry program;
- b) Supporting social enterprises/business (local-based potential creative economy);
- c) Promoting ecotourism as a social incentive model for conservation; and
- d) The use of environmental services (such as micro-hydro power) as an advantage of preserving forest areas.

² At the end of August 2021 when the GOI will have completely fulfilled its obligation, the balance at the DSA is projected to have been about US\$ 8.9 million (from both TFCA-1 and TFCA-3). Assuming the management cost for 2022-2024 is about US\$ 1.4 million, the available funds for the next cycles would have been about US\$ 7.4 million.

In principle, the OC agreed with the above-mentioned focuses of activities, taking into account the TFCA authorized purposes. In addition, the interventions should take the following approaches into consideration:

1. Intervention on CBFM including social forestry scheme should directly or indirectly support the management effectiveness of protected areas, or would be able to lessen pressures on protected areas, as well as support reforestation or ecosystem restoration;
2. Interventions on species conservation (related to their habitat) must consider existing regional spatial planning policies and should encourage the adoption of strategic environmental assessment (*Kajian Lingkungan Hidup Strategis/KLHS*) as one of the legally binding instruments to achieve SDGs.
3. Program/project sustainability must be taken seriously in the project planning and its implementation
4. Increased capacity of local NGOs and community groups is one of TFCA goals. This should be in line with the objectives of project/program sustainability.

Implementation of TFCA-Sumatera in last phase of the next three years must be in accordance with the *Forest Conservation Agreement (FCA)* in terms of the date of the program expiration, namely 2023. However, this strategic plan is also designed to anticipate that the projects in the field last longer than 2023, in the case the funds have not completely consumed, which is also provided in the FCA. It is underlined, however, that all decision on grant must have been taken in 2022 or at least early 2023.

2. Summary of the 10 Years Achievements and Learnings of TFCA-Sumatera Program

2.1 Achievements

2.1.1. General Achievements

Up to the end 2020, TFCA Sumatera has supported a total of 80 projects with the total committed grants about Rp. 339 billion. These projects have involved 177 non-government organizations and local universities working in the field in the forms of consortiums or individual organizations. These projects were conducted in 13 TFCA-Sumatera's priority landscapes, whose interventions were conducted at three levels: policies, landscapes (including species), and local community's livelihood or socio-economic enhancement. The projects on the ground were developed in consultation with local stakeholders, local conditions, Government's conservation policies and priorities and recommendation of the Directorate General of KSDAE.

Project implementation to achieve the objectives were reflected from the activities such as **policy advocacy** which include facilitation to develop Management Plan of Protected Areas in North Sumatra, Strategic Environmental Assessment for the spatial planning in Rawa Tripa peat swamp of South-west Aceh District and Muko-muko District, with a total area which may be protected through these policies was about 352,000 ha. In addition, there were also projects which facilitated implementation of best management practices of forest concession holder companies in Tesso-Nilo, and various local decrees at district and village levels developed through facilitation of TFCA grants.

Activities on forest area protection such as through monitoring patrols in Leuser Area, Batang Gadis National Park, Kerinci-Seblat National Park, Bukit Barisan Selatan National Park, and Way Kambas National Park, were done not only to protect the protected areas from the threats of encroachment and illegal logging, but also to protect the areas from poaching, illegal wildlife trade and other forest-related crimes. From these monitoring activities, it has been reported that at least 2.8 million hectares forest areas were monitored during the past decade. In these patrols it was also found a number of 4,851 cases of crimes and attempt of crimes. These efforts involved more than 700 people in the patrol teams. Rehabilitation of landscape was carried out through ecosystem restoration activities in areas which covered 827 hectares of degraded ecosystem in Gunung Leuser National Park, Batang Gadis National Park, Batang Toru Forest, Kerinci Seblat National Park, and Bukit-Barisan Selatan landscape.

Wildlife protection activities received special attention by the provision of special TFCA-3 funds with the amendment of the Forest Conservation Agreement in 2014. With this, endangered wildlife protection and population recovery has been more focused. Supports on the

implementation of several strategy and action plans of critically endangered species such as sumatran rhinoceros and tiger have proven the seriousness of TFCA-Sumatera in saving helping recover the population of the most endangered and charismatic species in Sumatra. Monitoring patrol activities in various important landscapes, establishment of Conservation *Response Unit* (CRU) in Singkil and Tesso-Nilo, construction of anti-tiger-livestock pens in Bukit Tigapuluh and Way Kambas National Park, elephants care in 26 elephant training centers, curbing illegal wildlife trade and construction of breeding facility of rhinoceros, were those currently still supported. In the current TFCA-Sumatera's strategic plan, activities such as surveys, release of captive endangered species, trans-location of isolated populations, protection of habitat and corridors and population recovery of critically endangered rhinoceros are among the focuses of activities.

TFCA-Sumatera also supported Indonesian Government efforts in the development of social forestry (**perhutanan sosial**). In this regard, TFCA-Sumatera has supported 52 social forestry projects of several schemes, totalling 74,920 ha: 38 projects of Community Forest, 11 projects of Village Forest, 2 projects of Customary Forest, and 1 project of Conservation Partnership. There were significant number of the community members who directly involved in the membership of Forest Farmer Group. The total reached 28 thousand farmers working as the members of 51 association of farmers group (gapoktan) and 15 Forest Farmers' Groups (KTH).

TFCA-Sumatera's supports to enhance local people's livelihood involved about 38 thousand people, including among others, more than 24 thousand people trained in various skills and knowledges, such as field schools, business development, forest restoration, animal-human conflict mitigation, forest protection and organizational development at community level. Graphically, these achievements may be seen in Figure 1.

2.1.2. Detailed Achievements Based on Intervention Level

As it has been widely recognized, TFCA-Sumatera works at three levels of intervention:

- 1) Intervention at policy and institution level;
- 2) Intervention at landscape (including also species) level;
- 3) Intervention at livelihood and socio-economic level of local community;

The following sections describe ten years achievements in accordance with TFCA-Sumatera's intervention levels.

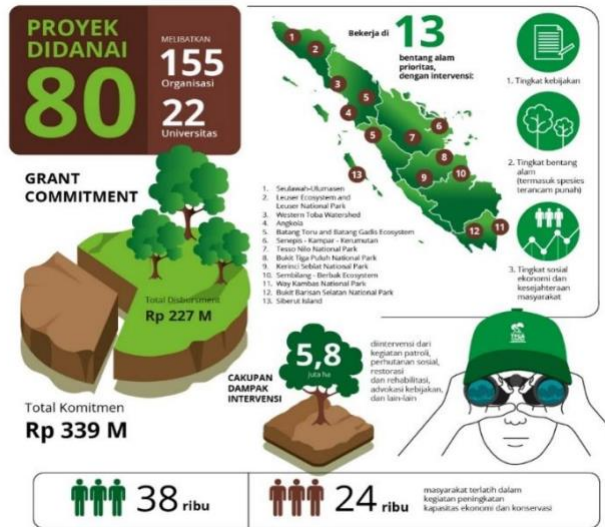


Figure 1. Infographic of TFCA-Sumatera Program's Achievements in General up to 2020

2.1.2.1. Achievements on Supports to Conservation through Policy and Institutional Strengthening

Supports and facilitation by TFCA-Sumatera's projects on policy development and institutional strengthening at national and local levels were aimed at strengthening active supports and buy-in by Government and other local stakeholders on forest conservation. Various forms of policy have been produced and provided positive impacts on forest conservation. Some of these policies are briefly expressed in the following paragraphs.

At policy level, TFCA-Sumatera supported policy making at all levels of Government administration. These were decrees of the Minister of Environment and Forestry on social forestry licenses (51 licenses) distributed in Lampung, Jambi, West Sumatra, Riau and North Sumatra; Spatial Plan on Nationally Strategic Areas of Leuser Ecosystem Area, and decree of the Minister of Environment and Forestry on the operation of unmanned aircraft for forest monitoring; decree of Governor of Jambi on Grand Forest Park of Tanjung Jabung, Decree of the Governor of West Sumatra on Collaborative Forum for the Management of Tiger and other animals Corridor in Solok Selatan and Darmaseraya Districts; Strategic Environment Assessment to support Medium-Term Development Planning of Muku-Muko District 2016-2021 and District Spatial Planning; decree of Regency (2 decrees) on the revocation of 11 mining licenses in Muku-Muko District; Decree of the Regency of Merangin on the Designation of organic agriculture and agroforestry in Jambi; various village regulations such as on forbidden part of a river; protection of mangrove around Berbak-Sembilang National Park; and Village Regulation on Conservation Activities in Villages around Tangkahan, Sei Betung, Bekancan and Bukitlawang Resorts.

Facilitation of policy strengthening at national level was also done through facilitation of the DPR and Government in the process of amendment of the Law No. 5 of 1990 Concerning Conservation of Biological Natural Resources and Their Ecosystems. Even though at the DPR membership

period of 2014-2019 the law has not been revised, the Academic Draft and the draft of the law have been produced and then used as the basis to go on the process at the period of 2020-2024. In addition to the policy advocacy at national and local levels, facilitation had also done in the development of 45 plans on the management of protected areas and species protection. These facilitations included development of Conservation Strategy and Actions of four key species (rhinoceros, tiger, orangutan and elephant), building spatial databases in Bungo District, building spatial databases in some villages of Merangin District, development of management plans and zonation of Linge Isaq Hunting Reserve, Natural Recreation Park lau Debuk-Debuk and Deleng Lancuk, Nature Reserve jantho, and Conservation Management Unit of Barumon, development of Master Plan and Operational Plan of some Social Forestry licenses and boundary marking of Singkil Wildlife Reserve.

Development of these policies would be able to contribute to the potential protection and effective management of protected areas and other forest areas of about 319 thousand hectares. In addition, the process of boundary marking in Singkil Wildlife Reserve has placed temporary markers along the reserve border of 233 km of the total 102 thousand hectares of Singkil Wildlife Reserve.

