

FINAL TECHNICAL REPORT

Planning Framework Giam Siak Kecil-Bukit Batu Biosphere Reserve
ITTO-Indonesia MoEF Project PD 712/13 Rev.3 (F)

**ENHANCING THE IMPLEMENTATION OF LANDSCAPE MANAGEMENT OF
GIAM SIAK KECIL-BUKIT BATU BIOSPHERE RESERVE (GSK-BR)
IN RIAU PROVINCE OF SUMATRA ISLAND, INDONESIA**

Activity 1.1

To organize one focus group discussion on planning framework of GSK-BR involving concerned authorities

Table of Content

02. INTRODUCTION

03. METHODS

05. RESULT AND DATA

18. ANALYSIS AND DISCUSSION

26. RECCOMENDATION

29. CONCLUSION

30. ANNEX

Introduction

Giam Siak Kecil-Bukit Batu Biosphere Reserve (GSK-BR) is located in Riau province of Sumatra island. It was officially designated as a UNESCO World Monitoring Network in 2009. GSK-BR covers terrestrial, coastal areas and marine ecosystems of approximately 705,000 ha in total. This public-private sector initiative is intended to promote biodiversity conservation and sustainable use of tropical peat swamp forests in the north-eastern part of Sumatra.

This biosphere reserve is divided into core area, buffer zone and transition area. The core area with a total of 179,000 ha, consists of two wildlife Reserves (Giam Siak Kecil and Bukit Batu) and production forests. Buffer zone with a total area of 222.000 ha consists of industrial forest plantation and other production forests; whereas the transition area with a total area of 304.000 ha consists of estate-crop plantation, agriculture, community settlements and plantation forests.

One of the main problems of biosphere reserve management is the lack of a GSK-BR planning framework. In addition, there is no integrated strategic management plan, capacity of related institutions to implement biosphere reserve concept is relatively weak, and local community participation is low.

The Ministry of Environment and Forestry in collaboration with Sinar Mas Forestry & Partners, private-public stakeholders, Indonesian Institute of Sciences, universities and local governments at different levels conduct a collaborative project to contribute to GSK-BR management objectives. This project aims to ensure realization of management goals and functions of GSK-BR. Particularly related to sustainable management and effective and efficient conservation of biosphere reserves.

The project outputs include enhancing GSK-BR planning framework, strengthening institutional capacity building, as well as supporting stakeholders in GSK-BR. In regards to achieving those outputs, a focus group discussion was held to gather stakeholders and identify data needed for the GSK-BR planning framework.

Methods

In regards to designing a comprehensive and solution oriented planning framework, it is necessary to involve stakeholders related to the GSK-BR. This project uses participatory and inclusive methods to improve the GSK-BR planning framework. One of the methods is using Focus Group Discussions (FGD).

FGD is useful to gather perspective, knowledge, and ideas from various stakeholders who have roles and responsibilities in GSK-BR landscapes. This FGD involves stakeholders working in GSK-BR and other parties who have interest related to this area.

The project conducted pre-FGD and FGD events. The pre-FGD was carried out on 12 June 2023 to discuss focus group discussion agenda and identify progress of activities in GSK-BR. The FGD on the planning framework for the GSK-BR was carried out on July 13, 2023. It took place at the Hotel Royal Bogor.

The key objectives for these meetings are:

1. To discuss and review existing GSK-BR planning framework
2. To identify authorities concerned with GSK-BR management planning

The meeting gathered key stakeholders to present activities they conducted in the GSK-BR landscape, as well as provide their views, input, and evaluation on GSK-BR management in the present and in the future. This meeting was moderated by Dr. Dolly Priatna, Executive Director of Belantara Foundation. There were 31 participants from representatives of governments, research institutions, and non-government organizations.

Following list are key stakeholders participated in the meeting, which are:

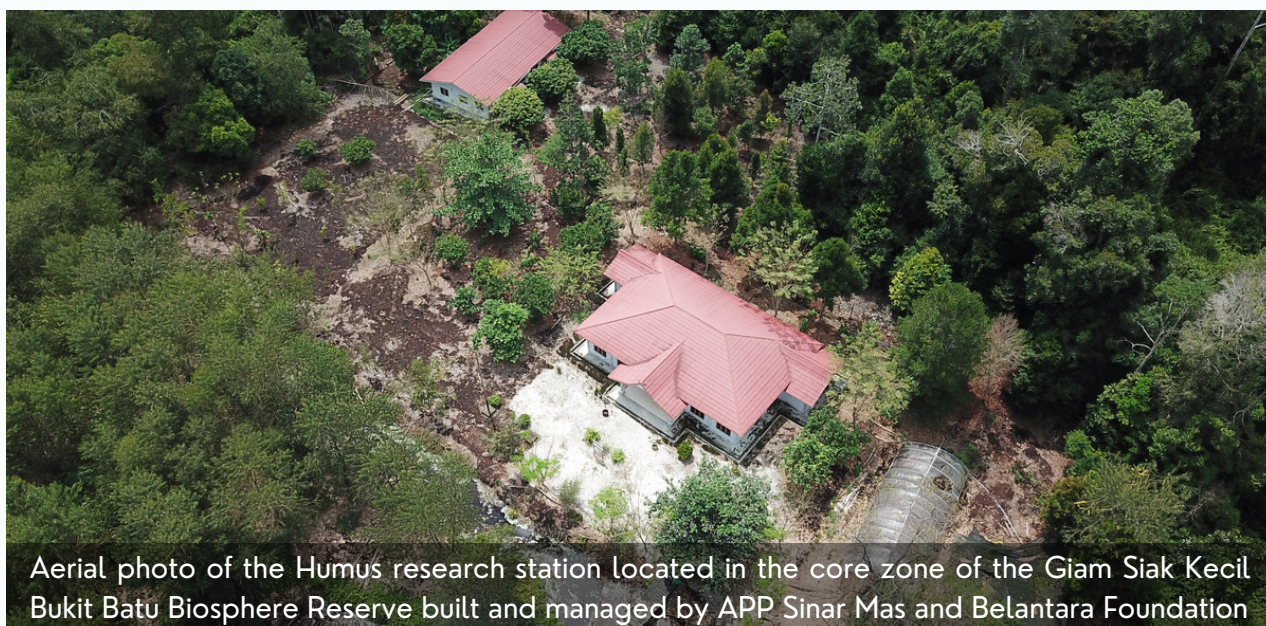
Resource Persons:

