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*“The Picture of Indonesian Palm Oil Industry,
Answering Assumptions with Facts and Figures”*



HIGHLIGHTS

Palm Oil and Poverty in West Kalimantan

The development of palm oil plantations does not automatically reduce poverty rate in West Kalimantan. Out of five districts with the largest planted palm oil area, only two districts sit below the average provincial poverty line.

Palm Oil Plantation in West Kalimantan: Size and Productivity

Despite of its reputation as the province with the third largest planted palm oil area, palm oil productivity in West Kalimantan only ranks 10th out of 10 provinces with the largest size of planted palm oil area nationally.

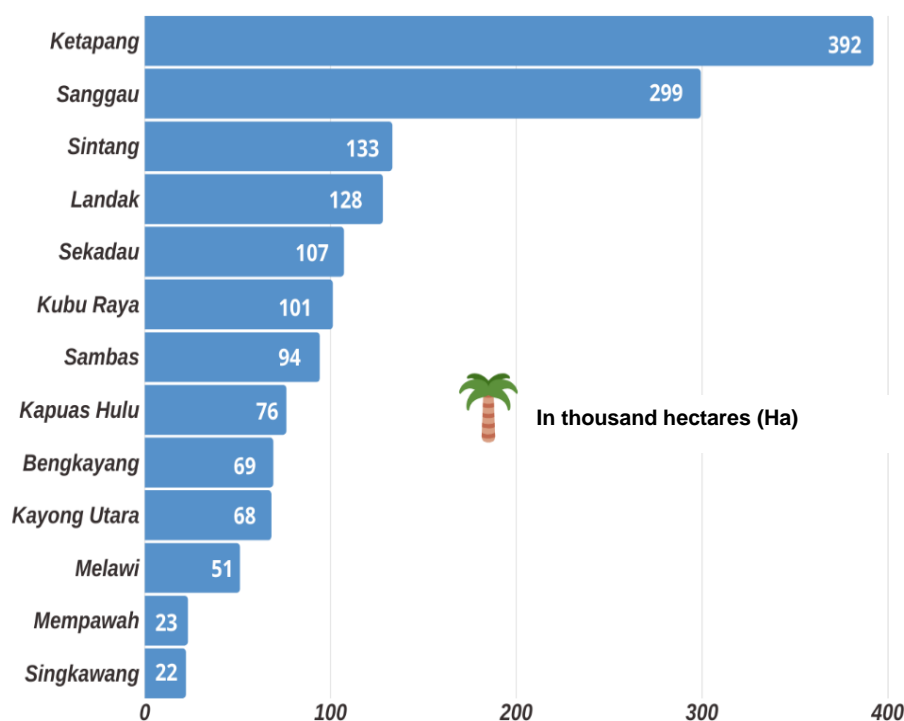
Recommendations for Fire Aware Villages in West Kalimantan

There are 32 villages in West Kalimantan that are adjacent to palm oil concessions with the highest number of hotspots. However, only one village is listed as a priority for Manggala Agni patrol. It is very opportune to have multi-stakeholder collaborative efforts to increase the effectiveness of forest and land fires prevention and control in West Kalimantan.

Palm Oil and Poverty in West Kalimantan

West Kalimantan is a province with the 3rd largest planted palm oil area in Indonesia. In 2011 the total planted palm oil plantation in this province was only 683 thousand hectares but expanded significantly up to 1.53 million hectares in 2018 with an average growth rate of 121 thousand hectares per year. There are speculations regarding this expansion. Some say that the expansion is driven by the demand from global market¹ and others by the need to boost the regional economic growth². Aside from the causes of the expansion, there is a general understanding that palm oil has an important role in poverty eradication. To directly examine the correlation, first of all, we can see the data regarding the size of planted palm oil area in the districts in West Kalimantan as presented in Chart 1 below.

Chart 1: The Size of Planted Palm Oil Area by District in West Kalimantan Province 2018



