



BERAU

FOREST CARBON PROGRAM 2011–2015

BERAU FOREST FOR THE WORLD

Berau Forest Carbon Program (BFCP) is implemented under cooperation between the Government of Berau District, East Kalimantan Province, Ministry of Forestry of the Republic of Indonesia, The Nature Conservancy (TNC), and other supporting Partners

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Preface

First of all, praise the Lord God Almighty for His grace and mercy that we have been given a region with extraordinary natural resources. The District of Berau, in accordance with the regional territorial mapping still owns ± 1.67 million hectares of Forest Estate Area, consisting of production forest and conservation forest with a relatively sound condition compared to other similar areas in East Kalimantan.

Furthermore, we have additional forests within the Non Forest Estate Area of ± 521 thousand hectares designated for various development activities in the Berau District, such as for timber plantation, agriculture, housing, mining and other non-forestry development.

Asides from the forestry sector, Berau District also has marine resource potential, such as marine coastal areas and small islands that serve as conservation zones, including Sangalaki Island and Semana Island which are the natural habitat of green turtles to lay and hatch their eggs.

Then, we also have one atoll, the Kakaban island, with a large lake in its inland filled by rare natural diversity, such as a variety of jellyfish; there are only two such islands in the world, one of them in the Berau District. In the coastal area we still have mangrove forest of ± 65.000 hectares.

Praise the Lord God Almighty for his Grace and Mercy that we have been able to complete this Document of the Berau Forest Carbon Program (BFCP) Strategic Plan.

We realize that the preparation of this document was done through a lengthy process with several changes in its concept to accommodate a participative process, combining research on policy, science, economy, ecology, as well socio-cultural in accordance to the local context in the District of Berau. This document harmonizes national, provincial and district strategic planning documents.

The background for the preparation of this Document of the Berau Forest Carbon Program Strategic Plan is the Government's commitment on greenhouse gas emission reduction of 26% by the year 2020 from its business as usual level. Most of these greenhouse gas emission reductions shall derive from the forestry, sector since it constitutes the largest source of emission in Indonesia.

In line with the commitment of the national government, in December 2009, the Governor of East Kalimantan declared his commitment to make East Kalimantan as a "Green Province" with the vision that East Kalimantan will serve as an example, not only for Indonesia but also the world, for reduced emissions combined with economic development. This concept covers a new sustainable and environmentally friendly economic development paradigm, based on the principle of "developing East Kalimantan for all".

To support the central government's commitment and that of the provincial government of East Kalimantan, we are proud that the District of Berau has been designated as one of the places to implement the *National Demonstration Activities for Reducing Emissions from Deforestation and Forest Degradation Plus* (DA-REDD+) in Indonesia, as launched by the Minister of Forestry on 6 January 2010.

Since 2008, the District Government of Berau has worked to study the possibility of implementing a REDD+ pilot program. At the first *Joint Working Group* forum in June 2009, the Berau Forest Carbon Program (BFCP) was declared as a district scale REDD+ pilot program.

BFCP is a partnership program between the District Government of Berau, East Kalimantan Province, The Nature Conservancy (TNC), other government institutions, NGOs, and other funding institutions to jointly develop a pilot program for the reducing carbon emissions from deforestation and degradation of forest and increasing carbon stocks through sustainable forest management, forest conservation and forest rehabilitation.

This program is developed as a proposal and as an important learning opportunity on how the concept of REDD+ could be implemented in a large and complex administrative territory and how it can be replicated in the future.

This program is designed to achieve sustainable forest and natural resource management in the District of Berau. With this program, it is expected that the District of Berau can achieve its development goals and manage its natural resources sustainably.

We believe that this program carries a positive message through our effort to jointly save the earth from further destruction, which impact is already starting to be felt by us.

The Berau Forest Carbon Program (BFCP) represents a concrete endeavor of the Berau District to support East Kalimantan's Green Program and the Indonesian Government's commitment in reducing green house gas emission reduction nationwide.

This is Berau's support to the world.

We would like to express our highest appreciation to all parties who have supported jointly with the Government of East Kalimantan, the Ministry of Forestry, Ministry for National Planning and Development Agency, Ministry of Environment, Ministry of State Affairs, The Nature Conservancy, Non-Governmental Organizations, and other funding organizations in making the Berau Forest Carbon Program possible. The members of the Berau REDD+ Working Group have greatly contributed in the preparation of this document

We hope this joint efforts may serve as a concrete contribution for the improvement in the quality of the environment and the sustainable development of the District of Berau.

Tanjung Redeb, March 2011

Head of Berau District



Drs. H. Makmur, HAPK, MM

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List of Terminology

REDD+	: The definition of REDD Plus (REDD+) according to the <i>Bali Action Plan</i> paragraph 1 b (iii), which is “policy and positive incentive approach on issues related to the reduction of emission caused by deforestation and forest degradation in developing countries, the role of conservation, sustainable forest management as well as increase in carbon stock in developing countries”.
Forest	: According to Law No 41 year 1999, forest is an integrated ecosystem comprised by land consisting of biological resources dominated by trees in their natural environment, inseparated from one to another.
Forest Area	: Forest area is a certain territory designated or established by the government to be conserved as permanent forest (Laws No. 41 Year 1999 on Forestry).
Deforestation	: Deforestation is the conversion of forest into a different land type, or the reduction of trees below the minimum of 10% forest cover (for long period of time) over an area at least 0.5 ha, where trees have a minimum height of 5 m (in situ)(FAO).
Degradation	: Forest degradation is is a process of unsustainable or uncontrolled activities with a negative impact to the structure or function of forest land resulting in the decrease of its ability to provide forest services/products. In term of REDD+, forest degradation causes the reduction of carbon from the ecosystem. One way to measure degradation is by calculating the decrease of carbon stock per area unit (e.g. hectare).
LULUCF	: Land Use, Land Use Change and Forestry; land use activities and forest conversion that cause green house gas emissions, and are a result of human activity.
IPCC	: Intergovernmental Panel on Climate Change.
AFOLU	: Agriculture, Forestry and Other Land Use; are sectors of Agriculture, Forestry, and other land use that play a role in greenhouse gas emissions. This terminology is used in the Good Practice Guidelines for Greenhouse Gas Inventory (<i>IPCC GPG 2006</i>).
REL/RL	: According to the UN Doc FCCC/SBSTA/2008/6, the REL (<i>Reference Emission Level</i>) is the baseline to measure emissions from deforestation and forest degradation, based on historical data, and considering, <i>inter alia</i> , the trends, initial time and duration of the period for reference, and the national specific condition/special condition. As a result of the meeting of experts of REDD-UNFCCC in Bonn, March 23-24, 2009, the RL (<i>Reference Level</i>) is the total net/gross emission (including sources and sinks from conservation, sustainable forest management, and carbon stock piling).
MRV	: Measurable, Reportable and Verifiable; is part of the monitoring system and mitigation action evaluation which will be registered by countries to the UNFCCC. In its implementation, MRV principles are established by the UNFCCC, IPCC and the Kyoto Protocol, particularly the principle of <i>common but differentiated</i>

responsibilities and respective capabilities as well as historical responsibilities for greenhouse gas emissions of each country.

Displacement of emission or leakage is the impact caused from the emission reduction mitigation activity outside the peripheral of the reforestation and rehabilitation activity and forest conservation. *Leakage* does not exist in activity of REDD+ national coverage.



CHAPTER 1

Berau's Contribution to The World

1. Indonesia is Facing Climate Change

Carbon dioxide and other greenhouse gases have increased rapidly in the atmosphere (under 300 ppm during the pre-industry period up to 433 ppm in the year 2005) due to human activities. This condition has caused a phenomenon known as *global warming*. As the average temperature of the earth's surface increases, climate change occurs, causing extensive drought, flood, storm and the increase of the sea level.

This phenomenon has compelled many countries to recognize climate change as the greatest threat to human kind in this century. *The Intergovernmental Panel on Climate Change (IPCC)* has predicted various future scenarios of greenhouse gas emissions and levels of climate change, ranging from significant to catastrophic impacts on human life, global economy, and communities.

Although there is global consensus that acknowledges the uncertainty around these scenarios, the risks faced at present are considered quite alarming. Global action is needed to coordinate climate change mitigation.

Several reports have indicated that deforestation and forest degradation contribute to 18% of global greenhouse gas emissions, of which 75% are from developing countries — including Indonesia (Stern Review 2006). These factors are a serious threat to the resources and livelihoods of local communities, watersheds, and the existence of biodiversity. Therefore, the reduction of carbon emissions from the forest sector becomes critical as it not only contributes to the global effort in mitigating climate change, but also contributes to other social and ecological benefits.

Indonesia, under the leadership of President Susilo Bambang Yudhoyono, is pioneering several important contributions related to climate change. First, Indonesia hosted the 13th *Conference of Parties/COP-13* of the United Nations Framework Convention on Climate Change (UNFCCC) in Bali, 2007. Second, Indonesia organized and participated in a series of summits on reduction of greenhouse gas emissions from the land use, land use change and forestry sector (LULUCF), which is the major contribution of emissions in developing countries.

At the G-20 summit, September 2009 in Pittsburgh, United States, President Yudhoyono stated that Indonesia is committed to an emission reduction target of 26% by the year 2020, as laid out by the Bali Roadmap (Fig. 1). Further, President Yudhoyono stated an additional 15% emissions reduction would be reached if significant foreign assistance is made available.

These targets make Indonesia the first of larger, developing countries to promise such a commitment. Indonesia later reassured its commitment at the COP-15 meeting in Copenhagen, Denmark, December 2009.

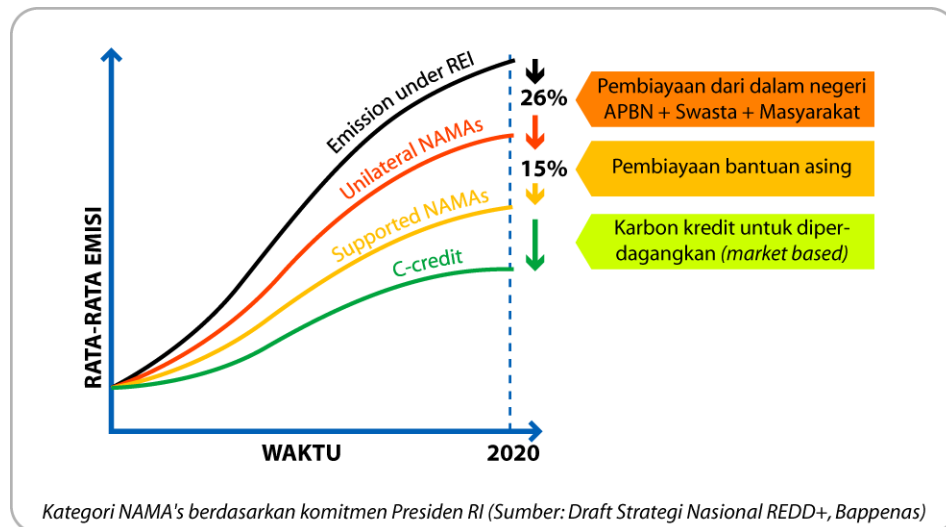


Figure 1. Indonesia's greenhouse gas emission reduction targets for the year 2020.

The draft of the National Strategy for Reducing Emissions from Deforestation and Forest Degradation (REDD+) was prepared by the Ministry of National Development Planning (Bappenas) in November 2010. The Presidential Working Unit for Monitoring and Control Development (UKP4) is finalizing the document. This document will serve as a guideline for REDD+ implementation with regard to the emission reduction commitments made by President Yudhoyono. As laid out in the draft REDD+ National Strategy, GHG emission reduction targets will be met through Nationally Appropriate Mitigation Actions (NAMA's). The 26% target will be met through *unilateral* NAMA's, 41% through *supported* NAMA's (with funding) and above 41% through *carbon credit trading* or market mechanisms. In the implementation of all these categories, human resource capacity building and technology transfer need to be implemented sustainably and supported by international grants.

Definition of REDD+

The basic concept of REDD+, or *Reduced Emissions from Deforestation and Forest Degradation* is simple: governments, corporations and forest owners in developing countries should be given credits or rewards (in the form of economic benefits) for the actions taken in verifiably reducing emissions that arise from deforestation and/or forest degradation.

