



Potential State Revenues from the Natural Resources Sector and its Problems: Forestry Sector

Book 4 of 5

Potential State Revenues from the Natural Resources Sector and its Problems

Book 4. Forestry Sector

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Statement

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Foreword

Economic development requires a substantial tax base. Until now, the exploitation of natural resources, specifically revenue from nonrenewable sources such as mining, oil, and gas, serves as a major source of state revenue. At the same time, state revenues from the exploitation of relatively renewable natural sources including agriculture, plantations, forestry, and fisheries have received less attention and their revenue potential has not been maximized.

This book is one of the reports documenting the efforts made by civil society groups to (1) estimate the revenue generating potential of natural resources; (2) describe the governance in the sectors studied; and (3) identify the reasons for low revenue collections in the agriculture, plantation, forestry, and fishery and marine sectors. The report is designed to increase understanding of the sectors' potential, governance, and revenue issues so that in the future civil society can help contribute to increasing revenue collections from these four sectors.

This book is the fourth of five books, and is divided into two parts. First, an introduction, and second, the findings of the study.

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Introduction

Indonesia has long been recognized as a nation of islands, but also as the lungs of the world. Indonesia's possesses the third largest tropical forest in the world, behind only Brazil and Congo. According to A. F. Schimper in the book Plant Geography, tropical rainforests are wide leafed, evergreen and have a high tree density. This forest is present in areas with high temperatures throughout the year and rainfall of at least 1,800 mm-2,000 mm per year. High humidity is also a characteristic of tropical rainforests. This high humidity is also the cause of diversity of flora and fauna in tropical rainforests. In addition, other characteristics of Indonesia's forests are the tall height and large diameters of its trees which creates a very high ecological and economic value.

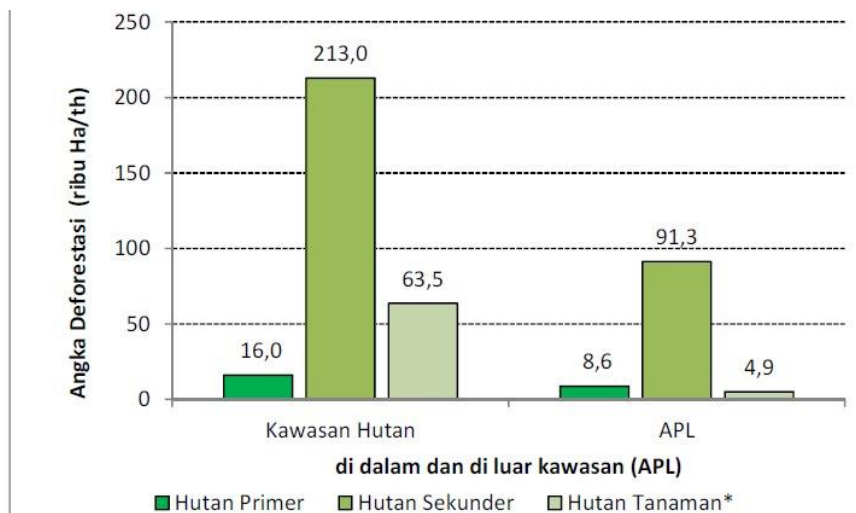
It is difficult to ascertain valid data related to forest area in Indonesia, largely because the data presented is not uniform. For example, the World Bank reported that the forest area in Indonesia was 94,432,000 ha in 2010. Meanwhile, based on data from the Ministry of Forestry, the total forest area was 120,773,441.71 ha and consisted of protected forests, natural forests, and production forests. As a simple illustration, one hectare of natural forest produces 50-70 cubic meters of forest products while plantation forests produce 100-125 cubic meters of forest products. In 2015, plantation forests in Indonesia covered 68,991,430.35 hectare, resulting in a potential wood production of 68,991,430,350 m³.

Indonesia's tropical forests are also home to a variety of flora and fauna. Since ancestral times, Indonesians have always had a dependency on the forest. People and forests possess an inseparable relationship. People who rely on the existence of the forest for livelihood will also consciously guard the forest. With Indonesia's forest area reaching 120 million hectares, about 60 million Indonesians depend on the forest for their livelihoods, with even more than half of the population, specifically those in rural areas, depending on traditional biomass energy, such as firewood, as their main source of energy.

With the vast area of forests, Indonesia should be able to maximize the benefits from its forests. In addition to its economic value, forests hold ecological, and biological values and provide a source of food. The ecological value of forests is in its role as the lungs of the world along with its ability to maintain a stable climate. Its economic value stems from the various natural resources available for extraction. The biological value comes from its role in extending the life span of its living creatures.

The Harm of Deforestation towards the State

Thus far, the focus of forest exploitation has been its economic value, while other values possessed by the forests are ignored. This is further indicated by the rise of deforestation from illegal logging, mining, land conversion, and forest fires.



Secondary forests are forests that grow naturally in locations where previous primary forests were altered or damaged. These types of forest are most likely to have been deforested most. In 2105, based on forest statistical data, the rate of deforestation reached 727,981.2 ha/year.

Rates of deforestation were highest in the Riau Province, reaching 201,939.4 hectares/year, followed by Central Kalimantan and East Kalimantan with 58,835.6/year ha and 38,339.4 ha/year, respectively. In these three provinces, deforestation was caused by mining activities, conversion of land use into plantations, and forest fires.

Forest fires were a major cause for state losses and government expenditures to extinguish fires in six provinces reached IDR 385 billion. The use of water bombs itself costs US \$6,000. Meanwhile, the World Bank has estimated that in 2015 forest fires caused losses of 221 trillion, equaling 1.9% of the GDP. On the other hand, the forestry sector only contributes to 0.71% of the GDP.

In addition, in an effort to deal with forest fires, the government rehabilitated peat lands because of their ability to prevent fires and smoke. This rehabilitation of peat lands involves in the raising of water levels and the closing of canals previously built for the use of plantations. The rehabilitation of peatlands costs 13.5 million rupiah per hectare. The government's plan includes rehabilitation of 2 million hectares of peat land spread over 7 provinces.

In addition to forest fires, deforestation rates are also the result of illegal and legal logging. Illegal logging is clear, the process does not follow legal foundations and rules, and therefore leads to legal consequences. While illegal logging through legal means is usually for the purpose of clearing land for plantations by using business permits, plantation business permits, location permits, and forest utilization permits such as IUPHHK of industrial plantation forest permit and IUPHHK of natural forest permit. In principle, these licenses are legal but often do not follow proper land release procedures because of bribery and corruption involving local elites and plantation entrepreneurs. It is well known that most licensing procedures for plantation and mining are often manipulated. One example being the granting of licenses without the use of maps published by the Geospatial Information Agency as the basis of the business permit. The granting of licenses is not transparent and its publication often exceeding the time limit which has been set of 57 days. Many of these permits, specifically for the establishment of plantations, overlaps

with protected forested areas and in terms of guidance and supervision by the licensor, have not been implemented properly.

Development of Business Permits for Forest Product Exploitation in Natural Forests (IUPHHK HA) 2011-2015

No	Provinsi	Tahun									
		s.d. 2011		s.d. 2012		s.d. 2013		s.d. 2014		s.d. 2015	
		UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)
1	Aceh	7	405,129.00	7	405,129.00	3	170,900.00	4	249,161.16	3	218,315.16
2	Sumatera Utara	7	343,603.00	7	343,603.00	6	296,603.00	7	343,603.00	7	343,603.00
3	Sumatera Barat	3	106,145.00	4	189,475.00	4	184,145.00	4	183,705.00	4	183,705.00
4	Riau	6	308,158.00	6	308,158.00	4	229,228.00	4	229,228.00	4	183,238.00
5	Jambi	2	56,045.00	2	56,045.00	2	56,045.00	2	56,045.00	2	56,045.00
6	Sumatera Selatan	1	56,000.00	1	56,000.00	1	56,000.00	1	56,000.00	1	56,000.00
7	Bengkulu	2	56,070.00	2	56,070.00	2	56,070.00	2	56,070.00	2	56,070.00
8	Kalimantan Barat	24	1,157,655.00	25	1,221,880.00	25	1,221,880.00	24	1,169,430.00	24	1,169,430.00
9	Kalimantan Tengah	59	4,028,716.00	60	4,189,810.37	60	4,182,850.37	59	4,041,090.00	57	4,011,855.37
10	Kalimantan Selatan	4	243,241.00	4	243,241.00	4	240,101.00	4	231,066.00	4	231,066.00
11	Kalimantan Timur	81	5,294,615.00	84	5,710,955.00	83	5,291,905.00	81	5,126,334.00	58	3,303,759.85
12	Kalimantan Utara	0	-	0	-	0	-	0	-	23	1,865,780.71
13	Sulawesi Utara	1	26,800.00	1	26,800.00	1	26,800.00	1	26,800.00	1	26,800.00
14	Gorontalo	3	145,000.00	1	21,500.00	0	-	0	-	0	-
15	Sulawesi Tengah	12	779,245.00	11	679,245.00	11	610,125.00	11	610,125.00	10	571,875.00
16	Sulawesi Tenggara	2	89,590.00	2	89,590.00	2	89,590.00	0	-	0	-
17	Sulawesi Barat	4	184,285.00	4	184,285.00	3	163,205.00	3	163,205.00	3	163,205.00
18	Nusa Tenggara Barat	0	-	0	-	1	28,664.00	1	28,664.00	1	28,664.00
19	Maluku	11	660,085.00	13	739,195.00	13	733,645.00	12	692,645.00	12	692,645.00
20	Maluku Utara	16	829,800.00	12	653,960.00	10	565,594.00	11	611,659.00	11	565,594.00
21	Papua	24	4,922,023.00	25	4,799,040.00	24	4,077,755.00	24	3,823,340.00	24	3,656,340.00
22	Papua Barat	23	3,717,170.00	23	3,690,188.00	18	2,802,338.00	18	2,476,948.00	18	2,476,948.00
	Total	292	23,409,375.00	294	23,664,169.37	277	21,083,443.37	273	20,175,118.16	269	19,860,939.09

