RSPO

RSPO NEW PLANTING PROCEDURES

Summary Report of SEIA and HCV assessments

1. Executive Summary

PT. Cipta Davia Mandiri (CDM) is a subsidiary company of REA Holdings plc, which has been a member of the Roundtable on Sustainable Palm Oil (RSPO) since November 2007 (membership number 1-0045-07-000-00). PT. CDM is located in both the Muara Ancalong and Long Mesangat sub-districts of the Kutai Timur district of East Kalimantan. Nine villages are located within or in close proximity to the PT. CDM concession: Kelinjau Ulu, Long Nah, Muara Bengkal Hulu, Benua Baru, Batu Balai, Sumber Agung, Sumber Sari, Mukti Utama and Tanah Abang. Four of these villages were created as part of the Indonesian governments transmigration programme, namely: Sumber Agung, Tanah Abang, Sumber Sari and Mukti Utama. Although PT. CDM was issued with a location permit of 22,500Ha by the Head of Kutai Timur district on 9 April 2007 (Keputusan Bupati Kutai Timur Nomor 142/02.188.45/HK/IV/2007), REA Holdings Plc only obtained ownership of this company on 20 March 2008. On 26 April 2010, 9,784 Ha of land within the location permit was converted to a land use title (Decree number 25/HGU/BPN/RE/2010 tanggal 26 April 2010 with certificate number 109, 110 and 111. Following the expiration of the original location permit in 2010, a new location permit covering 6,280 Hectares of the land within the original location permit but outside of the land use title was issued in February 2014 (No. 525.26/K.146/HK/II/2014).

In accordance with Indonesian law, an Environmental Impact Assessment ("AMDAL") was completed and approved on 21 February 2008, prior to any commercial development of the land within the concession 45/660/BUP-Kutim/II/2009, 21 Februari 2008. In addition to this, conservation reserves were designated as a result of surveys by REA's conservation team. However, a formal High Conservation Value (HCV) assessment was not completed prior to the initiation of land clearing by REA in April 2008. When in November 2012 it came to REA's attention that the internal biodiversity assessment conducted may not be sufficient to comply with the requirements of Criterion 7.3, the RSPO secretariat was informed of this potential non-compliance in writing. Following the response from the RSPO secretariat, the RSPO approved HCV assessors the Malaysian Environment Consultants (MEC) were engaged to conduct both an independent HCV assessment and Social Impact assessment (SIA) for the PT. CDM concession. HCV compensation is being undertaken for all land clearing which took place prior to the completion of this HCV assessment on 15 August 2014. As part of this process, a Land Use Change Analysis (LUCA) to assess REA's HCV Compensation Liability in relation to PT. CDM has been completed by the remote sensing specialists SarVision and was submitted to the RSPO secretariat in October 2014.

2. Scope of the SEIA and HCV Assessments:

Table 1. Organizational information and contact persons

Name of company	PT. Cipta Davia Mandiri subsidiary of REA Holdings plc
RSPO membership number	1-0045-07-000-00 (REA Holdings plc)
Location	Muara Ancalong and Long Mesangat sub-districts of the Kutai Timur district in East Kalimantan, Indonesia.
Area	22,500 Ha covered by the original location permit, which has now expired 9,784 Ha converted to land title in 2010 6,320 Ha of additional land covered by the current location permit
Administrative Address	Jl. Hasan Basri No,21A, Samarinda 75117, Kalimantan Timur
Tax registration number (NPWP)	01.997.572.1-722.000
Contact Person	Head of Sustainability, REA Kaltim Plantations Group: Purwantoro Email Address: purwantoro@rea.co.id
Geo Coordinate	0° 30' 36.1" S 116° 39' 41.1" E

Table 2 List of Legal documents, regulatory permits and property deeds related to the areas assessed

No	Legal Documents	Issued by	Number and Date
1	Company registration *(Tanda Daftar Perusahaan)*	Department of Industry and Trade in Samarinda	17.01.1.01.02224 26-Mar-2014
2	Plantation Permit *(Izin Usaha Perkebunan)*	District Head of Kutai Timur	Decree of District Head of Kutai Timur No. 560/02.188.45/HK/X/2007 29 October 2007
3	Trading business license *(Surat Izin Usaha Perdagangan Besar)*	Department of Industry and Trade in Samarinda	503/00108/17-01/PB/BPPTSP-C/IV/2014 22 April 2014
4	Domicile permit *(Surat Izin Tempat Usaha Umum)*	Samarinda government	503/3688/2210.A/BPPTSP- C/X/2013 16 Oct 2013
5	Location Permit +/- 20,000Ha *(Izin Lokasi)*	District Head of Kutai Timur	142/02.188.45/HK/IV/2007 9 April 2007
6	Extension of Location Permit +/- 20,000Ha	District Head of Kutai Timur	180.4.45/230/HK/IV/2008 30 April 2008
7	Extension of Location Permit +/- 20,000Ha	District Head of Kutai Timur	188.4.45/321/HK/VI/2009 25 June 2009
8	Ammendment of Location Permit to 6,280Ha *(Izin Lokasi)*	District Head of Kutai Timur	No. 525.26/K.146/HK/II/2014 05-Feb-2014
9	Land Use Title *(Hak Guna Usaha)*	National Land Agency *(Badan Pertanahan Nasional)*	25/HGU/BPN RI/2010 26 April 2010
10	Approval of Environmental Impact Assessment, Monitoring & Management plans *(AMDAL)*	District Head of Kutai Timur	45/660/BUP-Kutim/II/2009 21 Februari 2008

PT. CDM is situated on the northern branch of the Mahakam river, in the area where the name of the river changes from the *Kelangkepala* to the *Kelinjau*. Though CDM does not share a common boundary with any protected area, it is ecologically connected by the river system and contiguous vegetation. Along the western boundary, the CDM site is separated by a narrow buffer from the boundary with an area of Production Forest *(Hutan Produksi).* The land to the east of the CDM site has been developed for agricultural use by both the local community and commercial plantations. Much of the western section of the CDM site and most of the alluvial plain downstream is swampy. The relatively dry land is on the river berms built up from accreting river sediments and in the north eastern section.