1. Deputy Secretary for Program, Evaluation, Law, and Technical Cooperation, ASEFI
2. Chairman of the National Committee Man of The Biosphere Indonesia
3. Representative of Riau Province Regional Development Planning, Research And Development Agency
4. Representative of Asia Pulp & Paper (Sinar Mas)
5. Representative of Riau Natural Resources Conservation Center (MoEF)
6. Head of Office for Standard Implementation of Environment and Forestry Instruments, Kuok, Riau
7. Regional Coordinator FKKM Riau (NGO)

Participants:

- Representative of Center for Standardization of Sustainable Forest Management Instruments
- Head of Center for Standardization of Disaster Resilience and Climate Change Instruments Perwakilan Kepala Balai Besar Konservasi Sumber Daya Alam Riau
- Representative of Bengkalis District Regional Development Planning, Research And Development Agency
- Cibodas Biosphere Reserve (CBR) Forum Secretariat
- Project Management Unit ITTO PD 712/13 Rev.3 F)

Apart from the FGD, supporting data from the Periodic Review prepared by MAB Indonesia as well as several presentations from stakeholders were also used to compile this report document.



Aerial photo of the Humus research station located in the core zone of the Giam Siak Kecil Bukit Batu Biosphere Reserve built and managed by APP Sinar Mas and Belantara Foundation

Result & Data

A. Pre-Focus Group Discussion

Pre-FGD was conducted on 12 June 2023 to discuss focus group discussion agenda and identify progress of activities in GSK-BR. The pre-FGD began with an opening remark by Secretary of ASEFI, Dr. Nur Sumedi. The discussion moderated by Dr. Yayuk Siswiyanti, Deputy Secretary for Program, Evaluation, Legal, and Technical Cooperation of ASEFI - Agency for Standardization of the Ministry of Environmental and Forestry (BSI LHK). The meeting was held in the meeting room of the BSI LHK Secretariat and available through an online room via ZOOM.

The main results of pre-focus group discussion are following points:

- This project is expected to answer the existing problems and enhance collaboration between stakeholders in GSK-BR.
- The main challenges in GSK-BR are illegal logging and forest fires.
- Key activities of this project are developing the GSK-BR planning framework, providing capacity building for institutions and communities, and supporting collaboration between stakeholders.
- The planning framework for 2023-2027 should be adjusted and approved by key stakeholders.
- The project needs to promote coordination between stakeholders and mobilize stakeholders to monitor progress of GSK-BR management.

B. Focus Group Discussion - Presentation

The focus group discussion was conducted in Royal Bogor Hotel on 13 July 2023. The meeting aimed to gather information about activities conducted by stakeholders, identify authorities working in GSK-BR, as well as explore stakeholders views on GSK-BR management. The participants ranged from governmental institutions and non-government organizations working in the GSK-BR landscape.

The FGD began with directions from Dr. Nur Sumedi, S.Pi., M.P., who is the Secretary of the BSI LHK Agency. He mentioned general directions and explains the importance of active participation of FGD participants to provide constructive concrete input and suggestions for the GSK-BR management plan for the next period.

In addition, he also underlined the importance of this FGD as a first step to develop an initial picture or baseline of this project implementation. Thus, the results of this FGD will become basis for preparing the GSK-BR Management Plan for the next period.

After the speech, the meeting continued with a presentation and panel discussion session. This session was led by Dr. Dolly Priatna, Executive Director of Belantara Foundation. There were eight key stakeholders presented their activities for GSK BR management.

These are the key points of each presentations:

Table 1. List of Stakeholders and Activities Conducted in GSK-BR

Stakeholders	Main Activities	Location/ Zones
National Committee of MAB Indonesia Program	<p>Based on ITTO framework PD 712/13 Rev. 3 (F), the MAB Indonesia taking roles as steering committee</p> <p>MAB Indonesia focuses on research and research station development in GSK-BR</p>	Core area Buffer zone
Natural Resources Conservation Agency - Riau Province (BBKSDA - Riau)	<p>BBKSDA manages wildlife reserves and production forest areas within GSK-BR.</p> <p>BBKSDA focuses on wildlife protection, prevention of human-wildlife conflict, conservation of wildlife and plants, education, awareness, and area boundaries</p>	Core area Buffer zone Transition area
Regional Planning Agency, Regional Research and Development – Riau Province (BAPPEDA)	Bappeda continues managing the GSK-BR Coordination Agency as secretary, based on Riau Governor degree No. Kpts. 7/I/2017	Buffer zone Transition area
Asia Pulp & Paper - Sinar Mas	<p>APP Sinar Mas focuses on:</p> <ul style="list-style-type: none"> • Protection and security through RADARSAT2 technology, joint patrols, signboard installation, concession access removal • Restoration through enrichment, eradication, natural succession • Integrated Fire Management through prevention, preparedness, early detection, rapid response • Protected area management through monitoring, land cover monitoring, protection of key species- • Peatland management through water level monitoring, canal blocking, demonstration plot 	Core area Buffer zone Transition area