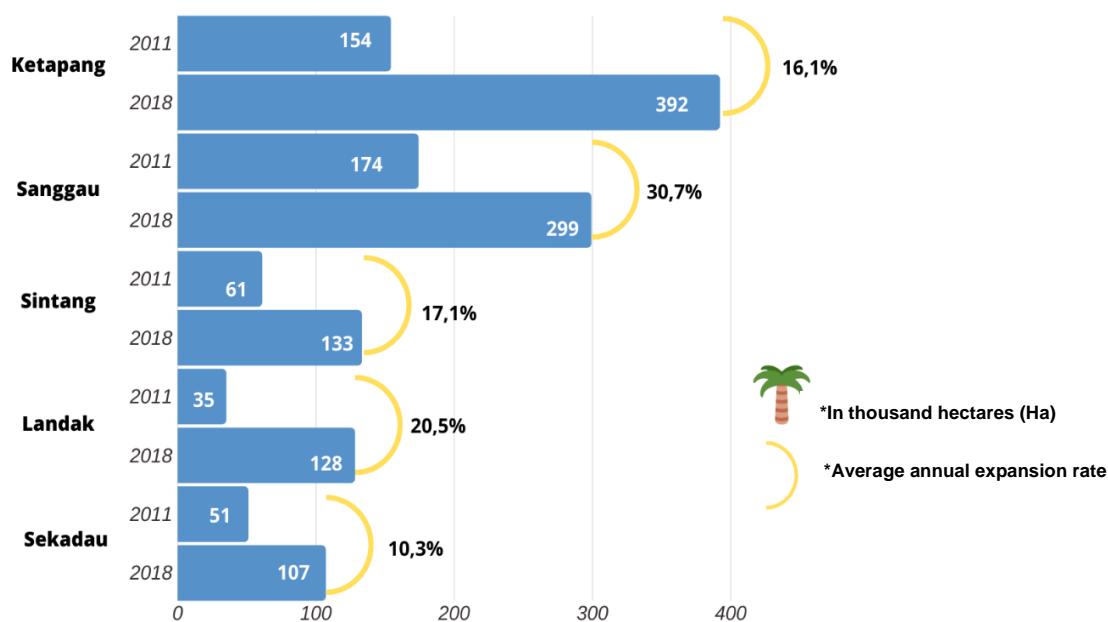
Source: Tree Crop Estate Statistics of Indonesia: Palm Oil Commodity, 2011 – 2019 Compilation (processed)

Ketapang District ranks 1st with 392 thousand hectares of planted palm oil area, followed by Sanggau with 299 thousand hectares; Sintang with 133 thousand hectares; Landak with 128 thousand hectares and Sekadau with 107 thousand hectares. Despite the reputation of having the largest planted palm oil area in West Kalimantan, the average expansion rate of planted palm oil area in Ketapang District was only 16.13% during the 2011-2018 period, or 24.840 hectares per year on average. Meanwhile, the average expansion rate of planted palm oil area in Sanggau District reached 30.78% during the 2011-2018 period, or 53.590 hectares per year on average. Therefore, Sanggau has the reputation as the district with the highest expansion rate. More detailed information can be seen in Chart 2.

¹ Marcus Colchester, et al. Ekspansi Kelapa Sawit di Asia Tenggara: Kecenderungan dan implikasi bagi masyarakat lokal dan masyarakat adat. 2011. Forest People Programme dan Sawit Watch

² Accessed from <https://www.wartaekonomi.co.id/read254359/sawit-mampu-gerakkan-pertumbuhan-ekonomi-pinggiran.html> on 25/01/20

Chart 2: The Average Expansion Rate of Planted Palm Oil Area by District in West Kalimantan Province 2018



Source: Tree Crop Estate Statistics of Indonesia: Palm Oil Commodity, 2011 – 2019 Compilation

Among the five districts with the largest planted palm oil area in West Kalimantan, the assumption is that the poverty rate must be low in districts with the largest planted palm oil area. This assumption is supported by discourses among the community. The Dean of the Faculty of Forestry of Tanjungpura University, Gusti Hardiansyah, stated that in the last 20 years, there are at least four districts in West Kalimantan with rapid growth of palm oil plantation, namely Landak, Sanggau, Sintang, and Ketapang. Along with the growth of palm oil in the four districts, the welfare of the community also improved.³ A similar argument also comes from the Indonesian Palm Oil Association (GAPKI) of West Kalimantan that keeps repeating that palm oil is empirically proven in lowering the poverty level.⁴ However, the Governor of West Kalimantan, Sutarmidji, argued the opposite. He said that palm oil plantation in Indonesia has no direct impact on poverty eradication.⁵

To clarify these contradicting arguments, we must compare them with data regarding the average percentage of poverty in West Kalimantan. It is shown that the development of palm oil plantations does not automatically result in a lower poverty rate. Out of the five districts with the largest planted palm oil area (Ketapang, Sanggau, Sintang, Bengkayang and Landak), Sanggau and Bengkayang are the only districts with a low poverty rate, which is under the provincial average. The poverty rate in Ketapang is quite high, which is 11.72% although the district has the largest planted palm oil area and its land allocation is dominated by palm oil commodity (92 percent)⁶ while the remaining 8 percent is allocated for non-palm oil commodities. The data shows that the size of planted palm oil area does not necessarily correlate positively with poverty eradication.

