High Conservation Value (HCV) at landscape and jurisdictional levels in Indonesia

Highlights:

1. The HCV approach addresses biodiversity support, natural landscape, endangered ecosystems, environmental services, natural areas for local needs and culturally important areas in complex landscapes.
2. HCV at landscape level has a high potential to address conservation and protection collaboratively across actors and stakeholders, and inclusive for any land status (state and non-state lands).
3. Landscape HCV is applicable at province and district levels in Indonesia, as part of environmental assessments and safeguards for planning, policies and regulations, e.g. for KLHS (*Kajian Lingkungan Hidup Strategis*/Strategic Environmental Assessments) and KEE (*Kawasan Ekosistem Esensial*/Essential Ecosystem Area (EEA)).
4. Identified HCV areas at the landscape scale serve as reference for more detailed HCV assessments in specific management unit areas.

Conservation efforts and HCV

Conservation and protection efforts have long been sustained by governing and management authorities, through the establishment of official protected areas and protection areas, such as National Parks and Nature Reserves. However, conservation efforts might need to be reinforced in other parts of the landscape that have high conservation values but allocated for production, and with the involvement of wider stakeholders, including private sector. Production landscapes with plantations mixed with forests and agricultural lands often contain areas that deserve to be protected due to their ecologically important values. In addition, a rationale for extending conservation efforts beyond official protected areas (PAs) may also be provided by maintaining or re-establishing connections across PAs in the entire landscape. Conservation and protection principles are also an integral part of development planning and programs at jurisdictional level (province or district), thus the needs to consider conservation beyond official PA boundaries.

High Conservation Values (HCVs) are biological, ecological, social or cultural values that are considered outstandingly significant or critically important, at the national, regional or global levels. An HCV initiative is aimed at establishing conservation and protection of those values located in production lands, complementing

official conservation efforts. In practice, however, the assessment and identification of HCVs are largely associated with a requirement for voluntary certification schemes for producers of timber and agro-commodities.

To date, application of the HCV approach as a tool for spatial planning and other policy platforms is rare in Indonesia. This Policy Brief makes a case to look at the HCV approach as a fundamental tool to integrate conservation and production objectives at larger landscape or jurisdictional areas.

HCVs and their identification at management unit level

HCV concept began with the establishment of HCVF (High Conservation Value Forest) based on Principle 9 under FSC (Forest Stewardship Council). There are six HCVs, some of which with a number of attributes, while some are as single values (see Table 1). Principles and guidelines were developed globally and nationally for some countries to guide the identification of HCV. For Indonesia, an HCV toolkit was published in 2008 by Tropenbos International-Indonesia Programme as part of a consortium of NGO partners with Indonesian Resource Institute (IndRI), Daemeter Consulting, TNC, WWF, CI, FFI and Rainforest Alliance. To date, this toolkit, together with 'Common Guidance for the Identification of HCVs' published by HCVRN, has been the primary (and only) reference for the application of HCV. 'HCV Toolkit Indonesia' has been nationally acknowledged as the official guideline for determining HCVs in the context of certification schemes such as RSPO (Roundtable for Sustainable Palm Oil).

The development of HCV Toolkit Indonesia was designed for management unit (MU) as part of a larger landscape or ecosystem. MUs are supposed to conduct assessment and identify HCV areas by following the procedures set in the toolkit. In summary, the criteria for each HCV and its attributes established in the toolkit are listed in Table 1.

HCV criteria in multi-scale perspectives

All HCVs have relevance from a landscape perspective even though the identification procedures in the toolkit are designed for MU level. The criteria demonstrate that some HCVs are clearly identified as areas inside an MU while others go beyond MU boundaries and relate to neighboring areas or larger areas.

Based on HCV Toolkit Indonesia, the way how HCVs relate to the wider landscape differs across the six HCVs. Some HCV areas are identified based on their presence inside the MU areas, such as habitat of protected species (HCV 1.3) or presence of rivers and forest that are beneficial for water provision (HCV 4.1). Other HCV areas are identified due to their adjacency or closeness to important conservation or protection areas, normally identified by means of a distance calculation or through the establishment of buffer areas. Examples of these are HCV 1.1. – established as a 500 m buffer ring from official conservation forest - and HCV 2.1 - as a 3 km buffer from forest core. Any part of an MU that is located inside the buffer area should be identified and treated as HCV areas regardless the actual conditions.

