HCV REMEDIATION PILOT PROJECT - SIME DARBY PLANTATION'S EXPERIENCE RT 10, SINGAPORE 30TH OCTOBER 2012

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Plantation

CONTENTS

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Introduction – Background to the Project

- RSPO requirements for HCV Assessment
  - Criteria 5.2 & 7.3 as per Nov 2005
  - RSPO National Interpretation for Indonesia w.e.f. May 2008

- Sime Darby Indonesian Plantation (SDIP) carried out global HCV assessment in September 2009
  - Possible HCV lost during land clearings & new plantings between the period of Nov 2005 & Sept 2009.

- RSPO Secretariat & SD Plantation agreed on options of 'acceptable solution for HCV compensation'.
  - HCV Remediation Pilot Project in 2010.
  - In Central Kalimantan, Indonesia.
  - Involving 2 of SDP's oil palm estates:
    - Baras Danum Estate
    - Batang Garing Estate

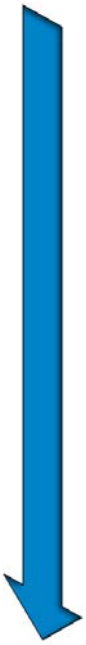
HCV Remediation Pilot Project - Objectives

1. To conduct a remediation initiative in Baras Danum Estate & Batang Garing Estate as a form of compensation for the HCV areas which have disappeared or have been degraded, caused by new plantings in the scope period.

2. To prepare recommendations for the development of the RSPO remediation guidance (generic methodology) to handle similar issues with other growers based on lessons learned from this remediation initiative.

8 Stages of Implementation Plan

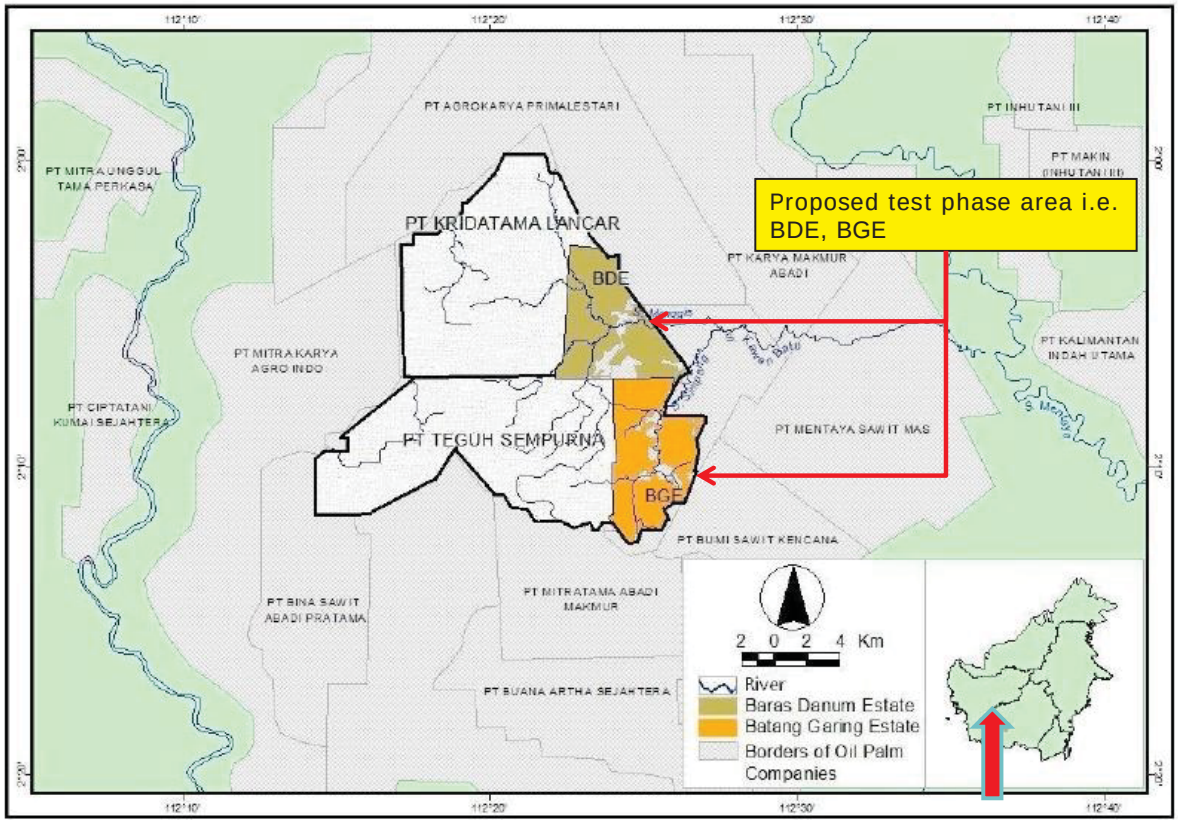
Stage	Implementation Plan
0	Appoint independent consultants
1	Establish land and remediation project parameters
2	Develop remediation plan to RSPO requirements
3	Carry-out test phase of remediation plan
4	Review and evaluate test phase outcomes
5	Complete remaining phases of remediation
6	Prepare final remediation report for EB review
7	**Prepare remediation guidelines for RSPO based on SDP Pilot Project**
8	Maintenance of areas