2.1.2.2. Achievement on Conservation Actions at Landscape Level and Species

2.1.2.2.1. Protection of Forest Area and Wildlife

Activities to protect forest, land and species were directly carried out through, among others, monitoring patrols, which also include activities such as mitigation of wildlife-human conflicts, habitat and population monitoring and community outreach. The achievements of these activities are described in the following paragraphs.

TFCA-Sumatera's supported patrol activities were those integrated with other supported activities which need protection to achieve greater impacts. Patrol activities in nine TFCA-Sumatera's landscapes, in general, involved 424 team members. In total, the patrols covered an area of about 2.9 million hectares with a distance of more than 180,000 km. The activities documented 4,585 cases of various acts of misconduct and crime, such as forest encroachment, poaching, ensnaring. In addition, the patrol activities also carried out biodiversity inventory, crime investigation and human-wildlife conflict mitigation. Some of these cases were further investigated and legally processed, where court's verdicts have also been taken. There were also confiscated evidence, such as 11,000 m³ illegal timber and various forms of wildlife products. Investigative patrols to collect information for legal procedures were done to assist law enforcement officials to file about 20 criminal cases which have been successfully filed in the District Attorney. Verdicts were reported to have been taken on these cases.

With regard to the protection of habitat and species, some of the TFCA-Sumatera's grantees carried out capacity building programs on various issues, such as training on patrols, law enforcement,

and filing cases on forest and wildlife-related crimes. These trainings involved 63 groups consisted of about 600 peoples, including among others, 129 persons conservation cadres.

As well as cases on forest and wildlife-related crimes, issues on wildlife-human conflicts were among those which should be handled, as these were not able to be separated from conservation issues. A number of 509 cases of conflict were mitigated by the grantees through various ways, such as the use of trained elephants managed by *Conservation Response Unit* (CRU) and enhancing community's capacity on the alertness and early warning systems to elephant raids. In addition, in Aceh, the grantees successfully developed elephant-human conflict resolution by constructing man made barriers in combination with natural barriers, in the forms of 1.4 km elephant-proof trench and 245m electric fence. In many cases, these forms of barrier have successfully stopped the elephants from raiding crops and other human activities. However, in other cases, some more basic actions such as provision of corridors, protected habitats and habitat improvement were needed.

Large mammals such as elephant, rhinoceros, orangutan and tiger which frequently caused conflicts with human, were often living in relatively small, isolated or fragmented habitat not connected to larger habitat and population. These population need to be rescued and/or translocated into better habitat. Rescues were also carried out on animals illegally kept in captivity following law enforcement action by the authority, or the protected animals voluntarily relinquished by the owner. This far, recorded, in many incidences, more than 200 animals rescued by TFCA-Sumatera's grantees which actively carried out the activity. From these rescued animals, at least 21 elephants, 8 tigers and 63 orangutans were rescued and moved to more viable habitats. Figure 2 depicts info-graphics on the wildlife protection by TFCA-Sumatera's grantees.

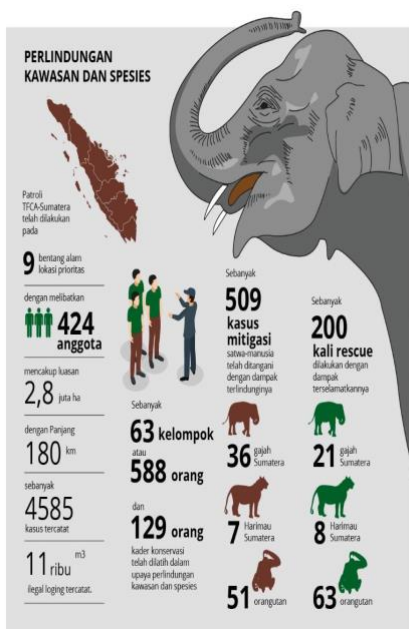


Figure 2. Infographics on TFCA-Sumatera's Achievement in habitat and species protection

2.1.2.2.2. Ecosystems Restoration

Ecosystems restoration is an activity to rehabilitate degraded or destroyed ecosystems to the original state. Degraded national parks were, among others, caused by encroachment and land fire. TFCA-Sumatera has supported ecosystems restoration activities in national park's areas which frequently burned such as Way Kambas National Park (Lampung) and in areas formerly encroached by palm oil plantation in Gunung Leuser National Park. The total restored areas supported by TFCA-Sumatera was recorded to be 827 ha.

It was noted that ecosystems restoration is a capital intensive so that it is expensive and time consuming. While protected areas degradation happened to be too large for TFCA-Sumatera to support. Therefore, TFCA-Sumatera only built restoration model in accordance with ecosystem types and causes of degradation, that in turns, would be used for replication models.

In addition to ecosystems restoration endeavor, TFCA-Sumatera also supported activities on rehabilitation of degraded cultivated lands outside and had direct impacts on protected areas. This activity involved 72 farmers groups, consisting of about 2,800 farmers and an 8,553 ha lands surrounding protected areas. Figure 3. Depicts the results of ecosystems restoration on infographics.



Figure 3. Infographic showing TFCA-Sumatera's achievements on ecosystems restoration.

2.1.2.2.3. Capacity Building on Conservation Measures

Field activities on conservation measures need skillful human resources capable to carry out these activities accurately. For this reason, TFCA-Sumatera supported grantees to conduct capacity building for local community, protected areas authority and law enforcement officials. Various topic of capacity building activities involved 4,587 persons in 340 training workshops.

These capacity building were, among others, training on human-wildlife conflict mitigation, involving 634 persons of 53 groups. In addition, there were 161 conservation cadres trained in forest and land fire control and mitigation, and 717 people of 63 groups trained on forest area and endangered wildlife population protection.

Capacity building trainings for Government officials were carried out on several conservation issues, where 231 persons were trained on mapping of forest areas for monitoring and other management purposes. Capacity building on law enforcement was done through training participated by 44 people from 5 Government offices (including local police, district/provincial attorney, BKSDA, National Park dan Provincial Forest Service) to process cases of forest and wildlife crimes. These capacity building activities are depicted in infographics as shown in Figure 4.



Figure 4. Infographics on TFCA-Sumatera’s achievements on conservation-supporting capacity building activities

2.1.2.2.4. Capacity Buildings on Economy and Institutional Strengthening

Capacity building for local community were all aimed to empower the community in terms of livelihood and welfare through improvement of production capacity. These were, among others, undertaken through institutional building at site level, including establishment of farmer groups, organizational development and building commercial entities such as cooperatives. This activity involves about 24 thousand people working on 542 various activities.

For example, in the institutional development, there were 61 people benefitted through training on financial management. In addition, there have been 18 groups formed, involving 453 beneficiaries trained on organizational management. Figure 5. shows statistics of economic and institutional capacity building.

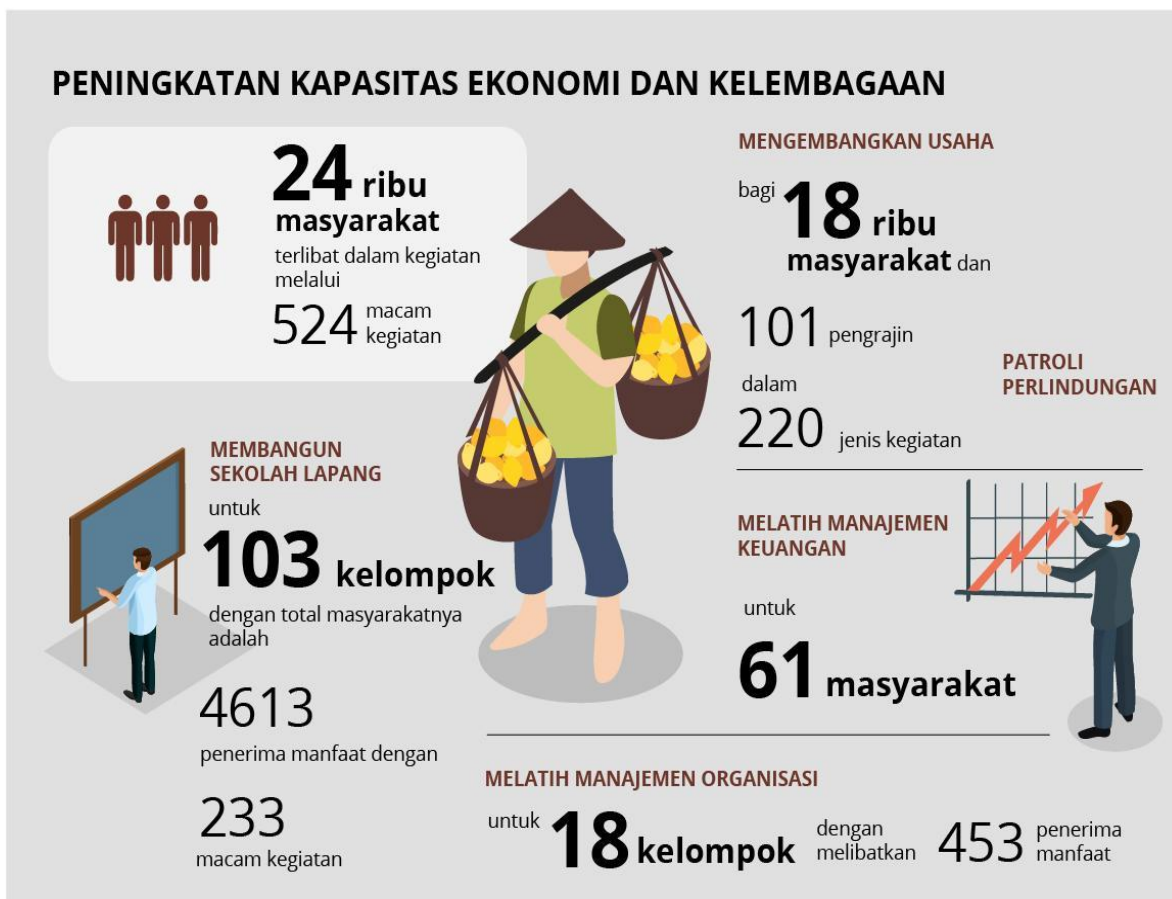


Figure 5. Infographics on TFCA-Sumatera's achievements on Capacity building and economic strengthening

2.1.2.3. Achievements on People’s Socio-Economic and Welfare Enhancement.

Activities on people’s social-economic and welfare enhancement, are in principle, carried out to increase people participation and buy-in in conservation measures. Realizing current conditions, in terms of forest-people relationship, it does not make any sense to “speak” about conservation where people are powerless, in terms of socio-economy and welfare. This is, why TFCA-Sumatera integrates conservation and enhancement of welfare and livelihood. Various activities on people’s economic development have been carried out through various undertakings, including social forestry schemes, sustainable agriculture application and the utilization of environmental services, such as ecotourism.