Table 1. Summary of HCVs and the primary identification criteria for management unit (MU)

HCV	Attri-butes	Brief definition	Primary criteria for MU	Landscape dimension *
HCV 1 Areas with Biodiversity Importance	HCV 1.1	Biodiversity support function	Presence of important biodiversity areas, closeness to conservation area and/or activities on biodiversity conservation	Yes (in relation to nearby areas)
	HCV 1.2	Critically endangered species	Presence of red-list species in or near an MU	No
	HCV 1.3	Habitat with viable populations of protected species	Presence of habitat and/or potential carrying capacity inside MU	No
	HCV 1.4	Habitat of temporary use	Presence of areas for breeding, nesting, migration route, corridor, refugia	Yes (routes, corridor)
HCV 2 Natural Landscape and Dynamics	HCV 2.1	Large natural landscape	Forest with >20,000 ha internal core, with 3 km buffer from edge – in the landscape shared by MU	Yes
	HCV 2.2	Two contiguous ecosystems	Transition areas of ecotones or elevations -- in the landscape shared by/ close to MU	Yes
	HCV 2.3	Representative population of most naturally occurring species	Area(s) near or inside MU that fulfil the criteria as proxies for representative population	Yes
HCV 3 Rare and Endangered Ecosystems		Rare or endangered ecosystems	Ecosystem type(s) having been lost (past) or potentially lost (future) – inside MU area	No
HCV 4 Environmental Services	HCV 4.1	Provision of water	Forest, rivers, riparians, catchments – inside MU, as water source and regulator	No
	HCV 4.2	Erosion prevention	Forested areas with high erosion potentials – located inside MU	No
	HCV 4.3	Fire barriers	Forested areas, wetlands, vegetation functioning as fire barriers – located inside MU	No
HCV 5 Natural areas for local basic needs			Areas that : 1) are important natural resources to a local community that cannot be replaced 2) are used and protected by local people	No
HCV 6 Areas of local cultural Identities			Areas that play an important role in the traditional cultural identity and needs.	No

**: evaluated from whether or not the process of HCV identification at the MU level considers surrounding landscape beyond the MU boundaries*

HCV areas are sometimes identified through a multi-scale approach in which the assessment starts from mapping or referring to maps at a coarser scale, followed by identification through field surveys in the MU, e.g. HCV 3 (rare or endangered ecosystems) which is based on Regional Physical Planning Programme for Transmigration (RePPPRoT) map. Identification of HCV areas may also be purely based on observation on the ground without reference to existing or larger maps. Such examples are creeks identified as HCV 4.1 or HCV 5, and micro slopes identified as HCV 4.2.

HCV for landscape or jurisdictional planning and assessments

The HCV concept and approach cover comprehensively elements for conservation and protection, ranging from biodiversity aspects, natural landscapes, endangered ecosystems, water and hydrological functions, soil erosion prevention, fire prevention to important areas for local livelihoods and culture. The assessment and identification of HCV areas follow standardised procedures that

have undergone tests and various applications, and have thus good potentials to be adopted for larger landscape and jurisdictional levels as 'Landscape HCV'.

The strengths of HCV method lie in the wide range of values and the tested criteria and measures, while to date, there are no other similarly comprehensive methods. An existing method for Indonesia called 'scoring approach' is utilized for identifying *Hutan Lindung* (Protection Forest) and *Kawasan Lindung* (Protection Zone), based on Minister of Agriculture's Decree in 1981. This method, while incorporating quantitative values (scores), only covers environmental hazard variables, i.e. erosion and sedimentation.

In Indonesia, subnational jurisdictional planning is conducted at different scales and with different processes, from RPJP (Long-term Development Plan), RPJMD (Medium-term Development Plan), RTRW (Spatial Plan), and RDTR (Detailed Spatial Plan). To provide safeguards for policy, plan or program at jurisdictional and landscape scales, an assessment called KLHS (*Kajian Lingkungan Hidup Strategis*/ Strategic Environmental Assessment) is applied. At a smaller scale, there are instruments for environmental assessments, such as, among others, AmDaL (*Analisa mengenai Dampak Lingkungan*/ Environmental Impact Assessment), UKL-UPL (*Upaya Pengelolaan Lingkungan Hidup dan Upaya Pemantauan Lingkungan Hidup* /Environmental Management Efforts and Environmental Monitoring Efforts).