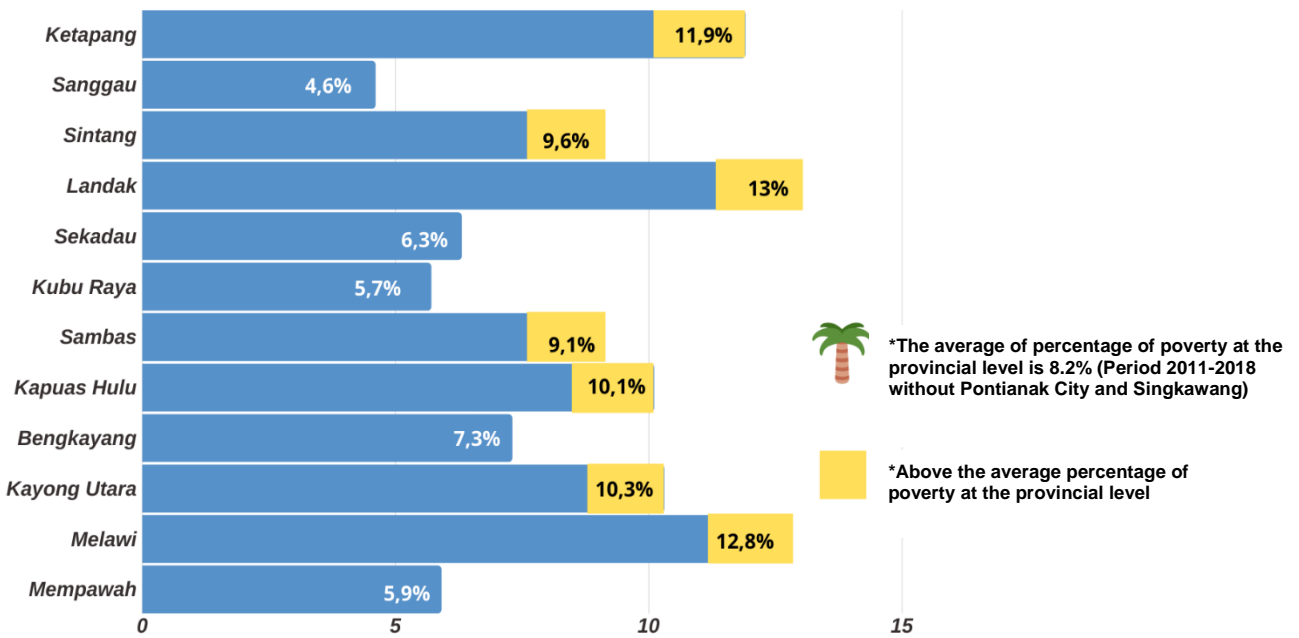
³ Accessed from <https://ekbis.sindonews.com/read/1437043/34/komoditas-sawit-gerakkan-ekonomi-kalbar-1567743092> on 15/01/20

⁴ Purba, Jan Horas, et al. Perkebunan Sawit Indonesia dalam Perspektif Berkelanjutan. Palm Oil Agribusiness Strategic Policy Institute (PASPI). 2011

⁵ Accessed from <https://katadata.co.id/berita/2019/12/03/kalimantan-barat-lumbang-sawit-yang-masih-miskin> on 15/01/20

⁶ Kabupaten Ketapang dalam Angka, 2018 (processed)

Chart 3. The Average Percentage of Poverty Level by District in West Kalimantan, Period of 2011 - 2018



Source: The Central Bureau of Statistics, 2019

Data comparison indicates an opposite trend. Districts with a low poverty rate such as Sanggau and Kubu Raya have other productive primary commodities as well as other factors that may contribute to poverty eradication. In Sanggau, 28 percent of the plantation area is allocated for non-palm oil commodities⁷ such as rubber (106 thousand hectares), cocoa (4,700 hectares) and pepper (2,600 hectares).⁸ The productivity level of the three commodities are relatively stable, namely, 54 thousand tons for rubber, 1,100 tons for cocoa, and 1,400 tons for pepper. Regarding the RGDP, although agriculture, forestry and fishery is the main contributor (more than 35%) during the 2011-2018 period, industrial and manufacturing sectors also make a notable contribution, up to 18% and 11% respectively.⁹ A similar situation is found in Kubu Raya, where they allocated 42 percent of their plantation area for non-palm oil commodities such as coconut (41 thousand hectares), rubber (34 thousand hectares) and coffee (5 thousand hectares). The productivity of those commodities in 2018 are also relatively stable, namely, 48 thousand tons for coconut, 15 thousand tons for rubber and 5 thousand tons for coffee¹⁰. Regarding RGDP, the agriculture, forestry and fishery sector of Kubu Raya only ranks 2nd (12.13 %) after industrial and manufacturing sectors (31.95%).¹¹

⁷ Kabupaten Sanggau dalam Angka. 2018. (processed)

