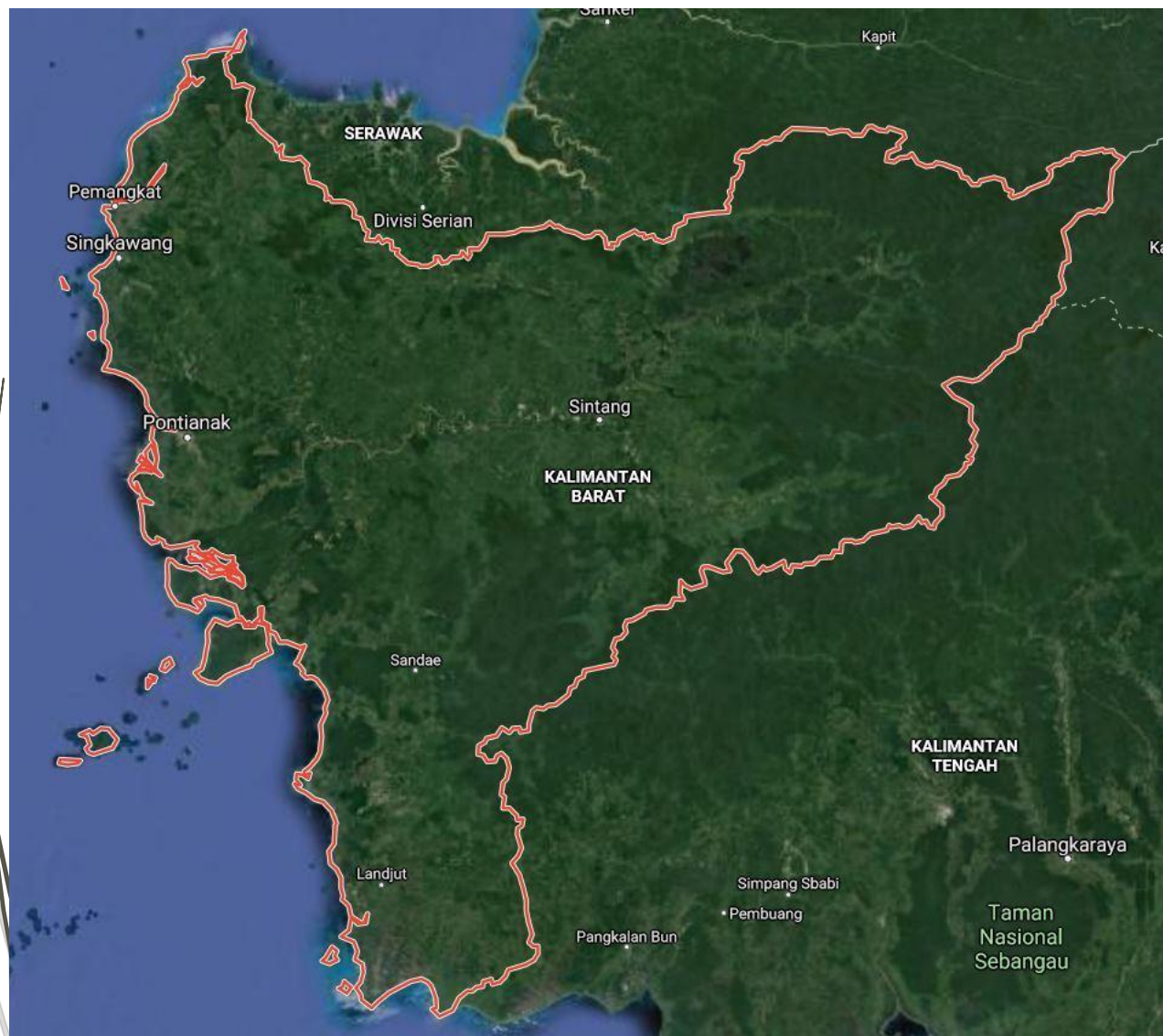




Developing the MRV REDD+ System in West Kalimantan Province

Final Report

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The collaboration with The Climate Group and the Government of West Kalimantan falls under the workstream, transparency, and disclosure to advance the development of REDD+ MRV web-based system to support the climate change action as well promoting the REDD+ implementation accountability.