2.1.2.3.1. Utilization of Environmental Services

TFCA-Sumatera supported sustainable nature-based tourisms in various areas, among others, in three potential areas, namely Siberut National Park, Way Kambas National Park dan Bukit Barisan Selatan National Park.

In order to utilize water services as a village-based alternative electrical energy, TCA-Sumatera supported small-scale self-sufficing hydro power energy in the forms of six units picohydro and microhydro and one clean water provision for local people. Building small scale electric hydro-power and clean water provision systems should be linked to the conservation of protection forest, among others through community forestry schemes, which in the long-run would be able to supply water for those purposes. Examples of environmental services utilization are statistically depicted in an infographic of Figure 7.



Figure 6. Infographics of TFCA-Sumatera's achievements on the utilization of environmental services

2.1.2.3.2. Local Commodity's-based Economy

In enhancing community's economy on local potential basis, TFCA-Sumatera has provided supports on several sectors, such as agriculture and sustainable harvest of non-timber forest products. There have been 161 supported activities which involved more than 2,000 people and 33 community groups were established.

As an example was the support on 1,152 community members in and surrounding buffer area of Leuser National Park, Berbak-Sembilang National Park, Bukit Tigapuluh National Park, and the Kerinci-Seblat National Park, were trained on the implementation of sustainable harvest of natural commodities, such as bamboo, nipah, honey, rattan, jernang and sago. In addition, development

of agricultural cultivation, fisheries and animal husbandry, in various non-forest buffer areas, were done by involving 884 people of 27 community groups. These achievements are depicted in Figure 8.



Figure 7. Infographics on the TFCA-Sumatera’s achievements on the supports on local commodities-based economy

2.1.2.3.3. Social Forestry

During the course of 2011–2020, TFCA-Sumatera’s supports on Social Forestry reached an area of 74,920 ha, managed by 49 farmers groups (GAPOKTAN), two customary groups and 15 Conservation Forest Farmers Groups (KTHK) distributed in five landscapes of Leuser Ecosystems Area, Western Toba Watershed, Senepis-Kampar-Kerumutan, Batang Gadis National Park, Kerinci-Seblat National Park, and Bukit Barisan Selatan National Park buffer zones. TFCA-Sumatera supports were provided to 10 grantees in those five landscapes, carried out through establishment of 38 units of Community Forests (HKM) with an area of 49,089 ha; 11 units of Village Forests with an area of 24,133 ha and two units Customary Forests with an area of 728 ha. Besides Social Forestry schemes as developed by the Government, TFCA-Sumatera also supported community-based forest management (PHBM), such as through people forest activity in Bukit Barisan Selatan National Park’s landscape. The activity involved three farmers’ group with the total managed area of 852 ha forest.

As Social Forestry is normally carried out in production and protection forest, there have been developed a governmental policy of social forestry in protected areas, called Conservation Partnership. TFCA-Sumatera supported implementation of this policy in Leuser National Park to control a non-procedural use of protected area in Sekoci area of Besitang management resort of Gunung Leuser National Park. Total area supported was about 970 ha involving 15 KTHKs. Visually, the achievement on social forestry may be seen in Figure 9.

Lessons learned from social forestry activities carried out by the grantees showed that there were conservation impacts which may be addressed to local social-economic enhancement. From the conservation point of view, firstly, social forestry has been proofed to be able to contribute maintaining forest cover of the remaining forest area through rehabilitation and independent patrols. As an example, in the supported community's social forestry at the Register 39 protection forest of North Kota Agung, the community was assisted and guided to plant timber species among their crops. The HKm's members community also applied independent patrol systems in their respective HKm area. Secondly, the customary community has been aware of the benefits in protecting forest area through reserving a protected forest area within their customary right forest area. For example, the customary forest community of Tigo Luhah Permenti Yang Berenam and Tigo Luhah Kemantan of Jambi, reserved their 728 ha customary forest area as the conservation area to be conjointly protected. The community apply customary rules to ban conversion to crops or plantation. Both customary forests were the first which received customary right from the government. Thirdly, social forestry safeguards catchment areas. This is appeared by HKm Aek Rau Lestari and Tani Martuah established to protect catchment areas which resulted in environmental service in providing water services, the community, was aware of the importance of forest cover to provide sources of their electricity.

The economic impacts on local community may be described as follows. Firstly, social forestry has been capable to grow local community's micro economy through development of superior commodities. As it has been shown in Tanggamus District of Lampung, through social forestry schemes, 23 commodity-based forms of economic activities, strengthened by the establishment of 11 cooperatives as the marketing tool. More importantly the community received supports of capitals, among others, from Bank BRI in the form of Food and Energy Security scheme of credit (KPPE), from Bank Indonesia, Public Service Board (BLU), Ministry of Cooperatives and Small and Medium Business, and from the Ministry of Village Development.

Secondly, social forestry also capable of opening collaborative opportunity and integration of policies among ministries at site level. Members of HKm communities have become object of policy implementation by many ministries, in terms of community development. For example, HKm Beringin Jaya, after legally received HKm license to manage and protect the forest, they received financial support from Bank BRI as a soft loan. Bank Indonesia supported with coffee processing machine, and BLU provided support on HKm financing. Some Technical Units of the Ministry of Environment and Forestry provided seedlings and other ministries, namely Ministry of Cooperatives and Small and Medium Business and Ministry of Village Development also provide supports in accordance with their respective programs.

Thirdly, Social Forestry provided alternative source of electricity, for example to HKm Aek Rau Lestari of North Tapanuli, where water resource regulated by their HKm has been able to activate micro-hydro power turbine as high as 10,000 watt, with the generated power of 30,000 watt.

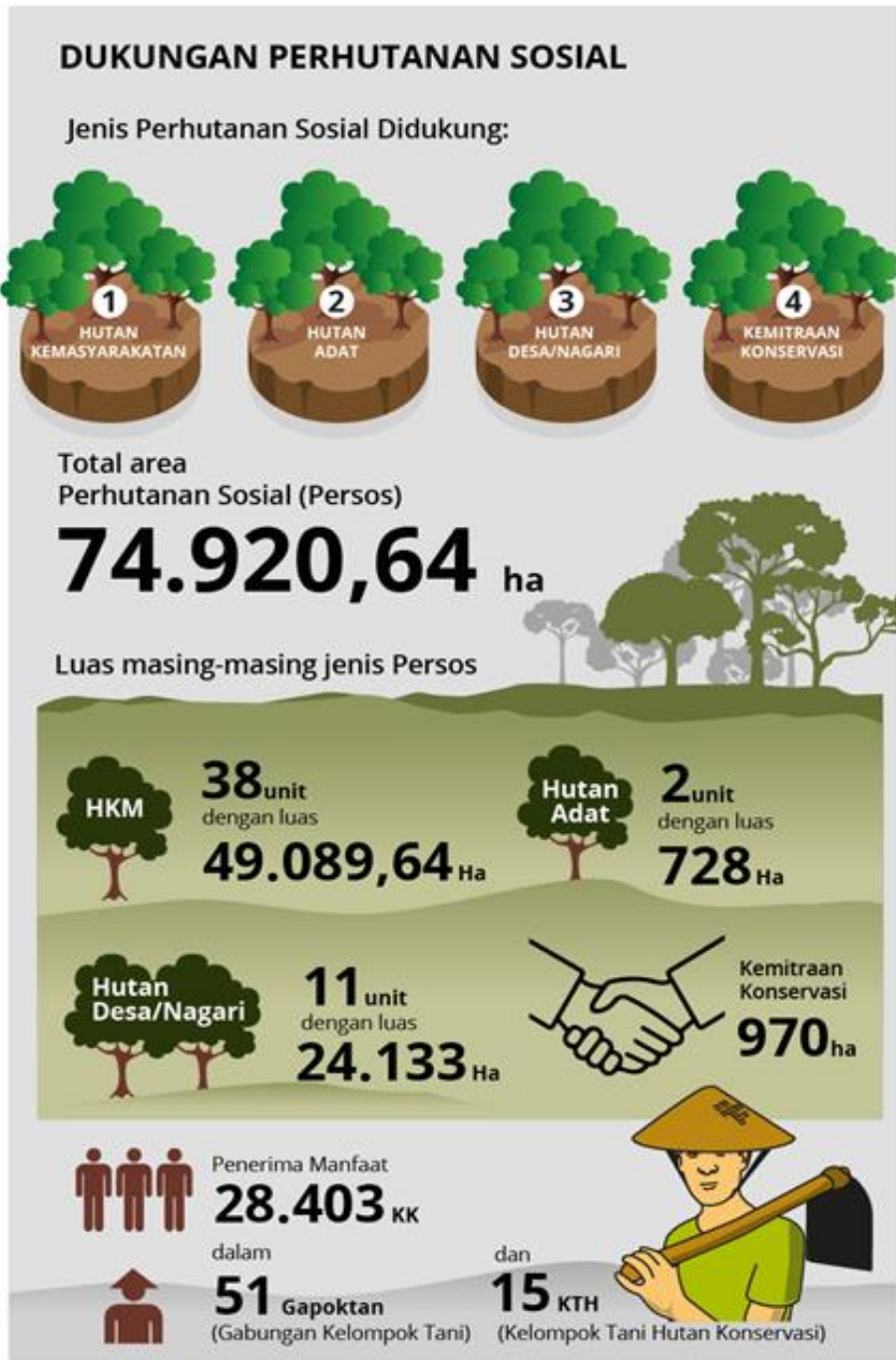


Figure 8. Infographics on the TFCA-Sumatera's supports on the Social Forestry development

2.2. LEARNING

At the period of Strategic Plan 2010-2014 and 2015-2020, achievements have been reached and various lessons may be learned. Even in some cases, policy recommendations have been forwarded to several parties. Summary of the lessons, knowledge and learning is described in the following sections.