The idea to offer incentives to forest managements that prevent deforestation and forest degradation was discussed during the Kyoto Protocol negotiations, but it was rejected. The REDD scheme was then developed from a proposal by The Coalition of Rainforest Nations in 2005.

Two years later, the proposal was presented at the UNFCCC 13th Conference of Parties in Bali, 2007.

The issue of deforestation was introduced under an agenda of Reducing Emissions from Deforestation in Developing Countries (RED) during the 11th COP in Montreal, 2005, which was positively received by many countries. In several UNFCCC forums such as the COP and Subsidiary Body (SB), many parties feel that REDD should be mandatory. Given the different national conditions of each country, proportional and just RED approaches must be considered in the context of the climate convention proceedings.

The term REDD Plus (REDD+) was introduced at the 13th COP 13 in 2007 in Bali. Despite inclusion in the *Bali Action Plan*, REDD+ was first used by the Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA), under the Convention on the 6th session in Bonn on June 12, 2009. In this document, REDD+ was further defined to include actions on GHG emission reduction from deforestation and forest degradation in developing countries as well as forest conservation, sustainable forest management, and carbon sequestration. The concepts of REDD+ were also stated in the *Copenhagen Accord* as the result of COP- 15 in 2009.

The benefit of this mechanism is that it opens opportunities for parties with different national situations to participate in a future REDD+ global framework. Indonesia is home to the third largest tropical forest area in the world, after Brazil and the Democratic Republic of Congo, and plays a crucial role for the success of REDD+. Indonesia's high rates of deforestation and forest degradation are therefore an opportunity to apply positive incentive mechanisms for the Indonesian people.

2. Implementation of REDD+ in Indonesia

Implementation Stage

As part for preparing negotiations for COP-13, Indonesia carried out rapid studies/analyses on the status of its readiness to implement REDD+, in terms of methodology and policy. To facilitate this process, the Indonesia Forest Climate Alliance (IFCA) was established in July 2007. IFCA is a forum for communication/coordination among stakeholders to discuss issues on REDD+, including the advancement and output of the studies and research which were being carried out at that time.

The Government of Indonesia decided to make REDD+ a national program with its implementation is being carried out in stages from the sub-national level (Province, District, Management Unit), with integration at the national level (*national accounting with sub-national implementation*).

Based on the Indonesia – REDD+ Strategy, the REDD+ process is divided into three stages as follows (Fig. 2):

1. Phase 1, Preparatory Phase: Identification of the science and technology status and related policies (2007–2008)
2. Phase 2, *Readiness Phase*: Phase to prepare the methodology and policy (2009–2012)
3. Phase 3, *Full Implementation*: this is the full implementation in accordance with the COP rules when REDD+ becomes part of a UNFCCC program, post-2012.

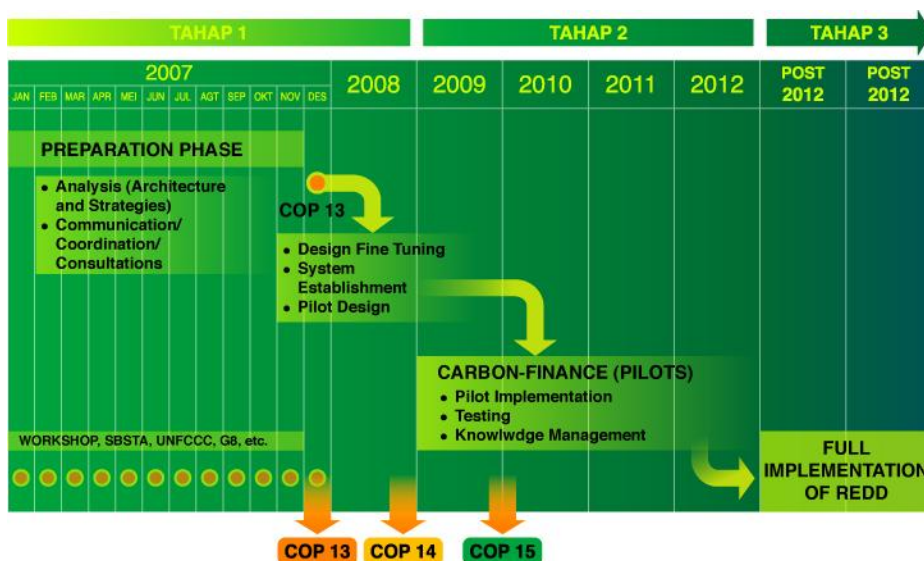


Figure 2. The concept of REDD+ implementation in Indonesia (BAPPENAS 2010)

For the *Readiness Phase*, Indonesia needs to prepare the instruments required for the implementation of REDD+ post-2012. These instruments need to address the basic causes of deforestation, institutionalizing funding and mechanisms for the distribution of incentives, as well as the participation of parties that include communities within and surrounding forests.

Observing the progress of negotiations among countries at the global level compared with Indonesia's current preparation status, it seems that the national REDD+ readiness plan will not be achieved within the initial timeframe.

Activities and Demonstration Area

On January 6, 2010, the Indonesian Forestry Minister, Zulkifli Hasan, signed the launching of the first *Demonstration Activities-Reducing Emission from Deforestation and forest Degradation* or DA REDD+ in Indonesia. These constitute REDD+ pilot activities for developing methodologies and policies, and are part of the *Readiness Phase* leading up to post-2012.

Four DA REDD+ activities which were launched by the Ministry of Forestry in cooperation with the Australian Government, the German Government, the International Timber Trade Organization (ITTO), and The Nature Conservancy (TNC). The latter began as a cooperation between the Government of Berau District (East Kalimantan Province) with The Nature Conservancy - Indonesia Forest Program (TNC IFP). This cooperation is designed to support the implementation of a pilot program specially designed for sub-national implementation at the district level.

The development of DA REDD+ arose from the decisions of the COP-13 in Bali. Developing countries and developed countries are encouraged to cooperate in efforts to reduce deforestation and forest degradation in developing countries, including financial support, capacity building, and transfer of technology. DA REDD+ represents the most important component of the Indonesian REDD+ Readiness Strategy and is expected to be able to serve as a means for learning and communications in building commitments and synergy between parties.

Currently there are more than 40 REDD+ pilot projects in Indonesia, some of which include Jambi Province is a follow-up program of the Indonesia-Australia Forest Carbon Partnership, in Lombok as a collaboration with the Korean Government.

On December 30, 2010, the Province of Central Kalimantan was designated as a provincial scale DA REDD+. This pilot effort was established through a partnership between Indonesia and Norway. Central Kalimantan has some of the largest peatland areas in Indonesia, and peatland are a significant source of GHG emissions.

3. Berau's Position and Strategic Role

Green East Kalimantan Program (Kaltim Green)

The provincial government of East Kalimantan created a REDD+ Working Group in 2008 and since this time has been actively involved in the development of REDD+ strategies. The Governor of East Kalimantan declared his commitment to make East Kalimantan “The Green Province” in Balikpapan, December 2009. This declaration was followed by formation of a team comprised of senior officials to develop and implement the the KalTim Green Action Plan.

The vision of KalTim Green is to is to develop the province as a global example for how to combine GHG emission reduction goals with economic development, while ensuring development is sustainable and environmentally friendly. The overarching principle is “Developing East Kalimantan for all”.

Kaltim Green has four goals:

1. To improve the quality of life of the people in East Kalimantan as a whole, achieving balance between economic, social, cultural, and environmental aspects.
2. To reduce threats associated with climate change, such as flooding, landslides, drought, and forest fire.
3. To reduce pollution and damage to land, water and air ecosystems.
4. To promote knowledge and awareness within the institutions and people of East Kalimantan on the importance of natural resources conservation by using those resources wisely.

The declaration of Kaltim Green which has been agreed upon by the Government of East Kalimantan Province and all the districts within East Kalimantan recognize the importance of reducing greenhouse gas emissions through five commitments:

1. To implement low carbon emission development strategies;
2. To integrate the development goals of the province;
3. To analyze and reform appropriate current development policies;
4. To promote research needed within the province and the nation to overcome the issue of climate change through networking with universities and colleges (especially in the forestry sector); and
5. To support climate change mitigation through cooperation with international institutions.

Berau's Condition and Profile

Berau is the third largest district in East Kalimantan with an area of 34,127 km² (13,176 mi²) (Fig. 3). Approximately 2.2 million hectares are land and more than 75% of the land base is still covered by forest. Population is spread among 13 sub-districts

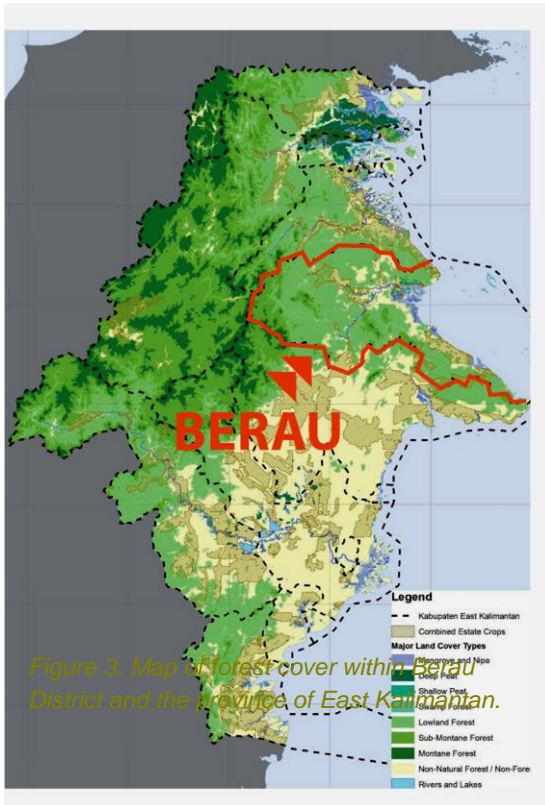


Figure 3. Map of forest cover within Berau District and the province of East Kalimantan.

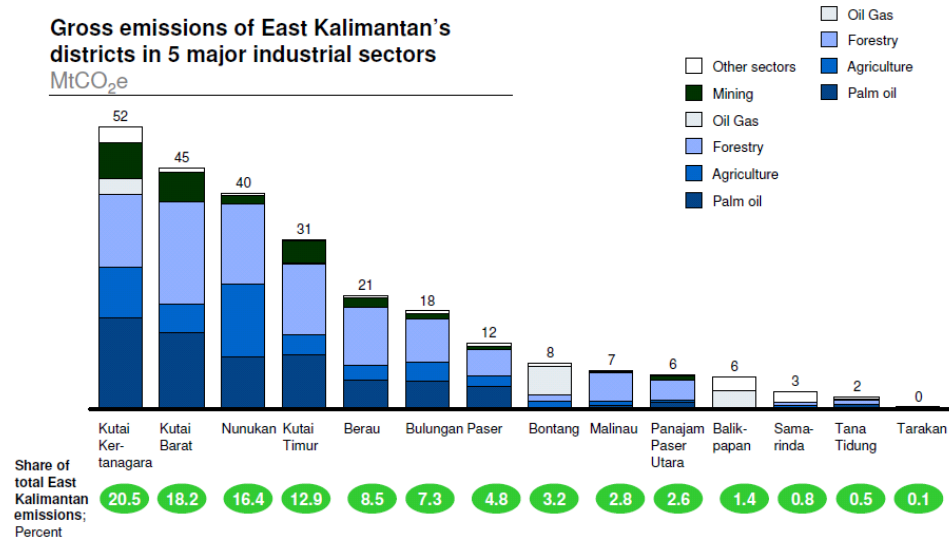
with 107 villages for a total population of 164,501 and a population density of only 5 people per square kilometer. The district capital is the city of Tanjung Redeb. The district shares its borders with the districts of Bulungan to the north, East Kutai to the south, Malinau to the west; to the east is the Sulawesi Sea.

Mining (40% of GDP) and forestry (30% of GDP) dominate the economy of Berau District. Fourteen companies hold more than 880,000 ha of natural forest timber production concessions and three companies hold 60,000 ha of timber plantation forest. When combined, this comprises 40% of the total land base in Berau.