⁸ Ibid

⁹ Ibid

¹⁰ Kabupaten Kubu Raya dalam Angka 2018

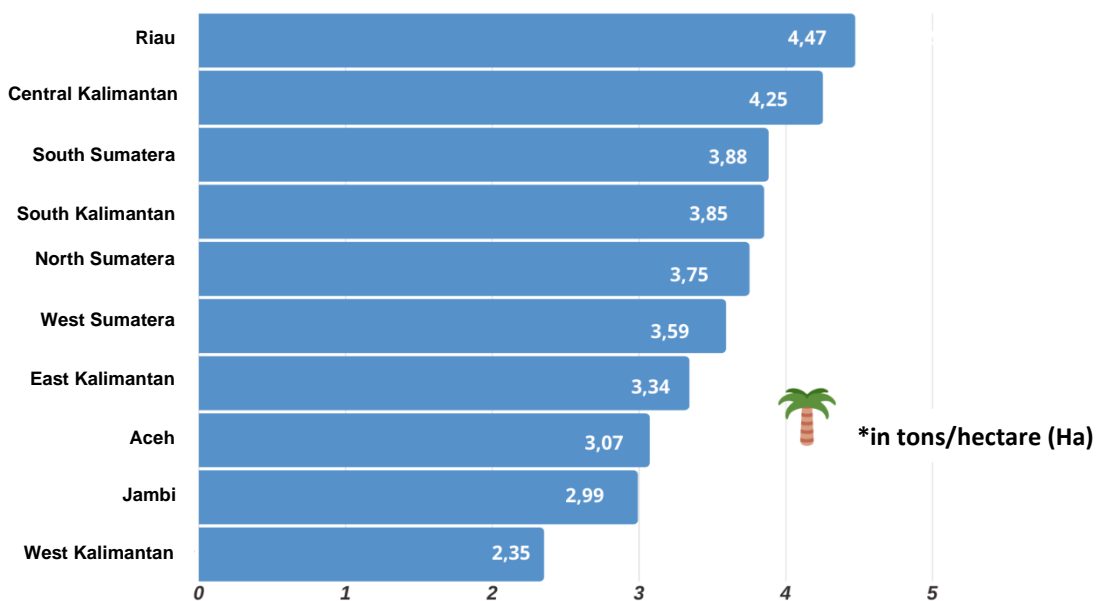
¹¹ Ibid

Palm Oil Plantation in West Kalimantan: Size and Productivity

Although West Kalimantan has a vast size of planted palm oil area, its productivity level is not automatically high. Per 2018, the size of planted palm oil area in West Kalimantan reached 1.5 million hectares or ranked the 3rd largest nationally after Riau and South Sumatera with 2.7 million hectares and 1.6 million hectares respectively. In the same year, the productivity level of West Kalimantan was only 2.35 tons/hectare or was the lowest among the largest palm oil producing provinces nationally. The productivity level of palm oil plantations in West Kalimantan is even way behind Aceh province that only has 514 thousand hectares of planted palm oil area or 1/3 from the total planted palm oil area in West Kalimantan. More detailed explanation regarding this can be seen in Chart 4 below.

Aside from the causes of low productivity in West Kalimantan compared to the other provinces, the community plantation has always been the main attention of many stakeholders.¹² The Head of Plantation Office of West Kalimantan, Florentinus Anum, said that the productivity level of community plantation is still 50% lower than the declared target or approximately 2 tons/hectare/year and is subject to further improvement.¹³ A similar statement also comes from the Head of Kubu Raya District, Muda Mahendrawan, who said that the attention for smallholders needs to be intensified. One of the suggestions is to improve governance to increase productivity.¹⁴ However, issues related to the broader conditions and the productivity level of private and state-owned plantations in West Kalimantan are rarely discussed. For a more detailed explanation regarding the two above mentioned issues, we can see data regarding palm oil plantation expansion by sectors in Chart 5 below.

Chart 4: Palm Oil Plantation Productivity in 10 Provinces with the Largest Planted Palm Oil Area, Period of 2018



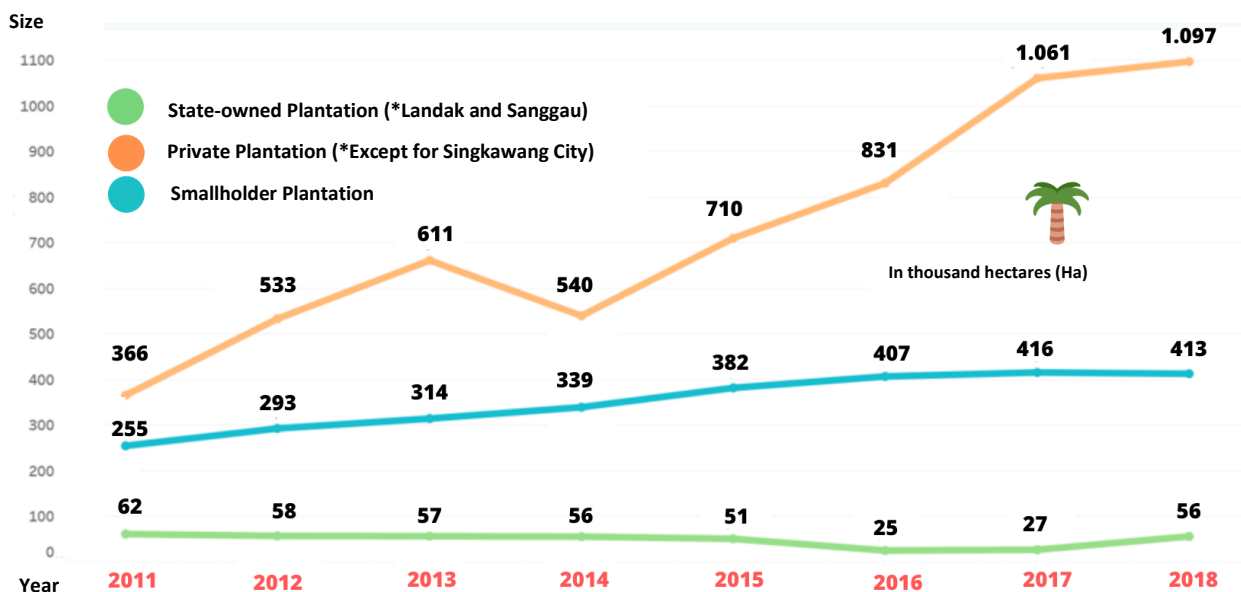
Source: Tree Crop Estate Statistics of Indonesia, 2011-2019 (processed)