2.2.1. Social Forestry and Community-Based Forest management (CBFM)

Various activities supported by TFCA-Sumatera on Social Forestry, include among others: 1) farmers group establishment and license application; 2) strengthening of the groups and assistance on the development of management plan (General Plan and Annual Work Plan); 3) increasing land cover by planting timber species commodity and economically valuable timber species; 4) development and strengthening business institution, such as cooperatives and Village-owned Business; and 5) rising of support, fund and leverage to further develop productive business.

Through all of these activities, TFCA-Sumatera identified some results of learning which can be of learnings. These include, firstly, TFCA-Sumatera's supports on social forestry provided relatively high impacts on economy, social and environment, which can be seen from the magnitude of the area designated for social forestry program, number of farmers groups established, and the number of the members of the farmers groups assisted. The impacts looked clear, but inventory of the exact conservation impacts of social forestry is being done in various areas. Secondly, TFCA-Sumatera initiated the establishment of Social Forestry Forum as the media of *peer to peer learnings* to assist strengthen the grantees on the process to apply licenses and to fulfil all conditions and terms of application. This forum is also beneficial as a room to share knowledges and networking of grantees. Thirdly, all of the assistance activities to community implement gender inclusiveness. In the future it is possible that there would be sifting in roles of women in the family and would be able to change in the economic activities in the community. Fourthly, there is a lack of economic activities' sustainability and the environment governance direction.

From these lessons, there are some recommendations for the implementation of sustainability plan for future TFCA-Sumatera program and projects as follows:

1. TFCA-Sumatera should not facilitate new licensing on social forestry, but it should focus on economic and environmental strengthening, except those in areas whose impacts from previous activities need to be escalated;
2. From the trend of success, pattern of assistances on grantees and accessibility to the areas, there are some landscapes which need further intervention on social-economic strengthening, linked to species conservation. These landscapes include: Batang Toru-Batang Gadis, BBS National Park and Kerinci-Seblat National Park.
3. It is needed to facilitate and promote model replication to further develop environmental conservation-oriented social forestry;
4. Funding investment is needed to identify conservation impacts from the assisted social forestry areas.;
5. Facilitate social forestry learning forum with share learning activities;

6. Every activity on the management of commodity by grantee, need a development of agroforestry concept.

2.2.2. Restoration and Rehabilitation

During the last ten years, TFCA-Sumatera's restoration projects contributed to the 985 ha restored national parks ecosystems (Way Kambas, Bukit Barisan Selatan and Gunung Leuser National Parks). This activity was involving 10 surrounding community groups to work on activities such as planting, maintenance and safeguarding or patrols. On the other hand, rehabilitation activities had rehabilitated an 8,553 ha of degraded protection forest and non-forest lands. Even though the restoration activities resulted in a lower number of restored areas than those of rehabilitation, restoration activities provide significant support to model restoration of degraded protected areas. Furthermore, from project design point of view, restoration activities were done effectively and relatively successful, because the achievement was scientifically measurable, clear planning and clearly protected.

Some of the lessons which can be learned from restoration and rehabilitation activities may be seen in the following sections.

2.2.2.1. Restoration

Restoration activities by TFCA-Sumatera's grantees may be grouped into three approaches, namely the use of social capital, using daily payment and restoring ecosystem's function of the areas.

Firstly, the use of social capital approach, done by PILI in BBS national Park was comparatively more advantageous in terms of sustainability assurance, because of it fully involved community so that paradigm shift in the community in viewing the importance of returning forest ecosystem functions and conservation value was significant. On the other hand, the disadvantage of this system of restoration was that the main species for restoration should be mixed with *Multi-Purpose Tree Species* (MPTS) so that the targeted original restored ecosystem might never be reached.

Secondly, approach on daily payment as carried out by YOSL in Gunung Leuser National Park, had shown positive impacts, such as scientifically designed activities and the restored ecosystem was closer to original ecosystem. The disadvantage of this system of restoration was the reliance on donor and park's authority's fundings, and the risk of unsustainability.

RESTORASI HUTAN

SUCCESS STORY OIC | ORANGUTAN INFORMATION CENTRE



Figure 9. Illustration of success story on degraded ecosystem restoration in Gunung Leuser National Park

Thirdly, the approach done by ALERT in Way Kambas National Park was to restore ecosystems functions, carried out for the mitigation and prevention of forest fire. This activity involved local community and park's authority. This approach has its disadvantages, namely the maintenance was difficult and expensive.

These three approaches were applied in accordance with characteristics of the area, local community, pre-conditions of the area and political will of the park authority. TFCA-Sumatera chose these models in accordance with the suitability of the approach on the areas to be restored.

From the restoration activities, there are some lessons to learn for the future implementation. These may be:

1. Restoration activities are expensive and time consuming, while it has a high risk as it must be maintained intensively.

2. It needs thorough identification of the basic information for the restoration activities;
3. It needs allocation of special funds to measure the impacts;
4. It needs allocation of resources for the monitoring of biodiversity, before, during and after restoration activities;
5. Replication may be done in similar locations.

Strategy for future restoration activities and sustainability plan of the TFCA-Sumatera program, may be done through:

1. Restoration activities may be done as an integrated part of main activities, such as in the conservation of sumatran rhinoceros;
2. If replication is to be done, it should be directed on to continuation of the previous activities, or leveraging existing activities;
3. If extension of the existing or previous restoration have to be taken, one or more of the three approaches must be selected, with the conditions that the restoration area is one of the restoration targets by KLHK;
4. Restoration activities must involve national park's authority, local community, and must be able to provide economic added value to the community. Restoration may apply models developed by YOSL-OIC which develop research center to be use further by others, or those caried out by PILI through agroforestry restoration systems to enable community take advantages of the area.

2.2.2.2. Rehabilitation

Most of the rehabilitation activities by TFCA-Sumatera's grantees were only provision of seedlings, they have not aimed at the benefits and sustainability. Many of the rehabilitation activities were not well-planned, so that they had led to the high risk of failure. However, some rehabilitation activities were carried out well and worth to learn the lessons. Among the successful rehabilitations were those of Yayasan Mitra Aksi and Yayasan Konservasi Way Seputih (YKWS).

Lessons from the rehabilitation activities by those grantees include: 1) planning document is essential as the basis for the implementation; 2) rehabilitation activities are done in accordance with the benefits and function of the area, namely rehabilitation of unproductive, degraded or abandoned community lands, 3) rehabilitation should be done in line with the creation of economic added values for the community, 4) the program ownership must be determined to ensure the sustainability, and 5) application of sustainable harvest of the developed products must be ensured.

As rehabilitation differs in principle with those of restoration, the future implementation and sustainability strategies should take the following conditions into consideration:

1. Rehabilitation is preferably done in communal lands such as customary forest or village forest, rather than in protected areas. TFCA-Sumatera has not ever supported rehabilitation of customary forest. It is known that customary forest is communal land which has strong communal ownership and is regulated by its owned community members;
2. Linked to ecological functions and local economy;
3. The species chosen should also include multi-purpose tree species (MPTS);
4. Technical design must be properly documented;

5. If undertaken in individually-owned lands, poly culture and agroforestry approaches should be used;
6. There should be in place, continued farmers group's strengthening and assistance;
7. Rehabilitation outside protected areas may be incorporated with the development of wildlife corridor or connectivity between habitats;
8. Lessons-learned should be well-documented to be used by other donors and replication.

2.2.3. Sustainable Spatial Planning

Sustainable spatial planning refers to all support by TFCA-Sumatera to facilitate the achievement of vision on sustainable spatial planning which relates to 13 priority landscapes of TFCA-Sumatera. Some supports which have been provided include among others:

- Composing Strategic Environmental Assessment (KLHS) as a mandatory document to develop ecological or conservation-based spatial planning;
- Development of Village Information Systems and establishment of village micro;
- Development of organic farming supported by the local government;
- Development of Long and Medium-Term Plans of Forest/Protected Areas Management;
- Protected areas and or social forestry borders marking;
- Development of master plan and operational plans of social forestry;
- Advocation of social forestry and CBFM licensing at all levels (villages to national).

Some of successful interventions on spatial planning at local levels include support on the development of Strategic Environmental Assessment (KLHS) in Muko-muko District, support on KLHS for Aceh province, support on Village Information Systems by Mitra Aksi Foundation, and issuance of Decree of the Merangin Head of District on Jangkat organic farming.

The relative success of these projects was affected by several factors. Firstly, assistances given to the community were seriously executed through employment of field facilitators who stayed in the project area. Grantees whose facilitators stayed distantly from the project sites, tended to have some problems. Secondly, grantees created cadres from the farmers to undertake peer-to-peer learning assistances or training of trainers. Thirdly, such as in Village Information Systems (SID), activities were promoted down from the village through the development of comprehensive understanding by the community, as therefore, awareness were cultivated at the bottom level that the activity is needed. In contrast, top-down activity pushed from the district level, faced difficulty in implementing the activities because of the political situation at local level. Some success might be achieved but it took longer time. The risk of the project to become unsustainable may arise when the local administration changes and policies may change as well. Fourthly, seriousness and awareness of local government to promote policies on sustainable spatial planning. Political will of the local government is the main important commitment to lever successful policies. The presence of political will may be in the forms of fully inherent and fundamental characteristics of the government, without being driven, for example, which happened in Aceh Government, or through intensive facilitation such as those happened in Muko-Muko District under the support of local NGO Genesis through development of KLHS. This organization changed the awareness of the local government through cultural approach. Fifthly, because of the support to develop academic draft containing comprehensive findings of research and study, the policies have

become scientifically based. Finally, the lower the level of intervention, for instance intervention at village level, the higher the possibility of success will be.