Berau is one of the districts with the largest area of remaining low land rain forest in the country. However,

Berau faces many challenges from illegal logging, and for unsustainable forest clearing for development of oil palm plantations, forest timber plantations and coal mining. With such a large area of forest and high degree of threats, Berau represents a truly strategic place for the development of a REDD+ pilot in Indonesia.

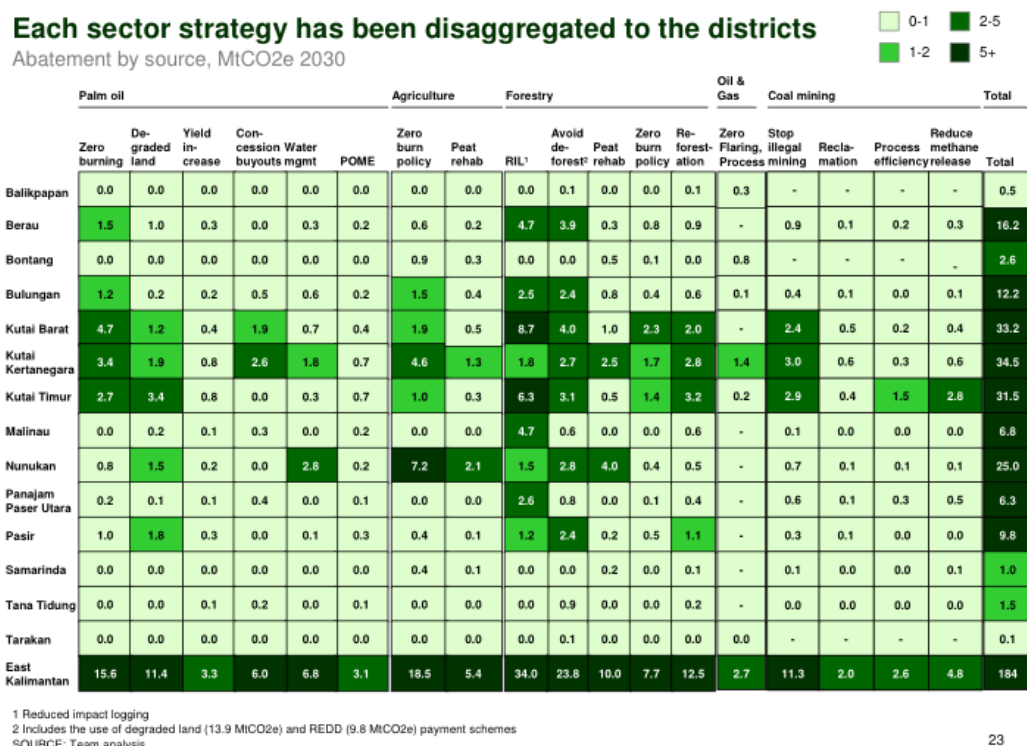
Berau is estimated to produce more than 21 MtCO₂e of emission per year, 8.5% of the total emission of East Kalimantan (Fig. 4). Berau is losing more than 24,000 ha of forest per year. The forestry sector is responsible for more than 10 MtCO₂e per year, particularly from unsustainable logging practices within the natural forest timber production concessions (HPH). Moreover, there are permit allocations to open 100,000 Ha of palm oil plantations, which will contribute further pressure to the forests of Berau. The emissions produced by district, particularly from land use changes, is equivalent to 4.5 million cars.



SOURCE: Kaltim Green, Wetlands International, East Kalimantan Statistics 2009, team analysis

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Under a business as usual scenario GHG emissions from the land use, land use change and forestry sector are expected to continue increasing. However, estimates from the McKinsey group (Fig. 5) show that Berau could reduce GHG emissions in the LULUCF sector by more than 16 MtCO₂e per year by 2030.



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Figure 5. Potential CO₂e reduction in the LULUCF sector for each district in East Kalimantan Province (McKinsey).

As in other regions in Indonesia, the trigger for the loss of forest in Berau is also strong, being based on economic activity. Deforestation in Berau is directly affected

by the extraction of natural resources such as timber and mineral, and the production of agricultural commodities, particularly palm oil and pulp. The economic value of the current forest estate cannot make conservation or sustainable forest management a viable option compared with development of extractive and production industries.

The rate of deforestation is also caused by weak governance of natural resources, which was not designed or managed for strategic, sustainable development. The establishment of poorly managed forest plantations and natural forest timber concessions contributes to illegal forest intrusion, degradation and deforestation.

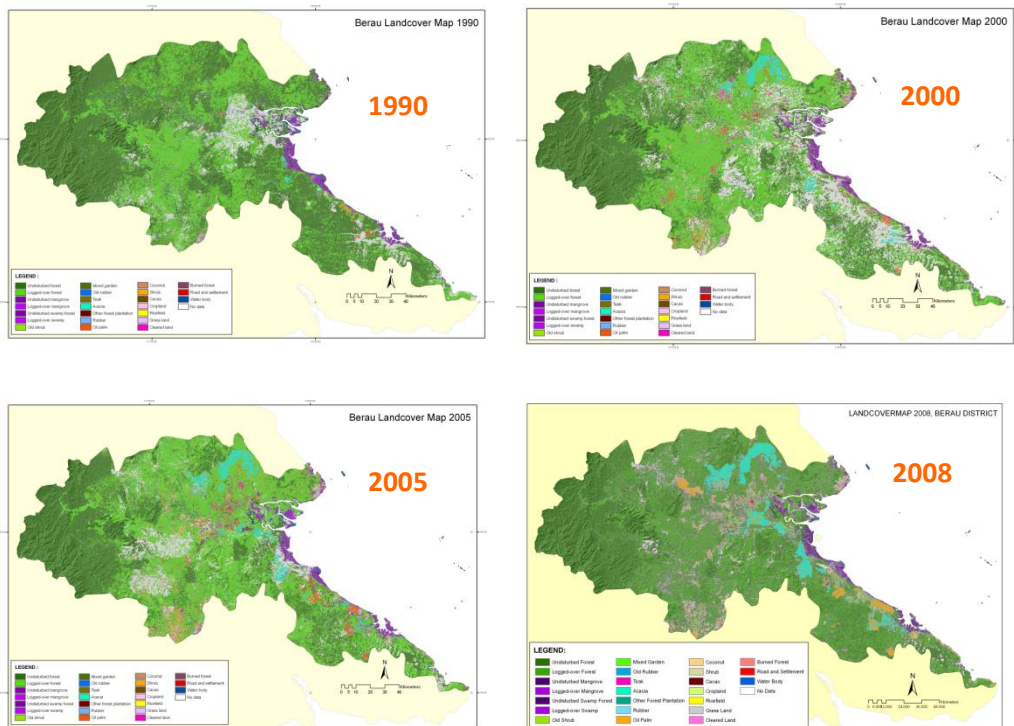


Figure 6. Patterns of deforestation in Berau District between 1990 and 2008.

Within the last two decades, forest fire is one of the main causes of deforestation and degradation. The building of road infrastructure into the most remote area stimulates further the process of forest encroachment and conversions. The increasing of human population within the forest, the migration of people into the forest seeking for land, the communities live in the forest who generally involved in shifting cultivation also contribute to forest degradation.

Drivers of Deforestation and Forest Degradation in Berau

Legal Logging. Approximately 40% of Berau's land base is dedicated to natural forest timber production concessions. To achieve sustainable forest management, Reduced Impact Logging should be implemented. Poor forest management, evidenced

through lack of planning, little oversight on harvesting, and weak monitoring by government officials, will encourage deforestation and forest degradation which eventually contribute to excessive emissions.

Illegal Logging. Poor forest governance contributes to illegal logging in all forest zones, including in protection forest. The rate of forest lost increased which indicated from a total emission of 4% to 9% between 2000 to 2008.

Conversion of Natural Forest into Plantation Forest. On average, plantation forests store less carbon than natural forests. The development of three plantation forest concessions in Berau contributes significantly to the district emissions profile. A total of 74,000 hectares of primary and secondary forest currently carrying plantation forest permits may contribute to future emissions. As a whole, Berau has not been affected by plantation forest trends as in other parts of Indonesia. However, this may change. Since 2000, there has been an annual 30% increase in the development of acacia timber plantation area.

Shifting Cultivation. Most of the rural population in Berau is involved in shifting cultivation, or temporary planting in one area for several years, then shifting to another area while leaving the first area fallow, then returning again after sometime. The total area of such activity may reach 50,000 hectares per year. The emission resulted depend on the type of forest clearing. Increasing area in oil palm plantations causes a higher degree of farming in the forest.

Natural Forest Conversion into Oil Palm Plantation. The oil palm plantation sector in Berau, as many others in Kalimantan, has increased in the last 5 years. Permits and licenses for this activity have reached almost 200,000 hectares This includes forested areas and areas ready for planting. The total emission related to oil palm plantation development, as well as development from other land use change, could reach 100 million tons CO₂e.

Mining. A total of 27 mining concessions hold a total of 185,000 ha in Berau. Until today, the actual emissions and carbon footprint are still relatively low However, considering the large potential of coal and limited gold deposits, these sectors are predicted to contribute excessive emissions in the future.

Mangrove Conversion for Shrimp Farming. Berau has one of the largest and most natural mangrove ecosystems in Borneo. Historically, there have been no major or moderate deforestation for establishment of shrimp farms. However, migration towards the coastal areas might be a threat.

Berau's Contribution to the World

Considering the above factors, it is clear that the District of Berau holds a very strategic position and role in supporting the commitment of the central and provincial government to address the challenges of global climate change.

The District Government of Berau is committed to implement the first REDD+ pilot program in Indonesia, even in the world, through establishing a model of low emissions development that is based on sustainable governance of natural resources.

The District Government of Berau is determined to change the course of its development through transformation in the governance of its natural resources, strengthening institutions, and capacity building of human resources.

This is Berau's support (present) for the World (future).

Assistance and cooperation from the central and provincial government, as well as from other related partners are greatly needed by the District Government of Berau in building the appropriate focus of Forest Carbon program to jointly resolve the challenges and develop innovative measures.



CHAPTER 2

Strategic Plan 2011 – 2015

1. Berau's REDD+ Pilot Program

Program Development

After considering the explanation in the previous chapter and understanding Berau's strategic position and role in supporting the central and provincial government's commitment in facing the challenges of climate change, it is clear that Berau carries a great opportunity to implement a REDD+ pilot program at a district scale through the development of a model of development based on low emissions and sustainable natural resource management.

The Indonesia Forest and Climate Alliance (IFCA) Consolidation Report of 2007 strongly recommended the development of an integrated pilot program development at a district level to test the strategy to reduce forest carbon emissions.

A district scale carbon emission reduction pilot program as recommended will focus on the management of conservation forest, production forest and areas outside the government forest estate.

The integration of strategies of several different regions will serve as a useful learning process for districts, provinces and the national government to create a development planning system which is environmental friendly and low emission.

Another advantage of the district scale approach includes the opportunity to focus on the integration between development strategies and to reduce the impact of climate change. This initiative is expected to be able to monitor the trend of emissions at a district level, not only at a site level; therefore, this approach is able to avoid leakage at the district level. This approach offers greater benefits compared with single purpose forest management. The district approach depends on strong holistic management, involving many stakeholders in an integrated manner, including government, communities, Non-Governmental Organizations and the private sector.

For this district scale program, the collaborative work between the government, private sector and civil society remain the key factors for success.

The government is the main actor through their role in developing strategic planning, spatial planning and management actions, creating enabling conditions for policy and directing government resources to endorse low carbon development. Most of the land area in Berau is managed by the private sector therefore they are responsible in implementing the government's strategy of low carbon development.