HCV REMEDIATION INITIATIVES (PILOT TEST)

- SDP's 8-stage HCV Remediation Project = **Pilot Test** at the identified areas – Central Kalimantan
- Pilot test ≠ all areas within SDP (whether 2005-2007/ 2007-2009) – post Nov 2007
- **HCV Remediation Plan** will be used as a **modal for any HCV Remediation.**
  - The HCV Remediation Project offers the methodology on how to analyse HCV 1 - HCV 6 losses + detailed Remediation Plan.

Location of Study Area



Location of Baras Danum Estate of PT Kridatama Lancar and Batang Garing Estate of PT Teguh Sempurna.

8 Stages of Implementation Plan – Progress

Stage	Implementation Plan	Status of Completion
0	Appoint independent consultants	Dec 2010
1	Establish land and remediation project parameters	Submission of Reports: March 2011 Approved: May 2011
2	Develop remediation plan to RSPO requirements	Submission of Reports: **June 2011** Approved: **Nov 2011**
3	Carry-out test phase of remediation plan	Submission of Reports: **Feb 2012** Approved: **Sept 2012**
4	Review and evaluate test phase outcomes	Conducted: July 2012 Awaiting report from BHCV WG/RSPO
5	Complete remaining phases of remediation	In progress
6	Prepare final remediation report for EB review	In Progress
7	**Prepare remediation guidelines for RSPO**	**In Progress**
8	Maintenance of areas	

Overview of Stage 1

Objective:

To establish land and remediation project parameters – Scoping of the Remediation Project Area

Scope:

Those Sime Darby Plantations in Indonesia, having plantings in the period of post-November 2007 (December 2007 to December 2009)

Scale:

18 companies (PT); 28 estates; 9,552 hectares.

Lessons learned during Stage 1:

- The exact scope, including plantings of the month December 2007, would only become apparent during field verification.
- After studying the more accurate maps showing the exact months of planting.
- The scope of the remediation project on the maps included only the planting blocks of the years 2008 and 2009.

Stage 1 - Findings

- Baras Danum Estate & Batang Garing Estate were selected as they have relatively larger areas planting in the period of post-Nov 2007 to Sept 2009, over a total area of 2,350 ha:
  - 842 ha in BDE
  - 1,508 ha in BGE

Processes:

1. *Compiling & collating all relevant documents.*
   - *Area statement documents*
   - *Estate field maps with years of planting*
   - *HCV assessment reports*
2. *Reviewing all documents.*
3. *Summarizing & defining the scope of the remediation project.*

Overview of Stage 2

Objectives:

(1) To conduct retrospective HCV assessment in Baras Danum Estate and Batang Garing Estate, and

(2) To develop remediation options and proposal for the HCV areas loss in Baras Danum Estate and Batang Garing Estate.

