



Improving the Criteria for Social Forestry Potential Areas in Indonesia

Highlights

Through its Social Forestry (SF) programme, the Indonesian government can grant permits to communities to use and manage lands on state-forest-land (*Kawasan Hutan*). To accelerate the programme's implementation, the government developed a map that indicates the areas that are potential or suitable for Social Forestry schemes. Tropenbos Indonesia explored criteria and methods to identify potential areas for Social Forestry in West Kalimantan Province with explicit attention to the feasibility for communities. We propose that the principles for identifying areas with potential for Social Forestry can be further improved by explicitly considering lands that have long been managed by local communities, for example as agroforests and mixed gardens, including those that fall within company concession areas.

Introduction

The Indonesian government has been rolling out an ambitious Social Forestry (SF) programme, giving local communities permits to use and manage areas located on state-forest lands (*Kawasan Hutan*).

SF in Indonesia faces numerous challenges. In several cases where SF permits were granted, communities resisted, either during the process, or after the permit had been granted [1]. Communities often find the location of the SF areas unsuitable, for example because they are located on steep areas and far away from community settlements [2], and this limits the livelihood benefits for communities [3].

Areas that are considered feasible for SF schemes are mapped in PIAPS (*Peta Indikatif dan Areal Perhutanan Sosial*, which translates to Indicative Map for Social Forestry Areas). This map is part of the programme's acceleration efforts and is based on inputs from various sources, including NGOs and civil society organisations (CSOs), and is produced by the Ministry of Environment and Forestry. The resulting map integrates information about land status (state vs private) and existing concession permits, among others, and undergoes revisions and updates periodically, based on inputs from various stakeholders [4].

Parallel to the development of the PIAPS, Tropenbos Indonesia explored ways to identify potential areas for SF in West Kalimantan province with explicit attention to the feasibility for communities, and produced a map called the 'SF Potential Map for West Kalimantan' [5]. In this policy brief we present the criteria that we applied to produce this map and reflect on their usefulness to complement PIAPS.

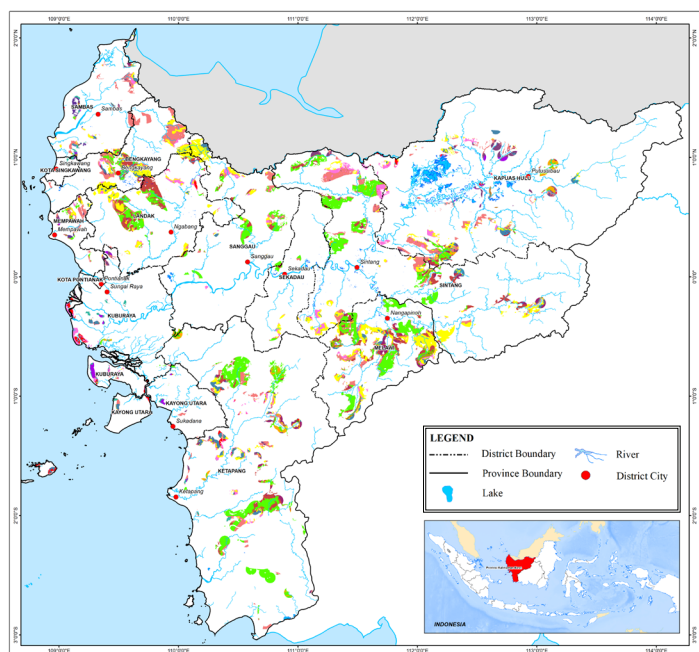
SF potential areas in West Kalimantan

Based on publicly available spatial data and maps, we aimed to accurately represent actual community land uses and community needs. The method is described briefly below:

1. The first criterion for determining SF potential areas was the existence of community-managed agriculture and agroforestry on state-forest lands, based on a map of the actual land cover [5, 6]. The second criterion was the distance to village settlements [5]. These criteria are based on our assumption that community activity and vicinity to settlements increases an area's suitability.

- Other attributes were applied as 'labels' to provide additional information on the identified potential areas, i.e. options for management, options for ecosystem-services/protection approaches, and existence of concession permits to indicate potential conflicts.
- A field check was conducted through ground-truthing and village surveys in a number of districts, to obtain evidence on, among others, types of community-managed lands, average distance from their dwellings, and current land uses.