¹² Accessed from http://rri.co.id/post/berita/741516/nasional/wapres_maruf_amin_tekankan_fokus_tingkatkan_produkktivitas_lahan_dan_daya_saing.html on 26/01/20

¹³ Accessed from http://rri.co.id/pontianak/post/berita/752537/ekonomi/kadisbun_kalbar_prihatin_produkktivitas_petani_sawit_baru_50_dari_target.html on 26/01/20

¹⁴ Accessed from <https://www.mongabay.co.id/2019/10/03/berbenah-petani-swadaya-desa-mandiri-dan-maju-di-kalbar-tak-ada-perusahaan-sawit/> on 26/01/20

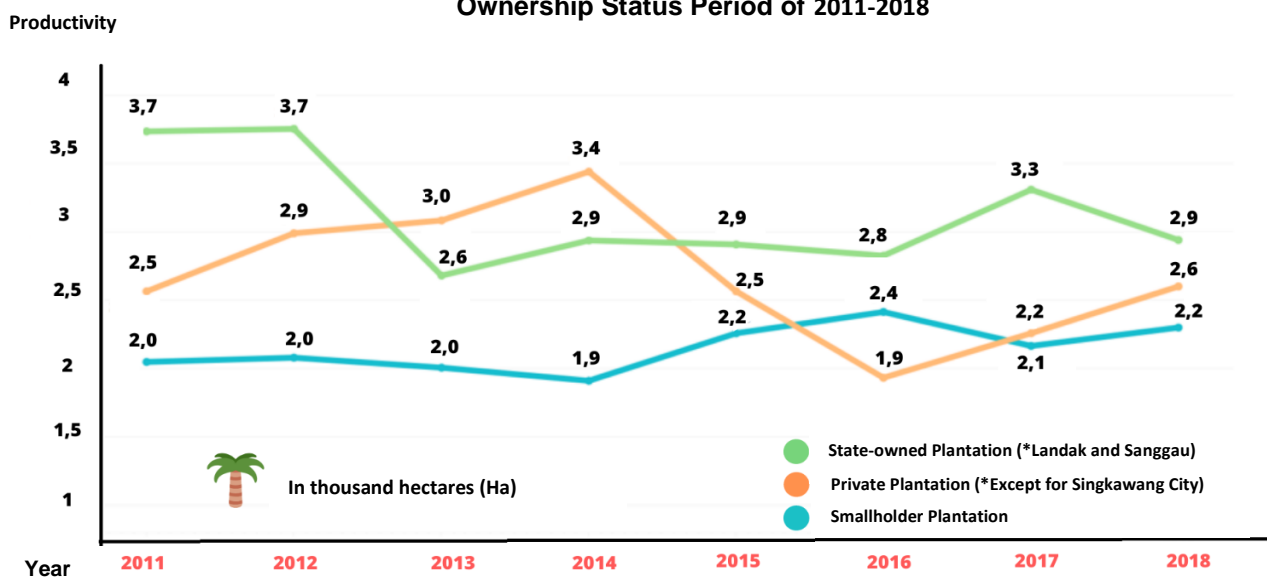
Chart 5: The Size of Planted Palm Oil Area in West Kalimantan by Ownership Status, Period of 2011-2018



Source: Tree Crop Estate Statistics of Indonesia, 2011-2019 (processed)

In terms of land control, private plantations dominate palm oil plantation area in West Kalimantan with the size of 1.09 million hectares, followed by community plantations (413 thousand hectares) and lastly, state-owned plantations (56.7 thousand hectares). During 2011-2018, the planted area of private plantations increased significantly, up to 91.5 thousand hectares/year. Similarly, community plantations were also expanding with an average rate of 19.7 thousand hectares/year. In contrast, state-owned plantations planted area was declining by 0.77 thousand hectare/year. The numbers clearly demonstrate the disparity with regards to palm oil plantations ownership in West Kalimantan. But, as shown in Chart 6 below, the size of plantation has no correlation with productivity level in each sector.