Lessons learned during stage 2:

- Methodology for Identifying HCV Loss – through combination of various mechanism such as mapping, site verification, historical data, etc.

- The land cover change analysis is the first and most crucial step in the retrospective HCV assessment.

- In the Historical or Retrospective HCV Assessment, "ground-truthing" has proven to be the most reliable way to interpret satellite imagery.

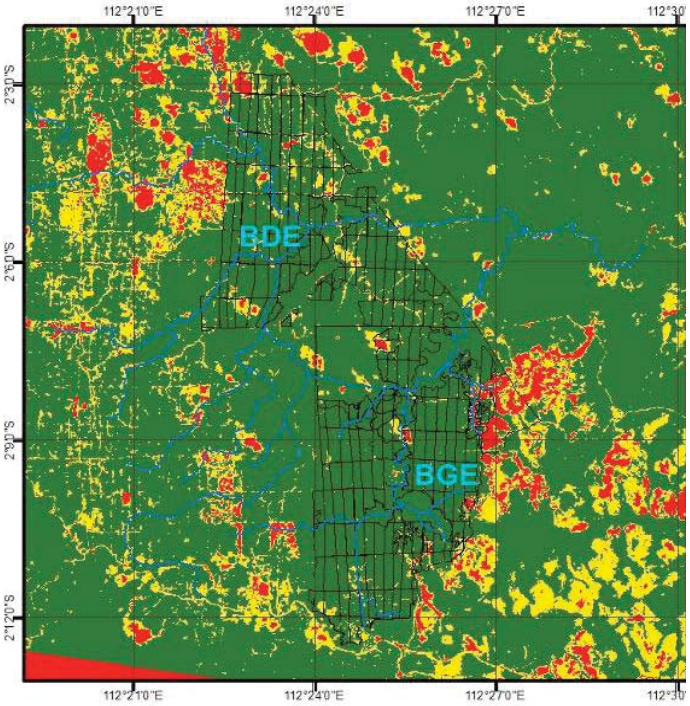
Stage 2 – Work Processes

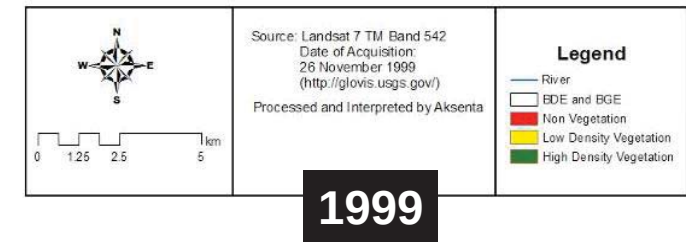
1. Retrospective HCV Assessment
   i. Re-scoping of the remediation project area
   ii. Identification of suspected areas: loss of primary forests and/or HCV areas
      a. Satellite Imageries
      b. Topography & soil maps