Developing the MRV REDD+ System in West Kalimantan Province

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Executive Summary

To measure the Greenhouse Gases (GHG) emissions reduction by the Government of West Kalimantan (GoWK), the Monitoring, Reporting, and Verification (MRV) of Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+) is needed. The implemented MRV REDD+ which carried on a certain period should report to the Ministry of Environment and Forestry (MoEF) as progress of emissions reduction achievement of GoWK to the Nationally Determined Contribution (NDC).

To present, the MRV REDD+ activity carried by manual implementation including its reporting scheme. To improve the transparency and accountability of MRV REDD+, an appropriate MRV REDD+ system to measure the emissions reduction performance is needed. At the national, the MoEF had developed the National Registry System (SRN) to identify and register the program or activity related to climate change. However, the SRN system only registers the program or activity, not including the measurement of REDD+ (read: MRV REDD+).

Thus, the GoWK through the REDD+ Working Group (REDD+ WG) in collaboration with Bentang Kalimantan, a local Non-governmental Organization, has developed the web-based MRV REDD+ system with the Under2 Coalition Future Fund support. Through this system, the GoWK expected transparency and accountability are improved to ease the data and information collection of the REDD+ program or activity at the field level.

The web-based MRV REDD+ system development was done in several steps, such as review of existing database website of REDD+, further improvement of existed website, identify the integration process to SRN of MoEF and One Data website of GoWK as well dissemination and training of web-based MRV REDD+ system. Moreover, the Standard Operational and Procedure (SOP) and Manual Book of the website had developed for users as well as the Governor Decree for its legal status. This activity generates the operationalized web-based MRV REDD+ system through reddplus.kalbarprov.go.id.

The challenges in implementing this program/activity are transforming the calculation of GHG emissions to the website script and synergizing the types of data to the SRN and One Data website. The time constraint for further integration is another challenge for the team to accomplish the integration process with continued communication to the relevant officer at MoEF and GoWK.

In the future, to ensure the operationalization of the web-based MRV REDD+ system, dissemination and training for REDD+ actors or implementors are needed for program and activity reports. The integration process to SRN of MoEF and One Data of GoWK will be continued to full integration of the web-based MRV REDD+ system.

Abbreviations

Bappeda	:	<i>Badan Perencanaan Pembangunan Daerah</i> Provincial Development Planning Agency
Dirjen PPI	:	<i>Direktur Jenderal Pengendalian Perubahan Iklim</i> General Director of Climate Change
Diskominfo	:	<i>Dinas Komunikasi dan Informatika</i> Informatics and Communication Office
GHG	:	Greenhouse Gases
GoWK	:	Government of West Kalimantan
MoEF	:	Ministry of Environment and Forestry
MRV	:	Monitoring, Reporting, and Verification
NDC	:	Nationally Determined Contribution
REDD+	:	Reducing Emission From Deforestation and Forest Degradation Plus
REDD+ WG	:	<i>Kelompok Kerja Reducing Emission From Deforestation and Forest Degradation Plus</i> Reducing Emission From Deforestation and Forest Degradation Plus Working Group
SOP	:	Standard Operational and Procedure

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I. Introduction

The Government of West Kalimantan (GoWK) in 2013 has pledged to 60% of reducing emissions from deforestation and forest degradation by 2030 to support National targets. In the following year, GoWK has been prepared regulatory and institutional frameworks to support the REDD+ implementation, such as the Provincial Strategy and Action Plan on REDD+ (SRAP REDD+), the REDD+ Working Group (POKJA REDD+), Forest Reference Emissions Level (FREL), a dummy MRV System, Safeguards Information System (SIS), and Prepare the Finance Infrastructure (through National Government). POKJA REDD+ is currently preparing the detailed REDD+ implementation action under Emission Reduction Intervention Strategy (ERIS) as the supplementary of SRAP REDD+.