Keterangan : Data untuk Provinsi Kalimantan Timur dan Utara digabung pada 2013 dan 2014 setelah pemekaran Provinsi

Sumber : Direktorat Jenderal Pengelolaan Hutan Produksi Lestari

As seen in the table above, IUPHHK HA issued as of 2015 reached 19.8 million hectares. Central Kalimantan had the largest amount of land given through this permit, amounting to 4.01 million hectares followed by the Papua Province with 3.66 Ha of land permitted. Although numbers have decreased from previous years, the government seems to be lenient in their granting of permits for the exploitation of natural forests. Forest governance should not be dependent on the production of timber alone, but also be concerned about the sustainability of the activities conducted and of the forests themselves.

Based on the presentation of the directorate general of plantations, the number of business permits issued during the years 2007-2015 equaled 768 amounting to a total of 6.08 hectares of land spread over 24 provinces. Ninety-five percent of those permits were issued to palm oil businesses. West Kalimantan and East Kalimantan had the largest area of land permitted with 1,158,333.47 ha and 1,063,967.92 hectares, respectively.

Locations overlapping with forests were cleared by the cutting down of those forests. The timber produced is not reported, with revenues being split with the administrators of the permits. Researchers in West Kalimantan explained to situation. Timber that is supposed to create state revenue from the payments of non-tax revenues was lost because of the use of the plantation business permits (IUP Plantation). In addition, according to the head of Walhi West Kalimantan, the administration of the IUP Plantation permit is only a tool to ease exploitation of land without the worry of breaking regulations.

Development of Business Permits for Forest Product Exploitation in Plantation Forests (IUPHHK HTI) 2011-2015

No	Provinsi	Tahun									
		2011		2012		2013		2014		2015	
		UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)	UM	Luas (ha)
1	2	3	4	5	6	7	8	9	10	11	12
1	Aceh	5	226.820.00	5	226.820.00	6	237.214.00	6	237.204.00	6	232.401.00
2	Sumatera Utara	8	478.450.00	8	371.700.00	7	365.950.00	8	368.650.00	8	368.650.00
3	Sumatera Barat	3	50.649.00	3	50.649.00	3	49.881.00	4	51.464.90	4	51.464.90
4	Riau	48	1.475.586.00	50	1.657.051.00	56	1.656.897.00	56	1.653.184.00	55	1.631.304.00
5	Kep.Riau	-	-	-	-	-	-	-	-	-	-
6	Jambi	18	663.809.00	17	644.134.00	17	666.954.00	18	694.657.00	18	694.657.00
7	Sumatera Selatan	19	1.375.632.00	19	1.337.492.00	19	1.330.270.00	19	1.303.010.00	19	1.303.010.00
8	Bengkulu	-	-	-	-	-	-	-	-	-	-
9	Bangka Belitung	4	112.148.00	5	122.193.00	6	188.653.00	7	214.912.00	8	244.322.00
10	Lampung	4	114.444.00	4	114.444.00	4	114.444.00	4	115.834.00	4	115.834.00
11	DKI Jakarta	-	-	-	-	-	-	-	-	-	-
12	Jawa Barat	-	-	-	-	-	-	-	-	-	-
13	Banten	-	-	-	-	-	-	-	-	-	-
14	Jawa Tengah	-	-	-	-	-	-	-	-	-	-
15	DI Yogyakarta	-	-	-	-	-	-	-	-	-	-
16	Jawa Timur	-	-	-	-	-	-	-	-	-	-
17	Bali	-	-	-	-	-	-	-	-	-	-
18	Nusa Tenggara Barat	2	64.780.00	3	68.590.00	3	68.590.00	3	68.590.00	3	68.590.00
19	Nusa Tenggara Timur	-	-	-	-	1	41.515.00	2	54.175.00	2	54.175.00
20	Kalimantan Barat	31	1.631.716.00	34	1.731.706.00	36	1.756.491.00	41	1.901.491.00	42	1.922.136.00
21	Kalimantan Tengah	16	484.640.00	19	554.579.43	21	583.074.43	23	623.884.43	23	623.884.43
22	Kalimantan Selatan	13	497.560.00	13	497.560.00	15	529.660.00	17	552.255.00	17	552.255.00
23	Kalimantan Timur	32	1.462.213.00	41	1.746.393.00	43	1.809.174.00	47	1.902.791.00	47	1.904.391.00
24	Sulawesi Utara	1	7.500.00	1	7.500.00	1	7.500.00	1	7.500.00	1	7.500.00
25	Gorontalo	-	-	2	75.920.00	2	75.920.00	2	75.920.00	2	75.920.00
26	Sulawesi Tengah	1	13.400.00	1	13.400.00	1	13.400.00	2	73.320.00	2	73.320.00
27	Sulawesi Tenggara	-	-	-	-	-	-	2	29.865.00	3	54.280.00
28	Sulawesi Selatan	-	-	1	18.350.00	1	18.350.00	1	18.350.00	1	18.350.00
29	Sulawesi Barat	2	23.900.00	2	23.900.00	2	20.240.00	3	47.610.00	3	47.610.00
30	Maluku	3	71.720.00	3	87.470.00	2	66.205.00	2	66.205.00	2	66.205.00
31	Maluku Utara	3	37.873.00	4	44.643.00	5	65.908.00	5	65.908.00	5	65.908.00
32	Papua	2	376.200.00	3	440.250.00	3	440.250.00	2	233.450.00	5	524.675.00
33	Papua Barat	-	-	-	-	-	-	2	178.980.00	-	-
	Jumlah	215	9,169,040.00	238	9,834,744.43	254	10,106,540.43	277	10,539,210.33	280	10,700,842.33

Sumber: Direktorat Jenderal Penebalaan Hutan Produksi Lestari

Based on the 2010 National Audit Board (BPK) audit, state losses from illegal logging amounted to 83 billion rupiah per day, equaling 3.29 trillion rupiah per year. Meanwhile researchers have estimated that if 40,000,000 cubic meters of timber are lost to illegal logging, and the price for mixed timber is around 500 USD per cubic meter (based on export prices of timber), then state revenue loss amounts to IDR 262,000,000,000,000 with the assumption that the timber is exported.^{1,2} However, if estimated based on stand compensation, which is averaged for costs in Kalimantan and Sumatra at 385,000/cubic meter, then total losses amount to IDR 14,400,000,000,000 which is much higher than the calculation made by the National Audit Board.

The products of illegal logging are often exported abroad, with Malaysia receiving the most illegal timber from Indonesia. Findings in the field show that in West Kalimantan, timber from illegal logging is exported through passageways in West Kalimantan to Malaysia. Prices for this illegal timber are far below the Export Benchmark Price set forth in the Trade Minister Regulations

¹ Timber Smuggling in Indonesia "Is it a critical issue or an exaggeration?" By CIFOR and The Nature Conservancy.

² Trade Ministry Regulation Number 18, 2017

where timber is priced at US \$800 for natural forest timber and US \$400 for plantation forest timber.

Many forestry reports explain that Malaysia is able to maintain wood processing of 58.2 million cubic meters, while production of legal timber only amounts to 25.4 million cubic meters. The question arises, from where is the rest of the wood obtained? According to the chairman of Walhi West Kalimantan, illegal logging is easy to see and can be verified by evaluating production capacity and the availability of raw materials. If there is a very large disparity, then it can be concluded that wood was obtained from illegal logging.

To combat the issue of illegal logging exports, the government has made efforts to establish a Timber Legality Verification System (SVLK). Based on data of The Ministry of Forestry and Environment in 2016, there are now 2,322 timber businesses in Indonesia that have passed SVLK to conduct export activities to various countries. SVLK is part of the government's commitment to manage Indonesia's forests more seriously, transparently and accountably.

The system should be supported by a mutually supportive regulation rather than creating a loophole. This is evident from the Regulation of the Minister of Trade No. 89 of 2015, this regulation states that there are three forest industry groups that can export: Group A, B, and C. In SVLK, there is a V-Legal document to state that the exported wood products have met the legality standards of timber in accordance with the laws in place. However, the V-Legal is exempted from Forestry Group B. Group B consists of forestry industries such as wood furniture for office, household and kitchen purposes.