      Land cover analysis
      Analysis of hydrology
      Analysis of fragile land

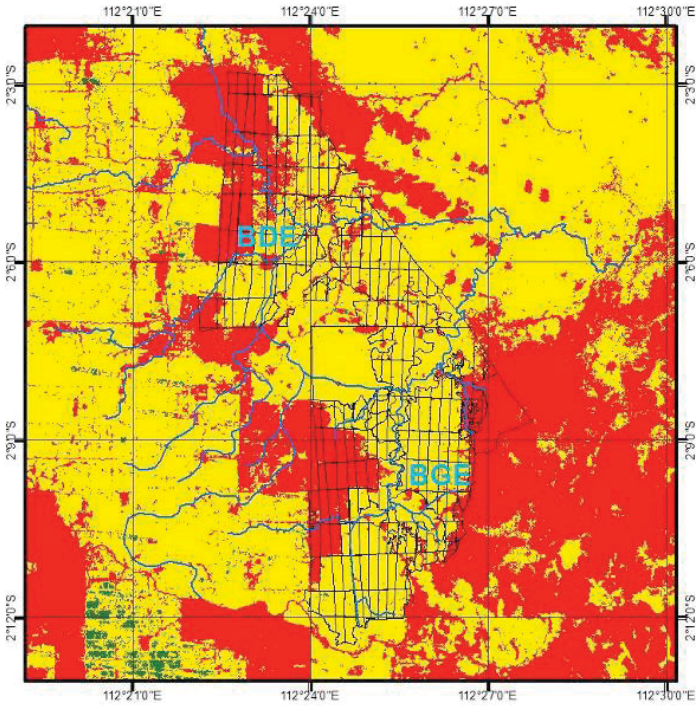
   iii. Verification of the existence of primary forest or HCV areas before the clearance for planting
      a. Ground-truthing; interviews - knowledgeable informants & historical eyewitnesses
   iv. Assessment of values (functions and/or benefits) of HCV areas which have been lost or degraded

Satellite Map of Baras Danum Estate & Batang Garing Estate (1999 & 2006)