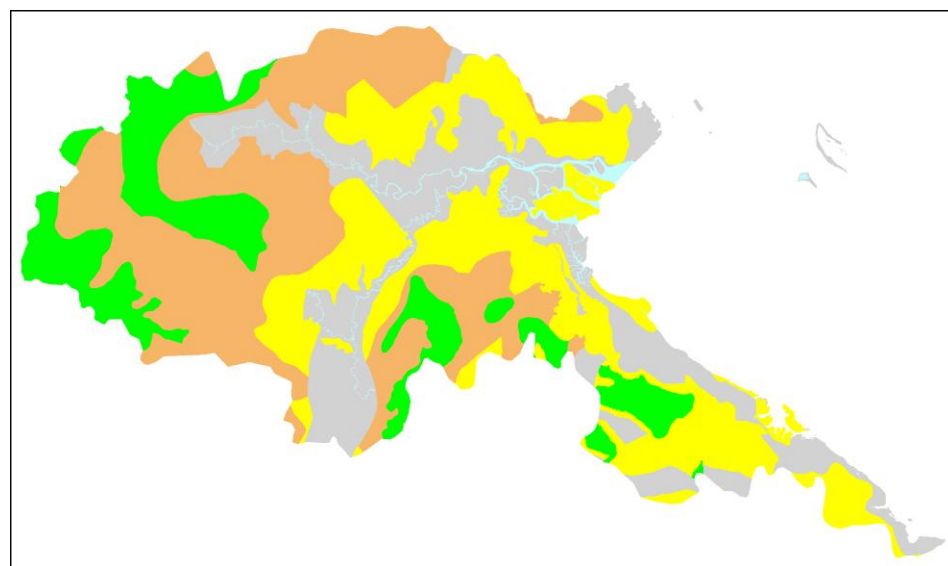
The people are the main stakeholders in all aspects of forest planning and management.

The role of the district government is critical to the success of the implementation of REDD+ through the process of decision making, supervision of protection forest, production forest and forest outside the government forest estate. On the other hand, the governments at the provincial and national level also play an important role.

The decision to issue permits and licenses by the Ministry of Forestry, The Ministry of Agriculture and The Ministry of Energy and Mineral Resources will have a substantial impact on the success of REDD+ at the district level. The decisions issued by those ministries, jointly with other ministries and agencies such as the Finance Ministry, the National Planning Agency and others will have an impact on the achievement of the goals on a district scale.

Berau Forest Carbon Program (BFCP)

The District of Berau, with a forest area of 2.2 million hectares according to the Forestry Ministerial Decree No 79/Kpts – II/2001 on the appointment of Forest and Water Area in the region of East Kalimantan Province (Fig. 7), represents a microcosm of Indonesia, with its diverse economic activities, types of forest and threats.



Lampiran :
SK MENHUT 79 tahun 2001



Legenda :

- APL
- HL
- HP
- HPT
- Tubuh Air

APL	= 527870.77 ha
HL	= 360356.792 ha
HP	= 626875.222 ha
HPT	= 676188.254 ha
Tubuh Air	= 28685.667 ha
Grand Total	= 2219976.705 ha

APL: Area for other uses, outside the forest estate
HL: conservation forest, in the forest estate
HP: production forest, in the forest estate

HPT: limited production forest, in the forest estate
Tubuh air: Water body

Figure 7. Type of Land Uses in Berau Forest (The Indonesian Ministry of Forestry, 2001)

Since 2008, the District Government of Berau and The Nature Conservancy Indonesia Forest Program (TNC-IFP) began to explore the potential of implementing the REDD+ pilot program on a district scale by utilizing the foundation of existing programs in the District of Berau. On April 2008, the REDD+ Berau Working Group, whose members comprise representatives from government institutions, private sectors and civil society was established as an initiation of the REDD+ Berau pilot program.

REDD+ Berau Working Group then initiated the establishment of a Joint Working Group which is a forum of key parties, either at district, provincial or national level, in the development of the REDD+ pilot program at the district scale in Berau.

At the first Joint Working Group in June 2009, the Berau Forest Carbon Program or BFCP as a REDD+ pilot program at the district scale of Berau was declared. The Berau Forest Carbon Program later was stated as one of the Demonstration Activities REDD+ (DA – REDD+) in Indonesia by the Ministry of Forestry on January 6, 2010.

BFCP is developed as an important learning platform, providing opportunity to actualize the concept of REDD+ which can be implemented in a large and complex administrative region. Furthermore, BFCP also offers opportunities to improve capacities for developing and managing a REDD+ program so that it can be replicated elsewhere.

2. Basic Policy

Vision, Objective and Goals

The Berau Forest Carbon Program is a partnership program between the District Government of Berau, East Kalimantan Province, The Ministry of Forestry, other government institutions, Non Government Organizations (NGOs) and funding institutions to jointly develop a forest carbon pilot program to reduce emissions from deforestation and forest degradation and enhance sequestration through sustainable forest management, forest conservation, ecosystem restoration and forest rehabilitation.

Vision of the Berau Forest Carbon Program 2011– 2015 is:

Berau District becomes a model of low-carbon growth development and sustainable natural resources management.

The strategic goals and program objectives of this first five year phase of the REDD+ pilot in the District of Berau are to strive for a single integrated program covering the following:

1. Planning improvement and refinement, particularly in relation to spatial planning, land use planning and spatial permitting processes at the district level.
2. Forest carbon emissions reduction and sequestration to equal a net reduction around 10 million tons CO₂e during the first five years or a reduction of at least 10% from Business as Usual (BAU), especially in the forestry and land use change.
3. The improvement of public welfare for 5,000 people living within or around the forest estate.
4. Protection of valuable ecosystems, biodiversity and watershed function of approximately 400,000 hectares in the watershed area of Kelay and Segah, including orangutan habitat.
5. Capacity building within public institutions and for stakeholders, particularly human resources and funding sustainability.
6. Learning and replication on the implementation of the pilot phase of REDD+ at the district scale, up to national and international levels.

Implementation Stage

Overall, the Berau Forest Carbon Program will be implemented in four phases, which are: scoping phase, development phase, pilot phase and full implementation phase. The Berau Forest Carbon Program will gradually build several factors. Given that the program is a pilot program, it will address issues of limited institutional management capacity, fulfillment of the prerequisites and conditions for the implementation of REDD+ at national level, and current absence of a long term financial incentive scheme.

These gaps also stem from international agreements and policies which are still in a deliberation stages.

The scoping and the program development phases have been carried out since 2008. Below is a brief explanation on the process and achievement of each phase as follows:

Scoping Stage (April–December 2008)

The District Government of Berau, supported by TNC IFP, tried to obtain and secure political and policy endorsement, from the government, at the district, provincial, central levels, particularly from the Ministry of Forestry, for the initiation of a REDD+ pilot program on the district scale.

In April 2008, the Head of Berau District through Decree No. 313 (which was later on modified with Decree 716 year 2009 on 21 of December 2009), established the Berau REDD+ Working Group, whose members were to be comprised of representatives from government, the private sector and private citizens.

The Berau REDD+ Working Group became actively involved to find and study the possibility for the development of a REDD+ pilot program in Berau. Some key findings that were obtained during this scoping phase are: Berau forest cover is still high, but there is a high threat of deforestation and forest degradation; the availability of relevant data and information is not sufficient for taking strategic decisions; and there is still no certainty on the policy of forest carbon at the national and international level.

On the other hand, parties who were involved in the Berau REDD+ Working Group strongly believed that a pilot project at the district level needed to be developed right away.

Development Stage (January 2009–December 2010)

Starting from those findings stated above, the REDD+ Working Group, supported especially by TNC IFP, carried out an in-depth analysis on the conditions and problems, particularly regarding the forestry sector and land use change dynamics in Berau.

These analyses cover studies on the profile of estimated emissions from Berau's forestry and land use change sector, the rate of Berau's deforestation and forest degradation, the drivers of land use change in Berau, as well as the latest condition on the readiness to implement the pilot phase of REDD+ at the district scale in Berau.

To ensure coordination of the development phase at the district, provincial and national levels, and to ensure that the participation and collaboration of all stakeholders goes well, the REDD+ Working Group, which is the forum of key parties -at district, provincial, and national level- pushed the establishment of a Joint Working Group. This Joint Working Group is a forum of all the key parties at the

district, provincial, and national level, to develop a pilot REDD+ program at a district scale in Berau. This forum serves as a place where all the parties can share their ideas. At the same time it offers a space for the central government to present its guidelines in the process of preparing national REDD+ strategies and policies. During the development of this phase, the Joint Working Group forum met three times, in June and October 2009 and lastly in February 2010.

The Berau REDD+ Working Group also improved the program plan and institutional framework of the program. The Strategic Plan Document BFCP 2011–2015 is the result of the process of planning, going through several stages of deliberations and multiparty discussions. The Strategic Plan of BFCP 2011–2015 was set in accordance to the process and results of the REDD+ National Strategic Planning by the National Development Agency.

The three milestones achieved by the development phase are:

1. The Minister of Forestry declared the District of Berau as for a National REDD+ Demonstration Activity (DA-REDD+) in Indonesia with TNC IFP as its main partner. The launching of Berau District as one of the first four DAs in Indonesia on January 6, 2010 represents an important political endorsement for the initiation of the Berau Forest Carbon Program.
2. On the same occasion, the Indonesian Minister of Forestry launched the bilateral cooperation between the Indonesian Government and German Government under the Forest and Climate Program (FORCLIME). This cooperation is also implemented at sub – national level (district), with two districts designated as pilot areas, which are the District of Kapuas Hulu (West Kalimantan) and the District of Malinau (East Kalimantan).

After undergoing a process of feasibility study in February – March 2010, the District of Berau was designated as the third district in the FORCLIME program. The integration of FORCLIME into the Berau Forest Carbon Program represents concrete support in terms of financing and management for the program.

3. Through the Forestry Ministerial Decree Number: SK.649/Menhut-II/2010, on 22 of November 2010, a Natural Production Forest Management Unit (KPHP) was established, as the West Berau FMU, in Berau District, East Kalimantan Province, with an area of 775,539 ha. The establishment and development of the West Berau FMU represents very strategic support, forming an institutional aspect for the Berau Forest Carbon Program.

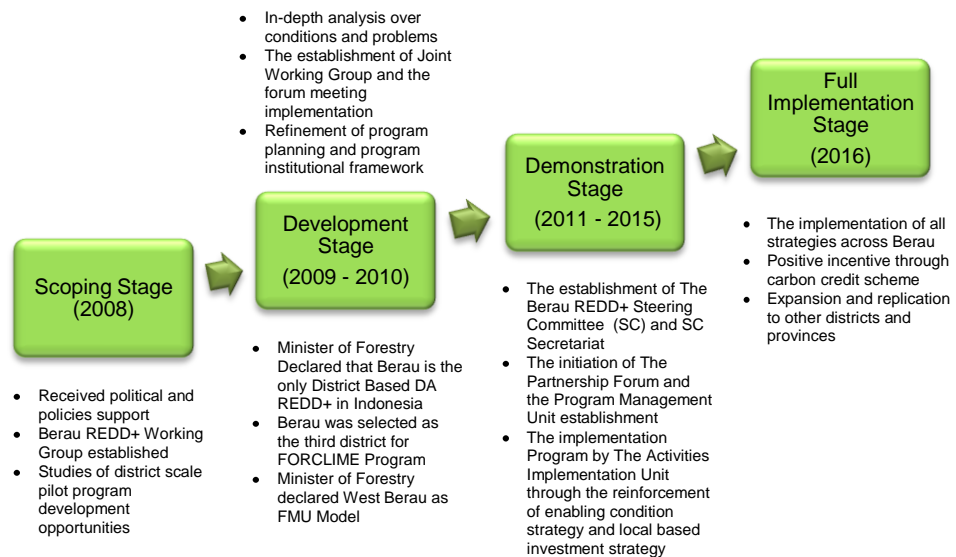


Figure 8. Berau Forest Carbon Program Demonstration Phases

Demonstration Stage (2011-2015)

The following BFCP demonstration phase will be implemented in 2011–2015 as part of the national effort for REDD+ readiness in Indonesia. Full implementation phase where carbon emission reductions occur in accordance to the requirement of UNFCCC-COP will be initiated by 2016.

In the Demonstration phase, the program will invest resources on efforts to reduce emissions on selected sites, promote the development of MRV systems (*Measurable, Reportable and Verifiable*), and at the same time identify and develop appropriate decision making tools for optimizing planning and land use. These tools will consider the development of policies and approaches, and positive incentives at the global level.

