

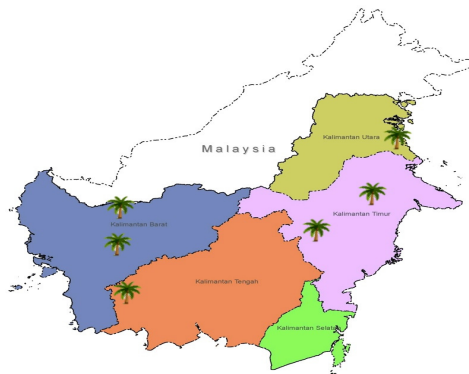


# DSN's EXPERIENCE ON GHG ASSESSMENT PROCEDURE FOR NEW PLANTING

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## INTRODUCTION



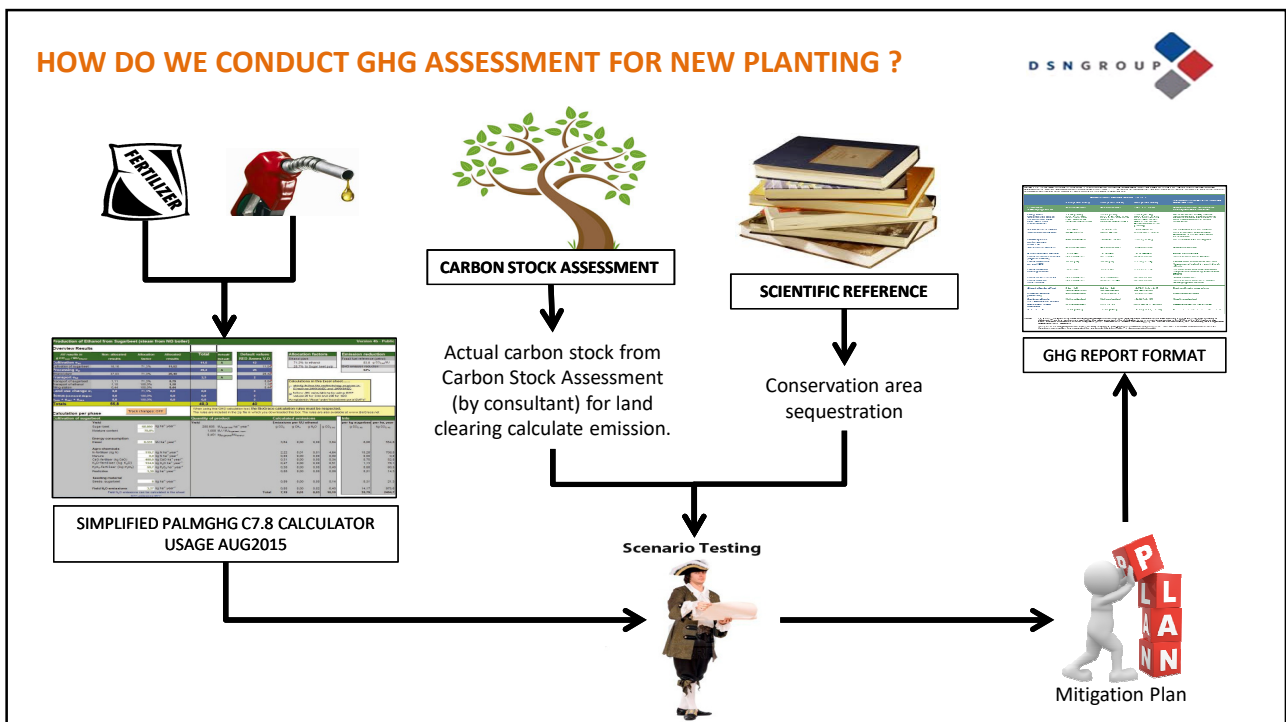
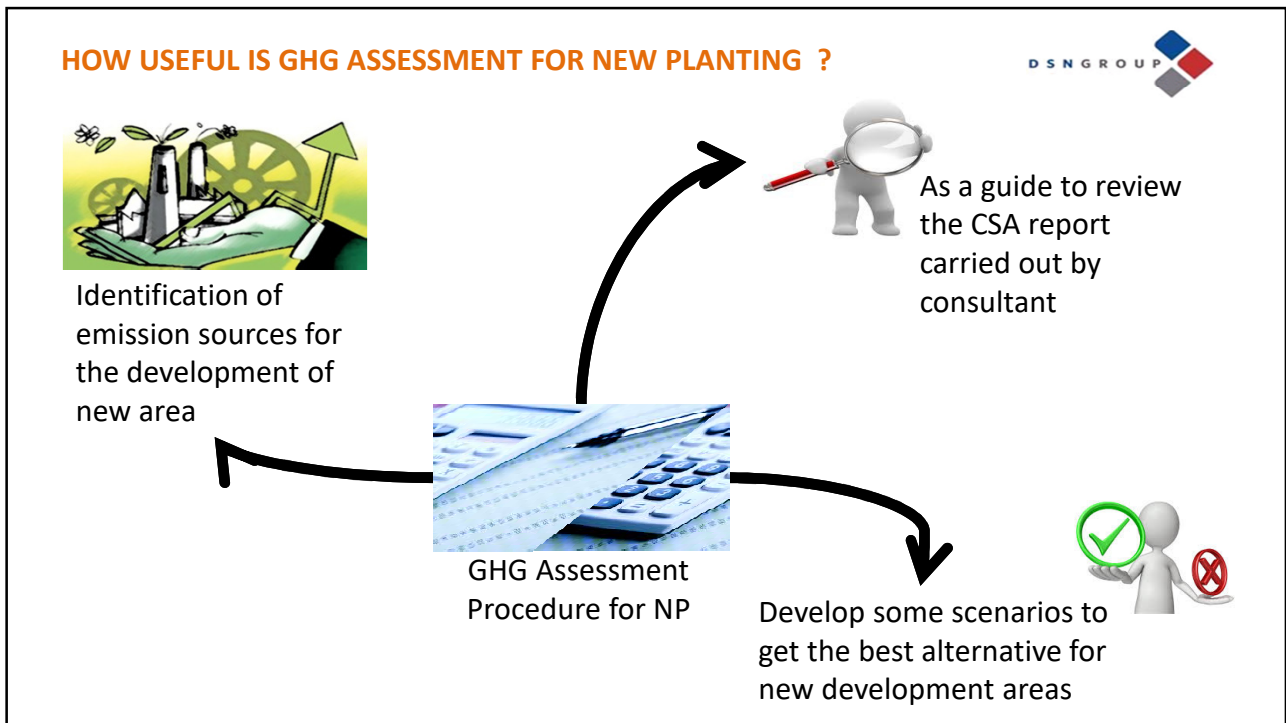
Planted areas over 90.290 Ha that are clustered across West, Central, East, and North Kalimantan.