Table 1 (cont). List of Stakeholders and Activities Conducted in GSK-BR

Stakeholders	Main Activities	Location/ Zones
Community Forestry Communication Forum (FKKM) Riau	FKKM focuses on: <ul style="list-style-type: none"> • Policy advocacy • Participatory activities that involve communities • Enhance public awareness • Strengthening existing community and community institutions • Form a multi-stakeholders network that bridges various interests to achieve common goals • Provide assistance to promote self-reliance community 	Buffer zone, Transition area
(Balai Penerapan Standar Instrumen LHK) Kuok Riau	BPSI focuses on: <ul style="list-style-type: none"> • Facilitation and development of environmentally friendly and sustainable utilization of forest resource potential (NTFPs) (buffer and transition zones) • Increasing community capacity in processing forest resource products in accordance with SNI product standards (buffer and transition zones) • Facilitation of business development of natural tourism environmental services in accordance with SNI 8013: 2014 (Natural Tourism Management) / SPM FP (buffer and transition zones) • Strengthening MRV GHG mitigation action plan in GSK-BB management to support FOLU Net Sink 2030/NEK activities (core zone, buffer zone and transition) 	

During the discussion, participants also identify stakeholders as well as inputs for the GSK-BR managements. Following list are authorities currently working in GSK-BR and their roles, collected based on the FGD and other supporting documents:

Tabel 2. List of Stakeholders in GSK-BR (1)

Governments	Non-Government Organizations
<ul style="list-style-type: none"> • Governor of Riau • Natural Resources Conservation Agency of Riau Province (BBKSDA Riau) • Regional Planning Agency, Regional Research and Development – Riau Province • Bengkalis and Siak Districts. • (BAPPEDA) • BRGM • BRIN 	<ul style="list-style-type: none"> • Winrock • PERISAI • Belantara Foundation • FKKM • List of stakeholders identified • Proforest • Earthworm • World Research Institute • Lingkar Temu Kabupaten Lestari • Daemeter • Lembaga Pemberdayaan Aksi Demokrasi Riau • Yayasan Rimba Satwa • Perkumpulan Elang • Teras Riau • Sends
International Agency	Collaborative Project
<ul style="list-style-type: none"> • JiCA • CIFOR 	Japan-ASEAN Science Technology and Innovation Platform (JASTIP)
Private Sectors	Universities
<ul style="list-style-type: none"> • APP Sinar Mas • Perusahaan kelapa sawit (Musim Mas, Golden Agri-Resources) 	Universitas Riau

Note: Stakeholders identified during the FGD, and needs to be identified further

Tabel 3. List of Stakeholders in GSK-BR (1)

No	Institusi	Activities
Government		
1	Ministry of Environment and Forestry	Design and implement Government of Indonesia policies, laws and programs to protect and conserve biological natural resources and the environment, promote climate action, and provide adequate, reliable and affordable resources. - Through technical institutions managing conservation areas in the form of nature reserves and nature conservation areas - Through technical institutions implement policies for managing the diversity of living natural resources and their ecosystems at the site level in conservation areas
2	Environment and Forestry Agency - Riau Province	Authority for forestry management, environment and legislation, management of protected forest areas and nature reserves
3	Regional Development Planning Agency of Riau Province (Bappeda Riau)	Designing and planning provincial government development policies and Government of Indonesia programs within the framework of provincial development
4	Regional Development Planning Agency of Bengkalis Regency (Bappeda Bengkalis)	Designing and planning regency government development policies and government of Indonesia programs within the framework of Bengkalis regency development
5	Regional Development Planning Agency of Siak Regency (Bappeda Siak)	Designing and planning regency government development policies and government of Indonesia programs within the framework of Siak regency development
6	GSK-BB Biosphere Reserve Management Coordination Agency	Overall management of the GSK-BR; coordination of the management of core areas (two wildlife reserves and production forests), buffer zones and transition areas; regulate cooperation between the parties; manage the synergy of development programs between key parties; develop local strategies and policies on community development planning and sustainable economic development throughout the biosphere reserve area
7	Natural Resources Conservation Agency (BBKSDA - Riau)	Designing, planning, and managing conservation areas, developing rural communities in buffer zones, securing conservation areas from illegal activities, carrying out ecosystem restoration, prevention and management of forest fires and illegal activities

Tabel 3. List of Stakeholders in GSK-BR (2)

No	Institusi	Activities
Non-Governmental		
1	Belantara Foundation	Focus to support strengthening GSK-BR management, protecting elephant habitat, and providing capacity building for awareness of environmental law, as well as efforts to restore damaged peat forests in GSK-BB, and support local communities to develop alternative livelihoods.
2	Proforest	Community welfare and conservation program support (Sungai Linau) through: forest protection/licensing, increasing welfare by supporting best practices for oil palm smallholders, reducing GHG emissions with water management and carbon feasibility studies, and collaboration with landscape initiatives.
3	Earthworm	Support for participatory land management planning by developing priority alternative livelihood models for ex-illegal loggers.
4	World Research Institute	Monitoring forest cover in oil palm plantation areas through the RADD program.
5	Winrock Foundation	<ul style="list-style-type: none"> • Support the protection and restoration of peat forests through Social Forestry • Facilitating the private sector and local farmers in sustainable production and peatland restoration • Business model creation and private sector interest in the TORA area and Social Forestry
6	Lingkar Temu Kabupaten Lestari	<ul style="list-style-type: none"> • Sustainable regulatory innovation (Regent of Siak Regulation No.103/2019 concerning Reducing the Use of Plastic Bags). • Multistakeholder institutional support by facilitating and providing a forum for multistakeholder mutual cooperation in laying down to support sustainable districts (Siak Hijau coordination team).
7	Forum Komunikasi Kehutanan Masyarakat	Provide support for program management in carrying out efforts to protect, rehabilitate and prevent damage to forest and peat ecosystems with a multi-stakeholder management approach.