Figure 1 Location maps – both at landscape level and property level

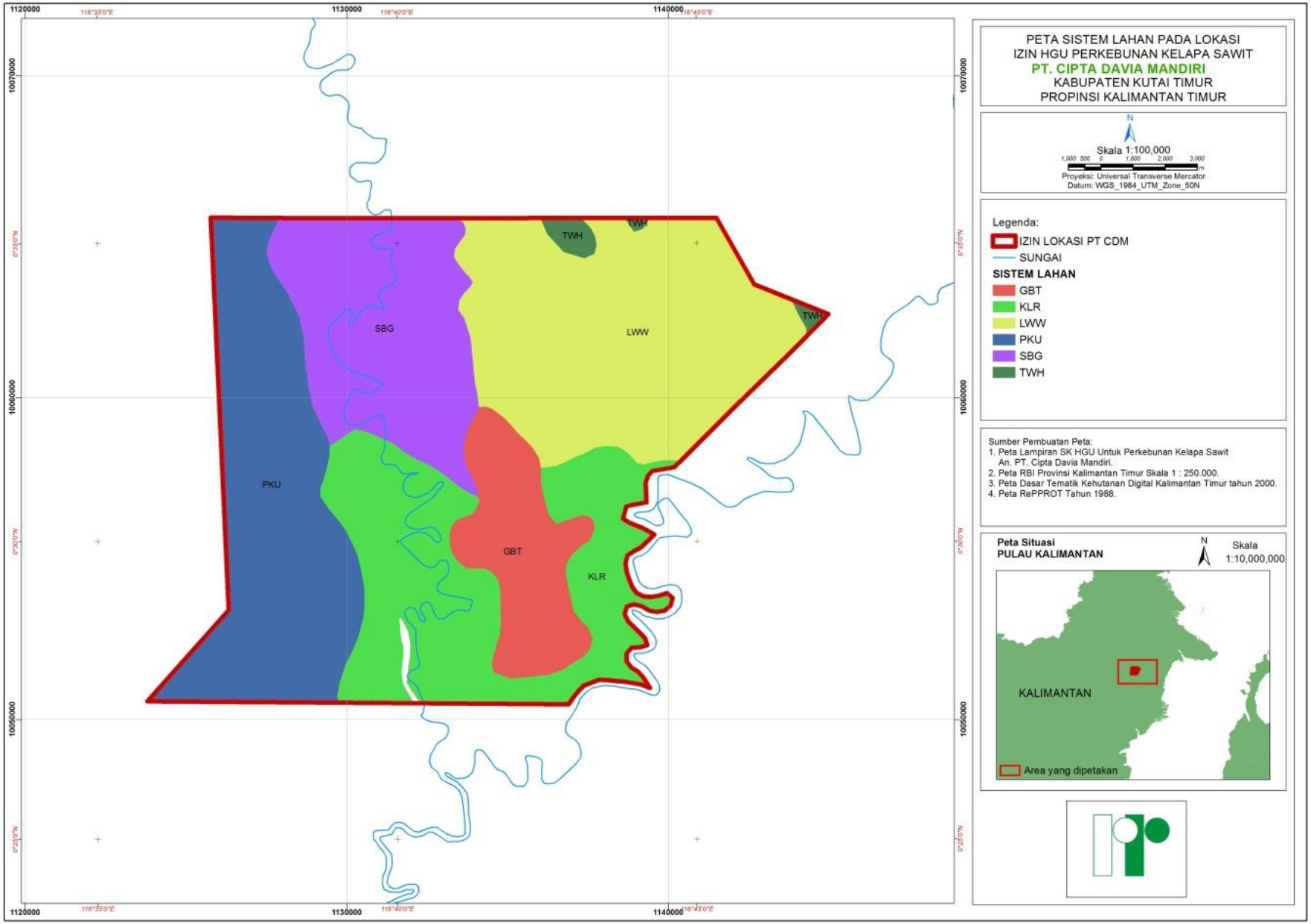


Figure 2 Land Suitability PT CDM

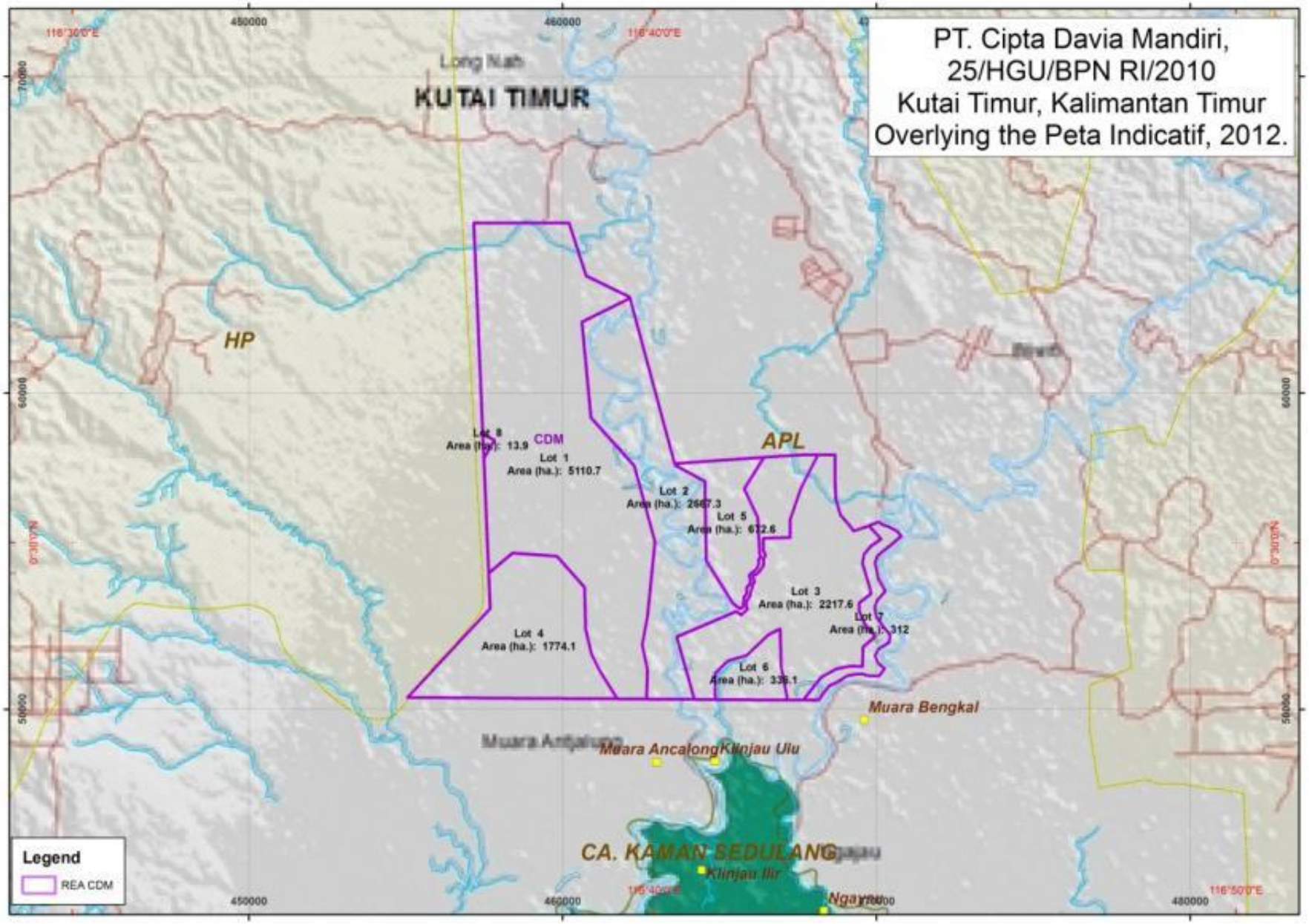


Figure 3. Indikatif Moratorium Maps, 2012

Due to the fact that land clearing in the PT. CDM concession was initiated prior to the 1 January 2010, this area is categorised as an Ongoing Planting for the purposes of complying with the RSPO New Plantings Procedure (NPP).

Table 3 Schedule for development of PT. CDM

	unit	< 2015	2015	2016	2017	2018	2019	TOTAL
Land available								
Land Use Right (HGU)	(Ha)							9,784
Location Permit (Izin Lokasi)	(Ha)							6,280
Total	(Ha)							16,064
Planted Area								
Nucleus	(Ha)	1,414						
Smallholders	(Ha)	170						
Total		1,584						
Land Clearing Program								
Nucleus	(Ha)		1,588	941	941	926	556	4,952
Smallholders	(Ha)		295	188	191	191	189	1054
Total	(Ha)							6,006
Planting programme								
Nucleus	(Ha)		1,085	800	800	800	630	4,115
Smallholders	(Ha)		251	160	161	161	162	895
Total	(Ha)							5,010
Summary of land use								
Nucleus oil palm	(Ha)							5,529
Smallholders oil palm	(Ha)							1,065
Infrastructure	(Ha)							996
Conservation reserves (HCV management areas)	(Ha)							6,831
Areas potentially suitable for development but agrononomic, hydrological, environmental & social suitability for development is still being asssessment internally	(Ha)							1,643
TOTAL	(Ha)							16,064

3. Assessment process and procedures

3.1. Environmental Impact Assessment (AMDAL)

The Indonesian regulations (Peraturan Menteri Negara Lingkungan Hidup No. 11 Tahun 2006) require that an Environmental Impact Assessment (*Analisis Mengenai Dampak Lingkungan* or AMDAL) is conducted prior to the development of an oil palm plantation or palm oil mill. Therefore, an AMDAL, encompassing both areas inside and outside the location permit, was carried out by independent, government-approved consultants in early 2008. The result of this assessment are used as the basis for developing an environmental monitoring and management plan to ensure the potential adverse environmental impact associated with the development are mitigated.

The EIA was carried out by the following assesors ;

1. Team leader : Ir. Sulaeman, MP.
2. Biology sub-team leader. Ir. Zainal Mutaqin. MP.
3. Geology sub-team leader : Drs. Daniel, Msi
4. Community health sub-team leader : Dr. Helsis Simbolon
5. Biology team member & mapping : Agus Nurhadi S. Hut
6. Social team member & Mapping : Febri Mauladsyah
7. Team member : Mangadat Marbun

The following data was collected as part of this assessment:

A: Geophysical and Chemical data

Information about the geological, physical and chemical characteristics of the study area was collected before CDMs operations began. The primary data collected includes: regional climate, micro-climate, air quality, noise, physiography, soil characteristics and hydrology.

B: Biological data

The land use change which will result from PT. CDMs operations has the potential to have a significant impact on the biology and ecology of the study area. Primary data concerning the terrestrial biota (flora, fauna, plant pests & diseases) and aquatic biota (plankton, benthos & nekton) was therefore collected as part of this study.

C: Social data

Social data is needed to determine the impact of PT.CDMs proposed development on the surrounding communities. Data concerning the demography, economy and culture of these communities was collected as part of this assessment.

D: Public health data

Data concerning disease vectors, sanitation, health facilities, incidence of disease and public health behaviour.

Both direct and indirect methods were used to collect the data relating to each component of this assessment. The geophysical and chemical information was obtained from fieldwork (primary data). The information concerning socio-economic status and public health of the surrounding communities was collected through both fieldwork (primary data) and desktop analysis (secondary data).