Timber Production

Production of logs from natural forests, is conducted through Business Permits for Forest Product Exploitation (IUPHHK) for Natural Forests, and Wood Utilization Permits (IPK). Meanwhile timber production from plantation forests is conducted through IUPHHK for Plantation Forests and the state owned forest company (Perhutani)

Based on the results of the 2015 Quarterly Forestry Data (DKT2015), the total production of logs in Indonesia amounted to 43.87 million m³. Based on its type, the largest production was acacia wood with 22.91 million m³ (52.22 percent); meranti wood, 4.47 million m³ (10.19 percent); mixed wood, 2.62 million m³ (5.97 percent); albizia wood, 2.58 million m³ (5.89 percent); eucalyptus, 2.11 million m³ (4.81 percent); teak wood, 0.51 million m³ (1.17 percent); rubber wood, 0.50 million m³ (1.14 percent); kruing wood, 0.33 million m³ (0.75 percent); mahogany, 0.30 million m³ (0.67 percent); merbau wood, 0.27 million m³ (0.61 percent); and other timber amounting to 7.27 million m³ (16.57 percent).

The distribution of wood production is largest on the island of Sumatra with total production of 26.53 million m³ (60.48%), followed by Kalimantan with 10.53 million m³ (24.01%), Java with 4.94 million m³ (11.26%), Maluku and Papua with 1.58 million m³ (3.61%), Sulawesi with 0.24 million m³ (0.56%), and Bali with 0.04 million m³ (0.09%).

Interestingly, Papua, which has the largest forested area, has a low production capacity. This is likely because the majority of forested areas in Papua have not been explored and many forests are protected. There are only two forestry companies operating in Papua: PT Merauke Rayon Jaya

with an area of 206,800 ha and PT Selaras Inti Semesta with a permit area of 169,400 ha, both located in Merauke.

National production of wood in 2015, subjected to the Provision of Forest Resources (PSDH) tariff:

No	Type of Wood	Production	Tariff	Total
1.	Acacia	22.91 million m ³	792,000	18,144,720,000,000
2.	Meranti	4.47 million m ³	1,270,000	5,676,900,000,000
3.	Jungle Mix	2.62 million m ³	935,000	2,449,700,000,000
4.	Albizia	2.58 million m ³	1,069,000	2,758,020,000,000
5.	Eucalyptus	2.11 million m ³	782,000	1,650,020,000,000
6.	Teak	0.51 million m ³	3,789,000	1,932,390,000,000
7.	Rubber	0.50 million m ³	639,000	319,500,000,000
8.	Kruing	0.33 million m ³	2,500,000	82,500,000,000
9.	Mahogany	0.30 million m ³	1,750,000	525,000,000,000
10.	Merbau	0.27 million m ³	2,694,000	727,380,000,000
11.	Others	7.27 million m ³	1,750,000	12,722,500,000,000
	Total Potential PSDH			47,731,130,000,000

With a total forested area of 133 million hectare, of which 68,991,430.350 million hectares are plantation forests, the estimated potential timber production amounts to 68,991,430.350 m³. Meanwhile in Indonesia the amount of wood produced has only reached 43.87 million m³, meaning only 64% of the potential has been realized.

In order to create forestry governance that is able to provide maximum benefits, the Ministry of Forestry and Environment created a non-tax revenue payment system using self-assessment methods. Entrepreneurs calculate in advance the potential amount of timber that will be exploited and then afterwards pay and record data online. If the 47.7 trillion calculated above is based on the count of researchers on the total production of logs, then this online system provides the actual amount of revenues that have been accepted. In reality, actual collections are very far from the production count. PSDH 2015 listed on the website, generated a revenue of IDR 444,958,624,741. Far contrasting the counts that researchers have made. The question arises, are there still entrepreneurs who have not made payments and recorded data online? Is there an invalid data base? Or is the self-assessment system not effective in achieving the payment of PNBP?

Indeed, data is still a problem. Forestry data from the Central Bureau of Statistics (BPS) and the Ministry of Forestry and Environment (KLHK) are not the same. Even the KLHK issued data related to Forestry Production in 2015 and KLHK 2015 statistics for the amount of wood production are different. The production of logs based on the Forestry Production Statistics 2015

was 43.87 m³. Meanwhile, log production in KLHK 2015 Statistics for natural forests was 5,843,179.25 m³, while for logs from forest plantations was 29,447,109 m³. The inconsistency of the data makes it difficult for researchers to conduct more in-depth research.

Rekapitulasi Data Produksi Kayu Bulat Dari RKTUPHHK Hutan Alam seluruh Indonesia RKT 2015

No	Provinsi	Jumlah UM	Rencana Volume (m ³)	Realisasi Volume (m ³)	Persentase %
1	2	3	4	5	6
1	NAD	3	-	-	-
2	SUMATERA UTARA	7	374,543	177,113.69	47.29
3	SUMATERA BARAT	4	123,291	121,924.39	98.89
4	RIAU	4	570,865	89,591.38	15.69
5	JAMBI	2	21,716	-	-
6	SUMATERA SELATAN	1	20,099	-	-
7	BENGGULU	2	55,029	4,737.30	8.61
8	KALIMANTAN BARAT	24	681,795	22,150.69	3.25
9	KALIMANTAN TENGAH	57	2,766,501	2,115,109.71	76.45
10	KALIMANTAN SELATAN	4	35,632	13,993.49	39.27
11	KALIMANTAN TIMUR	58	1,376,318	1,516,722.78	110.20
12	KALIMANTAN UTARA	23	791,448	679,068.72	85.80
13	SULAWESI UTARA	1	-	2,684.10	-
14	SULAWESI TENGAH	10	148,417	12,175.08	8.20
15	NUSA TENGGARA BARAT	1	-	1,198.88	-
16	SULAWESI BARAT	3	22,172	-	-
17	MALUKU	12	323,922	173,822.29	53.66
18	MALUKU UTARA	11	49,842	37,704.87	75.65
19	PAPUA	24	2,342,578	617,007.99	26.34
20	PAPUA BARAT	18	1,278,500	258,173.89	20.19
Jumlah		269	10,300,872	5,843,179.25	56.73

Sumber : Direktorat Jenderal Pengelolaan Hutan Produksi Lestari

The data explains potential state revenue losses due to hasty planning and an uneven realization compared to its target. In 2015, recapitulation data of RKTUPHHHK 2015 Natural Timber Production, had an initial target of 10,300,872 m³ but with collections of 5,843,179.25 m³, meaning only 56.73% of the initial target was realized. The 44% difference between the original plan is likely caused by production that is not optimal or by ineffective recording of data that create a loss of potential revenue from the forestry sector.

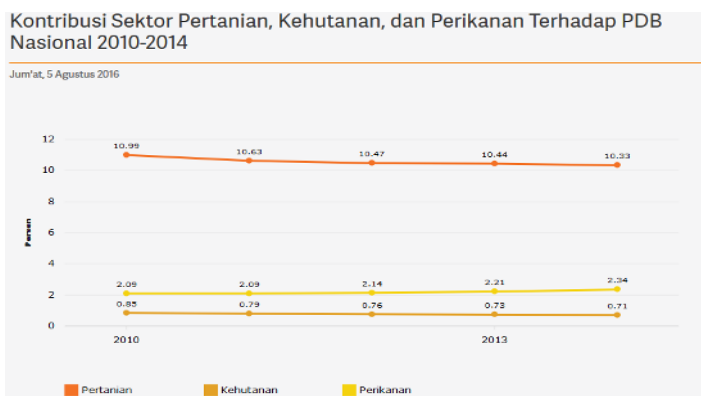
Research by Inisiatif and Seknas FITRA obtained data from the North Sumatra, West Kalimantan, Central Sulawesi, and East Kalimantan Provinces. There is an anomaly as to how the report indicates that planning and realization are not consistent. Central Kalimantan, from a potential of 681,794 m³, had actual production of only 22,150 m³ equaling just 3.25% of its potential. In reality many of the forests in West Kalimantan have been exhausted and replaced by oil palm plantations. While in East Kalimantan, it is a different case, with a plan of 1,376,318 m³ and actual production equal to 110% of the planned amount. In North Sumatra potential production equals 374,543 m³ and actual production equals 117,113. 69 m³, 49.2% of the potential amount. The results of natural forest timber production show that there are non-comprehensive production planning leading to low actual numbers.