The resulting SF Potential Map of West Kalimantan covers 1.53 million ha, distributed in all 12 districts in the province. Each of the identified potential areas was labelled with management recommendations, options for ecosystem services protection, and existing permits to anticipate conflict risks (see Figure 1).¹



Code	Recommended option for management	ES-based options	Existing permit
K-1	Feasible for timber-based management	Yes	No
K-2	Non-timber based production (NTFP, MPTS) with agroforestry; Forest ES	Yes	No
K-3	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES; with land rehabilitation measures	Yes	No
K-4	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES, carbon; restoration approach	Yes	No
K-5	Feasible for many productive options: timber-based, NTFP, MPTS, with agroforestry practices	No	No
K-6	Non-timber based production (NTFP, MPTS) with agroforestry	No	No
K-7	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES; with land rehabilitation measures	No	No
K-8	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; restoration approach	No	No
K-9	Feasible for many productive options: timber-based, NTFP, MPTS, with agroforestry practices	No	Yes
K-10	Non-timber based production (NTFP, MPTS) with agroforestry	No	Yes
K-11	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES; with land rehabilitation measures	No	Yes
K-12	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; restoration approach	No	Yes
K-13	Feasible for timber-based management	Yes	Yes
K-14	Non-timber based production (NTFP, MPTS) with agroforestry; Forest ES	Yes	Yes
K-15	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES; with land rehabilitation measures	Yes	Yes
K-16	Non-timber based production (NTFP, MPTS) with agroforestry and/or paludiculture; Forest ES, carbon; restoration approach	Yes	Yes

Note: NTFP = Non-Timber Forest Product; MPTS = Multipurpose Tree Species; ES = Ecosystem Services

Figure 1. SF Potential Map of West Kalimantan (top); explanation for the colours and codes (bottom)

¹ In digital format, the map includes more layers such as slopes and accessibility [5]

The third revision of PIAPS was published in 2019 [7] and for West Kalimantan the areas cover 1.07 million ha, distributed across all 12 districts in the province (Figure 2).

A closer look at the PIAPS shows that many areas are located in remote forest areas, far from community settlements, while the areas that have long been managed by communities as agroforests and mixed gardens are excluded (Figure 3).