The potential impact of each stage in process of developing an oil palm plantation and palm oil mill (preparation phase, construction & operation) on each aspect of concern (geophysical & chemical, biological, social & public health) was assessed as part of this study. The estimated magnitude of the

impact of each stage of development on each aspect of concern was calculated by comparing the condition before and after the proposed activities.

$$\textit{Magnitude of impact} = KL_P - KL_{RLA}$$

Where: KL_P is the condition of the environment once the proposed activity is in progress/completed
KL_{RLA} is the condition of the environment before the activity takes place

The condition of the environment prior to development and during/after each stage of the development process is given a score of between 1 and 5, based on the following definitions:

Scale	Environmental condition/quality
1	Very bad
2	Bad
3	Ok
4	Good
5	Very good

The difference between the environmental condition before and after each stage of development is used to determine the magnitude of the impact, either positive or negative. This is defined as follows:
4 : Very high impact
3 : High impact
2 : Medium impact
1 : Low impact

3.2 Social Impact Assessment (SIA)

The Social Impact Assessment (SIA) for PT. CDM was conducted between 12 – 17 November 2012 and the 25 – 27 July 2013 by the Malaysian Environment Consultants (MEC), Kuala Lumpur, Malaysia. The people involved in this assessment and their credentials are summarised in **Table 4**.

Table 4: Assessors involved in the Social Impact Assessment and their credentials

	Name	**Role**	**Experience & Qualifications**
1	Kishokumar Jeyaraj	RSPO approved HCV assessor – team leader	Kisho has a degree in Forest Management from Oxford University, United Kingdom. His expertise lies in forest management and plant conservation ecology. He is also an expert in vegetation mapping using GIS and Remote Sensing. His core competency also lies in natural resource management and planning. He has worked throughout Malaysia, Indonesia and Laos and has been involved in many HCV assessments.
2	Tunku Mohammed Nazim	RSPO approved HCV assessor – Mapping specialist	Tunku's educational background is in Biology and Ecology. He has worked on a number of projects in the field of natural heritage management, plantation management, waste industry management and landscape and species management. He is an applied GIS Specialist with the ability to analyze spatial information for both conservation and management planning. His core competency lies in natural resource management and planning. He has been involved in more than 20 HCV assessments.
3	Dr Lim Meng Tsai	RSPO approved HCV assessor – forest ecology and management	Dr Lim has a degree in Forest Ecology from the University of Edinburgh, United Kingdom. He has been involved in many HCV assessments and has broad experience in species management, forest ecology, botany and dendrology.
4	Herculana Ersinta	RSPO approved HCV assessor – social specialist	Herculana has a degree in Management from the faculty of economics, Tanjungpura University. She has broad experience in community development and training in Indonesia especially in Kalimantan Barat. She has been the Director for Yasasan Dian Tama Pontianak since 2009.

5	Anatalia Sri Lestari	Social expert	Undergraduate degree in economics
7	Maradu Panjaitan	Social expert	Undergraduate degree in forest management
8	Martalena Ayong	Social expert	Diploma in Surveying
9	Siti Norazlina Binti Mohd Nordin	Documentation	Undergraduate degree in science based natural resource management
10	Yuliantini	Social expert	Undergraduate degree in forest management

The purpose of the social impact assessment is to determine the way in which the socio-economic status, culture and welfare of different stakeholders may be affected by the development of the CDM concession with both nucleus and plasma oil palm plantings. This was achieved by interviewing representatives from the communities and government institutions from villages located within and in close proximity to the CDM concession, namely: Kelinjau Ulu, Long Nah, Muara Bengkal Hulu, Benua Baru, Batu Balai, Sumber Agung, Sumber Sari, Mukti Utama and Tanah Abang. Four of these villages were created as part of the Indonesian governments transmigration programme, namely: Sumber Agung, Tanah Abang, Sumber Sari and Mukti Utama. **Table 5** shows the schedule for the assessment, whilst **Table 6** summarises the methods used, the target groups and the type of data obtained.

Table 5: Schedule for the Social Impact Assesment

No	Village	Schedule
1	Sumber Sari	12 - 13 November 2012
2	Tanah Abang	12 – 13 November 2012
3	Sumber Agung	12 – 13 November 2012
4	Batu Balai	12 – 13 November 2012
5	Kelinjau Ulu	14 – 17 November 2012
6	Muara Bengkal Hilir	14 – 17 November 2012
7	Benua Baru	14 – 17 November 2012
8	Long Nah	25 – 27 Juli 2013
9	Mukti Utama	27 Juli 2013

Table 6: **A summary of the methods used in the Social Impact Assessment**

Method	Target group	Data	Data type
In-depth interviews (structured & semi-structured)	Key informants such as village heads, village secretary, customary heads, village elders, fishermen, farmers, etc.	Village history, social impacts, social issues land use, fulfillment of basic needs, harvesting trends, availability of alternatives	Descriptive/ Qualitative and quantitative
Field observation	Local informants, e.g. shaman, healer, village elders, farmers	-Village description, dependency on resources, -Attitudes and perceptions of the local peoples with respect to their land and natural resources	Qualitative

Method	Target group	Data	Data type
Participatory mapping	Key informants such as village heads, village secretary, customary heads, village elders, fishermen, farmers, women	Land use and distribution of natural resources used by communities and other stakeholders	Qualitative
Focus group discussions	Village elders, village committee, customary heads, women	Validation of data collected in the study.	Qualitative and quantitative
Document review	Company staff, local government and the village committee	Company management practices in relation to community engagement, community development and smallholder schemes. Government regulations and policies relating to oil palm. Village history, demography, culture and socio-economy.	Quantitative and qualitative

3.3 High Conservation Value (HCV) Assessment

The HCV assessment for PT. CDM was conducted 12 November 2012 until 19 April 2014 by the Malaysian Environment Consultants (MEC), Kuala Lumpur, Malaysia. The people involved in this assessment and their credentials are summarised in **Table 7**.

Table 7: The people involved in the HCV assessment and their credentials

	Name	Role	Experience & Qualifications
1	Kishokumar Jeyaraj	RSPO approved HCV assessor – team leader	Kisho has a degree in Forest Management from Oxford University, United Kingdom. His expertise lies in forest management and plant conservation ecology. He is also an expert in vegetation mapping using GIS and Remote Sensing. His core competency also lies in natural resource management and planning. He has worked throughout Malaysia, Indonesia and Laos and has been involved in many HCV assessments.
2	Tunku Mohammed Nazim	RSPO approved HCV assessor – Mapping specialist	Tunku's educational background is in Biology and Ecology. He has worked on a number of projects in the field of natural heritage management, plantation management, waste industry management and landscape and species management. He is an applied GIS Specialist with the ability to analyze spatial information for both conservation and management planning. His core competency lies in natural resource management

			and planning. He has been involved in more than 20 HCV assessments.
3	Dr Lim Meng Tsai	RSPO approved HCV assessor – forest ecology and management	Dr Lim has a degree in Forest Ecology from the University of Edinburgh, United Kingdom. He has been involved in many HCV assessments and has broad experience in species management, forest ecology, botany and dendrology.
4	Herculana Ersinta	RSPO approved HCV assessor – social specialist	Herculana has a degree in Management from the faculty of economics, Tanjungpura University. She has broad experience in community development and training in Indonesia especially in Kalimantan Barat. She has been the Director for Yasasan Dian Tama Pontianak since 2009.
6	Ambriansyah	Team member - botany	Undergraduate degree in Forest Management
7	Doddy Aryadi	Team member – wildlife & ecology	Undergraduate degree in Forest Management
8	Eka Kurnia Pambudi	Team member - botany	Undergraduate degree in forest management
9	Muhammad Firdaus	Team member – wildlife (bird expert)	Undergraduate degree in forest management
10	Siti Norazlina Binti Mohd Nordin	Team member - documentation	Undergraduate degree in science based natural resource management
11	Yuliantini	Team member - social expert (HCV 5 & 6)	Undergraduate degree in forest management

The purpose of the HCV assessment is to determine the presence, status and distribution of the biodiversity, essential ecological functions and social cultural values which are considered to be of High Conservation Value (HCV) and the management actions that must be taken in order to maintain and enhance these values. The definition of the six High Conservation Values (HCVs), as well as the methodology used to conduct the assessment, is in line with the HCV Toolkit for Indonesia, which was finalised in 2008.