Considering these factors and possibilities, the program will be implemented adaptively with the ability to respond to development that will occur. At the end of each phase, it is expected there will be a consensus on the policy approach, positive incentives will already be in place, and the scheme will be able to serve as the foundation for the final phase of the program, which is full implementation of REDD+.

3. Basic Strategy

Considering the complexity of the problems that need to be dealt with and should be addressed by a district scale REDD+ pilot program, the reduction of emissions should target the implementation of an integrated and comprehensive low carbon development strategy from upstream to downstream that is multi-sectoral, multi-aspect. Such approaches shall consider the principles of reducing emission *sources* and at the same time increase carbon stock through sequestration (*sinks*).

The main BFCP interventions shall be done through two program components which will be carried out simultaneously and in an integrated manner, which are: **Enabling Condition Reinforcement Strategy** and **Site Based Investment Strategy**.

The Enabling Condition Reinforcement Strategy shall be implemented in a cross-sector manner, while the Site Based Investment Strategy shall be implemented at the land management unit level (Fig 9).

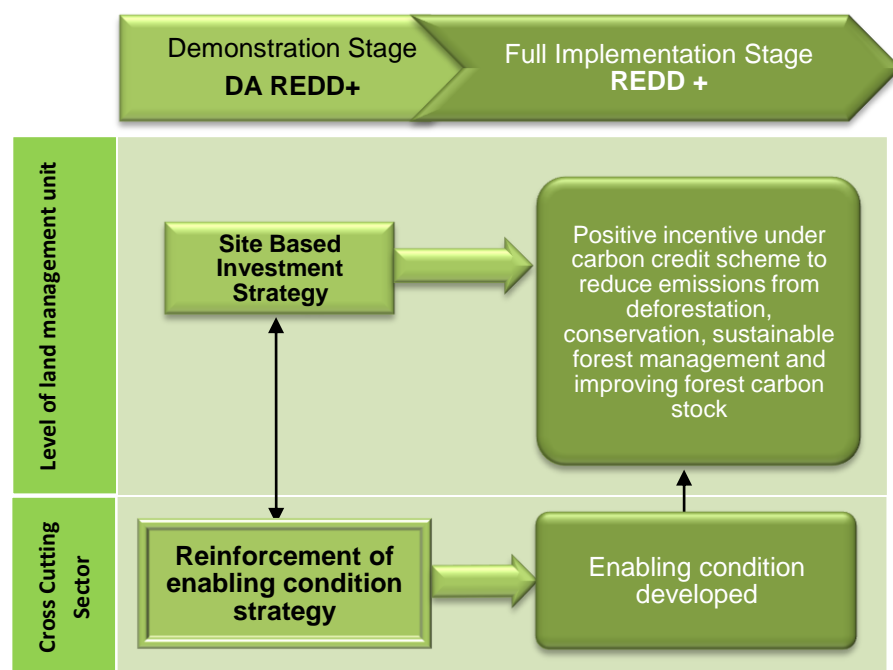


Figure 9. Implementation Strategy of Berau Forest Carbon Program

Basically, REDD+ will be based on two main approaches including policy and positive incentives. The new positive incentives approach shall only be possible as mandatory during the full implementation phase of REDD+.

The main focus of BFCP intervention shall lie on the Enabling Condition Reinforcement Strategy.

The strategy is meant to respond to issues related to the causes and drivers of deforestation and forest degradation as sources of emissions. This cross-sectoral strategy will cover efforts to improve spatial planning and land use, forest management, the involvement of stakeholders, welfare of the community, the development of a sustainable funding mechanism and fair distribution of benefits, as well as the development of a measurable carbon accounting system that can be reported and verified for the reduction of emissions at the national level.

The Site Based Investment Strategy is aimed to develop carbon emission reduction and sequestration models for different types of land in Berau. These models will serve as learning platforms to enhance the full implementation stage. This strategy, which is to be implemented in accordance to the available scale of resources, is aimed at creating footprints for the effort of more substantial emission reductions with further investment.

At the site level, the program will emphasize on the main sector which is forest (Natural production forest, protection forest and supporting sectors (plantation, agriculture and mining)).

The emission reduction program through reduction of deforestation shall be done mainly through intervention in the spatial planning process and optimizing land use outside the forest estate. The emission reduction program that targets reduction of forest degradation will be done mainly on the improvement of management on natural production forest and plantation forest (HTI). While the sequestration and carbon stock enhancement program shall be done through forest conservation and rehabilitation of forest and degraded land.

The basic Strategy of Berau's Forest Carbon Program is aimed at consolidating and improving different efforts and policies on emission reduction originating from deforestation and forest degradation so to have a maximum impact for addressing global warming and assuring sustainable development.

All strategies should be well integrated and mainstreamed according to the development plan and action plan of all parties at all level of the institution.

Reinforcement of Enabling Conditions Strategy

At the district scale BFCP pilot program, the main focus of the intervention program lies on the Enabling Condition Reinforcement Program.

This strategy shall be carried out in a cross-sectoral manner to respond to issues on the causes and drivers of deforestation and forest degradation which constitute the source of emissions.

Reinforcement of Enabling Conditions Strategy will cover:

1. Improvement of spatial planning and land use planning,
2. Improvement of forest management,
3. Involvement of stakeholders,
4. Promote public welfare,
5. Develop sustainable funding mechanism and fair benefit distribution,
6. Participate in designing a measurable carbon accounting system, which can be reported and verified for calculating the reduction of emission at national level.

Details of main activities for each strategy are:

1. Improvement of spatial planning and land use

The process for spatial planning and land use at the village, sub-district and district levels plays a very strategic role in relation to the process for spatial planning and land use at the higher level (provincial, island and national).

BFCP shall encourage the integrated planning process to produce a balanced spatial plan and land use allocation in terms of economic, social and ecology, based on principles of suitability and carrying capacity of the land.

The result of this approach is the formulation of a common agreement from the stakeholders on the improvement of spatial planning and land use that support the low emissions development and prioritizing the use of degraded land for oil palm plantation, plantation forest and other uses.

The main activities endorsing these strategies are:

- Developing a technical assistant unit with the capacity to support the appropriate process of planning in Berau
- Undertaking suitability analyses and research on ecological, economical and social aspects of the district's spatial plan
- Improvement of the district's planning and land use documents
- Preparation and improvement of planning documents at the management unit level
- Capacity building of human resources at the district level down to the village level.

2. Improving of Forest Governance

BFCP will help with capacity building of institutions and communities in Berau, creating and reinforcing the legal framework to endorse a low emission development strategy as well as to promote transparency, accountability and good practices. As part of this strategy, BFCP will endorse the establishment of Forest Management Unit (KPH) in Berau.

The main activities to endorse this strategy are:

- Cooperation with National Forestry Council (DKN) to undertake research and harmonization of regulations with the possibility of setting up an ombudsman.
- Promote transparency, participation, and accountability in the process of legal drafting, policy making and licensing procedures in the forestry sector.
- Promote space for transparency, participation and understanding particularly on community vulnerability to climate change impacts.
- Assuring access to information and accurate data.
- Supporting the establishment and management of a Forest Management Unit (KPH) in Berau.

3. Involvement of multi stakeholders

BFCP will cooperate with the stakeholders of Berau to build understanding and support for low emission development of, including governmental institutions, private institutions and communities.

The stakeholders shall be invited in the planning and implementation of the program. BFCP will abide to the standards developed by The Climate, Community and Biodiversity Alliance for the involvement of stake holders.

The main activities to endorse the strategy are:

- Promote awareness, understanding, support and role of stakeholders on the importance of low carbon development.
- Involvement of stakeholders in the implementation of the program on the site level.
- Implementation of the CCBA (Climate, Community, Biodiversity Alliance) principles in the implementation of the program.
- Implementation of the Free and Prior Informed Consent (FPIC) principles in the implementation of the program, including the commitment to involve women groups
- Database management, information exchange, organization of trainings for stake holders in accordance to their needs.
- Development of a public complaint and conflict resolution mechanism.
- Development of planning and management capacity at village level.
- Preparation of spatial planning programs that is participative and collaborative.

4. Improving public welfare

BFCP will involve the public in designing and implementing the program to make sure the public obtains complete information and completely understands the program. The public will enjoy the benefits from the improvement of management at the village level, promoting the opportunity for income resources from forest monitoring

activities, sustainable forest management, agriculture and agro-forestry and equitable benefit sharing from positive incentive schemes in the future. The benefits will be used to support the improvement of health facilities, education, public infrastructure and services /other services.

This effort will work in approximately 20 villages in the Kelay River and Segah River watersheds and is expected to provide immediate impact for reducing deforestation and forest degradation in these areas. BFCP will encourage cooperation and coordination from all parties and the construction of elements relevant to the efforts to promote social welfare within the targeted area of the program.

The main activities to support the strategy are:

- Facilitate the development and sustainability of land based community forum.
- Undertake socio economic research and survey to identify the need for development assistance and promoting opportunities or capacities of the villages within and surrounding the forest area.
- Develop alternative incomes which reduce the pressures on the environment and support the development of low carbon economy.
- Involvement of the community in the location and sectoral based strategies: (in natural production forest: collaborative forest management, distribution of revenue/profits with concession holders, High Conservation Value Forest (HCVF) joint mapping, setting up of community monitoring; in protection forest: establishment of a community forest monitors, the community as the managers of the protection forest, non-timber forest products utilization; in oil palm plantation: promoting the involvement of community in the plasma land scheme, regulation on revenue sharing, HCVF mapping, more effective monitoring.

5. Developing Sustainable funding mechanism and equitable benefit sharing

BFCP will try to develop a financing scheme in advance, where the majority of funding for the implementation of the five-year pilot phase shall be obtained from donor agencies. BFCP also encourages the acquisition of access to financing through voluntary carbon market mechanisms or performance-based payments to obtain sustainable funding and lastly, BFCP will invest and distribute the funds and benefits obtained to all stakeholders in a fair manner.

The main activities that will support this strategy are:

- Develop a progressive fund-raising scheme and fundraising efforts for the implementation of the pilot phase.
- Develop strategies and mechanisms for engagement with voluntary carbon markets or other programs to facilitate performance-based payments for sustainable funding of the programs. Develop investment and fund distribution scheme so that benefits obtained are distributed to stakeholders in a fair manner during the full implementation phase of REDD +.

6. Participating in the development of a measurable, verifiable, and reportable system, for accounting of emission reductions that is aligned with national level systems

BFCP will support the development of a comprehensive system for evaluating the performance of various aspects, including aspects of carbon accounting, social and environmental safeguards as well as financial mechanisms. REDD + is a performance-based concept so measurement of BFCP carbon emissions activities at the district level will be very important.

The Reference Emissions Level/Reference Level (REL/RL) in the district will be developed based on a thorough analysis of historical data and the main drivers of deforestation in the future.

This program also will apply a solid and trustworthy system of measurement, reporting and verification (MRV) by considering leakage factors and other issues. An accounting framework for estimating carbon emissions and sequestration in Berau shall be part of the national accounting systems, which is still in the development stage. All emission reductions shall be verified independently by third parties using the standards and practices recognized by the international community.

The main activities that will support this strategy are:

- Develop a comprehensive system to monitor and evaluate the performance of various aspects, including carbon, social, environmental and financial indicators.
- Develop a mechanism for measuring emissions reference levels in Berau and comprehensive analysis of historical data and the main drivers of deforestation in the future.
- Provide active support for the development and implementation of solid and trusted measurement, reporting and verification systems. Facilitate the development and sustainability of community-based landscape forums.

Site Based Investment Strategy

The Site-Based Investment Strategy shall aim at developing carbon emission reduction and sequestration for a number of different types of land management in Berau, according to the scale of available resources, with the purpose of creating a footprint for more substantial emission reduction efforts with further investment.

At the site level, the program shall give emphasis on key sectors of the forestry sector (natural production forest and protection forest) and supporting other sectors (plantations, agriculture and mining). Forest carbon emissions reduction programs shall target decreasing deforestation rates and shall be implemented mainly through interventions on spatial planning and land use optimization of forested areas outside natural production forest.