Recommendation for the future intervention on Spatial Planning by TFCA-Sumatera:

1. Promoting policy which regulates and mainstreams biodiversity at all spatial planning of all sectors and government levels;
2. Strategic Environmental Assessment (KLHS) must be strengthened through inclusion of biodiversity variables into the analyses. Provincial level's KLHS may become one of the priority for TFCA-Sumatera to support;
3. There must be initial risk assessment. Intervention on policy with high risk of failure, should not be supported;
4. For the potential grantees, effective due diligence is important as one of the tools to mitigate risks. Due diligence process and approach may be changed, as in general, TFCA-Sumatera would not be working with totally new grantees. Due diligence should be directed towards analysis of risks, stakeholders mapping, and socio-political mapping. In addition, track record and capacity of the potential grantees must also be assessed;
5. Supports on the implementation of spatial planning should not be started from zero. It may be done through identification of local government which commits to develop ecologically-based KLHS ;
6. Activities which have high conservation value with relatively short time of implementation is facilitation on the establishment of important ecosystems outside protected areas to increase connectivity between habitats and protected areas and to build wildlife corridors to lessen wildlife-conflicts with human.

2.3. Gaps Analysis

Based on ten years learning from TFCA-Sumatera's implementation on the ground, some gaps appear to be the priority for filling. These include:

1. Investment and intervention by TFCA-Sumatera on the socio-economic development through community-based forest management, such as social forestry needs to be strengthened. Social forestry intervention, which resulted in products and services, including non-timber forest products such as rattan, gambir and jernang, products of sustainable agriculture practices such as rice and coffee, and ecosystem services uses such as ecotourism development, have been conducted widely in TFCA landscapes. Those activities have also resulted in positive impacts on the community-based forest management and provide spaces for the community to develop their economy through sustainable use of forest and its biodiversity. However, in terms of quantity, quality and continuity, the resulted products and services have not been able to fulfill commercially economic scale. Their production was relatively small in quantity and distributed sparsely in many places and far between, where the marketing was conducted individually, as therefore, resulted in low bargaining position and mostly subsistent to fulfill their own needs. In order to fill this gap, a local-based and professional entrepreneurship needs

to be built. This may be in the form of social-conservation enterprise which integrate sustainable, inclusive business model with conservation of forest.

2. Wildlife is for sale not only in life forms. Various parts and derivatives of wildlife such as skin, scale, ivory, and claws often for sale in black market. Tiger may be the most illegally traded endangered species. Several cases have shown that tiger skin, claw, and fangs were interesting objects in illegal wildlife trade. Furthermore, ivory is also of interesting objects for collector. Pangolin scales, hornbill and many other species are also in illegal trade for various uses. Protection and law enforcement efforts have been successful in suppressing and reducing threats of poaching and associated illegal wildlife trade. However, trade in this kind of products does not seem to reduce, as therefore, capacity building in law enforcement still needs to be strengthened.
3. Intervention at policy level is one of TFCA-Sumatera's conservation interventions carried out in TFCA's geographic areas. There have been 17 grantees which run the policy level projects on the ground and were distributed in 12 districts in six provinces of Sumatra. The intervention results were policies which range from village level to district, province, and national levels. It is noted however, that in support of the key endangered species, policies which relate to conservation-based spatial and land use planning is absolutely needed, especially to provide sufficient habitat, corridor, and connectivity.
4. TFCA-Sumatera has invested its funds to save and protect population of endangered species, through saving rhinoceros, elephant, orangutan and tiger population projects and resolution of conflicts between wildlife and human. In case of rhinoceros, because of the current condition of the population, TFCA-Sumatera allocates its fund on the use of reproductive technology (*assisted reproduction technology/ART*) employing current technology.

3. Contribution of TFCA-Sumatera Program to National Policies and International Conventions on Conservation

Contribution of TFCA-Sumatera program to national policies and international treaties on biodiversity has been identified. These, among others, are contribution to the SDGs, such as SDG 2 on “End hunger, achieve food security and improved nutrition and promote sustainable agriculture” in accordance with target 2.3 on the enhancement of agricultural productivity and incomes of small-scale producers and establishment of sustainable agricultural areas. The contribution was produced from grantees activities, such as on the utilization of water services resulted from the maintenance of customary forests to irrigate organic rice fields in Simancuang village of Solok selatan district (West Sumatra), and establishment of Jangkat Sub-district of Merangin District as the organic farming area. The largest contribution of TFCA-Sumatera Program was to SDG 15 concerning “restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.” In line with this goal, support on patrol and law enforcement activities was done to reduce the rate of forest degradation, poaching and associated illegal trade in wildlife. Efforts were also put on ecosystem restoration of lowland forest in Gunung Leuser National Parks, Bukit Barisan Selatan National Park and Way Kambas National Park, and restoration of peat swamp forest ecosystem in Singkil Wildlife Reserve of Aceh. On the protection of endangered species of wildlife, TFCA-Sumatera facilitated development of several action plans such as of rhinoceros, elephant, orangutan and tiger, and associated implementation of some actions on the ground. In addition, TFCA-Sumatera supports policy development on regional development and spatial planning which take biodiversity and conservation into account, at all governmental levels.

In accordance with SDG 17: Partnership, efforts to achieve TFCA missions was carried out through multi-stakeholders partnership and cooperation with, for instance, NGOs, universities, private companies, local government, and central government working at site level. Furthermore, with the end of TFCA-Sumatera Program is approaching, multi-stakeholders partnership becomes more important, in terms of sustainability of the benefits of the program/ projects. TFCA-Sumatera should now prepare exit strategy which include sustainability, knowledge management and how it will leave legacies.

Indonesia as a Party to the Convention on Biological Diversity (CBD), supports the Convention’s decision taken at the 2010 Conference of Parties in Nagoya, where the year 2011-2020 was established as UN Decade on Biodiversity, and at the same time decided Strategic Plan for Biodiversity 2011-2020, which include 20 targets of achievement, and well-known as *Aichi Target for Biodiversity*. During this period, TFCA-Sumatera contributed to the achievement of Aichi Targets, for example as follows:

- Target 1, in line with the awareness of stakeholders, especially community groups living surrounding the forest were engaged in the forest and biodiversity protection;
- Target 5, TFCA-Sumatera supported *ex-situ* conservation of rhinoceros, elephant, tiger and orangutan;
- Target 7, TFCA-Sumatera through its grantees contributed to the improvement of sustainable agriculture in the national parks' buffer zones, which also include the establishment of those areas into organic agriculture area;
- Target 11, was contributed through ecosystem restoration activities and protected areas safeguarding and effective management facilitation;
- Target 12, was contributed through activities such as utilization of water services from forest management for clean energy and irrigation of organic rice;
- Target 10, contribution was done by facilitation of conflict resolution of land use in protected areas through the implementation of Conservation Partnership.

TFCA Sumatera Program supported the implementation of the 2020-2024 Strategic Plan of the Directorate General of KSDAE whose targets include, among others:

- 1) Increased protection space for biodiversity was supported through increased civil community's roles on biodiversity protection such as on saving the population of critically endangered species, notably sumatran rhinoceros. The support was done through facilitation of the development of Emergency Action Plan to save sumatran rhino and further implementation of the plan. Examples of the actions include supports to rescue doomed population of rhinoceros, construction of breeding facility (sanctuary) and population and habitat protection in western Leuser Ecosystem. Similar support is also being done on elephant, tiger and orangutan. There have been support to establish and further implement emergency action plan to save elephant population and human-elephant conflicts, including also through conflict mitigation activities, development of corridors by saving important ecosystems outside protected areas and assessment of elephant genetic properties in the *ex-situ* facilities.
- 2) Increased managed protected areas for ecosystem services utilization was supported through development of ecotourism activity around Siberut National Park and development of ecotourism villages surrounding Way Kambas and Bukit Barisan Selatan National Parks.
- 3) Increased space for community-based business, as well as through environment services utilization, was supported through strengthening community-based forest management and local-based economic development such as agroforestry and organic farming.
- 4) Increased forest management effectiveness, was supported by TFCA-Sumatera through, among others, facilitation of protected areas management plan establishment, such as those of Jantho Recreation Park and Zamrud National Park. In addition, there were also supports on the development of Strategic Environmental Assessment (KLHS) and capacity building for law enforcement officers on combating wildlife crimes.

Besides having contributed to the achievements of Strategic Plan of Directorate General of KSDAE, TFCA-Sumatera also contributed to the achievements of the Strategic Plan of Directorate General of Social Forestry and Environmental Partnership (PSKL) on Strategic Target 1: Maintained existence, function and distribution of fair and sustainable forest benefits, through the increased access of people to forest management, was supported by TFCA-Sumatera's grantees by facilitation of obtaining licenses of forest utilization under the schemes of community forest, village/customary forest schemes, in various TFCA-Sumatera's landscapes in the provinces of North Sumatra, West Sumatra Barat, Jambi, Bengkulu and Lampung. So far, there have been 51 licenses facilitated, with at least 18 cooperatives built and managed by 51 farmers groups. The cooperatives is an important tool to institutionalize community business to utilize and take benefits from forest management and environmental conservation.