Table 8: The six High Conservation Values, as defined by the HCV Toolkit for Indonesia (2008)

HCV
HCV1 Areas with Important Levels of Biodiversity HCV 1.1 Areas that Contain or Provide Biodiversity Support Function to Protection or Conservation Areas HCV 1.2 Critically Endangered Species HCV 1.3 Areas that Contain Habitat for Viable Populations of Endangered, Restricted Range or Protected Species HCV 1.4 Areas that Contain Habitat of Temporary Use by Species or Congregations of Species
HCV2. Natural Landscapes & Dynamics HCV 2.1 Large Natural Landscapes with Capacity to Maintain Natural Ecological Processes and Dynamics HCV 2.2 Areas that Contain Two or More Contiguous Ecosystems HCV 2.3 Areas that Contain Representative Populations of Most Naturally Occurring Species
HCV3 Rare or Endangered Ecosystems
HCV4 Environmental Services HCV 4.1 Areas or Ecosystems Important for the Provision of Water and HCV Prevention of Floods for Downstream communities HCV 4.2 Areas Important for the Prevention of Erosion and Sedimentation HCV 4.3 Areas that Function as Natural Barriers to the Spread of Forest or Ground Fire
HCV5 Natural Areas Critical for Meeting the Basic Needs of Local People
HCV6 Areas Critical for Maintaining the Cultural Identity of Local Communities

There are several stages involved in an HCV assessment. The first step is to carry out a desktop analysis of relevant secondary data that is available for area of interest and the surrounding landscape. This includes topography, soil and land use maps, satellite images, aerial photos and published scientific papers and grey literature. GIS is used to integrate and analyse the information available in order to stratify the area and identify potential transects and sampling points for the field survey. The second step is to conduct a field survey to collect more detailed, primary data concerning the species, vegetation types, physical features and socio-cultural values present within the area of interest. Four field surveys were conducted at CDM, on the following dates:

1. First field survey: 12 – 19 November 2012
2. Second field survey: 24 – 27 March 2013
3. Third field survey: 23 – 31 July 2013
4. Fourth field survey: 7 – 19 April 2014

The methods employed to assess HCV 1 – 4 included the establishment of vegetation plots and various rapid biodiversity assessments along transects and at various sampling points. Both direct observations of species and indirect indicators of their presence, such as calls, faeces, prints and markings, were recorded. The transects and sampling points used in the field survey of CDM are shown in **Figure 4.** In order to assess HCV 5 & 6 a rapid socio-economic and cultural assessment was conducted. This involved various field survey techniques such as field observation; transect walks, in-depth interviews with key informants, participatory community mapping (developing sketch maps) and focus group discussions. Field data was validated by triangulation of the different types of data.

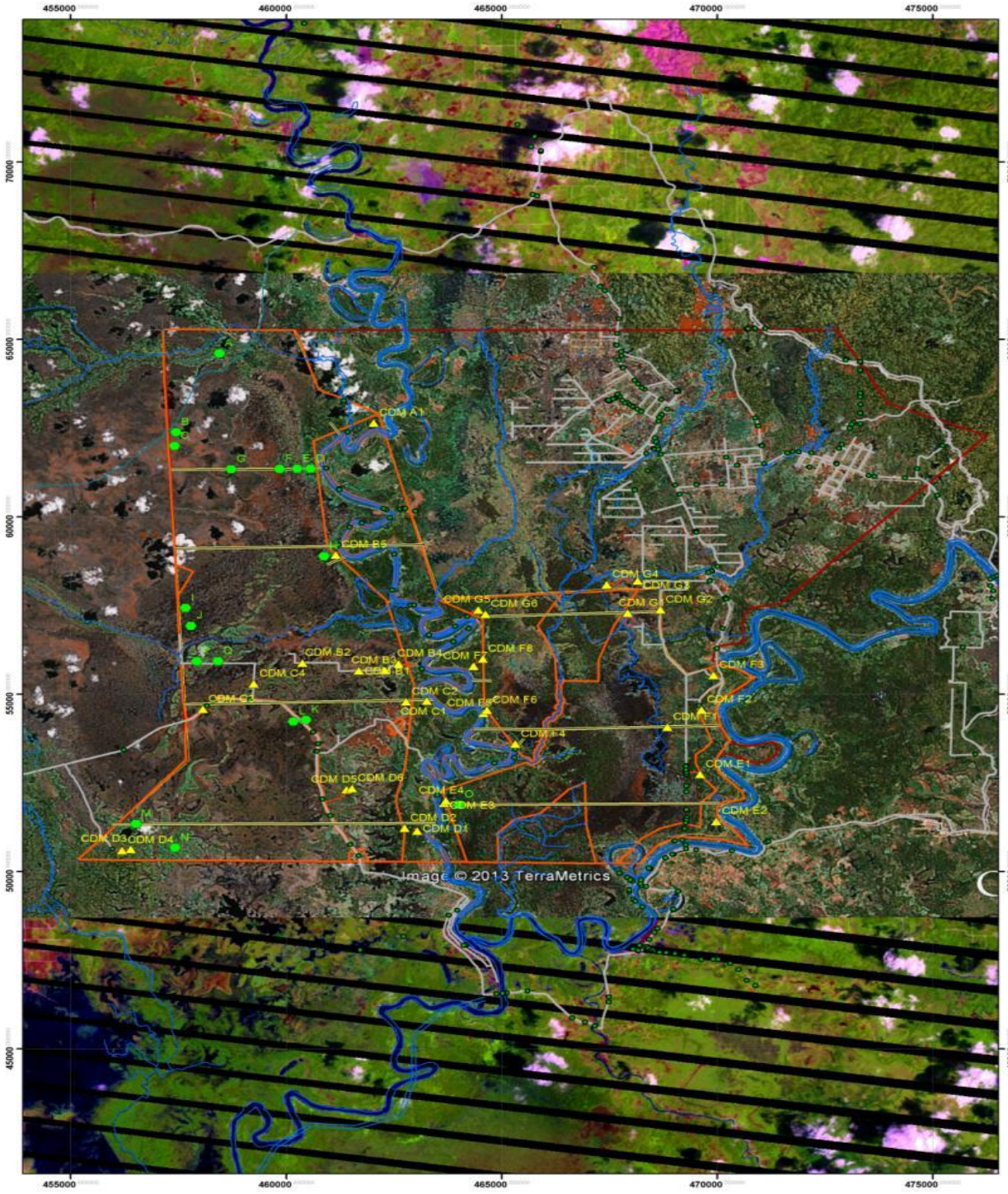


Figure 4: Satellite image showing the location of the transects and sampling points used for the field survey of CDM

4. Summary of Assessment Findings

Public Consultation , Two joint public consultation of the findings from the HCV assessment SIA were conducted by the the Malaysian Environment Consultans (MEC). The first public consultation was held on 07 December was held on 15 August 2014 in the office of the Long Mesangat sub-district and attended the stakeholder.

4.1. Environmental Impact Assesment (EIA)

The results of this holistic assessment of the magnitude of the potential impact of each stage of the development process on each component of the environment show that the development of an oil palm plantation and palm oil mill by PT. CDM has the potential to have a significant impact, both positive and negative.

Important positive impacts predicted:

1. Socialisation & public consultation
2. Development of facilities and infrastructure,
3. Soil and water conservation
4. Nursery
5. Employment
6. Development of the mill
7. Harvesting and transport of oil palm Fresh Fruit Bunches FFB and operation of a palm oil mill

Meanwhile, the negative impacts predicted are:

1. Geophysical & chemical: reduction in air quality, noise pollution, reduction in the quality of surface water, increase in soil erosion, increase in sedimentation, increased risk of fire and the production of waste liquids.
2. Biological: disturbance of flora and fauna, disturbance of aquatic biota
3. Social: social conflicts, negative perception of the company by the community and changes in community values and cultural norms
4. Public health: negative impacts on the health of the surrounding communities

However, several of the potential negative impacts can be mitigated if the proposed environmental management actions are taken. It is therefore hoped that the negative impacts will be reduced, mitigated and even prevented. In relation to the potential positive impacts associated with the proposed development, the aim should be to maximise these in order to improve the welfare of the whole society without having a negative impact on the environment.

Based on this, PT. CDMs plans to develop an oil palm plantation and palm oil mill are eligible for development from an environmental perspective as long as the appropriate measures are taken to monitor and manage their environmental impact.

4.2 Social Impact Assessment (SIA)

The potential positive and negative impacts on the socio-economic status, culture and welfare of the various stakeholders likely to be affected by the development of the CDM concession with oil palm are summarised below. Measures to mitigate the adverse impacts and maximise the positive impacts have also been identified.

Positive impacts

1. Employment and creation of business opportunities: the development of the PT. CDM concession has provided both direct employment as well as demand for services from both the company and its employees which can be provided by local contractors or small businesses,

such as transporting FFB, shops, restaurants, garages and transport.

2. The development of oil palm by PT. CDM has inspired members of the local communities to plant oil palm in additional to their existing rubber plantings, thus boosting the income they are able to generate from their land.

3. The improvements made to the local infrastructure by PT.CDM, particularly the road network, have improved the access for local communities to other villages, markets to buy and sell goods and services such as health care and education.

4. The employment and business opportunities created by PT. CDM on the local economy have increased the spending power of the local communities, which has in turn further boosted the surrounding economy by creating increased demand for a wider range of better quality goods and services in the area.

Negative impacts

1. Reduction of land available to the community. The transfer of community rights to use the land to PT. CDM has reduced the land available to the community for their own agricultural activities and to pass on to their children.
2. Insufficient community engagement and socialisation. Some members of the community feel that PT. CDMs plans for developing oil palm, and the potential impacts of this on their lives, have not been adequately communicated to them. Some feel that their opinion has been neglected by PT. CDM and that they have been unfairly treated in the land compensation process. This has left some people with a negative perception of PT. CDM.
3. The activities of PT. CDM are likely to have contributed to the scarcity of clean water in the area, especially in the dry season, which has been caused by the various changes in land use in the area, including the development of oil palm and forestry plantations. The reduction in the quantity and quality of water available has increased the time, energy and money which the local communities have to spend in order to obtain water to meet their daily needs. The villages most affected by the shortage of water are the transmigration villages.
4. Decline of traditional values and change in lifestyles. The development of PT. CDM in the area has encouraged communities to transition from more traditional lifestyles, based on communal living and co-operation, to a more modern system based on purchase of the goods and services necessary to meet individual needs.