Chart 6: The Average Productivity level of Planted Palm Oil Area in West Kalimantan by Ownership Status Period of 2011-2018



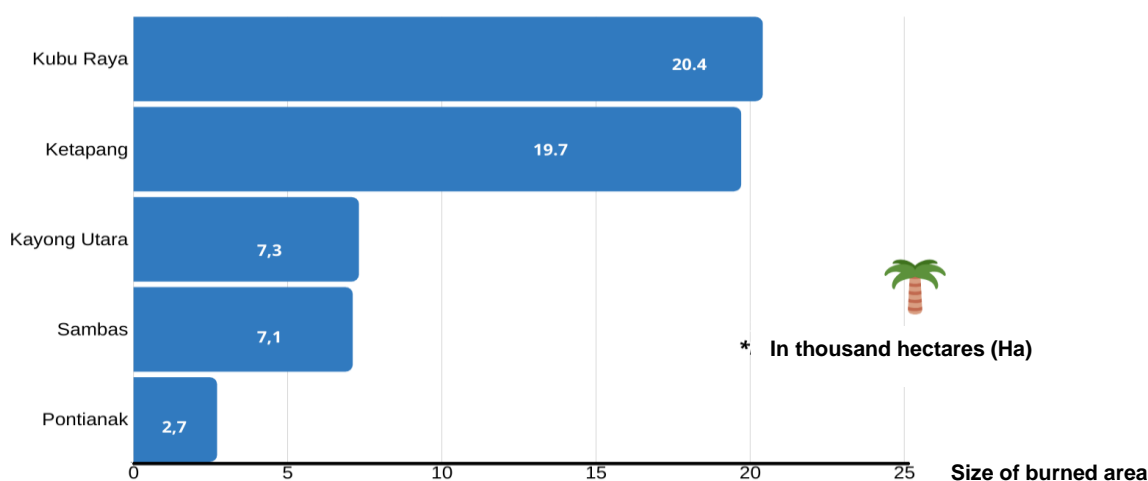
Source: Tree Crop Estate Statistics of Indonesia, 2011-2019 (processed)

Compared to the other two sectors, state-owned plantations in Landak and Sanggau Districts have the highest productivity level. Although it declined dramatically during 2012-2013, the trend shows a notable improvement in the following years. The opposite is shown by private plantations where an increase in the size of the plantations was not followed with improvement in productivity. The productivity level of private plantations is fluctuating on average and 2014 was the golden period for the productivity in this sector. However, in the following years, the productivity level of the private sector fell to the lowest. With regards to community plantation, during the 8 years period, their productivity shows an increasing trend on average, although the increase is not significant. Based on the above mentioned facts, the effort to increase palm oil productivity in West Kalimantan should not be focused only on community plantations, but has to include the private plantations as well.

Recommendations for Fire Aware Villages in West Kalimantan

In 2019, there were 10,861 fire warnings in West Kalimantan. Such numbers made West Kalimantan the province with the second highest number of forest and land fires hotspots in Indonesia.¹⁵ Meanwhile, in the previous year, VIIRS satellite from NASA recorded that there were at least 30,600 hotspots in the entire area of West Kalimantan. Based on the data from the Ministry of Environment and Forestry, the hotspots had expanded further and caused forest fires that burned at least 68,872 hectares of land in West Kalimantan in 2108. The calculation results can be seen in Chart 7 below.

Chart 7: Five Districts/Municipalities in West Kalimantan with the Largest Burned Area in 2018



Source: Ministry of Environment and Forestry (2018)

As shown by the Chart, it can be seen that in 2108, Kubu Raya and Ketapang Districts were two districts with the largest burned area in West Kalimantan. Forest fire prevention efforts should be a top priority for West Kalimantan since this province - with the total area of 15 million hectares - consists of 8.2 million hectares of forests and 1.6 million hectares of peatland.¹⁶ Moreover, according to data compiled from the Ministry of Agriculture, in 2017 West Kalimantan was one of the provinces with the fastest expansion of palm oil plantation. There are 13 districts/municipalities in West Kalimantan with a varying size of palm oil plantation area. In 2015, in its publication, CIFOR revealed that there is a strong connection between the palm oil plantation sector and forest fires. The responsible parties for this catastrophe were, among others, smallholders who were clearing the land to expand their plantations and individuals from palm oil and pulp concession illegally clearing the forest for land acquisition purposes.¹⁷

¹⁵ Accessed from <https://wri-indonesia.org/id/blog/kebakaran-hutan-mengancam-kemajuan-indonesia-dalam-mengurangi-deforestasi> on 12/1/2020

¹⁶ Accessed from <http://incas.menlhk.go.id/id/data/west-kalimantan/> on 12/1/2020

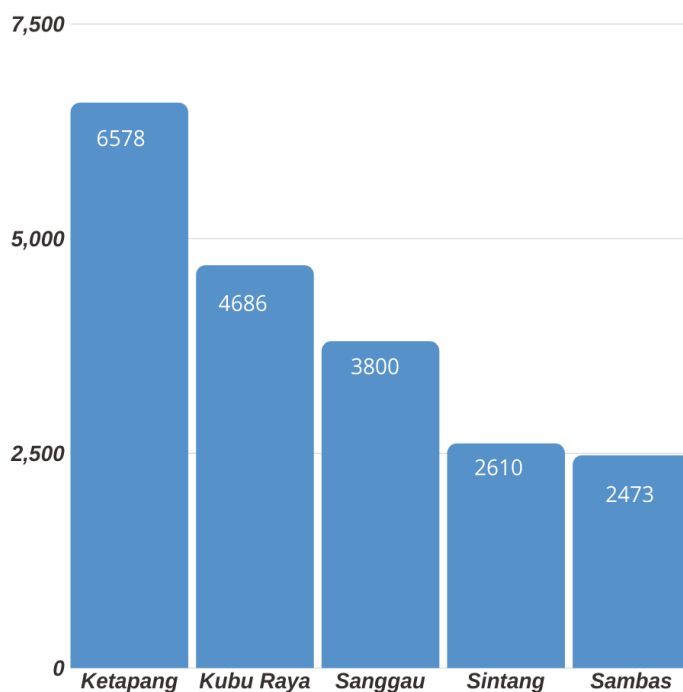
¹⁷ Accessed from <https://www.theguardian.com/sustainable-business/2015/nov/11/indonesia-forest-fires-explained-haze-palm-oil-timber-burning> on 12/1/2020