Within the Spatial Planning (RTRW), such as district spatial plan (RTRWK), the spatially explicit distribution of areas and zones is planned and defined into two categories: Production Zone *(Kawasan Budidaya)* and Protection Zone *(Kawasan Lindung)*. In addition, RTRW also determines Strategic Zone *(Kawasan Strategis)*, i.e. development priority area that is assigned due to its importance from an economic, socio-cultural or environmental point of view. A Landscape HCV approach is very suitable to identify the values and areas to qualify for Protection Zones and Strategic Zones. At the very least, identified HCV areas can be used as the reference for the discussion and determination of these zones.

KLHS is an instrument to assess the sustainability of certain policies or plans mainly from the environmental, economic and socio-cultural points of view. It is mandatory for any government policy, plan and program, mandated by the Environmental Law of 32/2009. Through KLHS, national and subnational level (provincial and district) development plans and spatial plans are assessed, and the assessment results serve as safeguards and reference for further sectoral planning and program development. KLHS may also include scenarios and recommendations for mitigation and/or alternative solutions upon the findings on impacts of the development plans. In this respect, KLHS can benefit from the HCV approach to provide recommendations on conservation and protection areas. Such an application has shown to be successful in KLHS of the spatial planning in Ketapang and Kayong Utara districts in West Kalimantan.

The inclusion of Landscape HCV as part of KLHS in district or provincial plans can further serve as safeguard reference for various productive activities established in the landscape, such as those in forest, cash-crop and mining concession areas. Furthermore, Landscape HCV in KLHS may become the reference for compulsory HCV assessments and identification at more detailed scales such as plantation management units (MUs).

Landscape HCV can function as the basis or reference for other efforts relevant at that scale. One instance is the collaborative efforts across actors and stakeholders sharing the same landscape or ecosystem(s), including MUs, government authorities and conservation organisations. Local regulation that needs to be developed can benefit from the findings of HCV assessments. Development of ecological corridor and landscape restoration are two examples of collaborative efforts at landscape level that can benefit from Landscape HCV. Landscape HCV can be part of assessments at the program level, such as watershed protection, peatland restoration, emission reduction; and may be initiated by a relevant landscape authority or stakeholders.

A new concept that is intensively discussed at the national and sub-national levels is KEE (*Kawasan Ekosistem Esensial*/ Essential Ecosystem Areas) which is defined as 'ecosystems located outside formal conservation areas that possess ecologically important functions for biodiversity conservation'. The current umbrella regulation for EEA is a Regulation of the Directorate General of Natural Resource and Ecosystem Conservation (Perdirjen P.5/KSDAE/2017) issued in 2017 which provides guidelines on the types, functions, categories, identification methods and reporting on KEE. The guidelines under this regulation already adopted the principles and methods of HCVs, which demonstrate that HCVs at landscape level have been recognised by the government. Discussions for KEE at the subnational levels have also been initiated and HCV methods have thus been incorporated, e.g. in the Governor Decree for KEE in West Kalimantan Province.