4. Vision, Mission and Objectives

4.1 Vision

Vision: “Tropical Forest Biodiversity Conservation which supports sustainable development in Sumatra”

4.2 Mission:

“Facilitation of conservation, protection, recovery and sustainable utilization of tropical forest in Sumatra”

4.3 Objectives:

- i. Increased community’s socio-economy with no direct link to the protection of critically endangered, key species at TFCA landscapes;
- ii. Strengthened policies on spatial planning and land-use, community socio-economy and data bases on species, which support protection and recovery of critically endangered, key species population;
- iii. Strengthened protection and recovery of critically endangered, key species population and habitats.

4.4 Strategic Objectives

4.4.1 Intervention levels

Four levels of intervention, employed in the past and are relevant for the future actions by TFCA-Sumatera, include the followings:

- a. Intervention at policy and institution level;
- b. Intervention at landscapes level;
- c. Intervention at critically endangered and key species level; and
- d. Intervention at local community level to increase its socio-economy and welfare.

4.4.2 Intervention Focuses

Considering limited TFCA remaining funds, the intervention of the program must be more focused on activities which would provide significant impacts or increase impacts of the existing and previous grants. Refocusing on activities, especially those supported by TFCA-1 source of fund, would be done. However, in accordance with the OC direction at its 28th (and previous) meetings, TFCA source of fund should also be allocated to support conservation facilitated by TFCA-3 fund. Therefore, TFCA-1 source of fund should be directed to support the following strategic interventions:

- a. Landscape-based intervention, indirectly linked to the protection and conservation of critically endangered, key species, and
- b. Landscape-based intervention directly linked to the protection and conservation of critically endangered, key species.

In accordance with the Oversight Committee direction at its 29th, 30th, 31st, and 33rd meetings, all funds either sourced from TFCA-1 or TFCA-3 would be directed towards facilitation and supports on three intervention focuses, namely:

- a. Socio-economic and livelihood development;
- b. Development of policies on conservation, spatial planning and land uses; and
- c. Enhancement of scientific-based management of critically endangered species.

In relation to these planned intervention actions, TFCA-1 sourced of fund would be directed toward the enhancement of the community's social-economy, facilitation of spatial and land-use planning and supports of the use of scientific information to save critically endangered species. Intervention using TFCA-3 source of fund, as mandated by the Forest Conservation Agreement, would be directed towards controlling the threats causing the endangerments of critically endangered species: sumatran rhinoceros, elephants, tiger and orangutan. It's clear that TFCA-3 fund can only be used for the population protection and recovery of those four species and their associated habitats. With this consideration, even though should be based on landscape, TFCA-1 fund would also be directed for the intervention which supports endangered species protection.

In general, the design of TFCA-Sumatera's intervention focuses using TFCA-1 and TFCA-3 funds may be seen in Figure 11. As it has been previously mentioned, TFCA-3 fund has been strictly earmarked to support four critically endangered species, however, it must be noted that TFCA-1 source of fund will also be able to support species conservation on the basis of landscape activities, such as habitat management and protection.

Figure 11 describes strategic intervention by TFCA-Sumatera whose grants would be focused on three issues, namely: 1) socio-economic and livelihood development, 2) policy development on conservation, spatial planning, and land uses, and 3) science-based endangered species management.

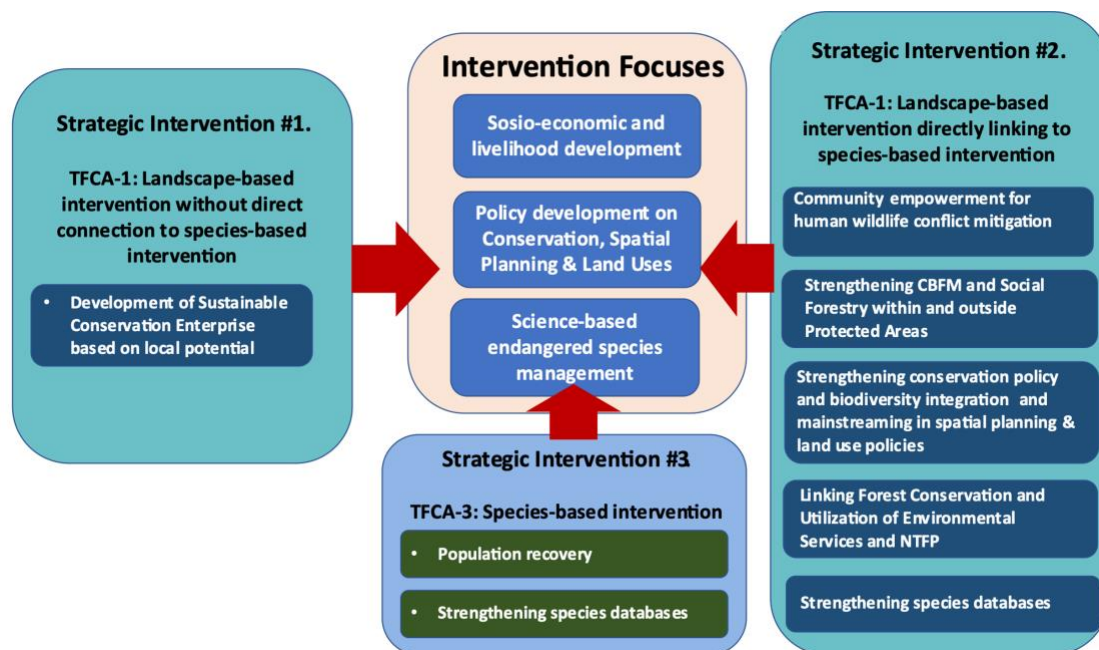


Figure 10. Relation between sources of fund and intervention focuses

Intervention, indirectly linked to endangered species protection using TFCA-1 sourced fund is directed towards building conservation business based on local resources. While TFCA-1 funded intervention, directly linked to, or in support of, endangered species protection, comprises of strengthening the self-sufficiency or empowerment of local community in controlling wildlife-human conflicts, strengthening community-based forest management and social forestry, strengthening facilitation of policies development on biodiversity mainstreaming and conservation in spatial planning and land uses, facilitation of sustainable use of NTFP and environmental services, integrated into endangered species protection and strengthening databases of endangered species. Intervention using TFCA-3 fund would be directly targeted towards protection and recovery of endangered species population.

In addition to those interventions, through TFCA-1 or TFCA-3 source of fund, TFCA-Sumatera should be supported by effective and good communication and exit strategy. In more details, interventions as depicted in Figure 11 are described in Section 5: Strategic Interventions.

5. Strategic Interventions

As it has been previously described, TFCA-Sumatera would focus on three strategic issues for future interventions under the existing grant making policy. Those three strategic issues would be

the intervention focuses as depicted in Figure 11, namely: a) enhancement of community social-economy and welfare, b) development of policies on conservation, spatial planning and land uses, c) scientific-based endangered species management. These three strategic issues would be described into three strategic interventions based on TFCA-Sumatera's sources of fund, namely: 1) TFCA-1 funded landscape-based interventions, indirectly linked to, or in support of, protection and recovery of critically endangered species population, 2) TFCA-1 funded landscape-based interventions directly linked or in support of the protection and recovery of critically endangered species population, and 3) TFCA-3 funded species-based interventions to directly protect and recover critically endangered species population.

5.1. Strategic Intervention 1: Landscape-based interventions (TFCA-1 funded), which have no direct link or support to, the protection and recovery of critically endangered species population

At present, TFCA-Sumatra has implemented conservation interventions at 13 prioritized landscapes, however some landscapes require more advanced interventions to ensure the sustainability and increase the conservation impacts. Landscape-based intervention needed, but cannot directly support endangered species protection is building conservation, local-based social business to support exit strategy of TFCA-Sumatera Program and legacy.

TFCA-Sumatera has been providing small to medium scale grants to finance local-based economic development, integrated with conservation purposes. This fund and its associated activities should actually be able to match and may be used in line with the Government village funds (*dana desa*) and other explorable external funds (including commercial loans, angel investors and even funds owned by NGOs) to develop a more economically meaningful and larger scale activities, such as building market networks and escalation of social-conservation business to become a commercially professional business. The proposed activities should be addressed to devise economic incentives for local communities to increase their participations in conservation activities. Furthermore, massive production on the basis of local foods and local wisdom would be more preferable. The proposal is expected to present integrated approaches, including: strengthening community institutions, production capacity, as well as sustainable markets. It would be beneficial if these activities will also be integrated with CBFM projects and to reduce illegal uses of forest/protected areas encroachment. No specific landscape is identified at this stage, but it should involve as many as possible previous TFCA grantees which have worked on local economic development. This program is expected to become one of TFCA-Sumatera's legacies.

With regard to the above matter, one activity identified to fulfill these needs is to build a strong, professional conservation enterprise on the basis of locally developed business, including cooperatives and other small business.

5.2. Strategic Intervention 2: Landscape-based interventions (TFCA-1 funded) directly linked to or in support of, the protection and recovery of critically endangered species population

At its 22nd meeting (November 2015), as a follow-up of the TFCA-3 species funding mandates, the OC took note the Administrator's proposed grant making strategy and priority for Endangered Species Conservation Program. This funding scheme appears to be still relevant as the basis for the TFCA Sumatera grant making strategy until 2023. Considering the limited funds for species, TFCA-3 source of fund is devoted to supporting interventions that have direct impacts on population of the target species. Meanwhile, some fundamental issues in species conservation often have indirect impacts such as issues on habitat availability and quality which relate to landscape management and policies, including spatial and land use planning, habitat restoration, capacity of management institutions, data and information systems and law enforcement. Therefore, funding supports from TFCA-1 "landscape-based funds" will strongly need to be directed to link with direct species conservation. To enhance grant making effectiveness and target achievement of endangered species conservation, priorities and strategic approach for landscape-based intervention linking to species recovery are planned as follows:

- a) Community empowerment to enable self-reliance human-wildlife conflicts mitigation;
- b) Strengthening CBFM and Social Forestry within and outside forest areas;
- c) Strengthening the integration of conservation aspects in regional spatial planning and land use policies;
- d) Promoting integration of forest conservation and utilization of NTFP and environmental services; and
- e) Strengthening the database and development of an integrated management information systems (MIS) for endangered species conservation.