GoWK, through POKJA REDD+, has been developing an MRV System for REDD+ in the province (manual and web-based) as a verification tool to ensure emissions reduction performance. Through this system, all related stakeholders are expected to monitor, participate, and support the GoWK to achieve its emissions reduction target.

The monitoring and reporting of the GHG emissions reduction from the forest and land-based activity have been stipulated by the Government of Indonesia through Minister of Environment and Forestry Decree (PermenLHK) Number: P.72/Menlhk/Setjen/Kum.1/12/ 2017 on Guideline of Measurement, Reporting and Verification of Action and Resources of Climate Change.

To date, the MRV REDD+ activity is carried by manual and reported by the REDD+ actor/implementor to Provincial Government and National Government. This procedure, at present, generates issues in reporting procedure, difficulties for the GoWK in the activities' recapitulation process as well lack of capacity for coordination, monitoring, and evaluation of the REDD+ activity. Thus, the web-based MRV REDD+ system is developed to address those current issues.

The web-based MRV REDD+ system development carries out to:

- To ease the implementation of PermenLHK Number: P.72/Menlhk/Setjen/Kum.1/12/ 2017 on Guideline of Measurement, Reporting, and Verification of Action and Resources of Climate Change.
- To coordinate and integrate the program and activity on GHG emissions reduction by the REDD+ actor/implementor at the field level.
- To facilitate the monitoring and reporting process on GHG emissions reduction from the field level in contributing to the provincial and national target.
- To reduce the widespread of the COVID-19 pandemic in West Kalimantan Province.

In the Indonesia REDD+ Framework, the MRV REDD+ is one of the supporting components needed for the implementation of REDD+. The web-based MRV REDD+ system is developed by referring to PermenLHK Number: P.72/Menlhk/Setjen/Kum.1/12/2017 which ensures the data and information provided and reported following the national standard of MoEF. This web-based system was developed to facilitate the REDD+ actor/implementor to regularly

update their REDD+ activity efficiently and in real-time. This web-based system directly supports the climate change action at the province level as well as improving the transparency and accountability to the public regarding the GHG emissions reduction performance at the regional, national and international. It is expected that the web-based system will enhance the contribution of GoWK in achieving the NDC.

II. Objective

The goal of this project is to strengthen the West Kalimantan Province in achieving its REDD+ commitment by 2030 through advancing the REDD+ MRV system.

III. Scope

The scope of the project are:

1. Developing Web-based MRV REDD+ System
2. Developing Manual of the Web-based MRV REDD+ System
3. Developing Governors Decree on REDD+ MRV System Manual Implementation

IV. Methodology

The methodology used in developing the web-based MRV REDD+ system is as follow:

1. Policy and regulation analysis on measurement, reporting, and verification of REDD+,
2. Focused Group Discussion among REDD+ WG and website developer
3. Coordination meeting with relevant MoEF Officer, Directorate of GHG Inventory and MRV (Dir.IGRK&MPV), Provincial Development Planning Agency (Bappeda) and Informatics and Communication Office (Diskominfo) for the web-based system integration process,
4. Public dissemination on the web-based system for supporting the REDD+ implementation

V. Result of the project

1. Web-based MRV REDD+ System developed

The development process of the web-based MRV REDD+ system has through several steps as follow:

- Review the existing web-based platform and analysis of further improvement,
- Developing the web-based platform based on necessity and analysis (conduct through website developer consultant, PT Sky Agro),
- Consultation and coordination for web-based system integration to SRN of MoEF and One Data system of GoWK,
- Request the government sub-domain for the web-based MRV REDD+ system to Informatics and Communication Office (reddplus.kalbarprov.go.id),
- Conduct training on web-based system operationalization for the website administrators and
- Public dissemination on the web-based MRV REDD+ system through online and offline to related REDD+ stakeholders at West Kalimantan.

a. The consultation process to SRN of MoEF and One Data of GoWK

This activity was conducted by involving the Dit.IGRK&MPV for the integration to SRN, Bappeda, and Diskominfo for the integration to One Data system. The initial integration process has done by granting access to MoEF through an administrator account on the website. In the process, the MoEF will monitor and evaluate the website process developed by the GoWK and provide technical support for the integration phases to SRN. The MoEF has granted Dinas Lingkungan Hidup dan Kehutanan (DLHK) to provide link of the SRN website (srn.menlhk.go.id) to the MRV REDD+ system (reddplus.kalbarprov.go.id).