Gross Domestic Product of the Forestry Sector

Gross Domestic Product (GDP) is an important indicator for analyzing the economic development in a country during a certain period, either on the basis of current prices or on the basis of constant prices. Gross Domestic Product is the value added to goods and services produced by various production units in the territory of a country within a certain period (generally quarterly and yearly) and is measured for 17 sectors of the economy: (1) agriculture, forestry, and fishery (2) mining and quarrying, (3) processing industry, (4) electricity procurement, (5) water

procurement, waste management, waste and recycling, (6) construction, (7) large scale and retail trade, auto & motorcycle repair (8) transportation and warehousing, (9) accommodation and food and drinks, (10) information and communication, (11) financial and insurance services, (12) (13) business services, (14) government and defense administration, and compulsory social security (15) education services, (16) health services and other activities and (17) other services.³

In 2016, economic growth increased compared to the previous year. Indonesia's economic growth rate in 2016 reached 5.02% while in 2015 it was 4.88%. The value of GDP at Constant Price (ADHK) last year amounted to IDR 9.433 trillion. The value of ADHB and ADHK GDP in 2016 increased compared to the previous two years, namely in 2015 when it reached IDR 11,531.7 trillion (ADHB) and IDR 8,982.5 trillion (ADHK), and in 2014 IDR 10,569.7 trillion (ADHB) and IDR 8,564.9 trillion (ADHK).⁴



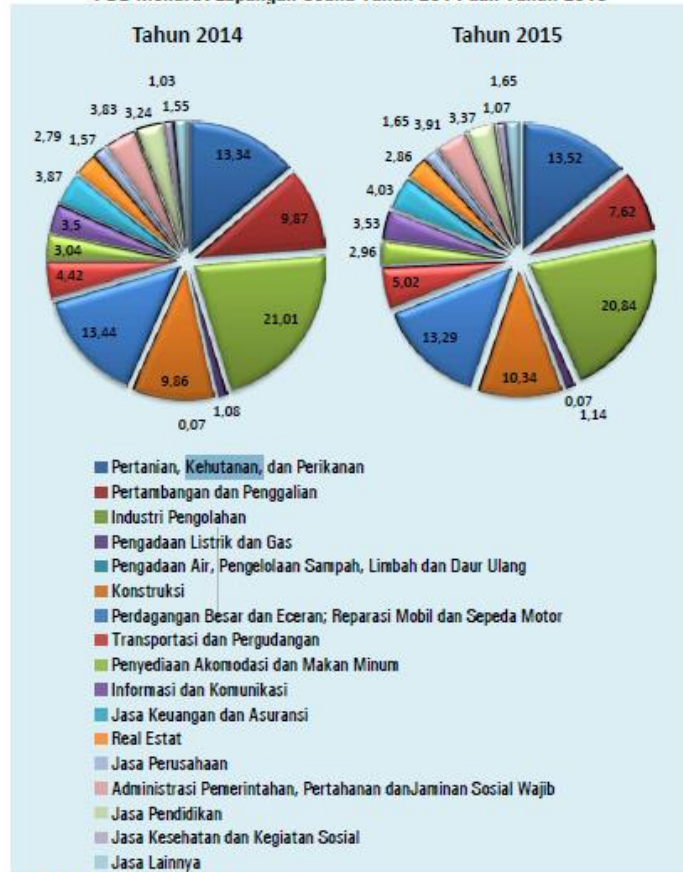
Source: Katadata

The highest growth of a sector in 2016 was achieved by Financial and Insurance Services at 8.90%, followed by Information and Communication (8.87%); Other Services (7.80%); Transportation and Warehousing (7.74%); Company Services (7.36%); Electricity and Gas Procurement (5.39%); Construction (5.22%); Health Services and Social Activities (5.00%); Provision of Accommodations, Drinks, and Food (4.94%); Real Estate (4.30%); Manufacturing (4.29%); Large Scale and Retail Trade; Repair of Cars and Motorcycles (3.93%); Educational Services (3.84%); Water Supply, Waste Management, Waste and Recycling (3.60%); Agriculture, Forestry and Fisheries (3.25%); Administration of Government, Defense and Social Security (3.19%); and Mining and Quarrying (1.06%).³

³ Department of Statistics, Bank Indonesia (<http://www.bi.go.id/id/statistik/metadata>)

⁴ Central Bureau of Statistics

PDB Menurut Lapangan Usaha Tahun 2014 dan Tahun 2015



Sumber: Badan Pusat Statistik

Source: Central Government Performance Report 2015

The contribution of the forestry sector to gross domestic product (GDP) has declined since 2005. In 2005, its contribution to GDP reached 1%, then in 2009 it slumped to 0.8%. In 2014, the forestry sector’s contribution to GDP declined, providing just 0.71% of the total GDP of 10,542.7 trillion, with a contribution of IDR 74.8 trillion. When viewed from the ratio of GDP expenditure and sectoral growth in 2012 to 2018, the production side of the Forestry, Agriculture and Fisheries sector, is in the range of 4.6 in 2008 and at its lowest at 3.6 in 2017.

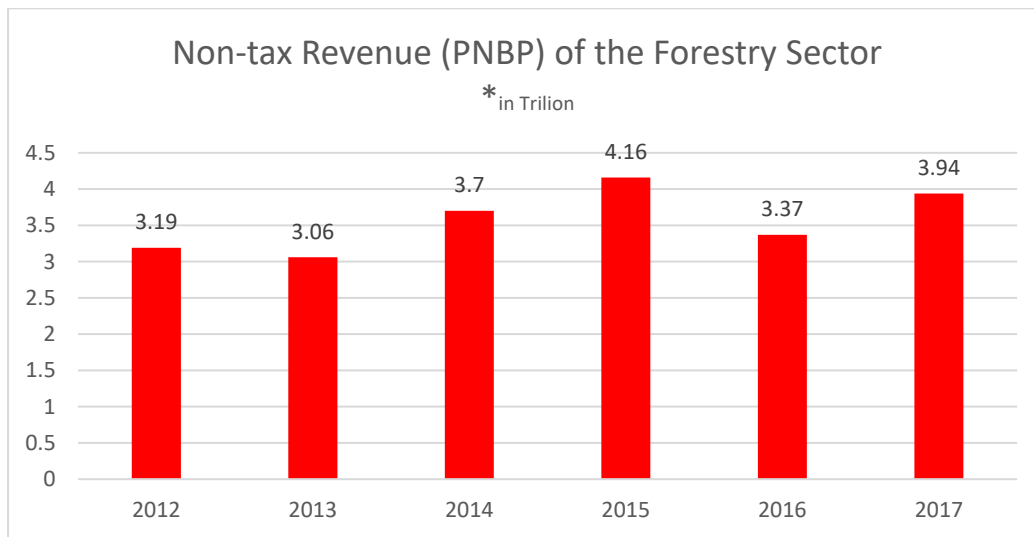


Meanwhile the contribution of Forestry to Non-Tax State Revenue (PNBP) is still dwarfed by that of the mining sector. In 2014, the mining sector accounted for 19.3 trillion in revenue, but declined to 17.7 trillion in 2015 and continued downwards for 2017. The decline in PNBP from the mining sector is due to fluctuations in commodity prices and exchange rate movements. While the forestry sector's contribution ranges from 3.3 to a maximum of 4.2 trillion in the last 5 years.

The forestry sector is unable to dominate state revenues, with PNBP of only 3.9 trillion it still contributes less than property taxes, which amount to 17.3 trillion. However, the property tax is merged with other property sources, not just forests. If specified by the property tax received from the forestry sector the realization is 1.5 trillion rupiah.

Based on data from the Ministry of Trade, timber and wooden commodities did not contribute to exports in January 2011 and the same period in the previous year. The import figures of wood and wooden commodities in January 2011 were recorded at US \$27.3 million. That number rose from the same period of the previous year which amounted to US \$21.9 million.

State Revenue from the Forestry Sector



Data processed by the National Secretariat of FITRA and the Ministry of Finance

In calculating the non-tax revenues (PNBP) of the forestry sector, such calculations must be in accordance with Government Regulation Number 12 Year 2014 on Types and Tariffs of PNBPs that are confined to the Ministry of Forestry. Meanwhile, estimates of provision of forest resources (PSDH) are based on Regulation of Minister of Trade Number 12 Year 2012 concerning Acceleration of Forest Benchmark Price for Calculation of Forest Resources Provision. All calculations made should be in accordance with the tariff, tree type, diameter and location of the forest found in these legislations.

In calculating the forestry sector's non-tax revenues, researchers have based their estimates on the largest sources of PNBP contributions, reforestation funds (DR) and provision of forest resources (PSDH). While other PNBP sources were not included because their numbers were not significant compared to reforestation funds (DR) and PSDH.

In the forestry sector, generally pursued policies are governance reform through improvements in regulation and optimization of non-tax revenues, while taking into account the preservation of the forest environment. Regulatory improvements are made through the revision and amendment of government regulations on tariffs and types of non-tax revenues.

So far, many of the potential revenues of the forestry sector have not been maximized due to a limited levy management system. As a result, the revision and incorporation of PP regulation rates and the gross national income is urgent. Non-tax revenues are undertaken through the increase of production and diversification of natural forest and plantation forest enterprises, the imposition of ecological, hydrological, protective and conservation functions, the collection of non-tax revenues, and an increased supervision and control over taxpayer compliance.

State revenues from the forestry sector for the years 2012 through 2017 have not been significant. Many factors contribute to that fact; large area of forests in Indonesia have not been utilized optimally. Forest fires, land clearance for plantations, mining, illegal logging, tax evasion, manipulation of permits, and corruption all contribute to the low contributions to state revenue. Based on the data above, state revenues from the forestry sector have never exceeded five trillion

rupiah, certainly these numbers are not proportional to the potential of the vast forested areas of Indonesia.

In its latest study, the Corruption Eradication Commission (KPK) estimates that state losses from the forestry sector to be around nine billion US dollars or around 8.45 trillion rupiah and 11.7 trillion rupiah from the period of 2002 through 2014. Those losses stem from the non-conformity of data recorded on the volume of wood produced and cut down. These losses would have provided non-tax revenue for reforestation funds or for the provision of forest resources.

Corruption and exploitation of large-scale reports have a large role in the loss of state revenues from the forestry sector. The Ministry of Environment and Forestry's lack of valid records, facilitate the manipulation of reports on timber production.