Measures identified to manage the social impacts

1. Ensure that waste from PT. CDMs operations does not pollute the rivers in order that local communities continue to have access to clean water and the fish populations the fisherman depend on do not decline.

2. The company should design the HCV management areas carefully to ensure that the fish populations which the fisherman depend on are maintained.
3. The company must push the local government produce definitive boundary maps for the villages which overlap with the PT. CDM, in order that this can be used as the basis for defining the area and location of the plasma which will belong to each co-operative. PT. CDM must then work with the co-operatives to develop clear plans and time lines for plasma development and MoUs concerning the management of these smallholder schemes. CDM must invest significant amounts of time and energy in regularly socialising the plasma scheme, the progress of its development and providing training to ensure that the co-operatives are well managed.
4. CDM should ensure that the local communities understand the process for land compensation by preparing a document which explains this and socialising it
5. Develop a short term and long term programme for community development, which is based on an assessment of each communities' needs.
6. Contribute to the development of basic infrastructure for the community (such as for education, health, clean water, information technology) to improve the quality of life for the community.
7. Be proactive in communicating with the local communities, particularly the village heads. These efforts need not be formal as they might be more effective if informal. These will be seen as important in building trust with the local community.

4.3 High Conservation Value (HCV) Assessment

Based on the integration of the data obtained through the desktop analysis and the field surveys the presence and distributionof HCV 1 to 6 was identified, as shown I Table X and Tabel X respectively.

HCV 1 relates to habitat known to support rare, threatened and endangered species, as well as the locations where Critically Endangered species were identified to be present during the field surveys. For mobile species such as the orangutan, hoofed and arboreal mammals, the concern is to safeguard habitat and the connectivity with other areas of suitable habitat that remains both within and in the area surrounding the concession. For less mobile species, such as the crocodiles, it is essential to protect any breeding sites identified as well as habitat known to support resident populations.
The areas where HCV 3 is present within the concession are more extensive, covering the ecosystems and the processes that stabilize the regional ecology. These processes include the natural controls of insect pests that would otherwise threaten commercial and subsistence agriculture. An analysis of the successional stage of the habitats which support HCV 3 was used as a way to determine the areas which should be setaside as conservation reserves in order to maintain these values. This is because, in general, late succession stages are ecologically more complex and thus more able to support populations and natural processes.

The project area is subject to seasonal flooding which varies in frequency, extent and time each year.

2013 experienced frequent flood for extended periods, while 2014 has seen little flooding to date. The HCV 4 identified during this assessment therefore primarily concerns natural and physical features of the landscape that play an important role in mitigating flooding, such as the raised banks of rivers and the low-lying areas behind them which hold flood waters.

The presence of HCV5 denotes the presence of resources which are used by local communities to meet their basic needs. The National Land Agency (BPN) have acknowledged the importance of the riverine areas for settlement and economic use by the local communities by enclaving these areas from PT. CDMs land use title (HGU). These areas have been classified as HCV 5. HCV 5 was also identified in areas of forest that are used for the collection of Non-Timber Forest Products (NTFPs), such as rattan. Whilst the communities have cultivated crops in areas close to the roads that have been built within the PT. CDM Land Use Title (HGU), whether or not these areas are deemed to support HCV5 will be determined by the outcome of the FPIC process for compensation for land acquisition. HCV 6 was only recorded outside the HGU among the villages (desa) which are within the additional Izin Lokasi in the north east (transmigrant area). These areas still fall under the responsibility of the project proponents.

Table 9: HCVs identified within the area of interest

HCV	Survey findings	Reference & potential Stakeholders with interests
HCV 1.1	There is no Protected Conservation Area overlapping or adjacent to the site.	Not applicable
HCV 1.2	At least four CR species of trees- *Dipterocarpus cornutus, D validus, Shorea balangeran and Vatica rassak* – and crocodile, *Crocodylus siamensis* currently synonymous with *C. raninus* are found in the CDM.	IUCN (Critically Endangered species)
HCV 1.3	Several species of plants and animals that are threatened and/or protected are found in the site. These include the Proboscis monkey *(Nasalis larvatus),* Mueller's gibbon (*Hylobates muelleri*), and Pangolin *(Manis javanica)* which habitat needs to be protected.	IUCN; Govt of Indonesia (protected species)
HCV 1.4	While not directly surveyed, it is likely that the natural areas with forests and water bodies will be used for nesting and breeding by fishes, amphibians, reptiles and birds. The presence of crocodiles suggests seasonal breeding /nesting sites need to be maintained.	WWF Indonesia (breeding sites)
HCV 2.1	The project area is part of the larger natural ecosystems in the landscape. Although disturbed, there are 'wetlands' like peat swamps and freshwater swamps that are considered critical ecosystems requiring protection and appropriate management response.	CBD, Govt of Indonesia (Protected areas)

HCV	Survey findings	Reference & potential Stakeholders with interests
		WWF (Wetlands)
HCV 2.2	Much of the area of interest is an interphase/ ecotone of fresh water swamp with the drier lowland alluvial dipterocarp forest.	Govt of Indonesia(ISPO)
HCV 2.3	Despite much disturbance representative populations of plants and animals probably exist in remnant and adjacent production forests; some of these species are ERT species.	
HCV 3	Fresh water swamps and peat swamps are considered endangered, rare and threatened ecosystems as are riverine areas.	WWF (Wetlands)
HCV 4.1	Not directly assessed as source of water for consumption; but swamps attenuate water flow during floods and reduce flooding downstream.	Local community; Govt. of Indonesia
HCV 4.2	Swamp forest likely to be areas of soil deposition rather than erosion.	
HCV 4.3	Riverine areas likely to function as natural barriers to fire, though not assessed in survey	
HCV 5	Fairly extensive areas used by the local communities for cultivation of paddy, and fruit trees and collection of forest products.	Local community
HCV 6	Likely to be present with several villages along the rivers	Local community

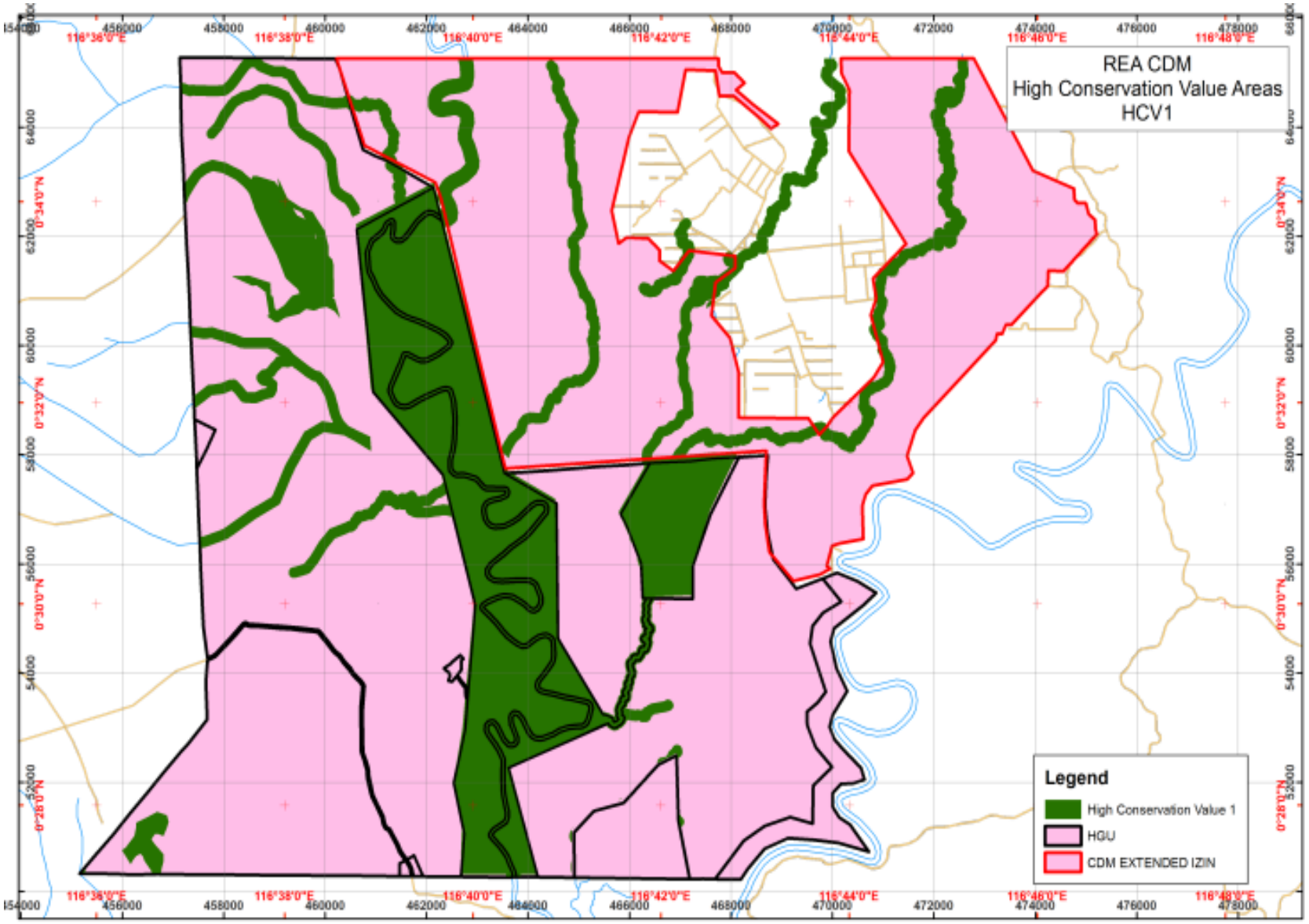


Figure 5: High Conservation Value Area HCV 1.