To address this issue, it is important to have in place multi-sectoral and comprehensive measures to prevent forest and land fires that involve the community, company, and government as the regulator. One of the alternatives that can be implemented by the provincial government to prevent and control forest and land fires is pushing companies to initiate the establishment of Fire Aware Villages in areas prone to forest and land fires. This is a viable measure since palm oil companies are in possession of sufficient knowledge and technology to implement fire prevention and controlling measures as one of their corporate social responsibility programs. Furthermore, it is also important to provide assistance for smallholders with small-scale plantation area, particularly to improve their knowledge and understanding on good land management as well as to increase their access to resources and technology.¹⁸

Reflecting on the 2018 Forest and Land Fires

Determining the priority area for forest aware villages can start with the identification of village areas that are adjacent to palm oil plantation areas that have the indication of hotspots. Based on the available data, there are five districts in West Kalimantan with the highest hotspots number as can be seen in Chart 8.

Chart 8: Five Districts/Municipalities with the Highest Number of Hotspots in 2018

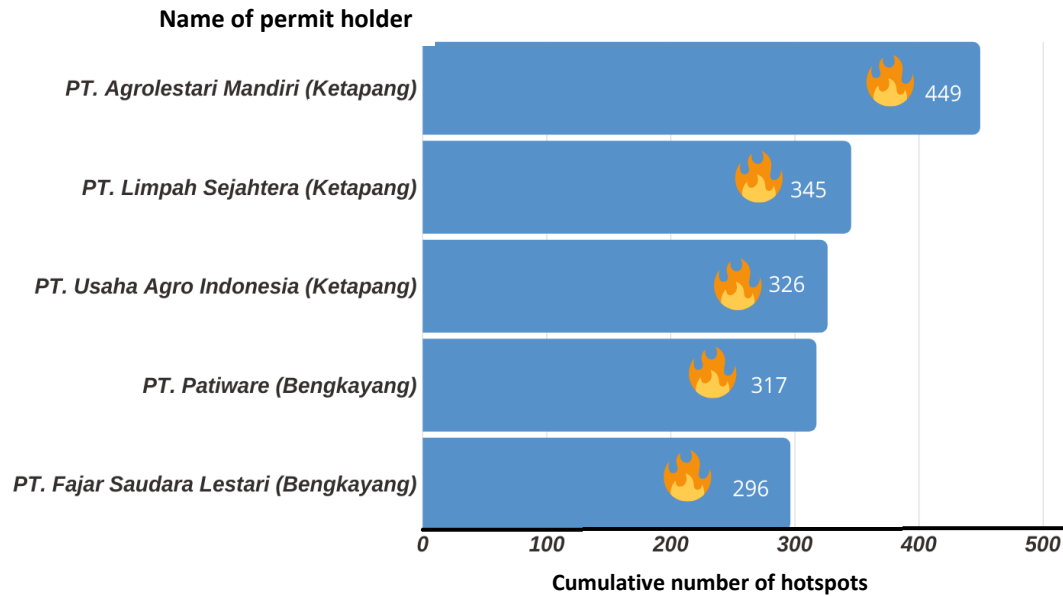


Source: NASA VIIRS Satellite Imaging

Among the 14 municipalities/districts in West Kalimantan, Ketapang and Kubu Raya ranked the 1st and 2nd as districts with the highest hotspots number in 2018. Throughout 2018, there were 6.578 hotspots in Ketapang and 4.686 hotspots in Kubu Raya. Hotspots in West Kalimantan were distributed across the entire land use functions, including Forest Zone (KH), Non-forest Zone (APL), and Land Use Right Area (HGU). Out of the 30,600 hotspots in West Kalimantan, 1,691 were found in the Land Use Right Area (HGU), an indication that HGU also contributed to forest and land fires in West Kalimantan in 2018. Moreover, according to our spatial analysis, there are five Land Use Right areas with the highest number of hotspots between 2012- 2018. More detailed information can be seen in Chart 9.