We are committed to comply with Government's regulation, respect and grow together with surrounding communities, and place importance on environmental conservation.

We have received certifications from RSPO, ISPO and ISCC.

In land development, PT DSN, Tbk also pay attention to the GHG emissions; taking into consideration environmental, business and scientific aspects in developing land clearing scenario.



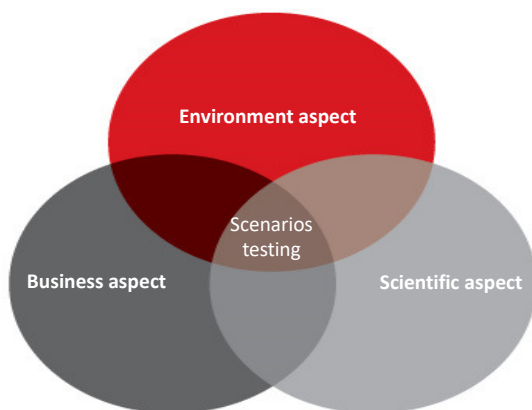


## SCENARIO TESTING



Is a part of GHG assessment for new planting that is used to get the best scenario for new planting development.

Consideration aspects in scenario testing



Selected scenario is the best scenario that deliver carbon net balance max = 0 kg CO<sub>2</sub>/tons FFB.