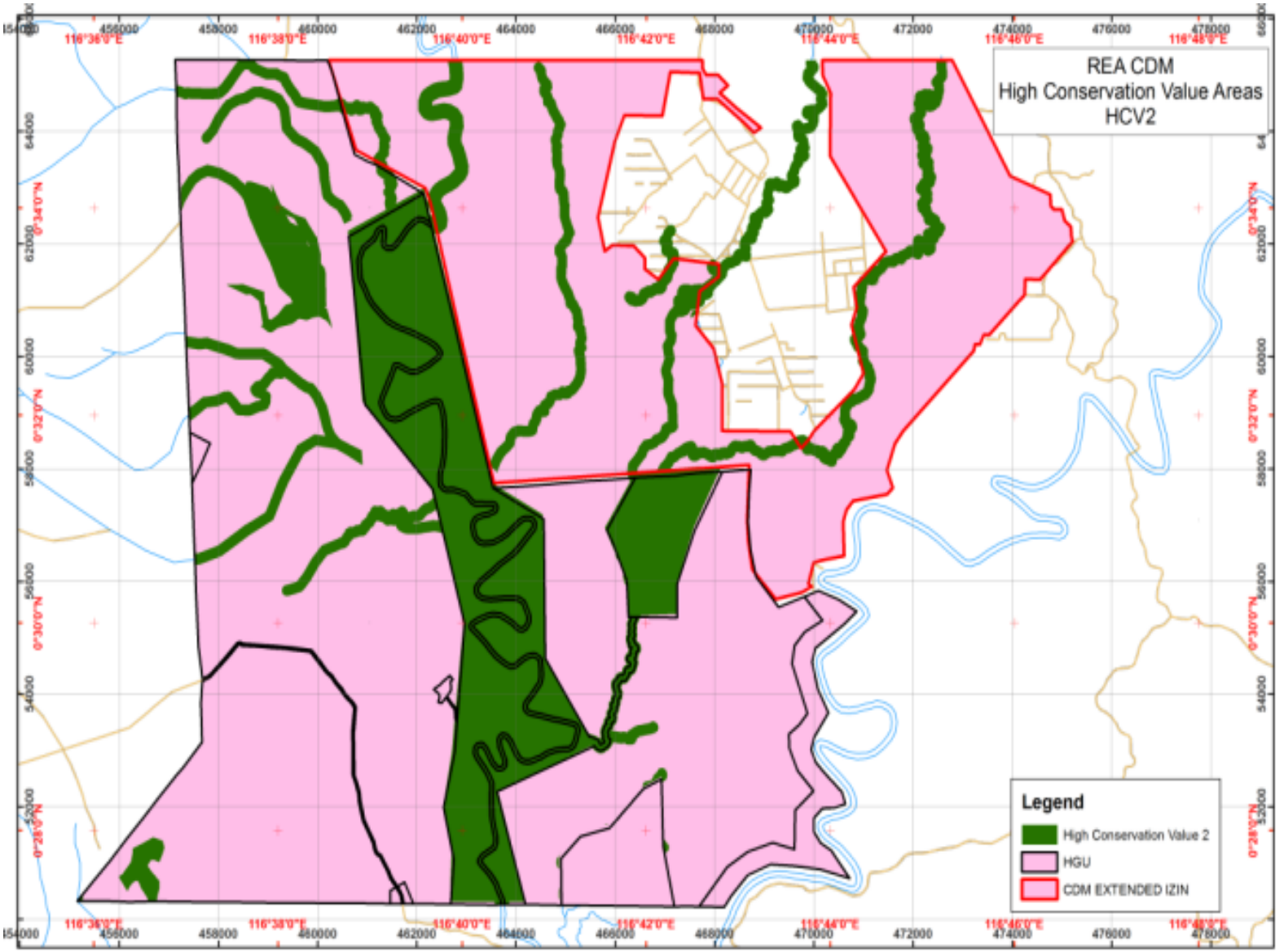


Figure 6: High Conservation Value Area HCV 2.

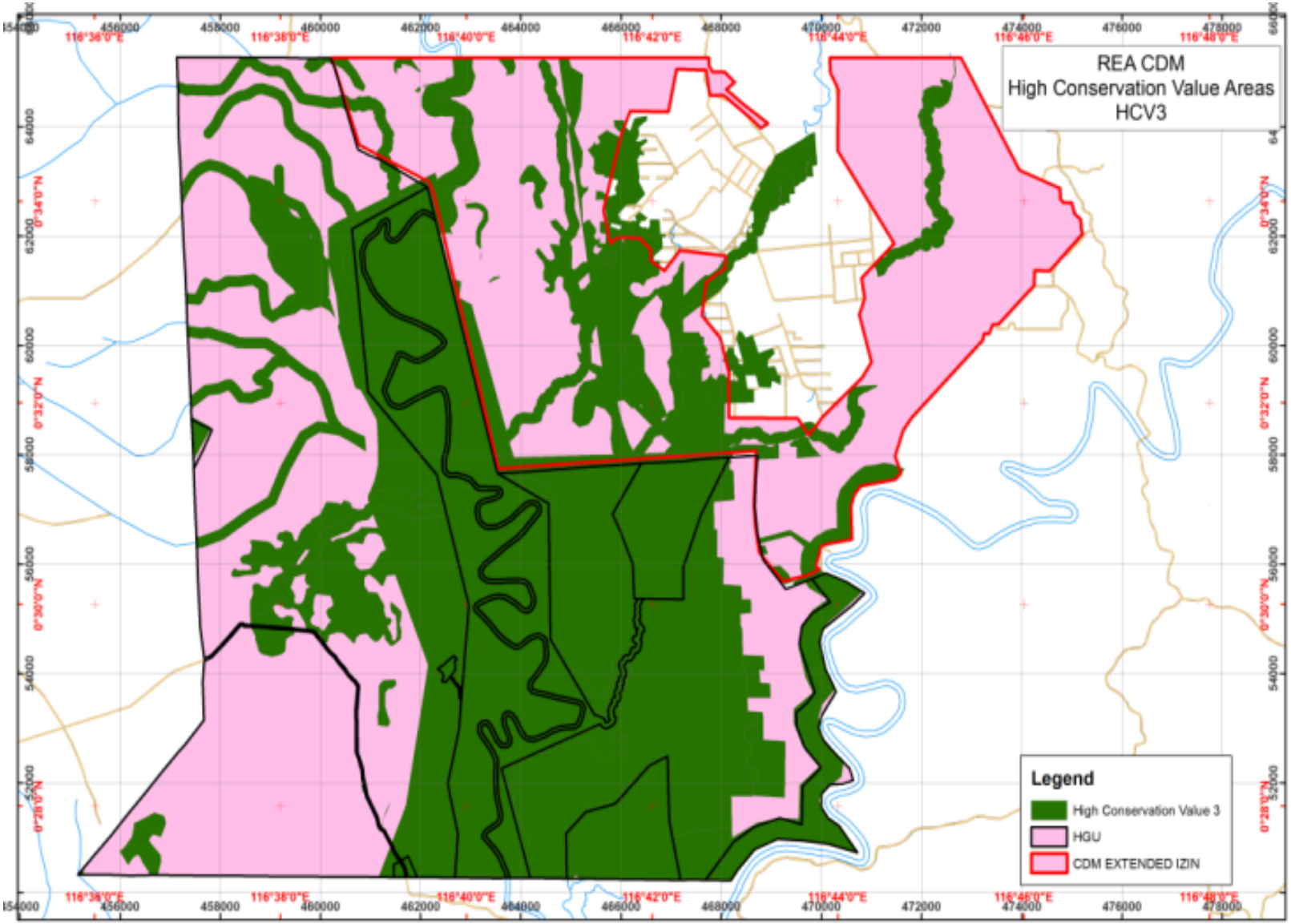


Figure 7: High Conservation Value Area HCV 3.