¹⁸ CIFOR. Penelitian Aksi Partisipatif Pencegahan Kebakaran dan Restorasi Berbasis Masyarakat di Kabupaten Bengkalis. 2018

Chart 9: Five Land Use Right Holders in West Kalimantan with the Highest Number of Hotspots, Period of 2012-2018



Source: WebGIS Data from MoEF and NASA VIIRS Satellites Imaging 2019 processed

Spatial analysis shows that there are 5 companies holding a Land Use Right with the highest number of hotspots that are located within the district with the highest number of palm oil mills and the highest number of hotspots. PT. Agrolestari Mandiri in Ketapang District is a Land Use Right holder company with the highest number of hotspots, namely 449 hotspots. Aside from the list of Land Use Right holders with the highest number of hotspots during the 2012-2018 period, there are two other Land Use Rights holders in which area hotspots were always found each year during the same period, namely PT. Mitra Karya Sentosa and PT. Kebun Ganda Prima whose Land Use Right areas are located in Sanggau, Ketapang, and Kayong Utara, which includes 18 villages.

Another fact supports the proof that the connection between palm oil and forest and land fires is the existence of palm oil mills or palm oil refineries (PKS). The connection between palm oil mill, palm oil concession, and the number of hotspots can be explained through the finding of hotspots within the 10 Kilometers radius from the location of a palm oil mill. The 10 Kilometers radius is established with the consideration that 10 kilometers is the maximum distance for transporting fresh fruit bunch (TBS) without affecting its quality.¹⁹ Furthermore, there are at least 13,300 hotspots within the Land Use Right area and 8,300 of them are located within less than 10 kilometers from the nearest palm oil mill. Based on such facts, it can be concluded that most of the hotspots found were indirectly caused by the mills' need of FFB supply to be processed into more valuable products. One of the efforts to reach the mill's production target is increasing the raw material supply which, according to the aforementioned CIFOR findings, involves land burning.

Fire Resilient Villages are Very Likely to Achieve

Among the 32 villages that are located around palm oil concessions with the highest number of hotspots, Rukmajaya Village of Sungai Raya Kepula Sub-District, Bengkayang District is the only village that has been listed as the priority patrol area of Manggala Agni, West Kalimantan Division. The determination of fire-prone villages depends on the recommendation from the Operational Division of Manggala Agni that will be collected by the Center of Climate Change and Forest and Land Fires Control and the Office of KSDA to be listed as a target of the integrated patrol for forest and land fires prevention in 2017.

¹⁹ Accessed from <https://forestsnews.cifor.org/52817/new-map-helps-track-palm-oil-supply-chains-in-borneo?fnl=en> on 12/1/2020

According to the Decree of the Director of Forest and Land Fires Control No. SK 5/PKHL/PKHL/PPI.4/1/2017 there are 31 villages located in the Land Use Right area with the highest hotspots number that have not been included on the list of priority villages for the integrated patrol for forest and land fires prevention. Hotspots do not necessarily mean that forest and land fires occur. However, it should be perceived as an initial threat warning that has the potential to spread and cause forest and land fires. The 31 villages that have not been included as priority villages are spread in Ketapang, Sanggau, and Kubu Raya districts.

Based on the above mentioned explanations and considering the track records of companies in which many hotspots are found or found every year in their Land Use Right areas, the provincial government should include the remaining 31 villages as the priority villages for hotspots observation. There is a high probability that a similar pattern will repeat, in which forest fires occur in Land Use Right with the highest hotspots number. Even after the additional funding from the Regional Budget to control forest and land fires, West Kalimantan is still struggling with budget shortage and most of them are not specifically allocated to fund all aspects of forest and land fires prevention and control.²⁰ Therefore, it is important to establish a multi-stakeholders collaboration platform that involves the provincial government, academia, and even palm oil companies as well as the community to optimize the number of Fire Aware Villages. For the Regional Government, any activity related to the Fire Aware Village can be included in the village program and its budget can be allocated from the village fund. The companies also have the opportunity to work together with villages located within/around its Land Use Right as a part of corporate social responsibility programs to establish a fire resilient village. The role of the academia is to provide training and capacity building for the local community and to develop technologies that support forest and land fire prevention efforts. This multi-sectoral collaboration is expected to achieve villages and communities that are resilient to forest and land fires and that are actively involved in monitoring forest fires risk in their neighborhood.

Conclusion

1. Poverty eradication measures can be implemented by focusing on reaching a balance between various commodities in one particular area. Therefore, other commodities other than palm oil can also contribute to and substitute the current regional economic source in response to the fluctuating market condition.
2. Expansion of palm oil plantations in West Kalimantan is not necessarily in line with the improvement of productivity. The vast size of the current plantation area is still faced with a low level of productivity, way under the provincial target and other provinces in comparison. This is a sign of a productivity challenge that must be addressed by policy makers in West Kalimantan.
3. In West Kalimantan, state-owned plantations are often underestimated because their size is way above the provincial level but their productivity shows a surprising dynamic. With a relatively stable size, their productivity has shown a significant improvement in the last three years.
4. There are 31 villages in West Kalimantan that can become a focus for the establishment of Fire Aware Village because they are located inside Land Use Right area with the highest number of hotspots. Collaborative efforts that involve multi-stakeholders can be established through the corporate social responsibility scheme or by utilizing the village fund.

²⁰ Accessed from <https://icel.or.id/wp-content/uploads/Laporan-Audit-Karhutla-Daerah-dan-Pusat-180104-ICEL-1.pdf> on 16/1/2020