For the integration process to One Data system, the Bappeda as the right holder and Diskominfo as the sub-domain operator have granted access for DLHK for linking the (data.kalbarprov.go.id) to the MRV REDD+ system (reddplus.kalbarprov.go.id). for further process, some challenges in the integration of the website are;

- a. The difference of the used website system needs 3 months (or more) time for the integration process. Thus, the work plan and resources allocation is needed by the GoWK.
- b. The integration process needs continued technical meetings and discussions between website developers.

b. Flowchart of the web-based MRV REDD+ system

The flowchart of the web-based MRV REDD+ system development is as follow:



c. The technical specification of the web-based MRV REDD+ system

The technical specification of the system is as follow:

- Sub-domain used belongs to the Government of West Kalimantan (reddplus.kalbarprov.go.id),
- 25 Gigabyte Virtual Private Server capacity,
- 500 users of maximum capacity (in real-time) and
- Effective operationalization for 24 months (started on October 1, 2021)

Detail of specification of the web-based, please see **Annex 1**

d. Type of user

● **Website Administrator**

There are five (5) types of Administrators who granted to sign in or log in to the website system, they are:

i. Super Administrator/WebMaster

Super administrator or webmaster has functions to monitor the flow of data processing in the website as well customize the website, the detail as follow:

- Customize the website interface,
- Input data of map and statistics and
- Add or register new users and data verification.

ii. Validator Administrator

Validator Administrator has functions to validate the data input by users. The detail as follow:

- Verify the data input by users,
- Data approval process and
- Data input for map and statistics.

iii. User Administrator

User Administrator has a function to input data of map and statistics.

iv. News Administrator

News Administrator has a function to customize the website homepage and other pages. The news administrator has to input data for publication (news, articles, as well documentation regarding the REDD+ activity) in the website.

v. MoEF Administrator

MoEF Administrator has a function to access the data and map input by users for review.

e. Improving the content of MRV REDD+ System

This activity was conducted to enrich the material, documentation, publication of the web-based MRV REDD+ system.

The results from these activities are as follow:

- Three (3) audiovisual documentation regarding the introduction of the REDD+ WG of West Kalimantan, Rainforest of West Kalimantan, the web-based MRV REDD+ system development process.
- Forty-one (41) articles and news. Title of articles and news (attached on **Annex 4**)

- In disseminating the REDD+ WG activity, the youtube channel was also utilized as publication media to the public. The link is as follow (<https://www.youtube.com/channel/UCuK-BXoDxK2kgnCBLTc-ooW>)

2. **Standard Operational and Procedures (SOP) and website manual guideline developed as guidelines for REDD+ WG and key REDD+ implementers at field level**
For the appropriate operationalization of the web-based MRV REDD+ system, the development of the SOPs and manual of website operational is conducted. The consultant was hired in developing the SOPs and manual of website operationalization. In this SOP and manual website operationalization, the intensive discussion was facilitated by the consultant and website developer.