Adjustments of HCV toolkit Indonesia for Landscape HCV

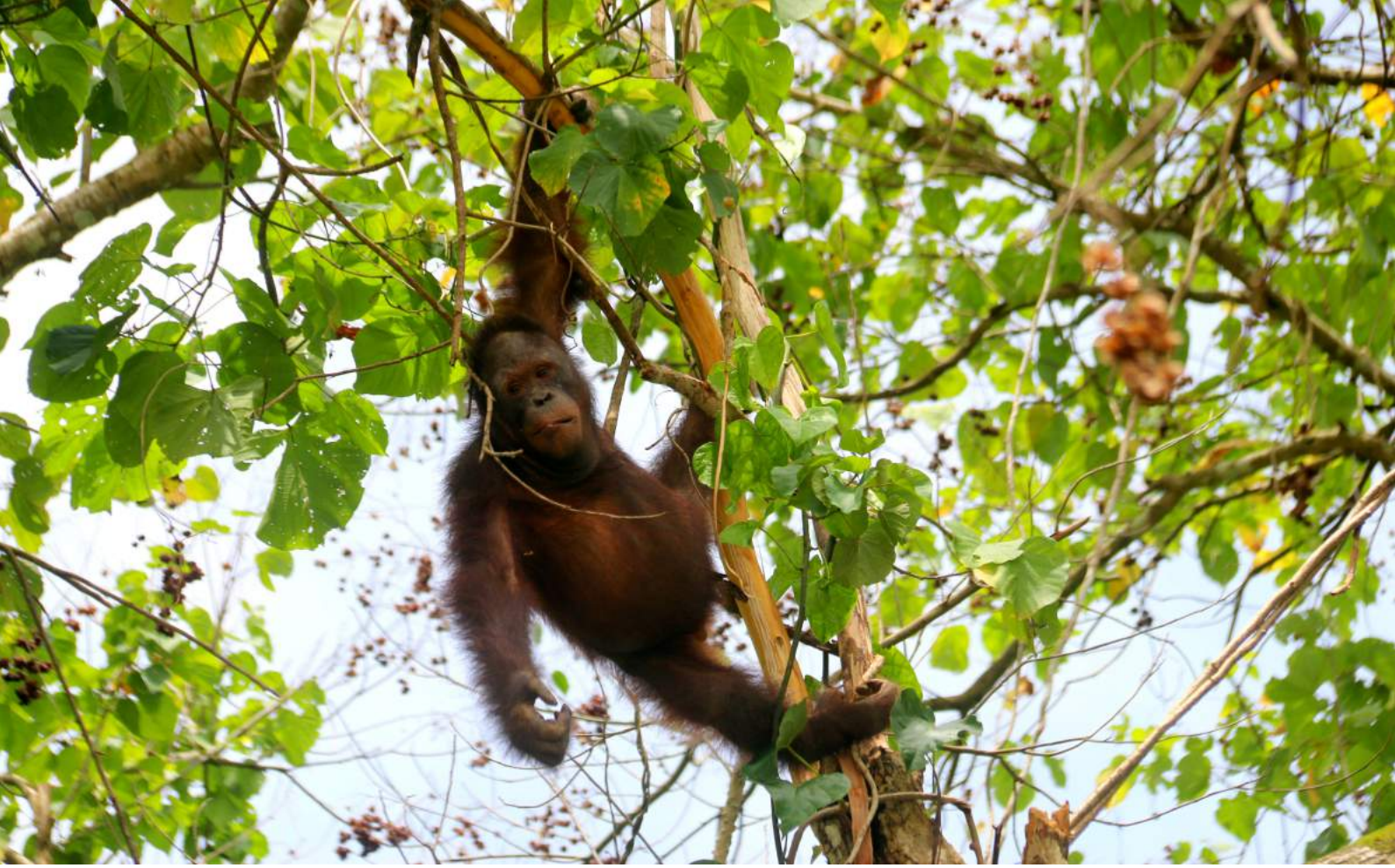
Landscape-level assessments of HCV using the established HCV methods designed for MU level require adjustments to address the different scales, levels of details and criteria. Therefore, the use of existing HCV Toolkit Indonesia for Landscape HCVs requires adjustments for some of the criteria as broadly summarised in Table 2, and with examples shown in Box.

For Landscape HCV, consequently, data collection and analyses are also done at a coarser level, i.e. using existing secondary data and information and literature study, with an emphasis on spatial data and desktop analyses. Nevertheless, primary data collection and ground surveys still play important roles, both for field check during the assessment as well as for verification and error assessments on the findings.