Tabel 3. List of Stakeholders in GSK-BR (3)

No	Institusi	Activities
Non Governmental		
8	Riau Democratic Action Empowerment Institute	Support for alternative livelihood assistance through the cultivation of kelulut honey and poison cassava/sweet potato
9	Rimba Satwa Foundation	Support for elephant habitat monitoring and awareness education about wild animals
10	Eagle Society (Perkumpulan Elang)	Assist Siak Regency in supporting Siak Hijau Regency (part of Sedagho Siak) achievement, by building coordination and constructive work with the Siak Regency government in achieving the vision of Siak Hijau Regency
11	Teras Riau	Support for strengthening bungalow agro-tourism through preparation of a grand design for bungalow agro-tourism, and part of Sedagho Siak
12	Sends	Support for environmental management and community empowerment, and part of Sedagho Siak
13	Kelompok Advokasi Riau (KAR)	Environmental management support and community empowerment
14	Daemeter	Facilitating the Siak-Pelawan landscape program involving oil palm stakeholders and the district government
Private Sectors		
1	APP Sinar Mas	Protection and security of the GSK-BR, restoration and integrated fire management, management of protected areas (HCV-HCS) and management of peatlands, and support for research/studies on the GSK-BR landscape
2	PT. Arara Abadi	<ul style="list-style-type: none"> • Community involvement program in preventing forest and land fires by establishing a Desa Makmur Peduli Api (DMPA) • Air patrol of the GSK-BR area to monitor illegal logging and forest encroachment • Support for biodiversity research in the core area of the GSK-BR

Tabel 3. List of Stakeholders in GSK-BR (3)

No	Institusi	Activities
Private Sectors		
3	Golden Agri-Resources	Support the private company coalition (Core) program that promotes sustainable palm oil production in Pelalawan and Siak districts. Consists of activities to empower farmers, environmental conservation, policy support at the district and provincial levels, as well as ensuring labor rights and land rights in the palm oil sector
4	Musim Mas	Support the private company coalition (Core) program that promotes sustainable palm oil production in Pelalawan and Siak districts. Consists of activities to empower farmers, environmental conservation, policy support at the district and provincial levels, as well as ensuring labor rights and land rights in the palm oil sector



C. Evaluation and input from stakeholders

Man and the Biosphere (MAB):

The planning framework for the GSK-BR for 2023 - 2027 can be improved by referring to periodic review of this biosphere reserve, so that an understanding of these periodic results can be utilized optimally. In addition, it is necessary to conduct an in-depth study and analysis of the dynamics of landscape management in each GSK-BR zone, both through desk studies and field data collection, so that planning becomes more robust.

This analysis will be strengthened by relevant field data and facts, including involving success stories of stakeholder activities that have been carried out so far, such as GSK-BR landscape management, rehabilitation/restoration, utilization of applied science and technology, capacity building, and so on..

Equally important, the framework developed must be able to identify potential commodities that can provide sustainable income. The framework must also consider measuring the level of community participation in GSK-BR activities to ensure the sustainability and success of existing plans.

”

“Reviewing and understanding the results of the Periodic Review of the CB Giam Siak Kecil-Bukit Batu document which has just been approved and in accordance with the Legal Framework for the World CB Network at the 35th UNESCO MAB ICC meeting in Paris (12-15 June 2023) is one of the references for future planning. ”

-Prof. Maman Turjaman (Chairman of the National Committee Man of the Biosphere Indonesia)”

Riau Regional Planning, Research and Development Agency

Planning ahead for the new framework needs to ensure ongoing monitoring and evaluation function of stakeholder activities. Apart from that, it is also necessary to look at strategic issues at site level, such as threats to core zone which must be the main focus in determining priority activities.

”

"The new framework planning should focused on the core zone, according to notes from the Governor of Riau. How are the problems in that zone a big homework"

- Ir. Tien Mastina, M.Si (Regional Planning Agency, Regional Research and Development – Riau Province

Riau Natural Resources Conservation Center (BBKSDA)

The new framework planning needs to reconsider efforts that have been made before. Evaluation of stakeholder coordination in GSK-BR, more comprehensive database management, strengthening of activities in the core zone, as well as sustainable economic development and disaster mitigation are important considerations in the work plan to be prepared.

”

"The activity of eradicate snares, mitigate wildlife conflicts, and law enforcement, BBKSDA is doing this collaboratively with other stakeholders, as has been done with APP Sinar Mas, RSF, etc. It needs to be continued and taken into consideration for future GSK BR planning"

Ujang Holisudin, S. Hut (Riau BBKSDA)

APP Sinar Mas

The future management plan for the Giam Siak Kecil - Bukit Batu Biosphere Reserve will continue to strengthen and continue what has been done before, with a focus on landscape management, forest restoration, ecosystem restoration, research, community empowerment, and optimizing the utilization of environmental services.

”

"Challenges or problems in the core zone need to be collaborated collaboratively and develop innovative programs together"

- M. Syarif Hidayat (Asia Pulp & Paper - Sinar Mas)

BSI LHK Kuok Riau

The new planning framework for biosphere reserve that will be carried out by BSI LHK Kuok Riau is not much different from the previous GSK-BR management plan. This plan continues to focus on developing Community-Based Hope Forests (HHBK), increasing community capacity in processing forest resources with SNI product standards, developing environmental services, and supporting greenhouse gas (GHG) mitigation actions in the management of GSK BR. This aims to support Forest, Land, and Net Sink 2030 (FOLU Net Sink 2030) or NEK (Net Emission by Indonesia) activities in achieving emission mitigation targets and contributing to carbon sequestration in 2030.



"Success stories from stakeholders who have previously carried out activities at GSK BB, especially in buffer zone, can be replicated into new demonstration plots, which will become learning media for the community"

- Priyo Kusumedi (BSI LHK Kuok Riau)

BAPPEDA Bengkalis

Regarding the new planning framework planning of biosphere reserves, 53 villages/kelurahans in Bengkalis Regency which are included in transition zone will be focused on community empowerment. At district level, empowerment programs are also the main focus, especially for isolated villages. In addition, special attention needs to be given to institutional coordination to facilitate local government in carrying out the established framework.



"Institutional strengthening is very important, and this is what we feel in the district, how should we coordinate, and through this institutional strengthening plan, it is hoped that it can help us align and carry out the framework that has been set together"

- Edi Cahyadi (Bappeda Bengkalis Regency)

Community Forestry Communication Forum (FKKM) Riau

It is hoped that the framework that will be prepared will generally include various activities, such as consensus building, institutional development, institutional capacity building, community empowerment, environmental education, as well as technical guidance and monitoring.