The SOP and manual of website operationalization consist of;

- Type of users and administrator
- The website operationalization procedures
- The website operationalization time-frame

Detail of SOP and Manual of Website see **Annex 2**

3. **The final draft of Governor's decree on Guideline of MRV REDD+ system operationalization of West Kalimantan Province**

To ensure the web-based MRV REDD+ system fully operationalize, as well as its SOP and manual guideline, the Governor's decree on Guideline of MRV REDD+ system operationalization was formulated. This Governor's decree was formulated by considering the existing regulation as follow:

- Minister of Environment and Forestry Decree (PermenLHK) Number: P.70/Menlhk/Setjen/Kum.1/12/2017 on Procedures of REDD+ implementation in Indonesia,
- Minister of Environment and Forestry Decree (PermenLHK) Number: P.72/Menlhk/Setjen/Kum.1/12/2017 on Guideline Monitoring, Reporting and Verification Implementation Action and Resources of Climate Change,
- Governor's Regulation Number: 125 Year 2020 on Regional Action Plan of GHG emissions,
- Governor's Decree Number: 1215/DLHK/2020 on emissions reduction target of West Kalimantan Province.

During the process of formulating the draft of the Governor's decree, the Law Bureau of the GoWK was involved from the initial drafting process to ensure the legal aspect of the decree comply with the existing regulation. It is expected that the final draft of the Governor's Decree on Guideline of MRV REDD+ system operationalization signed and legalized on October 2021. Detail of Governor's Decree see **Annex 3**

VI. Improved Capacity and Awareness of Key Stakeholders on MRV REDD+

This project has contributed to improving the knowledge and understanding of key stakeholders on climate change, MRV REDD+ scheme, as well emissions reduction targets from the forest and land-based activity. The detail as follow:

- Thirty-seven (37) staff of Provincial Government
- Fourteen (14) staff of the private sector from oil palm and forest plantation
- Twenty-five (25) staff of Non-governmental organizations
- Six (6) staff of International organizations
- Three (3) staff of Universities

VII. Deviation and challenges

During the project implementation period (March to October 2021), there is no principal change in the project activity and results. The project's output and indicators are in line with the project work plan and target.

The main challenge of the project is interpreting Minister Decree No. P.72/2017 on MRV of the mitigation of climate change to appropriate report as required for the MRV REDD+ implementation. During the process, several misinterpretations happened. By further analysis, this could solve and generate an appropriate format of report for the REDD+ implementors at field or site level for the MRV REDD+ implementation in West Kalimantan Province.

VIII. Conclusion and Next Plan

The web-based MRV REDD+ system is important and useful in supporting the GHG emissions reduction performance evaluation at sub-national in West Kalimantan Province. To present, there are limited provinces in Indonesia that adopt the web-based MRV REDD+ system and West Kalimantan become the pioneer in this implementation. The MoEF through the DG of Climate Change supports this web-based MRV REDD+ system development and is expected this system will be fully operational in near future.

Future plans for the web-based MRV REDD+ system operationalization are:

- raising awareness of public, training, or continues technical assistances to REDD+ implementers in West Kalimantan Province,
- The advanced integration process of the web-based MRV REDD+ system to the existing SRN of MoEF as well as One Data of GoWK will continue to enhance the transparency, accountability, effectiveness, and efficiency of the Monitoring, Reporting, and Verification of the REDD+ activity in West Kalimantan Province.

IX. Bibliography and References

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- Peraturan Menteri Lingkungan Hidup Dan Kehutanan Republik Indonesia Nomor P.72/Menlhk/Setjen/Kum.1/12/2017 Tentang Pedoman Pelaksanaan Pengukuran, Pelaporan Dan Verifikasi Aksi Dan Sumberdaya Pengendalian Perubahan Iklim;
- Peraturan Gubernur Nomor 125 Tahun 2020 tentang Rencana Aksi Daerah Gas Rumah Kaca;
- Surat Keputusan Gubernur Nomor 1215/DLHK/2020 tentang Target Penurunan Emisi Kalimantan Barat;
- SRAP REDD+ Kalimantan Barat, 2018, ISBN No 978-602-61304-2-6;
- FREL Kalimantan Barat, 2016, ISBN No 978-6027-4511-6-2;

X. Annexes

- Annex 1. Website interface, content, and pages
- Annex 2. Manual of Website Operational
- Annex 3. Final Draft of Governor's Decree (include the Standard Operationalization and Procedures)
- Annex 4. List of Articles and Videos
- Annex 5. Documentation of project implementation