SUMMARY REPORT OF INDEPENDENT REVIEW SERVICES ON
FORESTRY MONITORING DATA
AND
FORESTRY MONITORING APP DASHBOARD WEB PORTAL
FOR THE PERIOD 1 JANUARY 2020 - 31 DECEMBER 2020

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. EY has not consented to distribution or disclosure of the Report beyond this.

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Our Independent Review Services cover processes for the period from 01 January 2020 through 31 December 2020. Except as noted below, we have performed the review following the criteria which was agreed by EY 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 02 June 2021 through 06 August 2021, at the Asia Pulp & Paper corporate office in Central Jakarta. Additional verifications were performed at the EY office in South Jakarta during the same period, 02 June 2021, through 06 August 2021. The findings were presented to APP’s management.
Review Summary

1. Introduction

EY was 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) that it receives covering 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) verify ‘data authenticity’: the data presented on APP’s Forest Monitoring Dashboard matches the ‘certified’ dataset from MDA;

2) verify ‘data provenance’: the monitoring data, ‘alert vectors’, displayed on APP’s Forest Monitoring Dashboard faithfully represents the dataset provided by MDA;

3) verify that the data presented on the Forest Monitoring Dashboard is ‘up to date’;

4) verify that all data provided by MDA has been assessed by APP and relevant ‘alerts’ are presented on its Forest Monitoring Dashboard;

5) verify that the statistics and analysis presented on the Forest Monitoring Dashboard are based on the monitoring data provided by MDA;

6) review APP’s processes for receiving, analysing, prioritising, and disseminating ‘alerts’ received from MDA;

7) recommend improvements to APP’s processes, where relevant.

EY performed the review based on criteria agreed by EY 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 2020 along with an MD5 Checksum file to establish data authenticity.

The review covered alert vectors sent by MDA for the period 01 January 2020 through 31 December 2020, 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 visualisation.

EY ran SQL commands on the alert vectors in APP’s DMZ SQL server to detect any anomalies in the various image timestamps; no anomalies were observed. EY also ran Windows scripts on the MDA certified dataset for comparison. No discrepancies were identified. Furthermore, EY 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, EY did identify deficiencies in some processes that support APP’s Forest Monitoring Programme, as summarised below.
2. Findings

2.1 Total Forest Alert Vectors

EY verified that the total alert vector count and total alert vector area from the DMZ SQL Server tables are equal to the total count and total area from the recompiled 2020 certified data provided by MDA. However, the review identified an initial discrepancy in the number of alerts received from MDA (10,242) during the 2020 period and the number of alerts processed by APP (9,258). Therefore, a discrepancy of 994 alerts existed. Following enquiries with APP, EY verified that APP renewed its contract with MDA, 01 October 2020, and included revised areas of interest (AOI) that APP would be monitoring. Furthermore, in late 2020, the Indonesian Government changed boundaries for some suppliers’ concessions that were part of the new AOs.

APP has provided evidence to EY to account for ‘unprocessed’ alert vectors. The unprocessed alerts were for two reasons: 1) alerts previously within APP’s AOs that are now (01 October 2020) outside the new APP AOs; and 2) alerts in areas where the Indonesian Government has revised the concessions’ spatial plan (boundaries).

This accounts for the 984 alerts identified by EY and verified against the certified dataset provided by MDA. The following provides a detailed explanation for the discrepancy in the number of alert vectors processed:

1. **376** alerts were in national parks previously being monitored by APP and the concessions of potential pulpwood suppliers; however, these AOs have been removed from the new AOs as of 01 October 2020. APP still collects forest alerts on AOs outside its suppliers’ concessions as support for 3rd party collaborations; however, these areas are not part of APP’s Forest Monitoring Programme.

2. **608** alerts are in areas where the Indonesian Government has either, modified concession boundaries or re-zoned specific areas within concessions and designated them as ‘protected’. The following clarifies the disposition of these alerts:

   a) **293** alerts are on ‘peat domes’; areas recently re-zoned by the Indonesian Government as ‘protected’. These newly re-zoned AOs have been provided to MDA as part of APP’s 2020 revised Forest Monitoring agreement. However, some re-zoned areas are currently plantation, and according to the new regulation\(^1\), the concession holder may harvest the existing crop once mature, before restoring to a protected state. Therefore, APP receives alerts in these new re-zoned areas even though they are not yet established as protected forests. Once the crops have been harvested, the new conservation boundaries will be formalised by the government as the ‘definitive boundary’ and the alerts will start being processed.

   b) **298** alerts are in areas where the Indonesian Government (MoF) has recently ‘adjusted’ concession boundaries (spatial plan) by either, excising existing areas and/or adding new areas. In some concessions, areas previously identified and ‘conservation’, have now been excised from those concessions and in some cases, new conservation areas added. These changes were made during 2020 and have been included in APP’s new monitoring AOs to MDA. However, the government has yet to confirm the concessions’ new ‘definitive boundaries’ and therefore, until confirmed, alerts in these areas were not being processed.

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\(^1\) P.62/MENLHK/SETJEN/KUM.1/10/2019
c) 17 alerts are in the PT Tri Pupajaya concession retirement area where APP’s restoration activities are being carried out. Based on the concessions spatial plan, the retirement area is part of the production area and for these reasons, these alerts were not processed.

EY confirmed the geo-spatial evidence provided by APP and then used the verified number of alert vectors (9,258) as the baseline for the rest of the review.

2.2 Password Policy and Server Access

During the review APP could not provide a documented password policy and account lockout policy. EY observed that access to privileged IT functions of the DMZ SQL Server hosting OS is not restricted to ‘appropriate’ personnel only. Therefore, increase risk of direct data changes, made without authorisation, is possible. EY did not observe any evidence of this during the review; nonetheless, EY does strongly recommends that APP develop a password policy and account lockout policy according to best industry practice.

EY also observed that access to table (CONCESSION) from the DMZ SQL Server hosting OS is not restricted only to the conservation team; therefore, a risk of direct data changes made without authorisation exists. Although EY observed no evidence of misuse, we do recommend that APP restrict the access to this database only to the conservation team.

2.3 Records Management

During the review, EY observed that supporting documentation for 2020 alert data field verification activities are stored at the individual concessions, not stored and organised in a centralised manner by the Head Office (HO) Conservation Team. Furthermore, screenshots taken during desktop verification by APP HO staff are stored in personal folders; not indexed or organised in a manner that supports the review process. Therefore, it is highly likely that documents needed to support the ongoing business would not be available, in a timely manner.

EY, therefore recommends that APP establish a system to store all field verification reports, photos, and other supporting data as well as desktop verification evidence done by its HO staff. This to ensure records are indexed, filed, retained, and readily retrievable to support the review process.

EY also recommends that APP develop a policy and procedures to ensure 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 EY’s 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 2020. Except for the findings mentioned above, nothing has come to our attention that causes us to believe that APP’s presentation on its Forest Monitoring Dashboard was not based on accurate and complete processing of the relevant MDA alert data.

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