5.2.1. Community empowerment to enable self-reliance human-wildlife conflict mitigation

Human-wildlife conflict is a persistent problem in Sumatra because of the problems with the habitat which is no longer capable to support the current population of some species, especially those of large mammals such as elephant and tiger. To lessen the severe consequences of human-wildlife conflicts as the case is likely to happen in the future, it is important for the people living surrounding the habitats to be well-prepared to encounter the "arrival" of the herd of elephant or tiger that prey on livestock. People

surrounding the habitat frequently “visited” by the elephants and or tigers should be given knowledge and skill to deal with the problem by themselves, at least to avoid fatalities both the villagers and the animals and to minimize economical loss. In addition, people should also be given ways to increase their additional income through creation of productive activities as an incentive. But it should be kept in mind that this incentive should not be counter-productive with the endeavor to minimize conflicts

5.2.2. Strengthening CBFM and Social Forestry within and outside forest areas

TFCA-Sumatera should continue to provide grants to support activities related to strengthening Community-Based Forest Management (CBFM) that has already been initiated. The proposed activities have to address the long-term CBFM implementation and building self-reliance of the local communities. It has also to include development of local based and conservation integrated economy to maintain sustainable forest management in the future. The activities should also include strengthening the model of people-based forest management as it has been done in the previous projects for learning and knowledge management purposes.

The proposed activities have to include CBFM management institution capacity building, preparation of management plans, and assistance for CBFM management plan implementation as well as site level implementation. These have also to be directed, especially to solve problems on protected areas encroachment and illegal uses of forest products. Proposed prioritized landscapes includes those which suffer from illegal uses of protected areas.

5.2.3. Strengthening the integration of conservation aspects in regional spatial planning and land use policies

TFCA-Sumatera needs to support policies review and strengthen policies which support conservation at national or local levels. Among those policies are conservation legislation and regulation, development of conservation-based spatial planning and land uses, and promotion of initiatives or policies which conserve, wise use or establish protected important ecosystems outside the existing protected areas, which would be able to increase the quality and connectivity of wildlife corridors, habitats and protected areas. The current scarcity of the habitat availability may be attributed to the poor spatial and land use planning and or their implementation in the past, leading to the habitat loss and fragmentation. In accordance with the Law No. 32 of 2009 concerning Environmental Management, spatial plan at province and district level must be based on Strategic Environmental Assessment (Kajian Lingkungan Hidup Strategis/KLHS). In this regard

TFCA-Sumatera's fund may be directed to support development of ecologically sound KLHS which will take into account provision of habitats and building connectivity between fragmented habitats. It is envisaged that TFCA grants could also facilitate the establishment of spatial plans and or land-use plans on the basis of ecologically sound KLHS and biodiversity mainstreaming at provincial and district levels.

Ideally, spatial or land use planning is leading to the establishment of protected areas. However, it is almost impossible at this time to establish additional protected areas. Realizing this problem, it is worth to reserve ecologically-rich forest lands or areas outside protected area systems which still qualified to protect biodiversity and provide habitats for endangered species. This area, which now may still be in the forms of production forest, plantation estates, customary forests, or even privately owned lands, is what now known as an essential ecosystem. Even though the legal basis to establish this kind of area is still lacking, it is believed that this area will play important roles in the future biodiversity conservation. TFCA-Sumatera may also support the development of legal basis in this regard.

Intervention on species conservation (related to its habitat) must also take existing spatial planning policies into consideration and promote the implementation of strategic environmental assessment (KLHS) through the inclusion of biodiversity variables into the assessment, as one of the legally binding instruments to achieve Sustainable Development Goals (SDGs).

5.2.4. Promote integration of forest conservation and utilization of NTFP and environmental service

Intervention to integrate conservation and wise use of natural resources should be carried out in line with local wisdom, culture and values. Some of the proposed activities include development of ecotourism, development of renewable energy (e.g. micro hydro, biomass energy), and utilization of non-timber forest products (including potential local foods, medicinal plants and genetic resources). Those activities are very closely related to daily life of the community. Hopefully, when environmental services provide significant benefits to people at site level, in turn the community and the local government, will voluntarily protect the forests that benefit them.

TFCA-Sumatera will be able to provide grant to support those activities related to assessment or relevant research, strengthening community institution, raising awareness, improving sustainable practices, and establishment and strengthening market networks. The landscapes which may be appropriate with this intervention include Batang Toru- Batang Gadis, Kerinci Seblat, Bukit Barisan Selatan, and Siberut.

5.2.5. Strengthening Databases and Science of Threatened Species

Information concerning the biology of the species, especially population, distribution, habitat and behavior, is terribly important in the species management, especially for those big mammals in a non-comfortable condition such as in the current habitat of Sumatra. TFCA-Sumatera may support data base on key, endangered species to support decision making and the management of the species. Surveys, including DNA surveys for some species may also be important to understand the population genetics in order to avoid extinction. In addition, installation of GPS collars and camera traps would also be important for the monitoring of wild population.

5.3. Strategic Intervention 3: Grants under TFCA-3 fund to directly treat the problems on the population of critically endangered species

The TFCA-3 source of fund has been committed and earmarked for the protection and recovery of rhinoceros population and elephant. The fund has been allocated to implement emergency plans to save rhinoceros population and elephant. The remaining fund from this fund would still be able to support the intervention gaps on elephants and rhinoceros, and orangutan and tiger.

The Oversight Committee at its 32nd meeting (December 2020) took note the Administrator document suggesting some possible interventions on these four key and endangered species, rhinoceros, elephant, tiger and orangutan from the remaining TFCA-3 fund. Some consultations with experts and forums working on specific endangered species have been done to enrich this strategic plan. The summary of inputs suggested TFCA-Sumatera to provide grants on interventions as described in the sections below. These plans are especially addressed for funding through TFCA-3, but they have also be connected to the TFCA-1 funding as described in the section 5.2.

5.3.1. Orangutan

Some important points on orangutan conservation which need supports include among others, strengthening the institution of Forest Management Unit (KPH) which relates to orangutan conservation. The roles of KPH are crucial as there are many orangutan populations identified in the forests outside protected areas.

Information on population of various species is in many areas lacking, therefore, data base supported by accurate surveys is important not only for orangutan but also other species. For this reason, development of information systems supported by strong science and data bases, including to some extents, from surveys, needs to be sufficiently supported through sufficient funding.

Best Management Practices (BMP) is efforts and practices by corporates which hold concessions on the utilization of forest lands, and co-incident as orangutan habitat, in the management of business to be friendly with and ensure the sustainability of orangutan population.

Assessment of target habitats for release of orangutans from rehabilitation or other sources, also need to be taken into consideration as it has been noted by the OC at its recent meeting. In addition, considering the difficulty in finding target habitat for release, habitat assessment may be connected with the concept of establishment of important ecosystems outside the protected areas.

Other issues on orangutan which need attention include strengthening of orangutan conservation forum at site level, zoonosis (including impact of Covid-19), strengthening rehabilitation procedures, development of orangutan friendly nature-based tourism, and strengthening synergy by stakeholders, which include involvement of private sectors in orangutan management, based on meta-population mapping. Especially for Tapanuli Orangutan (*Pongo tapanuliensis*), the information is still unofficial and needs some detailed research on its ecological behavior and management action. With the occurrence of hydro-electric dam in its relatively small orangutan range, the information concerning habitat and its improvement and further management is crucial.

5.3.2. Sumatran Tiger

There are several aspects of sumatran tiger which may be taken into consideration by TFCA-Sumatera for funding under the source of TFCA-3 and the possibilities to integrate with TFCA-1 funding. These include the following activities:

a. Support Sumatra Wide Tiger Survey (SWTS)

Occupancy surveys encompassing all tiger habitat across Sumatra, Sumatra Wide Tiger Survey (SWTS) is carried out by the government, supported by tiger conservation forum consisting of all NGO partners in Sumatra. There are several survey grids which have not been surveyed, and data from at least 600 grids need to be analyzed. This population data would be very important for the policy and decision makers.

b. Conflict mitigation and release program

With regard to tiger-human conflicts, even though it might not entirely happen in the TFCA landscape areas, mapping the existence of tiger in Sumatra might be a good idea. Data on population is important, so that planning to prevent the problems occur in the future could be more accurately made. In conformity with some actions taken by the Ministry of Environment and Forestry, like rescuing the problem tigers and to relocate them to safer habitat or places, it is important that habitat assessment prior to release and subsequent improvement is important. This should also be incorporated or linked

to essential ecosystem area (KEE) concept. A recent incidence in West Sumatra, where a newly released tiger appeared in human settlement has provided a lesson that thorough assessment of destination habitat prior to release is crucial. There have been in place a guidance of tiger release, however further assessment on the released destination must be done. The current Ministry's guidance on release only suggests a simple analysis based on habitat similarity, within one national park. Assessment for whole Sumatra had not been made, therefore, results from Sumatra Island Wide Survey would hopefully, be beneficial for this purpose. Considering the rising incidents on tiger-human conflict, it is important that TFCA intervention should also be made for residential area, in addition to those which remains in their habitat.