Forest carbon emissions reduction through decreasing the rate of forest degradation will be mainly carried out through improved management of natural production forests.

The program on carbon sequestration shall be carried out through forest conservation, ecosystem restoration and rehabilitation of degraded forests and lands.

Site Based Investment Strategies shall include:

- 1. Improving management of natural production forest on an area of at least 650,000 ha with a potential reduction in emissions by three (3) million tons of CO₂e over the next five years,**
- 2. Improving management of protection forest on an area of at least 100,000 ha and a potential of emissions reduction and carbon sequestration of two (2) million tons of CO₂e over the next five years,**
- 3. Improving land use planning and management of oil palm plantations on an area of at least 20,000 ha with a potential reduction in emissions by seven million tons of CO₂e over the next five years,**
- 4. Improving land use planning and management of mangrove areas.**

Details of main activities per-each strategy are as follow:

-
- 1. Improving natural production forest management in at least 650,000 ha with a potential emission reduction of 3 million tons of CO₂e over the next five years**
-

BFCP will cooperate with the concessions of natural production forest (IUPHHK-HPH) in Berau to promote low emissions timber management practices and provide assistance on legal and technical aspects.

Natural forest concessions will be targeted to comply with government requirements for certification in sustainable forest management (SVLK), while some concessions will hopefully obtain “Well Managed Forest” certification from the Forest Stewardship Council (FSC) under their own initiative.

BFCP also will help with the establishment of a pilot Forest Management Unit (KPH) to improve and define the roles and responsibilities of government, the private sector and communities in forest management.

In addition, if the opportunity and resources are available, forest areas with high conservation value will be promoted for sustainable management, not timber production. The areas will be promoted as units with ecosystem restoration and protection functions.

The development activities of plantation forest will be directed towards establishment on severely degraded forest areas, especially open areas and shrub

lands, as well as planning and protecting areas of high conservation value. In addition, plantation forest managers will be encouraged to develop a more environmentally friendly plantation forest, such as, land clearing without fire, land management practices to reduce the risk of soil erosion and land compacting.

The main activities that will support this strategy are:

- Identify and obtain commitments from natural forest concession permit holders who will be involved in the program.
- Identify and encourage the development of activities to enhance forest carbon stocks in natural production forest.
- Provide technical support for the efforts to acquire SVLK and FSC certification
- Promote policy support from central government for Reduced Impact Logging (RIL) practices in the management of forest.
- Promote and obtain commitment from the natural forest concession permit holders for management changes at the production level to implement RIL practices in the management of natural production forest.
- Develop Learning Action Networks (LAN) and a Forestry Training Centre.
- Assist the attainment of better financing access for permit concessions holders who are committed to improve forest management.
- Review and initiate opportunities for the development of areas for ecosystem restoration or other protection functions.

2. Improving protection forest governance in at least 100,000 hectares and reduce emissions and enhance carbon sequestration with the potential of 2 million tones of CO₂e over the next five years

Berau has a protected forest area of 362,016 ha. Illegal logging is now a major threat to the protected forest areas. BFCP will promote the establishment of integrated forest conservation planning for all areas of the protected forest, aiming at increasing carbon sequestration, conservation of biodiversity, and the provision of environmental services. Conservation efforts in protection forest also include special ecosystems such as karst, which has high social, cultural and environmental conservation values.

BFCP shall promote the improvement of regulations and policies at the district, provincial and national levels for the conservation of protected forests. BFCP will also develop strategies and concrete measures to guarantee the sustainable financing of the conservation efforts of protected forest in Berau.

The main activities that will support this strategy are:

- Collaborate to formulate and develop policy, legal and institutional management frameworks of the protective forest.
- Identify and encourage the development of activities that can enhance carbon sequestration in protection forest.

- To review and analyze protection forest areas, especially those areas with high levels of biodiversity, high carbon stocks and hydrological values, and to identify areas that have substantial threats.
- To map the pattern of intervention, partnership, management responsibilities, incentive structures, legal mechanisms, sources of funding and implementation schedule for the preparation of integrated conservation plans and strategies of the protective forest areas.
- Identify programs that can be implemented to reduce emissions and increase carbon sequestration in protection forest.
- Support the development of management models for protection forest for the Berau KPH Model.
- Support planning and conservation efforts, especially in protected areas of Lesan River watershed and protection forest areas that have the karst ecosystems.
- Develop strategies and concrete measures to guarantee sustainable financing of protective forest conservation.
- To initiate the development of conservation plans and strategies at the district level.
- To initiate the development of conservation management mechanisms, both in protection forests, and its surroundings.

The West Berau Forest Management Unit (FMU) and its Strategic Role in the Context of BFCP

Through the Decree of the Minister of Forestry Number: SK.649/Menhut-II/2010 of November 22, 2010, the West Berau Production Forest Management Unit (KPHP) was established in Berau, East Kalimantan province covering an area of 775 539 ha, with the following details:

- Protection forest area 247 025 ha
- Limited Production Forest area 410 253 ha
- Permanent Production Forest area 118 261 ha

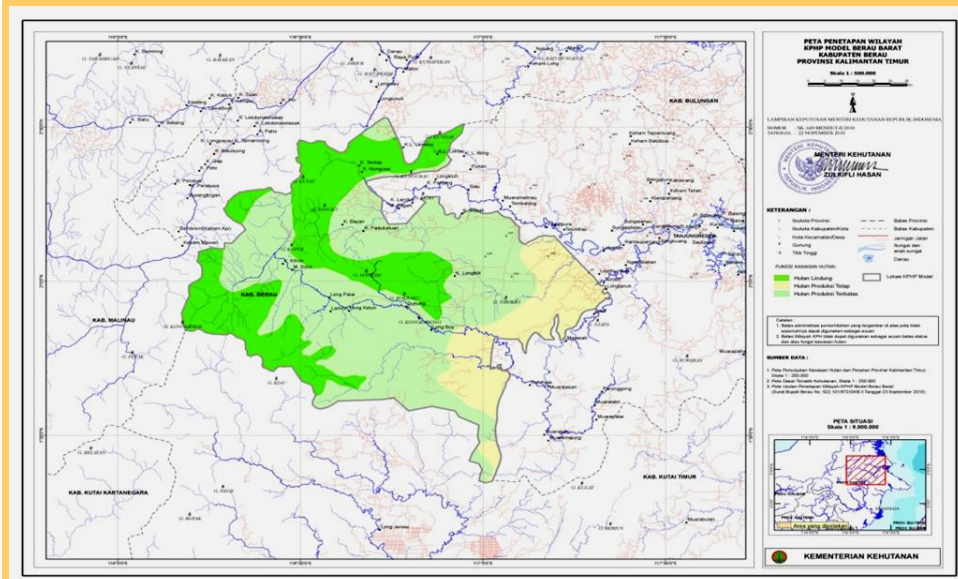


Figure 10. West Berau Forest Management Unit

The organization and working procedures of the FMU shall be developed in accordance with the directives of the Minister of Home Affairs Regulation No. 61 of 2010, which was issued on December 23, 2010. The FMU will carry out these functions:

- a. implementation of forest management in the unit that includes administration and forest management planning, forest utilization, use of forest areas, forest rehabilitation and reclamation, forest protection and nature conservation;
- b. elaboration of forest policy at national, provincial and district level to be implemented in its respective territory;
- c. implementation of monitoring and assessment of forest management activities in the region; and
- d. facilitating investment opportunities in order to support the achievement of forest management objectives in the region.

By mapping the roles and relationships of each party (the holder of a concession license, manager / management, regulators, local community stakeholders, the relation between local and central government) in the forest landscapes and forest production, such formation and development of the KPH is a very strategic institutional breakthrough for BFCP. In this manner the strategic programs of BFCP can be better implemented through and in cooperation with the West Berau FMU model, both in production forests (natural production forest and plantation forest) and the protection forest.

3. Improved land use planning and management of oil palm plantations in at least 20,000 hectares with a potential emission reduction of 7 million ton of CO₂e over the next five years

BFCP will help map out the locations most suitable for the development of oil palm plantations which will then be integrated into land use planning policy. BFCP would encourage as much as possible the formation of an agreement for the relocation of oil palm plantations from forested areas into areas that have been degraded outside the forest estate (APL). This program will be developed to increase efficiency of oil palm production, reduce the negative impacts on biodiversity and environmental services and increase community benefits. BFCP will also encourage government, private sector and communities to promote awareness and support for the development of a sustainable palm oil plantation in Berau.

The main activities that will support this strategy are:

- To review and analyze areas most suitable for the development of oil palm plantations.
- Working with licensees and local governments to assess the possibility of re-classification and transfer the development of plantations to the critical or degraded land areas, especially for those which have not been approved or are not yet in production
- Provide technical support and capacity building for plantation managers in efforts to comply with Roundtable on Sustainable Palm Oil (RSPO) criteria and Indonesian Sustainable Palm Oil (ISPO).
- Develop cooperation between oil palm plantation estate company with various parties to minimize the ecological impact of the production systems.

- Develop a forum or space for discussion on issues related to oil palm plantation at the district level.

4. Improving land use planning and management of the mangrove areas

Most of Berau mangrove areas (more than 65%) are in the forest estate (KBK).

The parties involved in the management of mangrove areas are District agencies of Forestry, Fisheries, DKP and Environment. Until now there has been no effort to integrate management of mangrove areas. Improved management of mangrove areas also can provide a positive impact on efforts to reduce emissions.

BFCP encourages improved management of mangrove areas through reclamation of critically degraded mangrove areas, promoting public awareness on environment, improvement of timber utilization through sustainable coppice systems, creation of buffer belts for mangroves to protect the community's fish farming areas from sea abrasion, and creating alternative income sources for coastal communities.

Improved management of mangrove forests in Berau is expected to provide benefits in relation to both issues, from the potential of carbon itself and from other potentials.

The main activities that will support this strategy are:

- Research on the condition, status and problems faced in mangrove areas.
- Streamlining management responsibilities among relevant agencies.
- Informing the public on existing policies and enhance law enforcement efforts.
- Encourage the integration of an initiative for setting up a Mangrove Information Center (PIM) in the program.
- Perform mangrove rehabilitation efforts in damaged areas and encourage the development of environmentally friendly fish farming.

4. Program Management Structure

The program management structure is designed in a simple way for the pilot phase of the program. The structure will be prepared in stages and operational in the full implementation phase.

The management structure of the program is designed with consideration to national policies relating to REDD+. It is expected to be able to support the implementation of a coordinated and effective low emission development strategy, which is responsive to the various inputs from different groups of stakeholders. It is also expected to be able to ensure transparency and accountability in fund management and in the long term be able to build strong institutional capacity and human resources with sustainable funding for the implementation of REDD + programs in Berau.

The organizational structure of the program management is as follows:

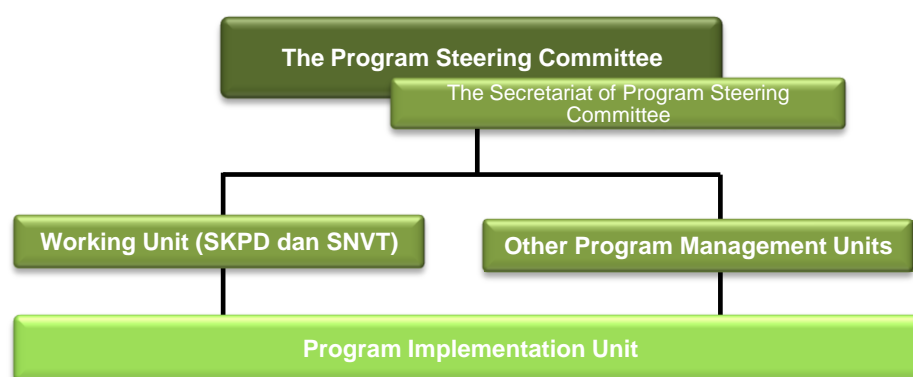


Figure 11. Organizational Structure of the BFCP's Program Management.