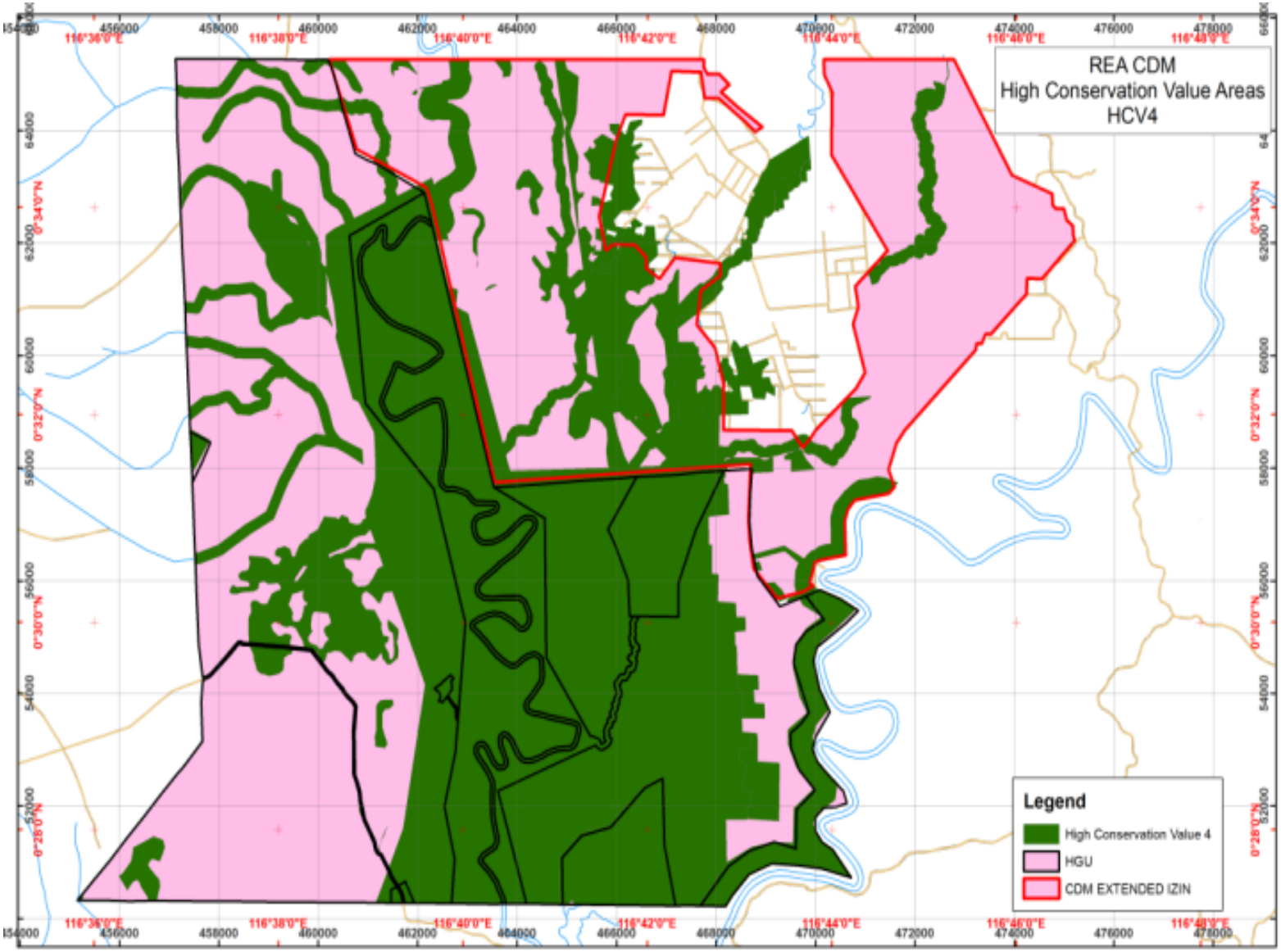


Figure 8: High Conservation Value Area HCV 4.

3.

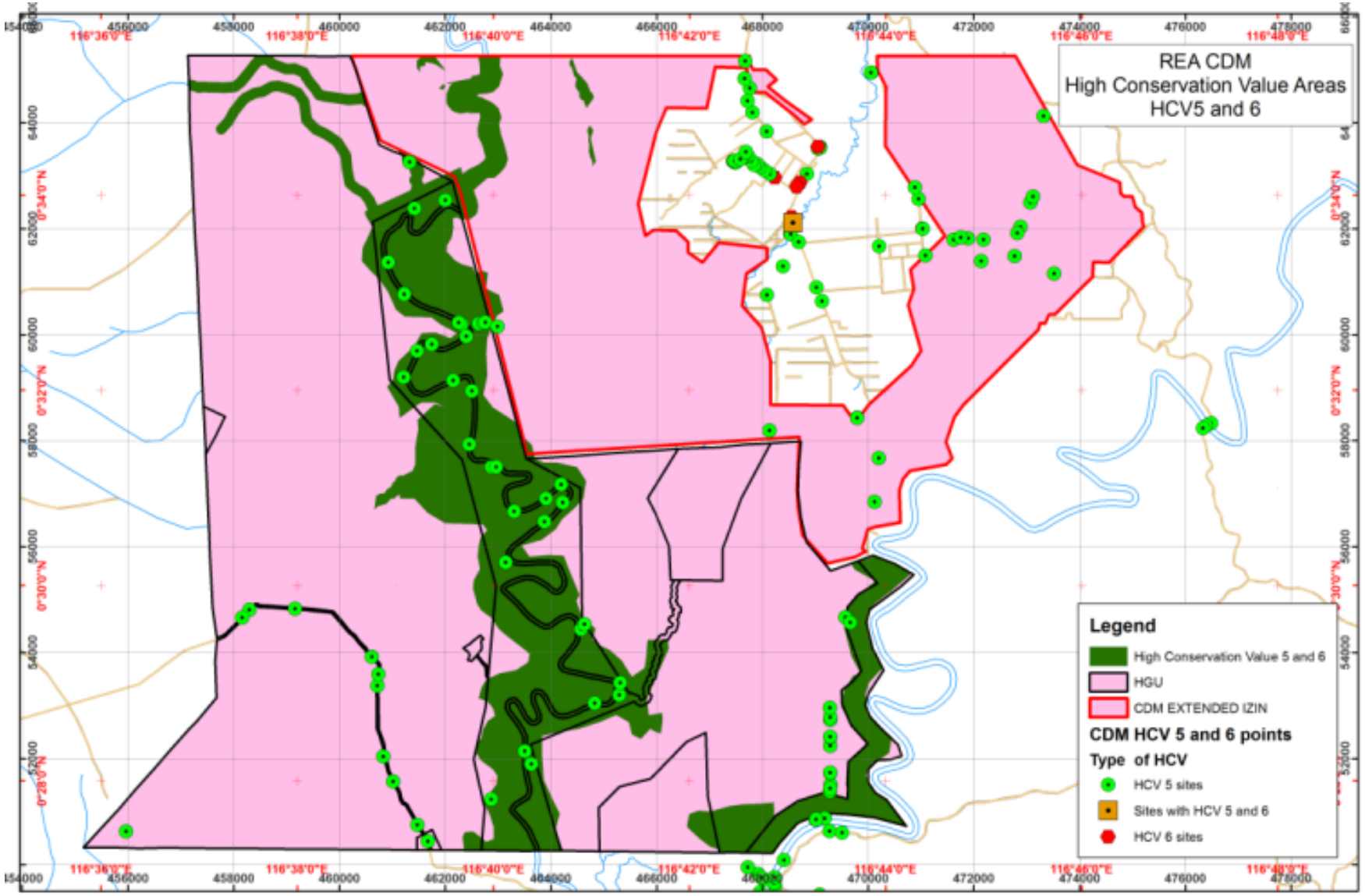


Figure 9: High Conservation Value Area HCV 5 & 6.