Release of live wild-caught tigers (rescued or confiscated animals) back into the wild habitat have been done many times successfully by the government. However, release of captive-bred tigers has not been done anywhere in the world. There have been several captive-bred tigers which need to be released soon. In this regard, TFCA-Sumatera may support the endeavor, which, if successful, would be the first in the world and would be the milestone for tiger conservation in Indonesia.

c. Diseases surveillance on tiger prey

African Swine Fever (ASF) known previously as disease in domestic pig, recently has been reportedly found in Southern Sumatra in wild boar which died suspectedly caused by ASF. This has raised deep concerns over the incidence as it would be threatening tiger as the main predator of the wild boar. Even though known to be non-zoonosis, the finding of this disease in wildlife is a serious problem to wildlife *in situ* or *ex situ* conservation. For this reason, surveillance of the disease occurrence in wild boar is important to understand the status of the disease on wildlife. Even though the infection is known to be only from animal to animal, ASF is highly infectious and spread very quickly in pig. In relation to tiger management, as wild pig is the main prey to tiger, the chain of spread must be cut immediately. This is why ASF surveillance and other similar infectious diseases is needed.

d. Managing unmanaged population

From 30 tiger habitat landscapes all over Sumatra, there are nine landscapes regarded as unmanaged landscapes. These are landscapes which have not been directly touched by management unit of protected areas or there have not been management strategy and investment directed to protection of tiger population. Sumatran tiger population and habitat existing assessment focuses generally on protected areas, especially national parks which are sufficiently funded and authorized for the management, so that population outside those areas are less frequented and therefore, the population, habitat and their prey are prone to illegal activities and more threatened.

Current information on population density and abundance is known only on three out of nine unmanaged landscapes, even though this information is not solid as the information was taken from method and analysis which is not uniform and there is no further information concerning the social-economy and other information of the area.

5.3.3. Sumatran Elephant

There are several gaps on the current interventions of the implementation of the emergency action plan, which need to be filled in. These gaps include some further ecological studies, important for further management of the remaining meta-population of the elephant. Grants for research are needed in specific items related to population, such as:

- genetic diversity study using Fecal DNA approaches for having a reliable population number (has been done in several areas such as Way Kambas NP, Bukit Barisan Selatan NP, Bukit Tigapuluh Landscape, Tesso Nilo NP and Seblat area since 2012);
- habitat use and mapping the feasible corridor based on least cost pathway analysis,
- feeding pattern and behavioral-foraging ecology of elephant in a contiguous landscape,
- Human elephant conflict spatial modelling,
- Stress level assessment of elephant in plantation-forest habitat.

At landscape and policy purposes, similar to those orangutan and tiger, supports are needed on several main stronghold of populations which should be linked and incorporated with the concept of important ecosystems establishment outside the protected areas as part of other effective *in situ* area-based conservation measures' (OECMs) outside protected areas systems:

- Aceh province has 6 to 8 proposed important ecosystems outside protected areas for elephants, which will be the largest potential areas in Sumatra.
- Jambi province proposed the Tebo landscape as part of its elephant landscape management plan.
- Bengkulu province will support the continuation of Seblat important ecosystem, which has had its forum workplan, membership and local government commitment.
- Other provinces currently have not been identified.

In terms of area, several additional areas need more attentions:

- Trumon, Aceh Selatan: the released sites' lessons learned and monitoring the impact of translocation;
- Tesso Nilo, Riau: needs an assessment and/or strategy to follow up TFCA Sumatera's previous supported project for almost 8 years;
- Tebo, Jambi: a combined approach with other donor's initiatives;
- Sungai Lalan, Sumsel: an exploration assessment for the gazettement of Managed Elephant Range.

5.3.4. Sumatran Rhinoceros

Endeavors by TFCA-Sumatera to solve problems which bring rhinoceros population on the edge of extinction have been enormous. Two projects currently running to protect and recover the population reach almost Rp. 100 billion altogether and account for the largest so far. Additional TFCA-Sumatera fund may only be given to fill in the gaps of intervention by the current projects. Some identified gaps include further support on the Assisted Reproduction Technology and population genetics and data base.

5.4. Communication Strategy

Communication plays important roles in disseminating projects and learning. With the large funds granted by TFCA-Sumatera in the next five years and realizing that this time will be the final stage of the TFCA-Sumatera life, Communication on project achievements and associated learning to general public will be documented in such a way useful for public. It is therefore, TFCA-Sumatera is developing specific Communication Strategy for these purposes. Document on Communication Strategy will be developed separately from this TFCA-Sumatera Strategic Plan.

5.5. Exit Strategy

In accordance with the FCA, TFCA-Sumatera will have ended by December 2023 or, when the fund is not fully exhausted by then, this Strategic Plan employs time frame of five years until 2025 in anticipation. Considering this plan will be the last phase of the TFCA-Sumatera's life, an exit strategy should be developed to minimize if there are adverse effects of the program termination through strategic termination management. Exit strategy closely relates to program sustainability, in terms of the sustaining impacts of the program after its termination. Document on exit strategy will also be developed separately from this Strategic Plan.

Program or project sustainability must be seriously taken into consideration in the project design and associated implementation. Local capacity building is one of the TFCA-Sumatera's strategy to achieve sustainability, as they would stay much longer at the site level. This must be in line with project/program sustainability.

5.6. Priority of Activities and Targeted Grantees

As it has been previously informed, the remaining TFCA-Sumatera's fund sourced from TFCA-1 is about US\$ 6.8 million, which should have been consumed by the end of 2023 (in accordance with FCA). On this basis, TFCA-Sumatera's grants sourced from TFCA-1 must be directed towards effective, meaningful and impactful interventions. For this purpose, the Administrator would invite stakeholders to discuss priorities for granted. On the other hand, fund sourced from TFCA-

3 has been allocated and strictly earmarked for the protection and recovery of the population of critically endangered species: rhinoceros, elephant, tiger and orangutan.

Recommended amount of grant would be adapted to above priorities. In specific condition, TFCA-Sumatera may invite potential or prospective grantees which has uniquely special expertise to run the project without having through the call for proposal. This may be done in certain urgent but specific issues and not many organization are capable to doing it.

6. Priority activities and Key Performance Indicators

In order to measure project or program achievements, indicators of achievement are needed.

Table 1 shows performance indicators target which should be achieved by the implementation of this strategic plan.

Table 1. Intervention Strategy and Key Performance Indicator

Source of fund	Strategic Intervention	Intervention Focus	Main Activity	Key Indicator
TFCA-1	1. Landscape-based interventions (TFCA-1 funded), which have no direct link or support to, the protection and recovery of critically endangered species population	Social-economic development, welfare and livelihood	to build a strong, professional conservation enterprise on the basis of locally developed business, including cooperatives and other small business	One conservation-based business systems built and running
TFCA-1	2. Landscape-based interventions (TFCA-1 funded) directly linked to or in support of, the protection and recovery of critically endangered species population	Social-economic development, welfare and livelihood	Community empowerment to enable self-reliance human-wildlife conflicts mitigation;	Community groups at two model villages frequented by conflicts are self-reliance and capable to prevent, avoid, control or face wildlife-human conflicts
			Strengthening CBFM and Social Forestry within and outside forest areas;	10.000 ha of CBFM program PHBM developed and or strengthened
			Promoting integration of forest conservation and utilization of NTFP and environmental services;	One environmental services business developed or strengthened
		Development of policies on conservation and spatial planning	Strengthening the integration of conservation aspects in regional spatial planning and land use policies	Two provinces and/or districts facilitated
		Scientific-based critically endangered species management	Strengthening the database and development of an integrated management information systems (MIS) for endangered species conservation	One or more surveys or research which support decision making or management actions on critically endangered species
TFCA-3	3. Grants under TFCA-3 fund to directly treat the problems on the population of critically endangered species	Scientific-based critically endangered species management	Orangutan	Integrated with Strategy 2, one or more surveys or research which support decision making or management actions on critically endangered species
				stakeholders (including also private sectors) synergy on the metapopulation-based management of orangutan, in place
				assessed suitable habitats for orangutan releases

Source of fund	Strategic Intervention	Intervention Focus	Main Activity	Key Indicator
			Sumatran tiger	Finalized Sumatra wide tiger survey
				Management actions in unmanaged areas, in place
				Information from preys' disease surveillance, in place
				knowledge and perception of the community on tiger disturbance, changed
			Sumatran Elephant	scientific data and information, including on genetics for decision making process, in place
				elephant-human conflicts in three areas, decreased
				minimum two important ecosystems outside protected areas, established as the protection, corridor, or habitat connectivity
			Sumatran Rhinoceros	Laboratory instruments for assisted reproductive technology, in place

7. Roadmap

The following Table 2 depicts scheduling plan of activities, expected to be accomplished by the end of 2023. In the case TFCA-Sumatera fund has not been entirely consumed by this time, this plan provides space for extension beyond 2023 as specified in the FCA.

Table 2. Roadmap

Intervensi Strategis	Kegiatan Utama	2021	2022	2023	2024	2025
1. Landscape-based interventions (TFCA-1 funded), which have no direct link or support to, the protection and recovery of critically endangered species population	Building, strengthening and running local-based Social Conservation Enterprise	Grant Cycle 10				
2. Landscape-based interventions (TFCA-1 funded) directly linked to or in support of, the protection and recovery of critically endangered species population	Strengthening coservation policies and integration and mainstreaming biodiversity into spatial planning and land uses policies					
	Strengthening community-based forest management and social forestry	Grant Cycle 9-10				
	Local community empowerment through development of self-reliance schemes for the mitigation of wildlife-human conflicts					
	Environmental services and non-timber forest products utilization to support population and habitat conservation of critically endangered species					
	Strengthening scientific data on critically endangered species					
3. 3. Grants under TFCA-3 fund to directly treat the problems on the population of critically endangered species	Orangutan	Grant Cycle 9				
	Sumatran tiger					
	Sumatran elephant					
	Sumatran rhinoceros					

Intervensi Strategis	Kegiatan Utama	2021	2022	2023	2024	2025
4. Management Support and Activities	Consultant services procurement					
	Recruitment and implementation					
	Handling- over workshop					

8. Closing

This strategic plan is a guideline for the Administrator and the Oversight Committee in the grant making activities for the period of 2021-2023. As stated in Forest Conservation Agreement that TFCA-Sumatera would be expired by December 2023. . In the situation that the fund has not been entirely consumed this strategic plan shall be the guideline for grant making activities beyond 2023.