Program Steering Committee

The Program Steering Committee (SC) is the highest level of authority within the BFCP management scheme. The Steering Committee will be directly led by head of the Berau district and other officials of the district level working units. The Steering Committee will also be supported by director-level appointees from the National Planning Agency, and each of the Ministries of Foreign Affairs, Forestry, Environment, as well as the Assistant Governor of East Kalimantan.

This composition of the membership is expected to provide coherent space for coordination between the different levels of government in supporting the district scale REDD+ pilot program in Berau. In performing its duties, the Program Steering Committee may set up a Secretariat of the Steering Committee.

The Program Steering Committee has the following task:

1. Encourage the integration of Berau Forest Carbon Program as an integral part of Berau District development plans, as well as at the provincial level of East Kalimantan and at the national level, in efforts to reduce emissions from deforestation and forest degradation as well as to increase forest carbon stocks through sustainable forest management, forest conservation, restoration of ecosystems and forest rehabilitation;
2. To coordinate with relevant stakeholders of the Berau Forest Carbon Program at the district, provincial, national and international level;
3. To coordinate and provide guidance for the establishment of program management units;
4. Developing an instrument of coordination between the program management unit, through periodic coordination meetings;
5. Setting the policy guidelines; strategic planning, guidance, supervision, and evaluation of the implementation of the Berau Forest Carbon Program;
6. Issue approval for program proposal under the umbrella of BFCP through the NOL (No-Objection Letter) from the program management units;
7. Note: The Program Steering Committee is not involved in the management of funds of the Berau Forest Carbon Program.

The Secretariat of the Program Steering Committee has the following tasks:

1. Provide technical and administrative support to the activities of the Program Steering Committee;
2. Assisting the Program Steering Committee in formulating policy and strategic plan and program monitoring;
3. Assisting the Program Steering Committee in coordinating with relevant program stakeholders at district, provincial, national and international level;
4. Assisting the Program Steering Committee in coordinating the program management units, through periodic coordination meetings.

Program Management Unit

The program management units may differ from one to another depending on their source of funding and funding mechanisms. However, in general, there will be three possible financing schemes for the program, including: on-budget & on-treasury, on-budget and off-treasury, or off-budget and off-treasury.

Thus, the program management unit will be divided into work units consisting of SKPD (the district working units), SNVT (Specific Non-Vertical Unit), and Other Program Management Unit.

The unit program manager must apply for NOL (No-Objection Letter) to the Program Steering Committee for each program proposal. For the issuance of NOL, the Program Steering Committee will conduct a review to the proposed program based on the BFCP Strategic Plan.

The Working Units (SKPD or SNVT)

These program manager units shall manage the funds from the state budget/regional state budgets and foreign assistance under the scheme of on-budget & on-treasury. Regional working units (SKPD) at the district level which will be directly involved in the implementation of the program strategies shall include those with the authority in planning, forestry, plantation, mining, community development and spatial planning.

The involvement of local working units is to ensure the integration of BFCP with local government development plans in the short term (annual), medium and long term.

The Specific Non Vertical Unit (SNVT) is a working unit established by the Ministry or State Institution specifically for the implementation of assistance programs and has a separate budget management structure.

Other Program Management Units

Other program management units are set up to manage programs under the off-budget & off-treasury financing mechanism, which mainly function to receive from aid donors.

Since the management characteristics are different for each project, each form of cooperation may develop its own independent program management unit. Development of this type of program management unit needs to be coordinated and to consider the guidelines from the Steering Committee.

In the medium term, BFCP will encourage the establishment of a Forum/Fund Partnership which will be a platform for synergy, coordination and consolidation among the providers of financial support and / or technical assistance or other assistance for the implementation of forest carbon program in Berau.

In the full implementation phase of the program, the instrument for coordination among program management units will be developed and facilitated by the Program Steering Committee through the mechanism of periodic coordination meetings.

Program Implementation Unit

The Program Implementing Unit is a unit that will act as executor of activities, both for strategy at the site level and cross-sector strategy.

Local organizations/stakeholders that may support the BFCP include: Institute for Community Empowerment at village level (LPM), Regional Technical Implementation Unit (UPTD), NGOs, consultant/sub-contractors and land managers who are involved in the implementation of various BFCP strategies.

Land managers include the holders of IUPHHK, manager of Forest licensee, Indigenous Forest manager, KPH and local governments. In the context of the BFCP implementation, land managers can act as initiators and executors in accordance with regulations issued by the Ministry of Forestry related to the implementation of REDD+ in Indonesia.

5. Fund Management Structure

Funding Sources

Sources for BFCP financing this phase may come from the State Budget (APBN), Regional Budget (APBD), private investment (banking and non-banking), corporate social responsibility (CSR) funds, or foreign funding as aid / grants, either in the form of bilateral or multilateral cooperation and assistance from donor agencies / individuals / communities.

The funding for BFCP may not come from public or private debts.

BFCP will also identify the possibility of developing strategies and mechanisms for engagement with voluntary carbon markets or other voluntary offset programs to facilitate performance-based payments for sustainable funding.

The existence of the Forum / Partnership Fund in the medium term is also expected to become a place for synergy, coordination and consolidation among the providers of financial support and technical assistance or other assistance for the implementation of forest carbon program in Berau.

Funding Schemes

The type of funding source will influence the form of the funding scheme to be used. There are three alternative financing schemes (Fig 12):

- a. *On-budget & on-treasury*, in which donors use the government financial regulatory system of Indonesia in the provision of funds;
- b. *On-budget and off-treasury*, where funds are given outside the State Treasurer management scheme (KPPN), but the funding still must be reported to the government budget system; and
- c. *Off-budget and off-treasury*, where the donor does not use the Indonesian government's budget system and does not provide funds through the Treasury Office.

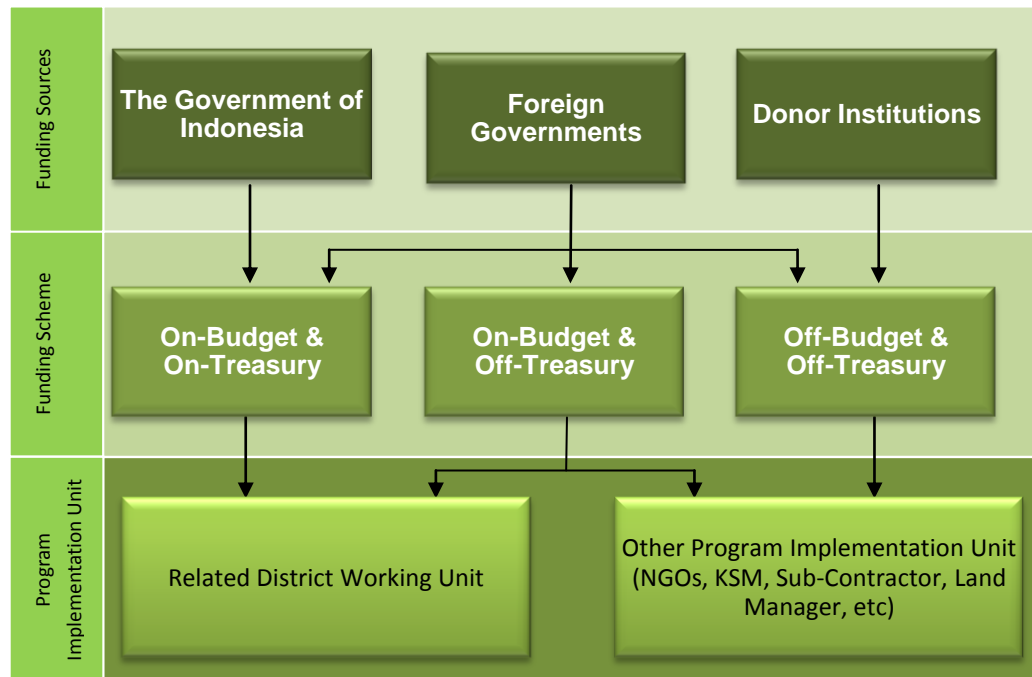


Figure 12. Funding Scheme of Berau Forest Carbon Program

Funding Distribution Options

For funds received under the Indonesian Government budget registering system (on-budget) the disbursement of the funds for the Implementation Unit shall be done in accordance with state financial laws and regulations.

As for funds that are not under the Indonesian Government budget registering system (off-budget) the distribution of the funds for the Implementation Unit can be done through one of the grant options in accordance with prioritization of the program's main strategies as follows:

- Grants for reinforcement of enabling conditions, the funds may be channeled to NGOs, consultants, sub-contractors, etc.;
- Grants for Site-Based Investment Strategies are channeled for communities and land managers in both forest areas and other use areas;
- Grants for Consultation, Coordination and Facilitation.

Each Program Management Unit will develop fund channeling systems that will ensure the principles of transparency and accountability, particularly on the criteria of candidates for receiving the funds, the process of receiving proposals, the selection / review of proposals, the process of monitoring and oversight of program implementation.

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
BFCP Goals 2011 – 2015	The District of Berau as a development model based on low emission sustainable natural resources management.	<ul style="list-style-type: none"> • Planning promotion and improvement, especially in relation to spatial planning, land use planning, and licensing procedures at the district level. • Ten million tones of CO2 emission within the period of five years particularly in the forestry sector and land use change are reduced, and carbon sequestration will be increased. • Welfare of 5,000 people of local communities living within and surrounding the forest area is increased. • The high valued ecosystem, biodiversity and function of the watershed areas on at least 400,000 ha along the Kelay and Segah rivers and the surrounding habitat of some 1,500 Kalimantan's orangutans are protected. • Public institution capacity is improved particularly related to the high standard performances, financial and human resource aspects. • Lessons learned and replication of the pilot implementation of REDD+ at the level district to the national and international are developed. 	Result of the MRV (<i>Measurable, Reportable and Verifiable</i>) – system	<ul style="list-style-type: none"> • Strong political and policy endorsement at the district, provincial, national as well as international level. • Strong commitment, participation and collaboration from all relevant parties and stakeholders, particularly from the local district government. • Sufficient and secured operational support for the program (finance support, human resources, access, data, technology, etc).

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
Strategy Outcome: Reinforcement of Enabling Conditions	Achievement of Enabling Conditions for the implementation of REDD+ in Berau District	<ul style="list-style-type: none"> • Spatial planning and land use planning are improved • Governance in the forestry sector is improved. • Involvement of stakeholders is established • Communities' welfare is improved • Sustainable finance mechanism and fair distribution of benefits are created. • The developments of monitoring systems that are Measurable, Reportable, and Verifiable for the calculation of emission reductions at the national level are available. 	Result of the MRV (Measurable, Reportable and Verifiable) system	<ul style="list-style-type: none"> • Strong political and policy endorsement at the district, provincial, national as well as international levels. • Strong commitment, participation and collaboration from all relevant parties and stakeholders, particularly from the local district government • Sufficient and secured operational support for the program (finances, human resources, access to , data, policies, finance, technology, etc)
Output 1	Improvement of spatial planning and land use	<ul style="list-style-type: none"> • Integrated planning process framework is developed. • Spatial planning based on balanced ecological, economic and social considerations. • The capacity of stakeholder involvement in planning and implementation of plans is developed. • The concept of REDD+ in the regional spatial plan is internalized. 	<ul style="list-style-type: none"> • Result of the MRV system • Integrated planning process framework • Regional spatial planning 	<ul style="list-style-type: none"> • Strong commitment, participation and collaboration from all relevant stakeholders, particularly from forest government agencies and management units related to planning.