"It is necessary to remap the stakeholders working at GSK-BR, and it is necessary to create a multi-stakeholder area management demonstration plot together"

- Hasan Supriyanto (FKKM Riau Region)

Belantara Foundation

The planning that will be carried out must consider evaluation of the existing stakeholder coordinating body in GSK-BR, management of a more comprehensive database, strengthening activities in the core zone, as well as sustainable economic development and disaster mitigation. All of these factors will be the main considerations in developing an effective and sustainable planning plan.

Ade Bagja Hidayat, S.Hut., M.Ling

(Mt. Gede Pangrango National Park Center Cibodas Biosphere Reserve)

Previously existing coordinating bodies, including the decree on the coordinating body and the revitalization of the secretariat with the coordinating agency which was carried out in 2017, need to be evaluated and revised. This involves adjusting the duties and functions of each stakeholder, as well as ensuring the executor and person in charge of each of these stakeholders. In addition, it is also necessary to hold regular meetings between stakeholders in order to maintain effective communication and coordination.

Kirsfianti Linda Ginoga

(Head of Center for Standardization of Disaster Resilience and Climate Change - BSI LHK):

The coordinating body or biosphere reserve management body that has been formed is a key player, and its role needs to be strengthened. In addition, the range of stakeholders working in the GSK-BR can be expanded, including involving law enforcers such as the police, the attorney general's office, and district court. By involving these parties, cooperation and synergy in the management of biosphere reserves can be stronger and more effective, especially for law enforcement.

Analysis & Discussion

A. The GSK-BR planning framework

Currently GSK-BR uses the planning framework developed in 2018, which are contained in the 2018 - 2023 planning framework. In that document, the purpose of the planning framework was to clearly define policy directions that must be guided by in the area, to become a reference for all stakeholders, and contains detailed implementation of various specific activities that must be carried out according to time and space. A biosphere reserve should serve as an agency to integrate and coordinate the efforts of all stakeholders, without compromising the historical rights to ownership of land or resources.

Therefore, the GSK-BR planning framework is a living document that can be continuously developed according to dynamics in the area. The preparation of the GSK-BR planning framework must take into account and involve stakeholders. This approach is unique to biosphere reserves compared to other networks of conservation areas (Council of Europe 1995).

This approach is different from other conservation areas management plans in Indonesia, such as national parks for example. For biosphere reserves there are no standard legal requirements or regulations because the principle lies in the interaction between the scientific basis and local socio-economic and cultural conditions.



Diagram 1. Program direction for GSK-BR program 2018 - 2022

The guidelines cover several main output topics, namely:

1. Conservation
2. Sustainable Development
3. Logistic Supports

Each of these main outputs has an overview of activities that support main outputs. Each activity also has an explanation and description of implementing actor and approximate location of in GSK-BR zone.

1. Conservation
 - a. Area Management to achieve Good Forestry Governance
 - b. Culture
 - c. Increasing law enforcement effectiveness for stakeholders, area protection and forest/land fires prevention in core area and buffer zone
 - d. Ecosystem Rehabilitation and Restoration
2. Sustainable Development
 - a. Strengthening efforts to use biological resources in a sustainable manner
 - b. Community empowerment through capacity building programs, economic sovereignty and cultural protection
 - c. Infrastructure development
3. Logistic Support
 - a. Development of GSK-BR as a center for research on ecosystem dynamics, ecosystem rehabilitation and restoration, as well as potential utilization of biological resources
 - b. Environmental Education and Conservation
 - c. Disaster Management and Mitigation
 - d. Database Management
 - e. Strengthening institutional coordination of the GSK-BB Biosphere Reserve Management Agency

B. Current Situations

Until 2023, stakeholders have carried out various activities according to the main output topic. Following are the efforts that have been made by stakeholders in the GSK BB Biosphere Reserve, which have been compiled based on FGDs and other sources.

1.Conservation

1.a. Area Management to achieve Good Forestry Governance

Based on GSK-BR planning framework, core zones are the main areas that focuses on addressing conflict between humans and priority wildlife such as tigers, elephants, as well as disturbance of wild boar populations. This activity was carried out by the Riau Natural Resources Conservation Agency in collaboration with experts (research institutes and universities), the regional governments of Bengkalis and Siak Regencies, the private sector, NGOs, and community volunteers.

Some of activities carried out include outreach and training regarding the life and behavior of priority species; importance of maintaining ecological balance in the GSK-BR area; handling human conflicts with wild animals; best practices in handling conflicts between humans and wildlife; as well as best practices for living a harmonious life with wild animals. In addition, an increase in wildlife habitat is also carried out; prevention of illegal activities that disturb the life of wild animals; and other activities.

To minimize conflicts between humans and wildlife, efforts have been made to establish ecological corridors within and between concessions, including food source areas, as well as cooperate in law enforcement to reduce the risk of poaching wildlife in the GSK-BR.

Private sector has developed and implemented Standard Operating Procedures for the prevention and handling of conflicts between humans and wildlife.

1.b. Culture

(Not yet identified)

1.c. Increasing the effectiveness of the parties in law enforcement, area protection and prevention of forest/land fires in Core Area and Buffer Zone

BBKSDA Riau in collaboration with APP Sinar Mas and Belantara Foundation conducted socialization and joint patrols in this area to prevent illegal activities and facilitate the identification of their activities; BBKSDA Riau and APP Sinar Mas also carry out routine patrols in collaboration with local communities; and conduct patrols using helicopters, boats, cars, motorbikes, on foot and observation satellites; then carry out preventive activities by conducting outreach to related parties and the community at GSK-BB and routine patrols.

Area protection and fire prevention activities are also carried out by several NGOs such as Proforest in collaboration with private parties. Activities include fire prevention training activities, provision of fire prevention infrastructure and equipment, construction of canal blocking, and routine patrol activities.