Table 2. Adjustment of criteria in HCV Toolkit Indonesia for Landscape HCV*

HCV	Attributes	Brief definition (From Table 1)	Rules/assumptions/ adjustment for Landscape HCV	Notes, examples
HCV 1	HCV 1.1	Biodiversity support function	Protected areas (PAs) and natural forest as centres of biodiversity	National Park, Forest Reserve, good natural forest cover (in all land status: Production Forest, non-state lands)
	HCV 1.2	Critically endangered species	Critically endangered species in the landscape	Based on existing/published information, proxy from conservation areas
	HCV 1.3	Habitat with viable populations of protected species	PAs and good-quality natural forest assumed to serve as habitat with viable population; reference to literature and models for viable population	National Park, Forest Reserve, good quality natural forest (in all land status: Production Forest, non-state lands)
	HCV 1.4	Habitat of temporary use by species	Water bodies, forest in wetland areas, and natural forest	National Park, Forest Reserve, good quality natural forest (in all land status: Production Forest, non-state lands), swamp forest, main rivers
HCV 2	HCV 2.1	Large natural landscape to maintain ecological process	Forest core >=20,000 ha with buffer 3 km located in the landscape	Forest cover in National Park and the buffer (as defined in the toolkit)
	HCV 2.2	Two contiguous ecosystems	Transition areas between ecosystems, e.g. of wetlands and surroundings, between class of elevations in mountainous areas	e.g. Wetland ecotone in the border between swamp forest and the surroundings, i.e. defined as 200 m buffer ring (100 m inward and 100 m outward)
	HCV 2.3	Representative population of most naturally occurring species	Protected areas (like National Park) and good-quality natural forest assumed to house representative population	National Park, Forest Reserve, good quality natural forest (in all land status: Production Forest, non-state lands)
HCV 3		Rare or endangered ecosystems	Rare or endangered ecosystems (as in HCV Toolkit Indonesia)	Land units in RePPProt map found in the landscape with good forest cover
HCV 4	HCV 4.1	Hydrological functions	Water bodies and areas that have recharge functions	Headwater/upstream catchments with good forest cover, main rivers, lakes
	HCV 4.2	Erosion prevention	Areas with high potential erosion and sedimentation based on existing map(s)	Steep slope areas defined in 'Land System' map (slope >40 %)
	HCV 4.3	Fire barriers	Vegetation and condition at landscape scale functioning as fire barriers, using good-quality forest as proxy	National Park, Forest Reserve, good quality natural forest, wetland forest (in all land status: Production Forest, non-state lands)

** only for HCV 1 to HCV 4*



Box: Adjustments for Landscape HCV – Examples of HCV 1.3 and HCV 4.1

Identification of HCV 1.3 (habitat of protected species with viable population) needs a field survey to determine the habitat at the MU level, while for Landscape HCV, HCV 1.3. makes use of the existence of official protected areas combined with the use of literatures, existing indicator or models on viable populations.

HCV 4.1 (provision of water), is represented by water bodies such as streams and water springs and riparian areas inside an MU area, while at the landscape level, water catchment areas, especially headwater catchments, are important elements to be identified as HCV 4.1 considering the importance of their hydrological functions for the downstream areas.

Recommendation and way forward

This Policy Brief makes the case for applying the HCV approach and methods to support assessments, planning and safeguards addressing conservation and protection at landscape and jurisdictional levels. Landscape HCV is useful to support spatial planning in areas of rapid land use changes. There are potentials of wider application as shown by evidence of adoption of the approach at national, subnational and landscape levels. Application of Landscape HCV can become the basis to develop collaborative efforts in conservation and protection, to plan for ecological connectivity across the entire landscape, to provide safeguards for development programs, and as a reference for HCV assessment at finer scales and management unit level.

The existing HCV toolkits can be utilised for assessing Landscape HCV with minor adjustments in methods and criteria. Further improvement should aim for Landscape HCV guidelines that include tested criteria and indicators for landscape level, and methods for field verification and error assessments.

References and reading materials

Brown E, Dudley N, Lindhe A, Muhtaman DR, Stewart C , Synnott T (eds.). 2013. Common guidance for the identification of High Conservation Values. HCV Resource Network.

Flora and Fauna International. 2010. High Conservation Value Forests in Ketapang Landscape. Flora and Fauna International-Indonesia Program.

Pemerintah Kabupaten Ketapang, Provinsi Kalimantan Barat .2014. Kajian Lingkungan Hidup Strategis RanPerda Rencana Tata Ruang Wilayah Kabupaten Ketapang Tahun 2014 - 2034.

The Consortium for Revision of the HCV Toolkit for Indonesia. 2008. Guidelines for the Identification of High Conservation Values in Indonesia (HCV Toolkit Indonesia). The Consortium for Revision of the HCV Toolkit for Indonesia, Jakarta.

This policy brief is part of a publication series by Tropenbos Indonesia that is based on studies and discourses on Landscape HCV. The series showcases findings from a case study in West Kalimantan and the relevance of HCV Landscape for various planning and safeguards in Indonesia

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