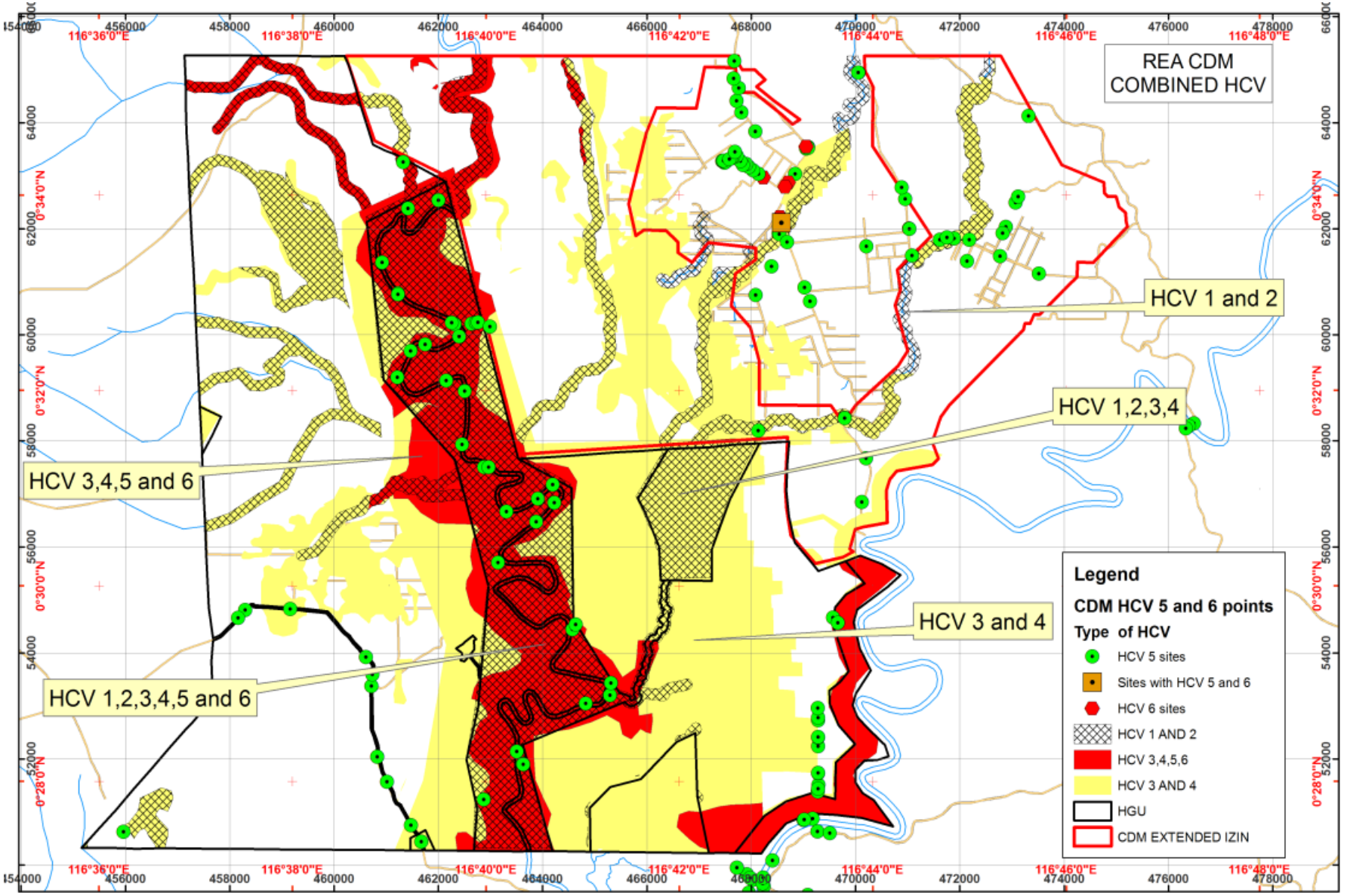


Figure 10: High Conservation Value CDM result

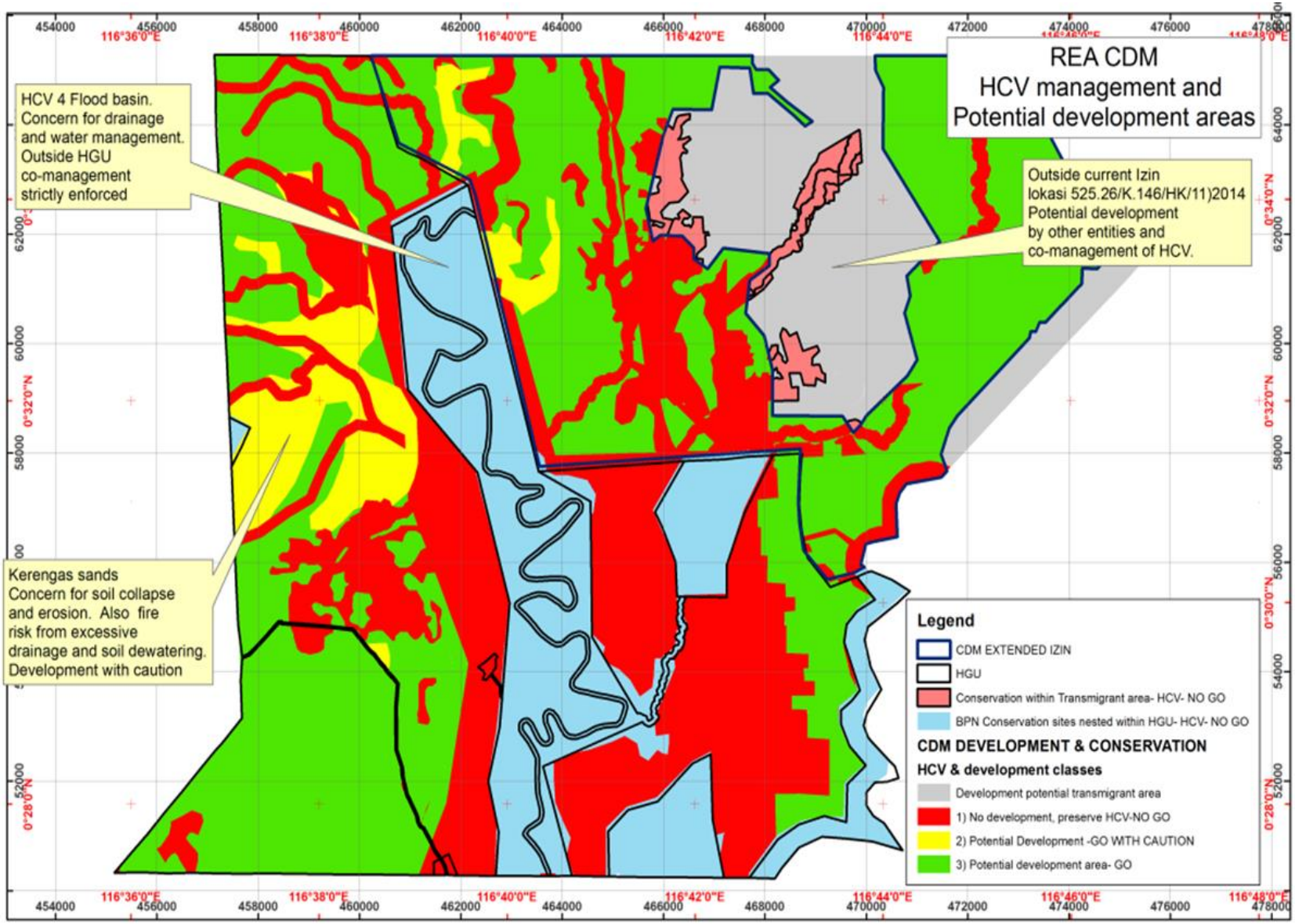


Figure 11. The location and area of each category of land within the CDM concession

Once the likely presence, status and distribution is better known as a result of the field survey and subsequent data analysis, the next step is to determine the management actions necessary to ensure that the HCVs present within the concession and wider landscape are maintained and enhanced. This is critical because it will inform the land use plan for the development of the concession. To facilitate this process, three different categories of land have been identified within this concession:

1) *'No Go'* Areas - HCV Management Areas which must be setaside for conservation
2) Areas potentially suitable for oil palm development – can be developed as long as measures are taken to maintain any HCV encountered
3) Areas available for oil palm development if agrononomically suitable (no HCV constraints to development)

INTERNAL RESPONSIBILITY

Formal Signing of By Assesors and Company

These document its summary of SEIA (Social Environment Impact Assessment) Assessment in PT. Cipta Davia Mandiri has been approved by the management of PT. Cipta Davia Mandiri

Signature Assessor ;

Kishokumar Jeyaraj
Malaysian Enviromental Consultans Sdn Bhd

Management of PT Cipta Davia Mandiri

PT Cipta Davia Mandiri

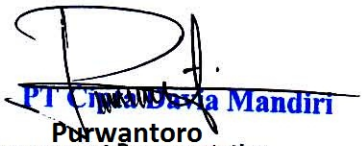
Murali Tharan
Head of Immature Estate
Date : 15 . 11 . 2014

Statement of acceptance of
Responsibility for assessments

Assessment result document on SEIA (Social Environment Impact Assessment) Assessment of PT. Cipta Davia Mandiri by Malaysian Environmental Consultants Sdn Bhd will be applied as one Of guidelines in managing palm oil plantation in PT. Cipta Davia Mandiri

Management of,

PT Cipta Davia Mandiri



PT Cipta Davia Mandiri

Purwantoro
Management Representative

INTERNAL RESPONSIBILITY

Formal Signing of By Assesors and Company

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Signature Assessor ;

Kishokumar Jeyaraj
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Management of PT Cipta Davia Mandiri

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Purwantoro
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