

**SUMMARY REPORT OF INDEPENDENT REVIEW SERVICES ON
FORESTRY MONITORING DATA
AND
FORESTRY MONITORING APP DASHBOARD WEB PORTAL
FOR THE PERIOD 1 JANUARY 2021 - 31 DECEMBER 2021**

This report summary is final and has been prepared by EY for PT Indah Kiat Pulp Paper Tbk (Asia Pulp & Paper 'APP'), and will be published electronically on APP's Forest Monitoring Dashboard (<https://sustainability-dashboard.com/forest-monitoring>) for informational purposes only. We have not consented to distribution or disclosure of the Report beyond this.

We have acted in accordance with the instructions of the Client in conducting its work and preparing the Report, and in doing so, has prepared the Report based on the agreed criteria with the Client, for the benefit of the Client, and has considered only the interests of the Client. We have not been engaged to act, and has not acted, as advisor to any other party.

Any attempt for reliance by any other party should be requested formally to Client and us. We disclaim all liability in relation to misinterpretation of the content of the report. No duty of care is owed by us to any Recipient in respect of any use that the Recipient may make of the Report.

Our Independent Review Services cover processes for the period from 01 January 2021 through 31 December 2021. Except as noted below, we have performed the review following the criteria which was agreed by us and Asia Pulp & Paper. We make no representation regarding the sufficiency of the review either for the purpose for which this report has been requested or for any other purpose.

Our review was performed during the period 14 October 2022 through 28 December 2022, at the Asia Pulp & Paper corporate office in Central Jakarta. Additional verifications were performed at our office in South Jakarta during the same period, 14 October 2022, through 28 December 2022. The findings were presented to APP's management.

Review Summary

1. Introduction

We were engaged by Asia Pulp & Paper to independently verify that the forest monitoring data on APP's Forest Monitoring Dashboard faithfully represents the MDA RADARSAT2 monitoring data (alert vectors) received which covered the protected areas within APP's pulpwood suppliers' concessions. The purpose of the review is to allow APP to independently demonstrate, to its stakeholders, that the information on its Forest Monitoring Dashboard is an accurate representation of the data received from MDA. The review objectives were:

- 1) verifying '**data authenticity**': the data presented on APP's Forest Monitoring Dashboard matches the 'certified' dataset from MDA;
- 2) verifying '**data provenance**': the monitoring data, 'alert vectors', displayed on APP's Forest Monitoring Dashboard faithfully represents the dataset provided by MDA;
- 3) verifying that the data presented on the Forest Monitoring Dashboard is 'up to date';
- 4) verifying that all data provided by MDA has been assessed by APP and relevant 'alerts' are presented on its Forest Monitoring Dashboard;
- 5) verifying that the statistics and analysis presented on the Forest Monitoring Dashboard are based on the monitoring data provided by MDA;
- 6) reviewing APP's processes for receiving, analyzing, prioritizing, and disseminating 'alerts' received from MDA; and
- 7) recommending improvements to APP's processes, where relevant.

We performed the review based on criteria agreed by us and Asia Pulp & Paper.

The scope of the review comprised the alert vectors for the protected areas within APP's pulpwood suppliers' concessions and the means and methods used by APP to processes and present the alert vectors on its Forest Monitoring Dashboard. Alert vectors received for areas outside these concessions were excluded. To support the review, MDA provided a certified dataset of all alert vectors delivered in 2021 along with an MD5 Checksum file to establish data authenticity.

The review covered alert vectors sent by MDA for the period 01 January 2021 through 31 December 2021, the processing of alert vectors, and the data presented on APP's Forest Monitoring Dashboard. The verification comprises: data authenticity; data capture; data processing (pre-verification); data processing (post-verification); and data visualization.

We ran SQL commands on the alert vectors in APP's DMZ SQL server to detect any anomalies in the various image timestamps and no anomalies were observed. We also ran Windows scripts on the MDA certified dataset to identify whether there are discrepancies between alert data in DMZ SQL Server and APP's Internal SQL Server and no discrepancies were identified.

Furthermore, we noted that APP has ad-hoc procedures for managing, evaluating, segregating, verifying, processing, and displaying alert vectors on its Forest Monitoring Dashboard.

During the review, we identified deficiencies in some processes which support APP's Forest Monitoring Program, as summarized below.

2. Findings

2.1 Password Policy and Server Access

During the review, APP could not provide a documented password policy and account lockout policy. We observed that password and account lockout configuration have not been defined for DMZ SQL Server which could increase the risk of direct data changes made without authorization. Therefore, we recommend that APP develop a password policy and configure the password and account lockout for DMZ SQL Server according to the best industry practice.

We also observed that there is excessive user access to folder storing python script, privileged IT functions of the DMZ SQL Server hosting OS, and table (CONCESSION) from DMZ SQL Server hosting OS. Moreover, access to Internal SQL Servers hosting OS and significant tables (ALL_REG_SOS DISSOLVE_KONFLIK, PP_TAMBANG, and ALL_REG_RESTORASI) from Internal SQL Server is not restricted only to Conservation Team due to the servers are shared with other system which could increase the risk of direct data changes made without authorization. Therefore, we recommend that APP segregate the servers for conservation purposes only and restrict privilege access only to Conservation team. We also recommend APP to perform periodic monitoring activities over access to privileged IT functions to ensure that the access is only granted to the appropriate personnel.

However, we did not observe any evidence of direct data changes during the review since we have performed procedures to compare the MDA alert data in DMZ server, APP Internal SQL Server, and APP FMIS Dashboard and noted there were consistent time stamps and number of alerts between the data in the servers.

2.2 Records Management

During the review, we observed that supporting documentation for 2021 alert data field verification activities were stored at the individual concessions and were not stored and organized in a centralized manner by the Head Office (HO) Conservation Team. Furthermore, screenshots taken during desktop verification by APP HO staff were stored in personal folders and were not indexed or organized in a manner which supports the review process. Therefore, we noted that there could be a risk of documents required to support the deforestation issuance might not be available in a timely manner.

We recommend APP to establish a system to store all field verification reports, photos, and other supporting data as well as desktop verification evidence done by HO staff to ensure records are indexed, filed, retained, and readily retrievable to support the review process. However, we noted that APP is currently developing a policy and procedures to ensure that alert vector verification is documented appropriately and is auditable.

3.0 Conclusion

This is a public summary of the detailed report provided to Asia Pulp & Paper based on the results of our work as described in the Report of Independent Review Services on Forestry Monitoring Data and Forestry Monitoring Dashboard Web Portal for the period 01 January 2021 - 31 December 2021. Except for the findings mentioned above, we did not identify other significant matters regarding APP's presentation of Forest Monitoring Dashboard which is based on the processing of the relevant MDA alert data.

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