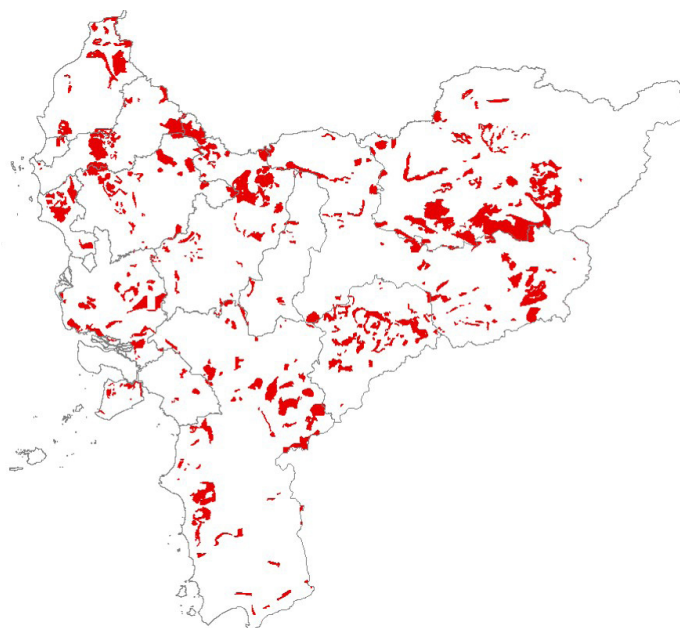


Figure 2. Indicative areas for SF in PIAPS version-3 (2019) for West Kalimantan

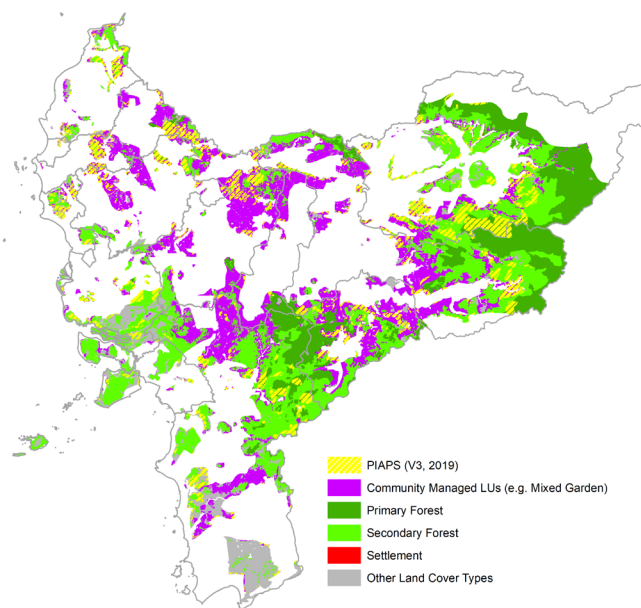


Figure 3. PIAPS version-3 (2019) on land cover map in State Forest Lands of West Kalimantan

Comparison of SF Potential Map and PIAPS

We compared the two maps for West Kalimantan and found that the matched areas covered 23 % of the SF Potential Map and 32% of the PIAPS. Figure 4 shows the comparison for the districts of Ketapang and Melawi as examples. The black ellipses indicate areas that match between the two maps. The red ellipses show areas that were included in the PIAPS, but

not in the SF Potential Map; these lands are located far from village settlements and are currently not used or managed by communities. Finally, the blue ellipses indicate areas that were included in the SF Potential Map but omitted in the PIAPS. These community-managed lands (criterion 1 above) include those with traditional claims of the indigenous communities, who have managed the lands for generations (locally called *tembawang*), as well as those located in areas with existing concession permits (see Figure 4).

In the PIAPS of West Kalimantan, only 36% of indicative areas is currently being used by communities, while 51% is covered with forest (primary and secondary). This is in sharp contrast with the SF Potential Map of West Kalimantan, where 73% of the areas are currently managed by communities, and only 15% of the areas are under primary or secondary forest cover.

Unlike the PIAPS, the SF Potential Map does not automatically exclude areas with companies' concession permits, but we apply a 'label' to indicate multiple claims and potential conflicts.

The SF Potential Map includes approximately 700,000 ha with company concession permits, of which 78% is *de facto* being managed by communities as agroforests and mixed gardens. This shows the extent of overlap between community-managed lands and company concession lands.

Insights and lessons learnt

Based on our approach to developing the SF Potential Map of West Kalimantan and the comparison with the PIAPS, we derived the following insights and lessons:

Community-managed lands are underrepresented.

The PIAPS excludes many areas that are *de facto* being managed by communities. Considering the tree density and composition, many of these lands mimic forest. So, excluding these areas also means ignoring the existing sustainable management by communities.

Areas with concession permits should not be excluded upfront.

Companies have concession permits for large areas in the state forest lands, but many of these areas are in reality being used and managed by local communities. We argue that it should still be possible to introduce SF schemes in these areas, allowing communities to continue their practices and obtain management rights.

Unsuitable allocated areas may have negative consequences.

While we acknowledge the benefits of SF schemes in forested areas (e.g. [3, 8]), allocation of unsuitable areas for SF may have negative effects. When an SF area is located far from the settlement and is not connected to the community as their territory, the community may be reluctant to participate in the scheme's implementation. Consequently, the SF assigned management areas are at the risk of being ignored, with unclear prospects of management implementation.

The scale of both the PIAPS and the SF Potential Map is coarse, and these maps should therefore be used for indicative allocation only at the initial stage. Validation approaches, including the production of higher-scale maps, are needed for further processes.

