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		Issued Date	: 14 December 2018
	RIVER AND RIPARIAN ZONE CONSERVATION	Revision Number	: 02
		Revision Date	: 05 September 2022



STANDARD OPERATING PROCEDURE

(SOP)

RIVER AND RIPARIAN ZONE CONSERVATION

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A. PURPOSE

Ensuring land clearing activities and operational activities do not have a negative impact on rivers and water sources.

B. SCOPE

The scope includes river conservation in a new land clearing and existing oil palm-plantations.

C. DEFINITION

Rivers are places where the water flows and forms water networks started from springs to estuaries that occur naturally or human-made and it has a riparian zone on the right and left on its water flow.

Riparian Zone is an area along the left and right sides of natural rivers and artificial rivers, which have important benefits for maintaining the sustainability of river functions.

A major river is a river with more than (>) 30 meters wide identified in the national river map.

A creek is a river with less than (≤) 30 meters wide identified in the national river map.

D. REFERENCE

- Law No. 41 of 1999 on Forestry
- Government Regulation No. 35 of 1991 on Rivers
- Regulation of the Minister of Public Works No. 63 of 1993 concerning: Riparian Zone, river benefit area, river control area and former river route.
- Guidelines for drafting Environmental impact assessment documents in the forestry sector.
- Principles and Criteria of ISPO No. 11 of 2015

E. PROCEDURE

1. River Border Conservation Procedures in New Opening Areas


1.1 An inventory of all rivers within the cultivation permit (HGU) area must be carried out.

1.2 The determination of river boundaries is carried out with the following guidelines:

- A creek, the river border is set a maximum of 50 meters from the river bank or based on technical considerations by the Board of Directors at the Head Office.
- A major river, the river border is set a maximum of 100 meters from the river bank or based on technical considerations by the Board of Directors at the Head Office.

1.3 Buffer zones between river borders and oil palm plantation areas must be constructed in the form of roads or drainage canals..

1.4 The defined river border conservation area must be mapped on A3 size paper with complete information and adequate scale.

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1.5 Oil palm plantations are started at a minimum distance of 2 (two) meters from the buffer zone.


1.6 Management actions that can be taken include the following:

- 1.6.1 To place a signboard in a strategic place with a predetermined size and writing. The shape, size and writing of the signboard can be seen in the appendix which is an integral part of this SOP.
- 1.6.2 Carry out enrichment planting or insertion of forest wood plants (local and fast growing species) to increase density and biodiversity in open areas..
- 1.6.3 Conduct river water quality testing every 6 months in accordance with the provisions of the RKL/RPL..
- 1.6.4 If the test results are found to exceed the quality standard threshold, then investigation and corrective action must be carried out immediately..
- 1.6.5 Educate all plantation and mill employees and the surrounding community to participate in conservation efforts.
- 1.6.6 To receive recommendations or assistance on river conservation, it is also advisable to consult with the relevant government agency (Forestry Service or BKSDA).
- 1.6.7 Conduct periodic patrols if necessary to prevent all activities that threaten the sustainability of the river..
- 1.6.8 In the event of a fire in the vicinity/within the river border area, immediate fire control measures must be taken according to the SOP for Emergency Management (Doc No. AEP/SP/02/10/2.1)..
- 1.6.9 All actions related to river conservation that have been carried out must be properly documented.

2. River Riparian Zone Conservation Procedures on Existing Plantations

For oil palm plantations that already existed before this procedure was issued or for areas where HCV identification has not been carried out, the following actions will be taken:

- 2.1 An inventory of all rivers within the area that has cultivation rights (HGU) must be carried out.
- 2.2 All rivers that have been identified must be mapped on A3 size paper with complete information and adequate scale.
- 2.3 Management and conservation actions that can be taken include the following::
 - 2.3.1 Educate all employees to participate in river conservation efforts, for example by placing posters or pamphlets in employee settlements or on bulletin boards.
 - 2.3.2 Sprayer and fertilizer operators must avoid excessive application of chemicals and fertilizers in the area that has been designated as a river border, the designated area is 20 meters from the left and right sides of the river bank. The assistant or foreman conducts periodic (monthly) monitoring to ensure that there are no


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violations of this SOP and if there are actions that have the potential to damage the protected area or have already occurred, an immediate restoration of the protected area will be carried out.

- 2.3.3 Harvesters must neatly stack the fronds from pruning according to the Agronomist SOP.
- 2.3.4 Signboards are installed in strategic places with adequate sizes and writings containing information about river conservation. For example, "Don't throw trash in the river!"
- 2.3.5 Enrichment or insertion of plants between oil palm trees with fast-growing local plant species to increase soil cover density if necessary.
- 2.3.6 River water quality testing is carried out every 6 months or following the provisions of the RKL/RPL.
- 2.3.7 If from the test results it is found that things have passed the quality standard threshold, investigations and corrective actions must be carried out immediately.
- 2.3.8 Oil palm plantations located in riverbank conservation areas do not need to be cut down during the replanting process.
- 2.3.9 The number of rows of oil palm plantations that are not cut down is determined based on the consideration of the Board of Directors at the Head Office.
- 2.3.10 All management actions that have been taken must be properly documented..

F. ATTACHMENT

Sample of a Sign board

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ATTACHMENT

Signboard for river conservation