1.d. Ecosystem Restoration and Rehabilitation

- Release of 106 pangolins (*Manis javanica*) in core area of GSK-BR.
- The release of crocodiles in core area of GSK-BR is a collaborative effort between the Riau Natural Resources Conservation Agency (BKSDA) and Sinar Mas Forestry (SMF).
- Rehabilitation of degraded land by planting jelutung (*Dyera costulata*) and other native species.
- Rehabilitation of degraded peat swamp forest and development of silvicultural techniques for pulpwood plantation areas in the GSK-BR, Riau, Sumatra, by the Graduate School of Asian and African Areas Studies, Kyoto University and SMF (2010-2011).
- Ecosystem Restoration by ASKUL.
- The Tree Adoption Program for reforesting core area of GSK-BR, especially the Bukit Batu Nature Reserve, Bengkalis Regency.
- Vegetation and hydrology restoration through planting jelutung (*Dyera costulata*) in the Bukit Batu Wildlife Reserve in collaboration with ASKUL.
- Restoration program through planting local plants in the GSK-BR core zone implemented by Belantara Foundation.

2. Sustainable Economic Development

2.a. Strengthening efforts to use biological resources sustainably

(have not been identified)

2.b. Community empowerment through capacity building programs, economic sovereignty and cultural protection

At the end of 2019, the Desa Makmur Peduli Api (DMPA) existed in 85 villages in the GSK-BR and 236 villages in Riau Province. The DMPA program in particular focuses on linking community development programs with markets to maximize commercial opportunities, increase revenues and ensure community benefits.

In 2019, this program is focused on connecting markets with farming communities, and in some cases, this program also facilitates direct product purchase from the community. For example, purchasing compost which is directly handed over to HTI companies. The DMPA program is closely linked to an integrated fire management strategy, and continues to seek to increase its focus on reducing fires by monitoring fires around DMPA project villages.

Community empowerment activities are also carried out by various institutions in GSK-BR.

2.c. Infrastructure Development

One of infrastructure development was purchasing special speedboats for BKSDA team. This infrastructure aim to strengthen area and wildlife protection in GSK-BR. This project was also in cooperation with local peoples in monitoring and evaluation. In addition, there was aerial monitoring using helicopters supported by APP Sinar Mas. They also acquire fishing boats to facilitate monitoring and reducing illegal fishing activities. The joint patrols with the regional government and BBKSDA, etc.

3. Logistic Support

3.a. Development of GSK-BR as a center for research on ecosystem dynamics, ecosystem rehabilitation and restoration, as well as potential utilization of biological resources

Since 2010, research focus in GSK-BR has been on land and forest management, particularly on sustainable management of tropical peat forest areas. The collaboration between Indonesian MAB Association and Belantara Foundation has fueled research activities in this area. Research activities are carried out by domestic research institutions such as LIPI (BRIN) and universities such as IPB, Riau University, and other local universities (Riau State Islamic University, Lancang Kuning University, Riau Islamic University), as well as collaboration between LIPI and Kyoto University, has carried out cross-disciplinary research activities, including research on bio-physical, socio-economic, and biodiversity conservation aspects.

One form of commitment from APP Sinar Mas for research and education is esestablishment of a Humus Peat Research Station located in zone area of GSK-BR. This research station is jointly managed with Sinar Mas Forestry and Belantara Foundation. This research station has also been used by other stakeholders such as BRIN, Riau University and other universities.

Following are some of the studies/research that has been conducted at GSK-BR:

Research and Development

1. Study of micro-organisms diversity in peat & mineral soils on various types of land use in buffer and transition zones of CB GSK –BB (Ahmad Muhammad, FMIPA UNRI)
2. Study of nutritional content, lecithin and omega 3 in local turtles (Dr. Andria Agusta)
3. Research Collaboration Research Center for Biology-LIPI and PT. Arara Abadi on the study of Biodiversity in the core area of the Giam Siak Kecil- Bukit Batu Biosphere Reserve.
4. Agreement between PT. AA and Aquatic Study Group (KSP), Faculty of Agriculture, Islamic University of Riau (UIR) regarding "Spawning and Growing Trials of Jamfish (*Kriptopterus lais*) and Baung Fish (*Macrones nemurus*) in Floating Net Cages, in Tasik Betung Village
5. Research on the growth of bintangur stands as an indicator of peat swamp forest in the Giam Siak Kecil Bukit Batu Biosphere Reserve (Haris Gunawan, FMIPA UNRI)
6. Research on bird and mammal biodiversity at CB GSK-BB (Dr. Motoko Sugimoto Fujita and Dr. Hiromitsu Samejima, Center for Southeast Asian Studies, Kyoto University)

3.b. Conservation and Environment Education

Several environmental education programs and actions have been implemented and will continue to be developed in collaboration with local governments, schools and environmental non-governmental organizations.

- Center for Agricultural Education and Training in Perawang in collaboration with PT Indah Kiat.
- Monitoring and Research on Flora and Fauna (Cooperation between LIPI and APP Sinarmas): establishment of permanent plots in forest areas. Students can use these area to study diversity of plant species in tropical peat swamp forests.
- Development of a research station in the GSK-BR (APP Sinar Mas and LIPI) as a facility for environmental research and education.
- Preparation of grand plans for the construction of a tiger sanctuary in the Bukit Batu Wildlife Reserve (Riau BBKSDA, Ministry of Environment and Forestry, and Gadjah Mada University).
- Environmental Education for General High Schools at GSK-BR by universities in Riau.
- Continuing Education Program for Elementary and Middle Schools in Bengkalis and Siak Regencies.

In addition, to support tiger conservation activities, a special team tasked with mitigating human-tiger conflict has been established. The team is responsible for conducting regular educational programs and raising awareness among field workers and the community by BBKSDA Riau and APP Sinar Mas.