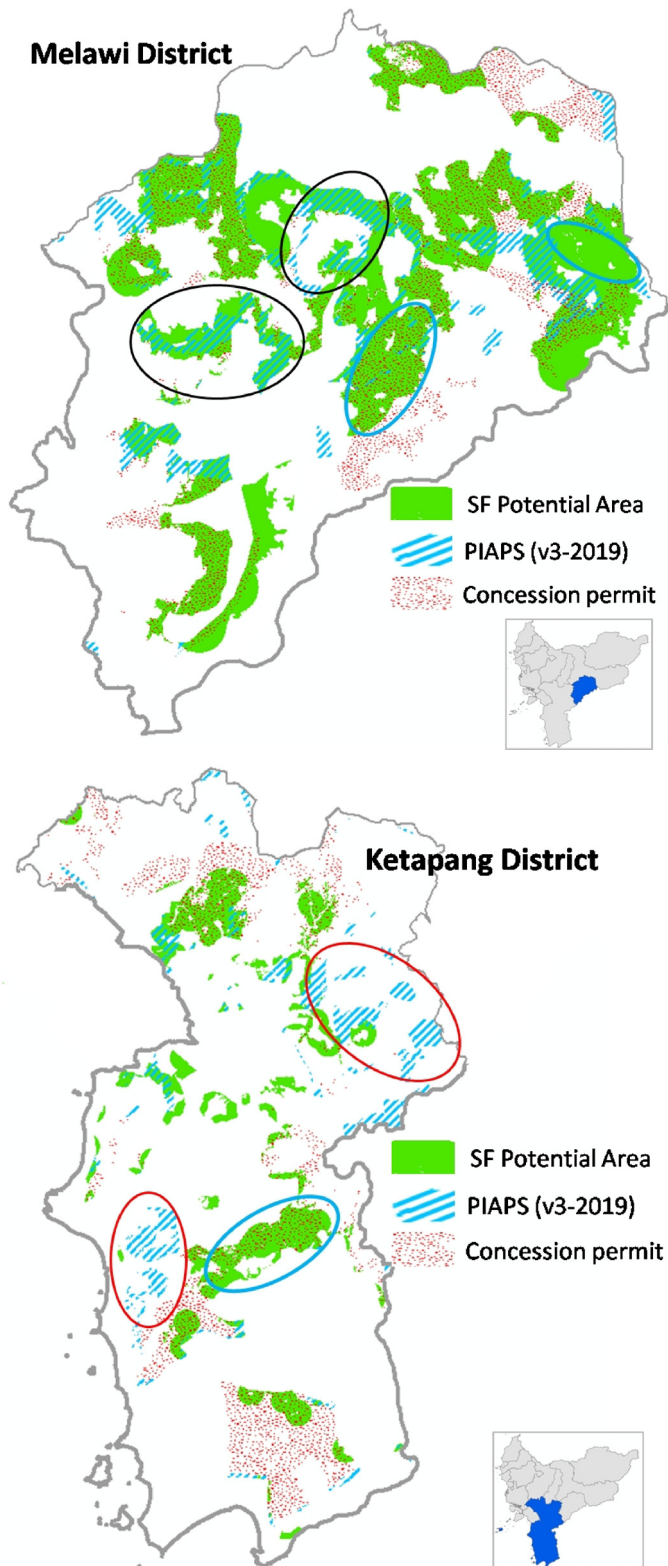


Figure 4. Examples of comparison between the PIAPS and SF Potential Map for Melawi District (top) and Ketapang District (bottom)

Suggestions for improvements

First, we suggest that the identification of areas with potential for SF schemes can be improved by explicitly considering the lands that have long been managed by communities. Forms of SF can provide security and can act as an incentive for communities to sustainably manage the lands, while at the same time preventing these areas from being converted to monoculture agriculture.

Second, one of the objectives of SF is to address tenurial conflicts [4]. However, the current SF allocation method tends to preclude areas where the government and communities disagree about the land status. We suggest that the identification of SF areas should explicitly consider those lands on which communities have traditional claims that are not yet settled with the authorities. These include lands that overlap with old logging concessions or those that are allocated for new concession permit (e.g. Forest Plantations). These areas should be checked further, for both the actual land use and the concession permits. The land may be suitable for SF, for example if it has been managed by the communities before the concession rights were issued or the permit has been expired or inactive.