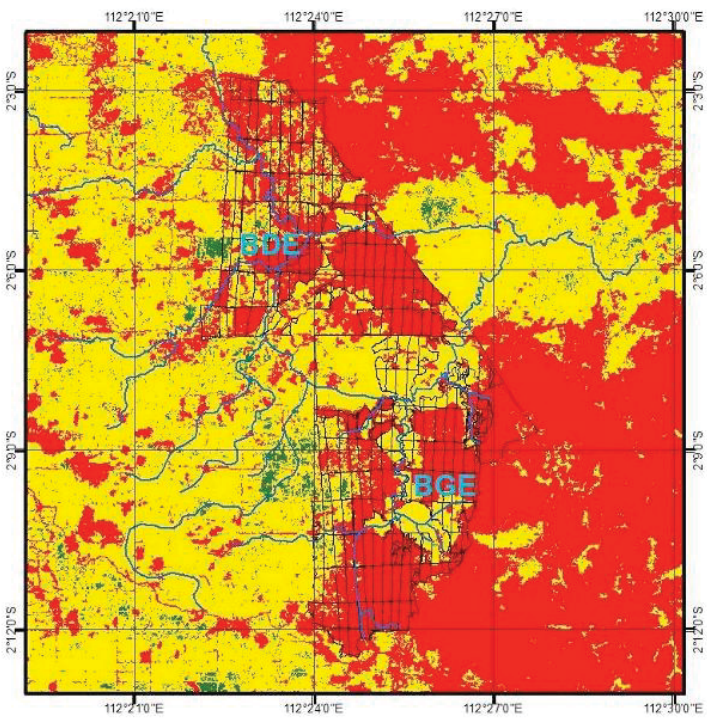


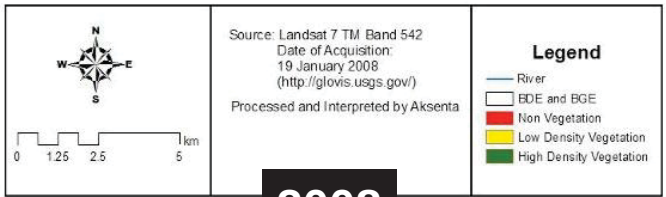
1999



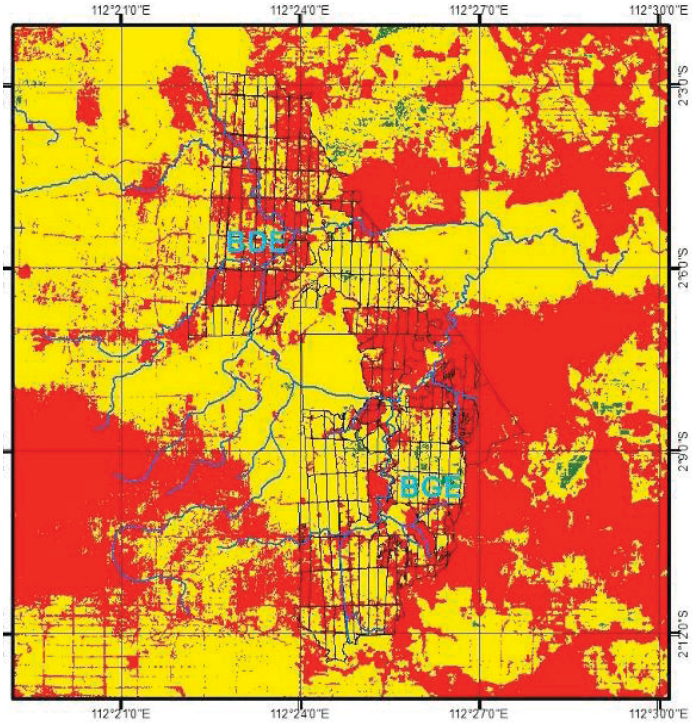
2006

Satellite Map of Baras Danum Estate & Batang Garing Estate (2008 & 2010)





2008



2010

Stage 2 – Work Processes

2. The Development of Remediation Options & Proposal
   - A. Aims
     - i. Reverse, restore, or rehabilitate the long-term benefits and/or functions
     - ii. Mitigate –ve impacts which are a consequence of the loss of HCV area
     - iii. Substitute or compensate the real tangible functions enjoyed or benefits derived
   - B. Options
     - i. Scientifically justifiable
     - ii. Realistic & practical
     - iii. Commensurate with the loss of benefits and/or functions
     - iv. Effectively discourage the clearing of primary forest or HCV areas.

Remediation/Compensation Options – Priority

1. *In-situ remediation*
2. *In-situ compensation*
3. *Ex-situ compensation*

Stage 2 - Findings

	Baras Danum Estate	Batang Garing Estate	Total
Total size	842 ha	1508 ha	2,350 ha
Total <u>suspected</u> HCV lost (forest / shrub/ fragile soil)	356 ha	844 ha	1,200 ha
Total HCV lost (HCV 1 & HCV 4)	93.73 ha	57.71 ha Note: no HCV 4	151.44 ha 6.4%

Summary:

1. **No primary forest was present in the areas after 2002** (as legal and illegal logging activities in the period 1970 to 2000, and devastating fires in 1997-1998 and 2002 have destroyed nearly all lowland forests in this area).
2. **Only HCV 1 & HCV 4 were identified.**

Overview of Stage 3

Objective:

To implement the remediation plan (proposal) started in July 2011 to July 2012.

Lessons learned during Stage 3:

- Construction of civil engineering is feasible and effective (HCV4)
- Forest Tree Planting - no issue (HCV1)
- Wildlife Corridor (HCV1)
  a. within HGU – no issue
  b. outside HGU – complicated and need more time and study

Stage 3 – Remediation Options/Activities

- Remediation of HCV1 lost
  1. Safeguarding the wildlife corridor function of the forest area neighbouring Baras Danum Estate (outside concession area)
  2. Compensation of the remaining mixed rubber-forest area owned by local community in Batang Garing Estate.
  3. Rehabilitation of the non-plantable, ex-illegal mining swamp areas in Batang Garing Estate with forest tree species

- Remediation of HCV4 lost
  1. Establishment of civil engineering structures (land-based & river based) in Baras Danum Estate.
  2. Rehabilitation of land in Baras Danum Estate through planting forest tree species.