Report on the Realization of State Revenues in the Forestry Sector 2016-2013 (audited)

No	Source	Realization in 2016	Realization in 2015	Realization in 2014	Realization in 2013
1	Property Tax Revenue	402,633,716,641	491,694,284,220	1,479,401,376,338	1,323,543,592,844
2	Production Revenue	3,756,968,379,853	4,156,487,785,883	3,699,872,441,655	3,060,373,940,552
3	Rehabilitation Fund Revenue	1,617,842,736,621	2,001,550,688,382	1,793,938,945,500	1,669,506,623,151
4	Provision of Forest Resource Revenue	827,046,155,417	1,012,884,812,273	827,472,111,344	697,793,735,114
5	IIUPH Revenue (IHPH)	128,668,336,935	57,312,529,140	196,012,832,598	105,479,383,439
6	IIUPH (IHPH) Plantation Forest Revenue	10,742,349,935	10,294,105,390	11,807,978,232	11,493,329,129
7	IIUPH Natural Forest (IHPH) Revenue	117,925,987,000	47,018,423,750	184,204,854,366	103,986,054,310
8	Forest Area Utilization Revenue	1,183,243,525,630	1,084,543,001,688	882,415,421,163	587,594,198,848
9	Revenue of Forest Area Use for Developmental Interests beyond Forestry activities	159,055,750	100,850,000	882,415,421,163	587,594,198,848
10	Seeds and Forestry Services Revenue	167,625,250	196,754,400	33,131,050	
	Total	8,045,397,869,032	8,370,388,950,906	9,957,574,513,409	8,135,871,727,106

Ratio of forestry sector Non-tax revenue with State Revenue

Year	Revenue of non-oil non gas Natural Resources	Oil and Gas Revenue	Domestic State Revenue	PNBP Forestry Sector	Non-oil non-gas revenue and Forestry PNB Ratio	Oil and gas revenue and Forestry PNB ratio	Domestic Revenue and Forestry PNB ratio
1	2	3	4	5	(5 & 2)	(5 & 3)	(5 & 4)
2012	20.02	225.84	1332.32	3.19	16%	1.41%	0.24%
2013	22.78	226.41	1432.06	3.06	13%	1.35%	0.21%
2014	23.97	240.85	1545.46	3.7	15%	1.54%	0.24%
2015	22.8	100.97	1496.05	4.16	18%	4.12%	0.28%
2016	20.81	64.9	1546.95	3.37	16%	5.19%	0.22%
2017	23.29	87	1748.91	3.94	17%	4.53%	0.23%

*in trillion of rupiah

Data processed by the National Secretariat of FITRA and the Ministry of Finance

The contribution of the forestry sector to state revenues has not been significant. Revenues from the forestry sector equal just 1.41% of oil and gas revenues. Not until 2016, due to lower revenue from the oil and gas sector, did forestry revenue as a percentage of oil and gas revenues increase to 5.19%. The contribution of the forestry sector has averaged 17% over the past five years. In contrast, revenues from the forestry sector as a share of state revenue averaged only 0.24% over the last five years.

There is a self-assessment system for timber production and provisional forest resources (PSDH) payments. The company reports its production numbers to the government through Sippuh (online based Forest Product Administration Information System). Based on the reports of the Departments of Forestry in West Kalimantan and NTB, there is little supervision or evaluation of the validity of the data. Evaluation and cross-checking in the field is only conducted for oddities entered into the system. Control is also exercised by forest management units, unlicensed timber that have not paid PNB cannot receive transport permits. In the past, before this system functioned, every stage of the production process had to be supervised. The process of declaring timber production has been simplified. Before, reports had to go to the regional Department of Forestry, now data can be inputted into the system. This also makes it easier for forest management units to conduct supervision and routine monitoring based on the company's annual work plan.

An explanation from the Department of Forestry seemed to emphasize the government's development of this information system. They are confident that companies are prevented from falsifying or reducing their production reports, because now data from the top to bottom is interconnected. If the company deliberately manipulates the amount of its production, this manipulation can be detected from data of the main buyers of the product. For example, manipulation of a company's production is conducted by changing numbers from 10 tons to 7 tons, but data from the buyers of the timber show that the amount of timber received was 11 tons. This anomaly will be suspected as manipulation. Companies are not ready to face the consequences of these violations as the sanctions can be quite harsh even to point of closing of operations.

In general, timber products extracted out of the forest avoid any specific examination. Usually forest police perform routine patrols, even on a daily basis. But the number of police officers is not proportional with the area of forest that must be supervised. The logged timber and its logs are reported to the system. This report becomes the data needed to make transport permits for the transportation of timber products. If the product is transported in three groups, then three separate transport documents have to be issued, Even, with all these regulations and process, violations are still present,

But what has to be assessed even deeper is the ability of the online data system to ensure the input of valid data, From the findings above, there are still miscalculations, and the lack of a match between production numbers with the non-tax revenues paid. In addition, the claim that these companies will avoid manipulating the system has to be assessed further. Why? Because as was found in West Kalimantan, there are many violations made by companies selling to Singapore or Malaysia. Other than that, there have been findings of overproduction, where a company with the production capacity of 10 tons only possesses 6 tons of raw materials, this 4 ton deficit indicates the sourcing of raw materials from unauthorized businesses or areas. Based on the explanation of Walhi West Kalimantan, the procurement of timber products is conducted through illegal processes. On the other hand, monitoring and evaluation efforts are only conducted twice every year. These evaluations and monitoring efforts are in accordance with the annual work plans of the companies. Indications of violations in the annual work plans can be crosschecked with an evaluation into the field.

Reports from Each Region

West Kalimantan

The West Kalimantan Province possesses an area of 147,307 km², with forested areas reaching ± 8,494,355 ha (57.86%). The forested areas consist of the conservation Area (KSA / KPA) with 1,595,647 ha, protected forest with 2,270,298 ha, limited production forest of 2,116,885 ha, production forest of 2,097,484 ha, Conversion Production Forest area of 206,099 ha, Large Strategic Coverage Area (DPCLS) covering 69,203 ha, and Base (Waters) covering 138,739 ha. Forest management in West Kalimantan began in 1967. With plenty of natural forests and the potential of high value timber production, it is to no surprise that many investors have opened up shop in Kalimantan Barat.

Based on data from the Ministry of Forestry and Environment (KLHK), there are 25 companies holding a IUPHHK-HA permit with a land area of 1,221,880 m² in West Kalimantan. Meanwhile, based on data from the Directorate General of Forestry Company for West Kalimantan, there were 76 companies with a concession area of 1,973,846 m³ n 2016.

Findings in West Kalimantan

Lack of Transparency in the Permit Procurement Process

Loss of the country's potential in the forestry sector is not just a case of corruption, illegal fees, or tax evasion. But the systems in place have themselves created losses in state revenue. In West Kalimantan, there is a patronage of power between timber entrepreneurs or timber companies with people in power leading to state losses and forest destruction. One mode creating potential losses of state revenues begins with the process of licensing forest concessions. The bureaucracy in control of licensing is thought to be controlled by the officials requiring the permits, thus the process of its attainment becomes that much easier. These permits are then later utilized by other entrepreneurs. Similarly, when these perpetrators are heads of the region, they utilize members of their family or close relatives to establish a company engaged in the exploitation of forests. Thus, the head of the region now owns shares of the company, whether it being in his surname or on his personal behalf. Other modes of corruption include the manipulation of feasibility studies to simplify the procurement of permits. Many companies that plant oil palm only rely on the principle permit issued by the region's regent. As a result of oil palm plantations, about 80% of forested areas in Kalimantan is damaged. West Kalimantan for example, with its original 12.8 million hectares of forested areas, has a damage rate of 166 thousand hectares per year or 1.9% of the total forested area.⁵

In response to the domination of oil palm industries in Kalimantan, the government has tried to develop plantation forests. This effort has caused the granting of permission to such industries to exploit peat lands.

Other modes found in West Kalimantan are the use of the operational permits on behalf of plantation forests but with exploitation areas in natural forests, therefore avoiding the obligation of paying non-tax rehabilitation fees.

⁵ <http://www.dishut.jabarprov.go.id/?mod=detilBerita&idMenuKiri=&idBerita=390>

Licensing and permits are often issued before requirements are met. In the stages of forests management, one important stage is the procurement of permits, second is the promotion of permits levels. In this promotion process, requirements of a lower level of permits are often not met before the promotion to a higher level permit. Civil society groups are aware of this situation, but unfortunately this process is still not supervised because of the lack of transparency in the permit process.

Patronage of Forestry Entrepreneurs by Officials

The manipulation of land status often involves high level legislative and executive officials. Many oil palm industries plant in areas that are classified as forest areas. Certainly, the company should be subject to regulation, firstly because of forest destruction, logging without the proper permits, and secondly, the planting of oil palm in forested areas. Through political lobbying, these entrepreneurs approach local heads or local legislators in order to have those areas changed in status through the civil revisions of districts/villages. Of course, this is very harmful to the state, as the wood extracted is not accounted for and the area of forests is decreased. Finding in the field show that 11 of 45 oil palm companies have land overlapping with forest areas.