Finally, we suggest that the above described approach to developing the SF Potential Map of West Kalimantan can be used to complement PIAPS and improve the criteria for SF potential areas in Indonesia. Allocating the areas with criteria that are developed to benefit communities will help provide a stronger foundation for the SF acceleration process, and for effective implementation of sustainable community-based forest management.

References

- [1] De Royer S, Pradhan U, Galudra G. 2016. *Free, prior and informed consent? Village Forest (Hutan Desa) licences in Indonesia*. Brief no. 62. Bogor, Indonesia. World Agroforestry Centre (ICRAF) Southeast Asia Regional Program.
- [2] Rohadi D, Dunggjo I, Herawati T, Wau D, Laode Y. 2017. *Promoting the development of community plantation forests in Boalemo, Indonesia*. Policy Brief no 73. Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional Program.
- [3] Resosudarmo I, Tacconi L, Sloan S, Hamdani F, Subarudi, Alviya I and Muttaqin M. (2019). *Indonesia's land reform: Implications for local livelihoods and climate change*. Forest Policy and Economics, 108, p.101903.
- [4] Menteri Lingkungan Hidup dan Kehutanan. 2016. P83/MENLHK/SETJEN/KUM.1/10/2016 Tentang Perhutanan Sosial.
- [5] Tropenbos Indonesia. 2018. *Laporan Pemetaan dan Penandaan Areal Potensial Perhutanan Sosial di Kalimantan Barat, Indonesia (Report on Mapping and Tagging of Social Forestry Potential Areas in West Kalimantan, Indonesia)*. Tropenbos Indonesia, Bogor.
- [6] Kementerian Lingkungan Hidup dan Kehutanan. 2019. *Peta Penutupan Lahan Indonesia*. Direktorat Inventarisasi dan Pemantauan Sumber Daya Hutan, Kementerian Lingkungan Hidup dan Kehutanan, Jakarta. <http://webgis.menlhk.go.id:8080/pl/pl.htm>.
- [7] Menteri Lingkungan Hidup dan Kehutanan. 2019. SK.744/MENLHK-PKTL/REN/PLA.0/1/2019 Tentang Peta Indikatif dan Areal Perhutanan Sosial (Revisi III).
- [8] Santika T, Meijaard E, Budiharta S, Law E, Kusworo A, Hutabarat J, Indrawan T, Struebig M, Raharjo S, Huda I, Sulhani, Ekaputri A, Trison S, Stigner M and Wilson K. 2017. *Community forest management in Indonesia: Avoided deforestation in the context of anthropogenic and climate complexities*. Global Environmental Change, 46, pp.60-71.

This Policy brief is the English version of an Indonesian Policy brief: Widayati A, Purwanto E, Wijaya K, Kusters K. 2019. *Identifikasi Areal Potensial Perhutanan Sosial di Indonesia: Studi Kasus di Kalimantan Barat*. Policy brief No. 02, November 2019. Tropenbos Indonesia, Bogor.

Published by: Tropenbos Indonesia

Copyright: Tropenbos Indonesia, 2019
(Text can be reproduced for non-commercial purposes by citing the source)

Citation: Widayati A, Kusters K, Wijaya K, Purwanto E. 2019. *Improving the Criteria for Social Forestry Potential Areas in Indonesia*. Policy brief No. 03, Desember 2019. Tropenbos Indonesia, Bogor.

Acknowledgements: The Social Forestry Potential Map for West Kalimantan was produced under the Green Livelihoods Alliance Programme funded by the Dutch Ministry of Foreign Affairs. We thank inputs and comments from participants at the 'Coaching Clinic on Facilitation Activities of Proposals and Technical Verification of Social Forestry in West Kalimantan Province' in September 2018, in Pontianak, West Kalimantan.

Cover photos: Beehive tree (left), Rubber tapping (middle), Riam Berasap waterfall (right) - Tropenbos Indonesia

Contact: Dr. Edi Purwanto : edipurwanto@tropenbos-indonesia.org

Tropenbos Indonesia

Jl. Akasia Raya Block P-VI No.23
Tanah Sareal, Bogor - Indonesia 16163
Ph: +62 251 - 8316156
www.tropenbos-indonesia.org



Bridging the gaps between knowledge and practises on forested landscape governance