## SCENARIO TESTING EXAMPLES



<b>Concession</b>		18,040 Ha			<b>Mill</b>		20 Ha	
<b>Planting period</b>		25 Years			<b>OER (Assumption)</b>		24 %	
<b>FFB production (assumption)</b>		25 Ton FFB/ha/year			<b>Methane capture</b>		NA	
		<b>Scenario #1</b>			<b>Scenario #2</b>			
<b>Emission</b>	<b>Carbon Stock (Ton C/Ha)</b>	<b>Hectare (HA)</b>	<b>CO2 e Total (Ton)</b>	<b>CO2e Total (Ton/Yr)</b>	<b>Hectare (HA)</b>	<b>CO2 e Total (Ton)</b>	<b>CO2e Total (Ton/Yr)</b>	
<b>A. Land Cleared</b>								
1. Agroforestry	8.5	1,046	32,589	1,304	834	25,999	1,040	
2. Grassland	5	7,441	136,419	5,457	7,441	136,419	5,457	
3. Shrub	46	4,095	690,731	27,629	3,606	608,253	24,330	
4. Oil Palm		2,562		-	2,562		-	
5. Open Land	-	72	-	-	72	-	-	
<b>Total</b>		<b>15,216</b>	<b>859,739</b>	<b>34,390</b>	<b>14,516</b>	<b>770,671</b>	<b>30,827</b>	
<b>B. Fertilizer &amp; Fuel</b>								
				55,995			53,417	
<b>C. POME Treatment</b>								
				74,467			71,034	
<b>Total Emission</b>								
				164,851			155,278	
<b>D. Sequestration</b>								
	<b>Ton CO2/Ha</b>							
1. Oil Palm	(8.43)	15,216		(128,271)	14,516		(122,366)	
2. Conservation area	(8.84)	2,824		(24,964)	3,524		(31,156)	
<b>Total Sequestration</b>								
<b>F. GHG Balance</b>								
1. Ton CO2e/year				11,616			1,756	
2. Ton CO2e/t FFB/year				0.03			0.00	

## SCENARIO TESTING EXAMPLES



<b>Concession</b>		18,040 Ha		<b>Mill</b>		20 Ha	
<b>Planting period</b>		25 Years		<b>OER (Assumption)</b>		24 %	
<b>FFB production (assumption)</b>		25 Ton FFB/ha/year		<b>Methane capture</b>		Apply	
Emission	Carbon Stock (Ton C/Ha)	Scenario #3			Scenario #4		
		Hectare (HA)	CO2 e Total (Ton)	CO2e Total (Ton/Yr)	Hectare (HA)	CO2 e Total (Ton)	CO2e Total (Ton/Yr)
<b>A. Land Cleared</b>							
1. Agroforestry	8.5	1,046	32,589	1,304	834	25,999	1,040
2. Grassland	5	7,441	136,419	5,457	7,441	136,419	5,457
3. Shrub	46	4,095	690,731	27,629	3,606	608,253	24,330
4. Oil Palm		2,562	-	-	2,562	-	-
5. Open Land	-	72	-	-	72	-	-
<b>Total</b>		<b>15,216</b>	<b>859,739</b>	<b>34,390</b>	<b>14,516</b>	<b>770,671</b>	<b>30,827</b>
<b>B. Fertilizer &amp; Fuel</b>							
				55,995			53,417
<b>C. POME Treatment</b>							
				11,170			10,655
<b>Total Emission</b>				<b>101,554</b>			<b>94,899</b>
<b>D. Sequestration</b>							
	<b>Ton CO2/Ha</b>						
1. Oil Palm	(8.43)	15,216		(128,271)	14,516		(122,366)
2. Conservation area	(8.84)	2,824		(24,964)	3,524		(31,156)
<b>Total Sequestration</b>							
<b>F. GHG Balance</b>							
1. Ton CO2e/year				(51,681)			(58,623)
2. Ton CO2e/t FFB/year				(0.14)			(0.16)

## MITIGATION PLAN



The mitigation plan are associated with oil palm cultivation & processing in the new development of plantation and mill operation.

1. Land clearing for plantations will be prioritized in areas with low carbon stocks.
2. Integrating the carbon stock areas with HCV area to be conservation area.
3. Preventing of fires on concession area,
4. The efficient use of fuel through the engine maintenance and selection of technology that is more efficient in fuel usage.
5. An accurate fertilizer recommendations, maximize the use of biological agents for pest control, etc.

## CONCLUSION



The usefulness of GHG emission procedure for New Planting :

1. Identification of emission sources for new area development
2. As a guide to review the carbon stock assessment report carried out by consultant.
3. Develop some scenarios testing to get best scenario for new area development.



**THANK YOU**