DEVELOPMENT OF PLANTATION COMPANY LICENSING IN WEST KALIMANTAN THROUGH JUNE 2020

No	Regency	Permits	Certificate of Business Rights
1	Pontianak	49,577	464.43
2	Kapuas Hulu	395,189	5,271.83
3	Bengkayang	266,350	66,014.78
4	Landak	537,416	31134.85
5	Kayong Utara	101,707	12,949.09
6	Sintang	651,848.00	30,757.88
7	Melawi	136,878.00	17,649.31
8	Sanggau	517,715.00	99,818.01
9	Ketapang	1034154	175,153.03
10	Sambas	211,156.00	52,541.03
11	Sekadau	348814.33	58,558.22
12	Kuburaya	278,071.78	26,299.44
	Total	2,733,207	31,599.28

Source: processed by the secretariat of FITRA through the Setapak Program

Permits issued for oil palm plantations amounted to 2,733,207 m³. Involvement of entrepreneurs in deforestation resulting in state revenue loss is very prevalent in West Kalimantan. Forest potential of 5.8 Million hectares is certainly a high potential, and if empowered effectively will result in increased regional and state revenues. Regions will benefit from the revenue sharing process.

In reality, the government has long given opportunity to local communities to take part in forest management. In one instance, the government granted 100 hectares of forested land for educational and research purposes, but this right is often misused by entrepreneurs. Then there is the process of cannibalization of forest rights by employers. Even in Post-HPH (Forest Exploitation Rights) era, there are still remaining areas that are given to local communities. Besides that, entrepreneurs take advantage of the community to form a cooperative (Koperasi), through the cooperative, the entrepreneur proposes the rights of forest exploitation where in reality the exploitation benefits the entrepreneur.

Illegal Charges

Another finding in the field was the prevalence of illegal fees or levies imposed by security officials. Many sources have reported that these illegal levies by security officials are inevitable. From the report of Sampan Kalimantan, there were 13-15 posts where illegal levies were imposed by grassroots actors in an amount ranging from 50,000 to 100,000.

Illegal levies also occur in the licensing process, each hectare of land is imposed of a fee of 50,000 rupiah outside of non-tax revenue levies. The money goes into the pockets of an individual. If the average permit is around 10,000-30,000 it can be imagined how much is lost by the state. Broadly speaking, if every company applying for a permit of 15,000 hectares is charged an illegal levy of 30,000 rupiah/ hectare, then these illegal levies can accumulate to 450,000,000 for each permit. Most of the illegal levies usually occur at licensing tables before being signed by licensing officers. In general, the unofficial fees incurred for licensing purposes average from 2.5 million to 5 million rupiah.

These illegal levies are charged at licensing offices (licensing officer, security officers) to local officials of the potential plantation areas (village heads, tribal chiefs, and other relevant officials). If the average of each permit request 30,000 hectares, we estimate the total cost of licensing at 2.5 million rupiah then the cost incurred reaches a minimum of 75,000,000,000 for each permit. This means that potential losses of state revenue amounts to 75.5 billion rupiah taken by parties who violate regulations. Bribes made in the licensing process are generally done for lands that fall within the status of forest areas.

Loss of Potential Non-Tax State Revenue

Classification of occurring violations show that there are differences in modes between large multinational companies and mid-scale and small scale companies in the conduct of violations in the forestry sector. Multinational companies tend to be more cautious because of green policy rules that make it impossible to exploit forests carelessly. Clear and verifiable licensing is required, such as the SVLK (timber legality verification system) licensing for outgoing products. Timber is deemed legal if the origin of timber, logging permits, systems and procedures for logging, transportation, processing, and trade or alienation can be proven to comply with all applicable legal requirements. SVLK is prepared jointly by a number of parties (stakeholders). SVLK contains standards, criteria, indicators, verification methods, and assessment norms agreed upon by stakeholders. Because of this system, as in the findings of WALHI, it was revealed that 3,000 cubic meters of decayed forest wood was not immediately transported by Sinar Mas Company due to the absence of appropriate licensing documents for these logs.

If scrutinized further, the illegal exploitation of these 3,000 cubic meters of wood automatically accounts as a loss of state revenue. If reforestation funds for natural forest in Kalimantan costs \$16, then the country has lost \$48,000 or equaling to IDR 638,400,000.

Non-tax Revenue in West Kalimantan from the Forestry Sector

#	REGENCY/CITY	Obligation		Realization		Revenue Sharing Funds from Natural Resources of Forestry (from PSDH)
		Provision of Forest Resources (PSDH)	Rehabilitation Fund	Provision of Forest Resources (PSDH)	Rehabilitation Fund	
		(IDR)	(US\$)	(IDR)	(US\$)	
1.	Ketapang Regency	9,044,305,970	2,020,428.75	7,804,584,630	1,745,116.76	3,992,446,000

2.	Sintang Regency	4,853,748,250	1,059,173.29	32,958,506,870	11,190,941.23	
3.	Bengkayang Regency	0	0.00	0	0.00	2,962,669,000
4.	Kapuas Hulu Regency	0	0.00	0	0.00	842,422,000
5.	Kayong Utara Regency	0	0.00	0	0.00	3,156,160,000
6.	Kubu Raya Regency	0	0.00	0	0.00	848,545,000
7.	Landak Regency	0	0.00	0	0.00	133,515,000
8.	Melawi Regency	0	0.00	0	0.00	1,006,157,000
9.	Mempawah Regency	0	0.00	0	0.00	1,975,814,000
10.	Pontianak Regency	0	0.00	0	0.00	1,353,980,000
11.	Sambas Regency	0	0.00	0	0.00	911,073,000
12.	Sanggau Regency	0	0.00	0	0.00	859,983,000
13.	Sekadau Regency	0	0.00	0	0.00	967,653,000
14.	Pontianak City	0	0.00	0	0.00	844,025,000
15.	Singkawang City	0	0.00	0	0.00	911,073,000
	TOTAL	13,898,054,220	3,079,602.04	40,763,091,500	12,936,057.99	842,100,000

** Conversion rate 1 dollar = IDR 13,000

Production of Logs by Province and Type (m3)

No.	Name	Volume (m ³)	DR Tariff	PSDH Tariff	Rehabilitation Fund (DR)	Provision of Forest resources (PSDH)
1.	Acacia	25,023.73	\$ 16	6% x base price (792,000)	5,204,935.84	1,189,127,649.60
2.	Meranti	182,592.49	\$ 16	10% x base price (1,270,000)	37,979,237,920	23,189,246,230
3.	Jungle Mix	40,272.23	\$ 13	10% x base price (953,000)	6,806,006,870	3,837,943,519
4.	Albizia	22.7	-	6% x base price (1,069,000)	0	1,455,978
5.	Others	426,590.96	\$ 18	10% x base price (509,000)	7,678,637.28	21,713,479,864
					44,798,128,363.12	49,931,253,240.60

Source processed by National Secretariat of FITRA and Forest Production Statistics

Based on data for wood production in West Kalimantan of Forestry Production Statistics, PNB of the forestry sector was estimated. The determination of DR and PSDH tariffs is based on Government Regulation No. 12 of 2014 and Ministry of Trade Regulation No 12 / M-DAG / PER / 3/2012. Results of this calculation revealed potential state revenue from PNB of 94,729,381,603.72 rupiah. Meanwhile actual collections, based on data collected from sippuh.kemnhut, certified PNB revenue was 168,168,753,870 for Reforestation Funds and 40,763,091,500 for provision of forest resources (PSDH).

The following details wood production based on the SIPUHH Online data collection

#	KABUPATEN/KOTA / UM IUPHHK-HA	Kelompok Jenis Meranti		Kelompok Jenis Rimba Campuran		Kelompok Jenis Kayu Indah		Kelompok Jenis Ebony		Kelompok Jenis Lainnya ^{a)}		Total	
		Batang	M3	Batang	M3	Batang	M3	Batang	M3	Batang	M3	Batang	M3
1.	<u>KAB. KETAPANG</u>	25,948	108,872.27	4,546	16,227.56	147	354.53	0	0.00	147	354.53	30,641	125,454.36
	(1) PT. SUKA JAYA MAKMUR	20,541	88,053.65	2,545	9,320.34	0	0.00	0	0.00	0	0.00	23,086	97,373.99
	(2) PT. WANASOK AN HASILINDO	3,062	12,646.97	1,101	3,821.15	147	354.53	0	0.00	147	354.53	4,310	16,822.65
	(3) PT. KARUNIA HUTAN LESTARI	2,345	8,171.65	900	3,086.07	0	0.00	0	0.00	0	0.00	3,245	11,257.72
2.	<u>KAB. SINTANG</u>	11,149	47,653.56	423	676.93	28	19.82	0	0.00	28	19.82	11,600	48,350.31
	(1) PT. BATASAN	5,564	24,932.78	176	487.41	8	10.14	0	0.00	8	10.14	5,748	25,430.33
	(2) PT. SARI BUMI KUSUMA KALBAR	5,585	22,720.78	247	189.52	20	9.68	0	0.00	20	9.68	5,852	22,919.98

If estimated based on production:

Rehabilitation Funds (DR)

a. Ketapang District

- Meranti timber with a maximum diameter of 49 cm has a DR tariff of \$16.50, with a production of 108,872.27 m³, the non-tax revenue from DR is 23,353,101,915 rupiah
- Jungle mix timber with a maximum diameter of 49 cm has a DR tariff of \$16.50, with a production of 16,227,56 m³, then non-tax revenue from DR is 2,742,457,640 rupiah
- Decorative timber group with a maximum diameter of quality number one has a DR tariff of \$20, with a production of 354.53 m³, then non-tax revenues from DR is 92,177,800 rupiah.

b. Sintang District

- Meranti timber with a maximal diameter of 49 cm has a DR tariff of \$16.50, with a production of 47,653.56 m³, then non-tax revenue from DR is 10,221,783,000 rupiah.
- Jungle mix timber with a maximum diameter of 49 cm has a DR tariff of \$16.50, with a production of 676.93m³, then non-tax revenue from DR is 118,801,215 rupiah.
- Decorative timber group with a maximum diameter of quality number one has a DR tariff of \$20, with a production of 19.82 m³, then non-tax revenue from DR is 5,153,200 rupiah.
- Total DR amounts to 36,533,474,770

Provision of Forest Resource (PSDH)

a. Ketapang District

1. Meranti wood with a maximum diameter of 49 cm has a PSDH tariff of 10% x base price (1,270,000), with production of 108,872.27 m³, then revenues from PSDH is 13,826,778,290.
2. Jungle mix timber with a maximum diameter of 49 cm has a PSDH tariff of 10% x base price (953,000), with a production of 16,227,56 m³, then revenues from PSDH is 1,546,486,468 rupiah.
3. Decorative wood with a maximum diameter of quality number 1 has a tariff of 10% x 1,161,000, with a production of 354.53 m³, then revenue from PSDH is 41,160,933 rupiah

b. Kab Sintang

1. Meranti wood with a maximum diameter of 49 cm has a PSDH tariff of 10% x base price (1,270,000), with production of 47,653.56 m³, then revenues from PSDH is 6,05,002,120

2. Jungle mix timber with a maximum diameter of 49 cm has a PSDH tariff of 10% x base price (953,000), with a production of 676.93m³, then revenues from PSDH is 118,801,215 rupiah.
3. Decorative wood with a maximum diameter of quality number 1 has a tariff of 10% x 1,161,000, with a production of 19.82 m³, then revenue from PSDH is 2,301,102 rupiah

Total PSDH amounts to IDR 16,140,530,131

The simulation of these calculations provides an illustration of differing data and results. PNPB DR that have been estimated by researchers in two districts of Sintang and Ketapang regency amounted to 36,533,474,770. While the results of the calculation based on 2015 forestry production statistics amounted to 44,798,128,363.12. Moreover, the Sipuhh Online system reported revenues of 168,168,753,870. The striking difference between SIPUHH Online and manual counts based on forestry production statistics, or even calculations based on total round wood production, suggest that there should be a joint evaluation and that the online payment and recording of PNPB should be evaluated.

Furthermore, with the potential that exists today, monthly timber production in the Sipuhh online database show that there is a difference in revenue from PNPB DR of 8,264,654,100. This difference of 8 billion should be explained as to whether the rehabilitation tax has not been deposited in the state treasury or if it stems from other problems. A similar situation occurs in the calculation of PSDH, where there is a difference between the potential and actual revenue collections.

In a simple simulation to correlate PNPB records to the data in SIPUHH online, the calculation of non-tax revenues based on forestry production statistics and quantitative calculations of non-tax revenues based on the total production of logs in the online sipuhh system shows different results. With different data, different results and of course different revenues it will be more difficult to determine the validity and verification of the country's revenues from the forestry sector. Other impacts may trigger misuse of funds from forest sector's PNPB.

West Nusa Tenggara

NTB province has a land forested area of ± 1,060,622.53 Ha (52.63% of total land area) and 11,100.30 hectares of aquatic forested areas.

Poverty levels in West Nusa Tenggara was still quite high in 2012, with as many as 810,900 people (18.02%), with ± 40% in rural areas, specifically surrounding forests living in poverty. The poor tend to utilize the surrounding natural resources to meet economic needs. Agricultural land ownership is quite low with an average of 0.3 ha/household, while the total population of NTB working in agriculture is 48%. This leads to a conversion of forested lands into agricultural land through illegal cultivation.

No	Fungsi Hutan	Luas (Ha)
1	Hutan Konservasi	173.636,40
	- Cagar Alam	36.832,61
	- Taman Nasional Gunung Rinjani	41.330,00
	- Taman Nasional Gunung Tambora	71.645,64
	- Taman Buru	48.668,05
	- Taman Wisata Alam	21.976,06
	- Taman Hutan Raya	3.155,00
2	Hutan Lindung	444.149,86
3	Hutan Produksi	450.813,57
	- Hutan Produksi Tetap	160.250,74
	- Hutan Produksi Terbatas	293.685,83
	TOTAL	1.071.722,83

Sumber : Bidang Planologi dan Pamhut Dishut NTB Tahun 2015

Wood supply capability of 36,826 m³/year, fulfilled from production derived from the Utilization of Wood in Owned Property (IPKTM) Permits and Timber Utilization Permit (IPK) from the exploitation of 24,826 m³/year of forests, as well as timber entering from outside regions of 12,000 m³/year. Meanwhile, the demand for wood by the NTB population reached 0.05 m³ / capita, so with a total population of 4,434,012 people, the demand for wood reached 221,700 m³ / year of which includes log wood 110,850 m³/year and processed wood with 50% yield. Thus, the supply and demand gap reached 110,850 m³/year-36,826 m³/year = 74,024 m³/year.

Until 2017, there were 4 companies that obtained concession licenses for the use of natural forest and HTI in NTB, one company that received IUPHHKA on Sumbawa Island and three HTI permits in Sumbawa Island. IUPHHKA includes: PT. Agro Wahana Bumi located around the Tambora Area (District Bima and Dompu). HTI: PT. Coins Nesia (Bima regency), PT. Usaha Tani Lestari (Dompu and Bima regency), and PT. Sadhana Arifnusa spread in 3 regencies (East Lombok, Central Lombok and North Lombok). Of the four concessions, only two companies have so far started production: PT. Agro Wahana Bumi (Natural Forest) and PT. Sadhana Arifnusa (Plantation Forest).

Citizens' Conflict with the Companies and Government

The Beginning of Forest Management by Local People

The exploitation of forests by local people started in 1997 or 1998. After president Soeharto stepped down from power in 1998, masses of people started to enter the forest in search of a livelihood. Beforehand, people were employed by a certain company that instructed them to cut down timber. So, when local people entered the forest in 1998, the community cleared the land of the remnants of the previous logging activities. There had been an effort by the government to evict the local people, but in 1999 local people went back into the forest. To deal with this situation, the government implemented reforestation programs such as a cashew planting program has been conducted since 2000. The reforestation movement, for example, was implemented at the site from 2006 to 2008.

According to the local clerk, Ustadz Syawafi, the local people did not possess legal rights to the land, nor the documents to prove so. But on the grounds of people's need for livelihood, it was considered better to farm than to conduct illegal logging.

The Arrival of PT Sadhana in Community Managed Lands

Areas of plantation forests owned by PT Sadhana in the province of Central Lombok cover two districts, West Praya and Southwest Praya districts, which consist of four villages, Mangkung, Montong Sapah, Kabul and the Plambik Village. The permit held for the exploitation of land is for 60 years. Before PT Sadhana entered the area, hundreds of households exploited the forested lands with activities such as the planting of rice, corn, and rose apples.

With the introduction of PT Sadhana into the area, local people were asked to vacate the area. The people refused. The cultivation of wood in the area was necessary as a source of energy or as fuel for the tobacco oven of PT. Sadhana. It was also reported that in the years before, teak wood was planted by local communities. When PT. Sadhana took over the land, these teak woods were harvested.

The Following is a Table of Partnerships and Conflict of Local Communities with PT Sadhana

No.	Village	Description of Events
East Lombok		
1.	Sambelia Village	Previously, the local community tried to obtain a Business Permit for the exploitation of forest product in Community Forests (IUPHKM), but the regional government did not issue the permit. However, the permit was given to PT. Sadana. The local community rejected this notion.
2.	Senanggalih Village	Violation of agreements between local community and the company. In its agreement, the local community was given the rights to manage land. But additional workers came from outside of the village. As a result, the land that was originally set aside was not enough. The village, with an initial 35 households, grew to hundreds.
3.	Padak Guar Village	Potential conflicts may occur because villagers were not given access to the forest.
4.	Bagik Manis Village	Potential conflicts as villagers grew uncomfortable with the presence of PT Sadhana
5.	Sugian Village	Formation of a partnership with local villagers was made because these villagers had the permits to exploit the community forest. The products of harvest are shared with the villagers receiving 60% and the Forest Management Unit (KPH) receiving 40%. There have been no conflicts as villagers actually prefer partnership with KPH. There is also a remnant of land yet to be worked.
6.	Dara Kunci Village	Formation of a partnership with local villagers was made because these villagers had the permits to exploit the community forest. The products of harvest are shared with the villagers receiving 60 % and the Forest Management Unit (KPH) receiving 40%. There have been no conflicts as villagers actually prefer partnership with KPH.
Central Lombok Province		
7.	Montong Sapah Village	Pt Sadhana entered the village without notice or socialization, and evicted villagers. In response, there have been a resistance and refusal from the local villagers.
8.	Kabul Village	Pt Sadhana entered the village without notice or socialization, and conducted the expulsion of villagers. In response, there has been resistance and refusal from the local villagers.
9.	Mangkung Village	Local villagers no longer work in their lands because of expulsion
10.	Plambik Village	Conflicts with PT Sadhana as villagers are expelled. Local villagers have tried to stay put.