3.c. Disaster Management and Mitigation

Since 2024, APP Sinar Mas has been using RADARSAT-2 by MDA Corporation as part of the Forest Alert System to monitor changes in forest cover in protected areas in the concession area including in GSK-BR landscape.

In addition, several activities have been carried out related to disaster management and mitigation:

- Regional Disaster Management Agency (BPBD) conducted community training in fire management in settlements areas.
- Building canal blocks and constructing fire shortcuts with the normal width (> 50 m) and the current width (200 m) of production forest areas.
- Formed a "Manggala Agni" group (community group of firefighters).
- Regulating groundwater level and pumping water to increase water level.
- Create canal blocking to keep the area wet with to reduce land/forest fires.
- Conduct socialization and environmental education to the community and key stakeholders in the area.
- Increase public awareness about forest fire management through developing fire awareness communities and "Manggala Agni" or community firefighting groups.
- In 2021, BBKSDA has established a "Masyarakat Peduli Api" (community groups working on land fires) to prevent and control forest and land fires in the GSK-BR. They provide participatory programs for the sustainable use of natural resources.

3.d. Database management

Currently, information about GSK-BR is not generally available and integrated in a website or certain database management system. However, data and information about the GSK-BR are available on the websites of institutions working in GSK-BR, such as the BBKSDA, Riau Government, and BRIN. In addition, updated data of GSK-BR has been summarized in periodic review documents compiled by MAB Indonesia.

3.e. Strengthening institutional coordination of the GSK-BB Biosphere Reserve Management Agency

Stakeholder coordination activities at GSK-BR were carried out at the MAB BRIN office, Bogor in 2021. This activity was an effort to update the activities carried out by stakeholders at GSK-BR.

3. Recommendation

The GSK-BR Planning Framework FGD resulting important inputs for the 2023-2027 GSK-BR Planning Framework and improving management and development of GSK-BR in the future. Following are some of the main inputs obtained from the FGD participants:

I. INSTITUTIONAL REVITALIZATION:

- >> Consider the GSK-BR Periodic Review**
The FGD participants bottom-lined the importance of considering UNESCO's periodic review result regarding the biosphere reserve status. Understanding recommendations and responses from these international organizations will help ensure implementation of the framework according to recognized international standards.

- >> Evaluation of the Coordinating Agency for the GSK-BR**
Conduct a thorough evaluation of the existing coordination body. This evaluation will help identify the strengths and weaknesses of the existing coordinating agency, so changes and improvements can be made to its performance. By understanding the role and performance of this agency, we can enhance work synergy and effectiveness to achieve better conservation and management goals.

- >> Revitalization of Secretariat of Coordinating Body**
The FGD participants proposed revitalizing the secretariat with the coordinating body. This effort aims to strengthen coordination and communication between stakeholders in dealing with complex challenges in this biosphere reserve area.

II. DATA MANAGEMENT AND MAPPING

- **Reviewing Potential and Activities of Stakeholders**

The FGD participants underlined the need to reevaluating the potential and efforts that have been made by the stakeholders at GSK-BR. By understanding achievements and challenges stakeholders faced, the planning framework will be better consider and utilize the existing potentials.
- **Remapping GSK-BR Zones**

The participants proposed remapping GSK-BR zones. With more precise mapping, management and utilization of natural resources in this area can be more sustainable and controlled.
- **More Comprehensive Database Management**

The participants suggest enhancing database management that is more comprehensive. Accurate and update information will be a great basis for making a better decision makings in order to achieve the framework objectives.

III. CAPACITY DEVELOPMENT

- **Strengthening Capacity of Implementing Institutions Roles as Key Players**

The FGD highlighted the importance of strengthening implementing institution roles as key actors in implementing the Framework. With strong institutions, activities implementation can run more efficiently and have a positive impact on this region. Strengthening implementing institutions as key players is also something that cannot be ignored. Implementing stakeholders must have a strong and defined role in the GSK-BR to make the collaborative effort more effective.

IV. JOINT PROJECT

- **Determination of priority programs and join-project locations with stakeholders**

Determining priority programs, resources and efforts can be directed more efficiently, while determining joint work locations will ensure better collaboration between stakeholders.

V. MONITORING AND EVALUATION

» **Strengthening Monitoring and Evaluation**

The FGD urged the importance of strengthening the monitoring and evaluation system to measure effectiveness of the Framework implementation. With the availability of relevant data, the determination of priority programs can be more targeted and adaptive in accordance with newest developments in the field.

Conclusion

The conclusions from the FGD Planning Framework for the GSK-BR are as follows:

1. Overall, the results of this FGD emphasize the importance of collaboration, accurate mapping, and good data management in formulating the Planning Framework for a better and more sustainable GSK-BR.
2. Biosphere reserve management planning for the next year (2023-2027) will focus on increasing institutional capacity, as well as support for stakeholders, which are the main focus in this Planning Framework.
3. Efforts to increase institutional capacity for coordinating body of the biosphere reserves management and other stakeholders supports need to be continued and strengthened.
4. Periodic monitoring and evaluation of the implementation of the Planning Framework is very important to ensure the achievement of goals and continuous improvement.