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
Main Activities	<ol style="list-style-type: none"> 1. Develop technical assistance programs able to sufficiently support Berau's planning process. 2. Undertake analysis and research on incorporating ecological, economical and social aspects in the district's Spatial Plan. 3. Improvement of the planning document at the district level and allocation of land use areas. 4. Preparation and improvement of the planning document at the management unit level. 5. Capacity building of human resources at the district, sub district, and village levels. 			
Output 2	Improvement of governance in the forestry sector	<ul style="list-style-type: none"> • Capacity building programs for public and community institutions in Berau are established. • Enabling framework of laws and regulations to support low emissions development are created. • Transparency, accountability and good governance practices are improved. • Forest Management Units (FMU) in Berau are established. 	<ul style="list-style-type: none"> • Result of MRV • Legal and regulatory framework to support the low emissions development strategy • The establishment of a Forest Management Unit 	<ul style="list-style-type: none"> • Strong commitment, participation and collaboration from all relevant parties and stakeholders • Support from the provincial and central government on FMU development in Berau
Main Activity	<ol style="list-style-type: none"> 1. Cooperating with National Forestry Council (DKN) to undertake research and synchronization of regulations and to study the possibility of establishing an ombudsman 2. Promoting transparency, participation and accountability in the process of drafting regulations, policy and licensing in the forestry sector. 3. Promoting space for transparency, participation, and understanding, particularly for key stakeholders 4. Strengthening institutions and NGOs. 5. Support the establishment and management of FMU model in Berau 			

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
Output 3	Active involvement of stakeholders takes place	<ul style="list-style-type: none"> The awareness, understanding, and support for low carbon development are facilitated. The involvement of stakeholders in the process of designing and implementing the program is initiated. The participation of stakeholders is according to CCBA standards. A process of Free Prior and Informed Consent (FPIC) is developed and maintained. 	<ul style="list-style-type: none"> Result of the MRV system Concept and guidance for the implementation of CCBA principles Concept and guidance for the implementation of FPIC principles 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all related stakeholders Support from the provincial and central government to accommodate the principles of FPIC in the legal framework
Main Activity	<ol style="list-style-type: none"> Promoting awareness, understanding to support the role of stakeholder involvement in low carbon development. Involvement of stakeholders in the implementation of the program at the site level. The implementation of the CCBA (Climate, Community, and Biodiversity Alliance) principles in the implementation of the program. The implementation of the FPIC principles in the implementation of the program, including the commitment for the involvement of women's groups, through activities such as: preparation of simple manuals about FPIC, facilitating learning and information sharing opportunities to ensure that sufficient information is available for important decision making, and the integration of the FPIC into the analysis process on the impact to environment and social aspects. The management of the database, exchange of information and the organization of training according to the needs of the stakeholders. Developing mechanisms for public complaints and resolution of conflicts between parties. Developing capacity for planning and management at the village level. Preparation of sustainable planning program in a participative and collaborative manner. 			
Output 4	Increasing welfare of the people who reside in and around forest areas	<ul style="list-style-type: none"> Communities' income and alternative livelihoods to reduce pressure on the environment in the short, medium and long term are increased. Number of families who have access to good water for domestic consumption, sanitation system and electricity are increased Number of children completing primary and lower secondary education are increased. Number of maternal deaths and child 	<ul style="list-style-type: none"> Result of the MRV system Result from surveys, research and analysis 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all parties and stakeholders, especially people living in and around forest areas and other land managers

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
		mortality are reduced. <ul style="list-style-type: none"> • Replications of learning mechanisms for the community involvement in the BFCP are documented. • Fair and equitable benefit-sharing arrangements for the village community are established. 		
Main Activity	1. Facilitate the development and sustainability of landscape-based community forums 2. Conduct studies and socio-economic surveys to identify needs for increased development assistance or capacity building opportunities in villages in and around forest areas 3. Develop livelihood options that reduce pressure on the environment and support the development of low-carbon economy. 4. Involvement of the community in the sectoral and location-based strategies: (regarding natural production forests: collaborative forest management, sharing revenue / profit by the concession holder, collaboratively mapping HCVFs, formation of community monitoring programs; regarding protection forests: enabling the community as forest managers, the utilization of non-timber forest products; regarding oil palm plantations: improving the involvement of the community in the plantation land scheme, revenue-sharing arrangements, mapping HCVFs, and more effective monitoring)			
Output 5	Establishment of sustainable funding mechanisms and equitable benefit-sharing	<ul style="list-style-type: none"> • Funding sources scheme for financing the implementation of a five-year pilot phase is developed. • Formulation of voluntary carbon market or performance-based payment mechanisms for obtaining sustainable funding is developed. • Investment schemes to ensure the fair distribution of funds and benefits to all stakeholders are established 	<ul style="list-style-type: none"> • Results of the MRV Systems • Fundraising scheme • Concepts, formulations and mechanisms of sustainable program funding • Investment schemes and the distribution of benefits • Results of fundraising 	<ul style="list-style-type: none"> • Strong commitment, participation and collaboration from all parties and stakeholders • Support from national and international donor agencies for the implementation of the pilot phase of the program
Main Activity	1. Developing fund-raising schemes and progressive fundraising efforts for the implementation of the pilot phase 2. Develop strategies and mechanisms for engagement with voluntary carbon markets or other programs to facilitate performance-based payments			

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
	for sustainable funding of the programs 3. Develop an investment scheme to ensure the distribution of funds and benefits will be received by stakeholders in a fair manner for the full implementation phase of REDD+			
Output 6	The development of monitoring systems that are Measurable, Reportable and Verifiable for the calculation of emission reductions at the national level	<ul style="list-style-type: none"> Comprehensive systems for evaluating the performance of various program aspects, including aspects of carbon, social, environmental and financial are established. Mechanism to measure the level of reference of emissions in Berau and a thorough analysis of historical data and the main drivers of deforestation in the future are established. Active support for the development and implementation of strong and reliable measurement, reporting, and verification systems are established. 	<ul style="list-style-type: none"> Results of the MRV Systems Monitoring and evaluation system Instructions and measurement guidelines 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all parties and stakeholders Progress development National level MRV system
Main Activity	1. Develop comprehensive systems to monitor and evaluate the performance of various program aspects, including forest carbon emissions, social, environmental, and financial. 2. Develop mechanisms for measuring reference levels of forest carbon emissions in Berau, and a thorough analysis of historical data and the main drivers of deforestation in the future. 3. Provide active support for the development and implementation of strong and reliable measuring, reporting, and verification systems			
Strategy Outcome: Site Based Investments	Implementation of emission reduction and increase in carbon sequestration of about 10 million tons of CO₂e over a period of five years, particularly from forestry and land use change through location-based investment	<ul style="list-style-type: none"> The management in natural production forest on an area of at least 650,000 ha is improved, resulting in potential reduction in emissions by 3 million tons of CO₂e over the next five years. The management of protection forest on an area of at least 100,000 ha is improved, resulting in potential reduction in emissions and increase carbon sequestration with the potential of 2 million tons of CO₂e over the next five 	<ul style="list-style-type: none"> Result of the MRV system (Measurable, Reportable and Verifiable) 	<ul style="list-style-type: none"> Strong political support at the district, provincial, national and international levels, that results in relevant policies Strong commitment, participation and collaboration from all parties and stakeholders,

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
		<p>years.</p> <ul style="list-style-type: none"> Land use planning and management of oil palm plantations are improved on an area of at least 20,000 ha, resulting in potential reduction in emissions by 7 million tones of CO₂ over the next five years. Land use planning and management of mangrove areas are improved. 		<p>especially from local district government</p> <ul style="list-style-type: none"> Adequate and assured operational support for the program (support on funding, human resources, access to information, policies, finances, data, technology, etc.)
Output 1	Improved management of natural production forest on an area of at least 650,000 ha with a potential reduction in emissions by 3 million tons of CO₂e over the next five years	<ul style="list-style-type: none"> Government requirements for mandatory concession certification in sustainable forest management (SVLK-PHPL) are achieved, some concessions obtain certification from the Forest Stewardship Council (FSC) under their own initiative are fulfilled. The governance of natural production forest is improved. Concessions that are intended for ecosystem restoration or other protection functions are developed. 	<ul style="list-style-type: none"> Result of MRV System 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all parties and stakeholders
Main Activity	<ol style="list-style-type: none"> Identify and obtain commitments from natural forest concession permit holders who will be involved in the program. Identify and encourage the development of the activities to reduce emissions and increase sequestration in natural production forest. Provide technical support for the acquisition of SVLK and FSC certification. Gain support from central government to enhance policy for the practices of RIL in natural production forest management. Promote and obtain commitment from the natural forest concession permit holders for management changes at the production level to implement RIL practices in the management of natural production forest. Promote a Learning Action Network and a Forestry Training Centre. Help acquire/ access better financing for natural forest concession permit holders that are committed to improving management. Review and initiate opportunities for developing ecosystem restoration or other protection activities. 			
Output 2	Improved forest management of at least 100,000 hectares with the potential to reduce emissions and increase carbon	<ul style="list-style-type: none"> Policies and laws that support effective conservation activities are developed. 	<ul style="list-style-type: none"> Result of MRV system 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
	sequestration of 2 million tones of CO2e over the next five years	<ul style="list-style-type: none"> Integrated conservation plans and strategies, including identifying areas with high conservation value are established. A special conservation plan for karst ecosystems is developed. 		parties and stakeholders
Main Activity	<ol style="list-style-type: none"> Collaborate to formulate and develop legal, institutional and managerial policy frameworks for protection forest. Identify and encourage the development of activities to enhance carbon stocks in protection forest. Review and analyze protection forest areas, especially those with high levels of biological diversity, carbon storage and hydrological values, and identify areas that are under substantial threat. Mapping the pattern of intervention, partnership, management responsibilities, incentive structures, legal mechanisms, sources of funding and implementation schedule for the preparation of plans and strategies of an integrated conservation of protective forest areas. Identify programs that can be done to reduce emissions and increase carbon sequestration in protective forest areas. Support the development of management models for protection forest in the Berau Forest Management Unit (FMU). Support planning and conservation efforts, especially in the protection areas of Lesan River and the protection forest that has karst ecosystems therein. Develop a strategy and concrete measures to guarantee the efforts of sustainable financing of protective forest conservation. Initiate the development of plans and conservation strategies at the district level. Initiate the development of conservation management mechanisms, both in protection forests and outside the protection forest. 			
Output 3	Improved land use planning and management of oil palm plantations on an area of at least 20,000 hectares and with a potential reduction in emissions by 7 million tons of CO2e over the next five years	<ul style="list-style-type: none"> Support is received for low emission oil palm plantations from all stakeholders, particularly government and industry . The most appropriate locations for the development of oil palm plantations is identified on degraded lands. Areas with high conservation value are protected in accordance with the criteria HCVF ISPO and RSPO. The capacity of land managers in identifying and managing areas of high conservation value oil palm plantations is improved. Forums or discussion rooms on oil palm - related issues at district level are actively conducted. 	<ul style="list-style-type: none"> Result of the MRV system 	<ul style="list-style-type: none"> Strong commitment, participation and collaboration from all relevant parties

	Logical Intervention	Objectively Verifiable Indicators of Achievements (OVIs)	Verification Sources	Assumptions and Risks
Main Activity	<ol style="list-style-type: none"> 1. To review and analyze potential land use most suitable for the development of oil palm plantation. 2. Working with licensees and local governments to assess the possibility of re-classification and transfer of plantation development to a critical or degraded land, especially for areas where plantation licenses have not yet been approved or are not yet in production. 3. Provide technical support and capacity building for oil palm plantation managers in efforts to comply with the RSPO criteria and ISPO. 4. Develop cooperation between oil palm plantation companies with various parties to minimize the ecological impact of production systems. 5. Develop forum or space for discussing oil palm-related issues at the district level. 			
Output 4	Improved land use planning and management of mangrove areas	<ul style="list-style-type: none"> • Baseline data and information on mangrove areas in Berau are established. • Integrated management of mangrove areas among different related agencies is established. • The initiative of setting up Mangrove Information Center (PIM) in the program is integrated. • The concept and implementation of an Integrated Coastal Zone Management, through facilitating the interests and activities of all parties at the planning level, by maintaining the balance the community's economic, environmental and socio-cultural aspects is developed. 	<ul style="list-style-type: none"> • Result MRV system 	<ul style="list-style-type: none"> • Strong commitment, participation and collaboration of all related stakeholders
Main Activity	<ol style="list-style-type: none"> 1. Conducting research on the condition, status and threats faced in mangrove areas. 2. Building a media for management integration between relevant agencies. 3. Disseminate information on existing policies and enhance law enforcement efforts. 4. Encourage the integration of an initiative for setting up a Mangrove Information Center (PIM) in the program. 5. Mangrove rehabilitation efforts in areas that have been damaged and encourage the development of environmentally friendly fish farmings. 			