Main Remediation Activities and Results from Stage 3

HCV	Remediation Activities	Results
HCV 1.4 lost	Safeguard wildlife corridor function in Sg. Batu Kawan & Sg. Simpang rivers (ca. 500 ha) - Outside HGU	Stakeholders identified & engaged. Little/slow progress as involved multiple stakeholders. 'Izin lokasi' has been issued to another stakeholder.
HCV 1.3 & HCV 1.4 lost	Compensate and & conserve mixed rubber forest owned by local (ca. 14 ha) – Within HGU	Compensation through FPIC is in progress.
	Rehabilitation of soil and planting forest tree species (ca. 56.9 ha)	No of seedlings planted: 20,023 Type of species: Meranti, Nyatoh, Belangeran, Gelam & Gerunggang Survival rate: 90%
HCV 4.1 & HCV 4.2 lost	Installment of civil engineering structure i.e. silt pits, gully plug, retaining dam, water reservoir	Various civil engineering structures have been established covering a total area of ca. 32.8 ha. Qualitative observations indicate strong evidences that all civil engineering structures are functioning well & properly. Regular monitoring of its effectiveness is in progress

The civil engineering structures are functioning properly to achieve their purposes: the Retaining Dam (above-left), the Gully Plug (above-right), the Water Reservoir (below-left), and the Silt Pit (below-right). All pictures were taken in July 2012.

The planted seedlings of Gelam *Melaleuca leucadendron and Gerunggang Cratoxylum arborescens that grow well on the ex-mining area in Block U 68 of BGE*

The planted seedlings of Waru *Hibiscus tiliaceus and Angsana Pterocarpus indicus that grow well around the Water Reservoir in Block M 59 of BDE*

Overview of Stage 4

Objective:

Review and evaluate test phase outcomes.

Outcome:

- A field visit was conducted at site in July 2012, by an evaluation team of RSPO Secretariat & BHCV WG members. The visit was concluded with positive remarks from the members and SDP is awaiting for an official sign-off from the RSPO Secretariat.

- An ad-hoc committee facilitated by RSPO & Aksenta was formed to prepare a proposal to submit to the relevant government agencies on the *Simpang-Kawan Batu Initiative.*

Field visit at Baras Danum Estate.

Briefing & discussion at site.

Group photo after the meeting on 17 July 2012.

Group photo at the Simpang-Kawan Batu area.

Next Stages – 5, 6, 7 & 8

- SDP continues to complete remaining phases of remediation.

- Working towards final remediation report for EB review and prepare a remediation guideline for RSPO based on SDP Pilot Project.

- It was agreed by the BHCV WG that this Pilot Project to be treated as a learning process for RSPO & SDP as the RSPO Compensation Task Force (CTF) is now being tasked to formulate a strategy for the compensation and retrospective HCV assessment.

Summary of Lessons Learned

- That RSPO Criteria 5.2 & 7.3 apply w.e.f. Nov 2005 although RSPO NI for Indonesia was only formalized in May 2008.
- In remediation assessment, event of land clearing is important as HCV areas are lost because of land clearing, not plantings.
- Cut-off date of Nov 2007 forced assessors to spend enormous time to investigate exact planting as most companies have maps of planting years, not month of planting.
- Land cover change analysis is the first & most crucial step in the retrospective HVC assessment. High quality satellite imagery is needed.
- Ground-truthing - reliable way to interpret the satellite imagery.
- Surrounding communities play a vital role in retrospective HCV assessment.
- Remediation of HCV 4 is part of Best Management Practices for conservation of soil & water.

Challenges

- Retrospective HCV assessments are highly debatable, even amongst experts.
- Similarly, the remediation options. Types of remediation? Remediation vs. Compensation? Its priority?
- Extensive resources, expertise and manpower for each remediation activity (from implementation, verification to monitoring phases).
- Timeline – extension from initial one year – 2.5 years period due to extensive review of report and its methodologies for each remediation activity.

Moving Forward

- Due to the above challenges/obstacles, the HCV Remediation plan might not be practical as an immediate resolution to compensate HCV areas loss.
- To adopt the resolution by the Compensation Task Force which is agreeable to all industry stakeholders.

THANK YOU

Special thanks to

- RSPO Secretariat
- Aksenta Socio-Enviro Management Consulting
- Sime Darby Indonesian Plantation

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