Annex

Offline attendance of FGD participants



MINISTRY OF ENVIRONMENT AND FORESTRY - ITTO
ITTO PD 712/13 Rev.3 (F)

ENHANCING THE IMPLEMENTATION OF LANDSCAPE MANAGEMENT OF GIAM
SIK KECIL-BUKIT BATU BIOSPHERE RESERVE (GSK-BR) IN RIAU PROVINCE OF
SUMATERA ISLAND, INDONESIA

Gedung Manggala Wanabakti Blok VII Lantai X, Jln. Jenderal Gatot Subroto-Jakarta 10270
Jl. Gunung Batu No. 5 Bogor 16618, Telephone : (0251) 8631238; Faximile : (0251) 7520005



DAFTAR HADIR FOCUS GRUP DISCUSSION (FGD) PERENCANAAN KERANGKA KERJA CAGAR BIOSFER GIAM SIAK KECIL – BUKIT BATU

Hari/ Tanggal : Kamis, 13 Juli 2023
Waktu : 08.30-12.00
Lokasi : Royal Hotel Juanda Bogor
Jl. Ir. H. Juanda No.16, Paledang, Kecamatan Bogor Tengah, Bogor

No	Nama	Instansi	L/P	HP/Email	Tanda Tangan
1	Muhammad Firdaus	Ber	L	08120321711	
2	Yusuf J	Setra	V		
3	Nidwan Tur	BRIA	L	081719325502	
4	Dolly Priatna	Y. Belantara	L	081389001566	
5	Triia Meganti	APP	P	0811190166	
6	Diny Hartiningtyas	Belantara	P	08989163627	
7	Handa. K.	Belantara	L	085274554275	
8	ERI CAHYAOL	ESAPAGAN	L	085356331978	
9	ARAFU HAZANAW	Bappeda Plus	L	085374527007	
10	Krispani	Purabaya	P		
11	Vinni B. A.	BRIN	P	0813078826	
12	Naura Chaily	Set BSI	P	-	
13	Tian Partiani	DMU	P	081618812486	
14	Nyah Rofason	Set. BS/UM	P		
15					
16	Yus Mulyati	Set BSI	L	08158589917	
17	M. Azharul Fadillah	Set BSI	L	081289704951	
18	Larasati Mahanani	Set BS	P	08286415449	
19					
20					
21	Hardina MR	Set BSI	P	087833083886	
22	Abiyun M. Hamis	Set BSI/UM	L	081213026640	
23					
24					
25					

Annex

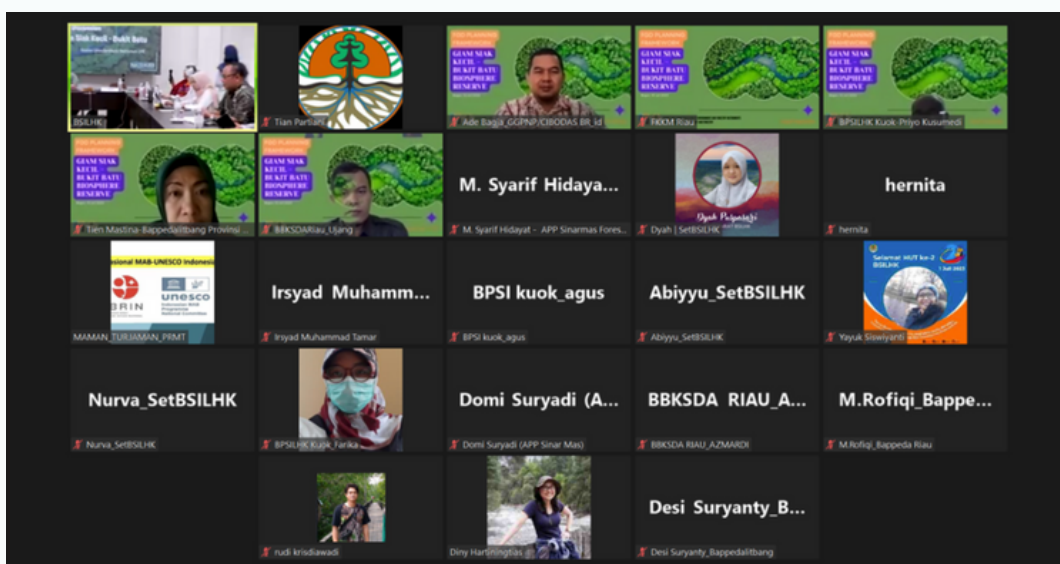
Online attendance of FGD participants

Time	Name	Institution	Email	Phone
7/13/2023 9:29:08	Priyo kusumedi	BPSILHK Kuok	priyokusumedi@gmail.com	081578503134
7/13/2023 9:29:30	Ade Bagja Hidayat, S.Hut., M.Ling.	Balai Besar TNGGP / Cagar Biosfer Cibodas	a.bagjahidayat@gmail.com	08112341204
7/13/2023 9:31:50	Muhammad Rofiqi	Bappedalitbang Riau	mhdروفiqi@yahoo.com	08117609183
7/13/2023 9:34:09	Hasan Supriyanto	Forum Komunikasi Kehutanan Masyarakat (FKKM) Riau	fkkmwilayahriau@gmail.com	082340307037
7/13/2023 9:36:54	Azmardi	Balai Besar KSDA Riau	azmardikamil@gmail.com	082158679019
7/13/2023 10:02:45	Agus Wahyudi	BPSILHK Kuok	agus.kuok@gmail.com	082225263161
7/13/2023 10:17:08	Maman Turjaman	MAB UNESCO INDONESIA - BRIN	turjaman@gmail.com	081319825502
7/13/2023 10:21:22	Hernita	Pustarhut	hernita.yuni.68@gmail.com	-
7/13/2023 10:46:59	IR. TIEN MASTINA, M.Si	BAPPEDALITBAN PROVINSI RIAU	tienmastina@gmail.com	081270060367
7/13/2023 10:47:08	Irsyad Muhammad Tamar	APP Sinarmas	irsyad_m_tamar@app.co.id	089509275847
7/13/2023 10:52:40	Ujang Holisudin,S. Hut	Balai Besar KSDA Riau	ujang150577@gmail.com	085366466349
7/13/2023 12:02:12	M Syarif Hidayat	APP Sinarmas	syarifhid@yahoo.com	08881400100

Documentations



[Photo 1. Photo session with participants of the FGD Planning Framework Giam Siak Kecil Bukit Batu Biosphere Reserve]



[Photo 2. Participants of the Giam Siak Kecil Bukit Batu Biosphere Reserve FGD Planning Framework who took part online via zoom]

Documentations



[Photo 3. The ongoing FGD, participants conveying input and suggestions for the Planning Framework for Giam Siak Kecil Bukit Batu Biosphere Reserve]