Locations of Conflict in East Lombok

In Sembelia village, East Lombok conflicts have emerged from the struggle for the rights to forest land between the local community and PT Sadhana. The district government planned to grant permits to PT Sadhana. Whereas previously, for the same area, local people applied for permits for a Community Forest (HKM), but was not approved by the government. The rejection of residents to the granting of permits to PT Sadhana has damaged the plantation forest area with the continued exploitation of the conflicted land where the land was utilized to grow *palawija* crops. Residents have even started to enter the protected forest area adjacent to the plantation forest area. The residents demanded the re-mapping of the area since the land is no longer forests, or its status changed to anything else as long as the land is still managed by the community.

Conflicts with the company have also occurred in other villages. In the village of Senanggalih, the company has entered and started planting activities. The company claims to have implemented a partnership program in the form of goat aid and employing the community by providing wages. However, people are unsure if it is a HTI partnership program, in the opinion of the community, there are inconsistencies. Communities require companies to implement partnerships by providing part of the land to be managed by the community. Similarly, other problems arise because there are outsiders who earn land by paying the local farmers' group.

Initially, only 35 households were mentioned, but this number increased significantly to the hundreds. In consequence the land provided was not large enough for the number of households that wanted it, thus generating conflict between local villagers and the company. Nevertheless, local villagers have not entered plantation forest areas. The local community demanded the exit of the company from its area.

In general, conflicts between PT Sadhana and local communities takes place in the villages of Sambelia, Padak Guar, and Senanggalih (These three villages are located in close proximity to each other). These villagers are very dependent of the forest for their livelihoods. Such as in Sambelia where there are no rice paddies, only the presence of plantation forest and the protected forests. In other villages, rice paddies are scarce and are very dependent on the availability of rain. Villagers of other areas are farm workers. In the villages of Sugian and Dara Kunci, which share borders and are separated far from the remaining three villages, villagers have alternative for livelihoods because of the proximity to the sea and the availability of forested areas that are outside of PT Sadhana's areas. These forests are also managed in partnership with local forest management units (KPH) through the use of community forest permits (IUPHKM)

Locations of Conflict in Central Lombok

In the West Lombok Province PT Sadhana planted Eucalyptus and Acacia stands. Conflicts with the company were from local communities of the Montong Sapah and Kabul villages. Some villagers agreed to vacate their lands, while others refused to hand over land that they previously managed for many years. Villagers who agreed to give up their lands were compensated with rice, goats, chickens, and ducks and were employed to work in the field and receive wages.

Meanwhile other villagers chose to stay on their lands, with such lands amounting to 100 ha. In the village of Montong Sapah, protected forest lands, on the slopes of Dunung Mareje located above the plantation forest areas of PT Sadhana, have been exploited by farmers, previously exploited as plantation areas, and by outsiders. In principle, villagers from the two villages have demanded the reevaluation of plantation forest permits and a return of lands to the local community, which would later be managed in partnership with the forest management unit.

However, many villagers have already vacated the forest. Cashew trees that were previously planted have been harvested and moved. Several villagers have been employed by the company as security officers with a wage of 1.4 million rupiah per month. Other reports revealed that PT Sadhana is building an oven in the Plambik village. While previously timber was transported out of the area, the current plan is to process the timber into charcoal locally. These plans were carried out by the purchase of a villager's land with an area of 70 ha located near the plantation forest. This has become an issue with the villagers of Plambik because of the concerns over the environmental effects of the oven.

From this area, two types of conflict can be concluded. One is the conflict with the regional government to obtain permits for the establishment of a community forest. The second is conflict with a company over rights to land exploitation. These two parties are also treated differently by the government, in terms of land afforded for management and the ease of procurement for permits.

According to the head of Walhi NTB, the relationship between companies and the government is better and more manageable compared with to the relationship with local communities. Applications for permits by local communities are often more complex in comparison with the company's process.

Public access to forest management is rare and scarce. In addition to the time consuming, complicated process, the public frequently finds it difficult to manage administrative requirements. If indeed the last reason is the factor, then there should be engagement between the Forest Department and the community. The Department of Forestry needs to provide socialization to the community on how to access forest management, including how to obtain permits. Unfortunately, the relationship is not well established.

The Department of Forestry, in this instance, represents the government and focuses on the eradication of illegal logging, but it has not thought of alternative economic access for local communities and other solutions to overcome this issue structurally.

The patterns and types of conflicts in NTB are all related to illegal logging. This is caused by the limited opportunities held by local communities who reside around forests. Therefore, there is work left to do by the government, such as the provision of economic access and eradicate the collectors of illegal timber.

Several considerations have been put forward in the Department of Environment and Forestry's recommendation regarding the application for forest exploitation permits for plantation forests: (a) the status of the area being petitioned for has to be a Permanent Production Forest (HP), (b) is a critical land (stands of less than 20 m³/ha), (c) potential for what, (d) topographic conditions (slope level), and (e) public acceptance, meaning no conflict with the community. The status of the region's function can be found in the function status map. In short, the company submits permits to the Ministry, and Provincial and District governments provide technical recommendations. In the past, there was a recommendation from the Regent on the feasibility of the land. Natural Forest concession area should be located in areas of Limited Production Forests.

Based on data of Walhi NTB, 40% of people in NTB reside in forested areas, of which 60% are below the poverty line. What is the cause? One is the limited access to the management of land. Drastic changes have been seen when local communities have been given access to forest lands.

Local communities who are given access, utilize the land to plant fruits. Although access to these lands can be deemed illegal, it is very beneficial for the livelihoods of the farmers. Interviews with local communities reveal that in order to receive 900 million in one year, 1 ha of land has to be cut down.

The inequality of asset control and forest conversion should be a concern. The function of forests is only deemed to be economic. On one side, it is beneficial to the rise of state revenues and individual revenues. Currently, many stakeholders have tried to maximize the potential of forests to increase the benefits to individuals and to the government through the community forest plantation program (HTR), community forest (HKm), and other programs. Meanwhile the government has been lenient in the granting of permits for mining, plantations, and other sectors.

The ecological and hydrological functions of the forest have been ignored. The ecological function of the forest plays a role in preventing landslides and forests are a source of life for other living creatures. Meanwhile the forest's hydrological function is vital to the retention of water resources. We have already seen the effects of economy based activities where the inability of critical lands to retain water creates issues such as flash floods and drought.

Non-tax State Revenues from the Forestry Sector

Tabel 5.11. Data Penerimaan PSDH-DR tiap Kabupaten/Kota Periode Tahun 2011 s/d 2015

No	Kabupaten/Kota	TAHUN										Total
		2011		2012		2013		2014		2015		
		PSDH	DR	PSDH	DR	PSDH	DR	PSDH	DR	PSDH	DR	
1	Kota Mataram	0	0	0	0	0	0	0	0	0	0	0
2	Lombok Barat	0	0	47 8.400	383.828	34 4.061	1.3 68.686	0	0	0	0	2.574.975
3	Lombok Tengah	0	0	64.06 0.824	96.2 53.099	39.06 5.821	67.3 11.110	4.596.854	8.726.174,82	0	0	280.013.883
4	Lombok Timur	0	0	0	0	0	0	19.678.965	56.754.144,0 8	0	0	76.433.109
5	Lombok Utara	0	0	0	0	0	0	0	0	0	0	0
6	Sumbawa Barat	905.89 7.004	2.244.5 23.174	679.91 3.055	1.922.5 35.014	462.35 9.475	1.547.38 5.904	97.489.778	348.158.937, 63	133.129.10 0	12.747,22	8.341.404.189
7	Sumbawa	23.14 4.849	35,8 88.041	115.15 8.538	349,8 97.494	66.55 8.856	208.74 5.284	50.283.247	31.481.575.2 2	0	0	881.157.893
8	Dompu	10.03 5.395	32.7 70.566	10.65 8.992	12.7 62.543	9.07 2.270	42.1 14.666	11.472.610	47.774.465,3 5	0	0	176.661.507
9	Bima	1.31 4.630	4.5 58.631	0	0	0	0	0	0	2.200.000	0	8.073.261
10	Kota Bima	0	0	0	0	0	0	0	0	0	0	0
TOTAL		940.391 .878	2.317.74 0.412	870.269 .809	2.381.83 1.978	577.400 .492	1.866.92 5.650	183.521 .454	492.895.297	135.329.1 00	12.747.22	9.766.318.81 7

Sumber : Bidang Pemanfaatan Hutan Dinas Kehutanan Provinsi NTB

Tabel 5.9. Data Jumlah Produksi Hasil Hutan Kayu Dirinci Perkabupaten Tahun 2015

No	Kabupaten/Kota	Jenis Kayu					Total (m3)
		Rimba Campuran	Kayu Indah	Kayu Merbau	Meranti	Jati	
1	Kota Mataram	0	0	0	0	0	0
2	Lombok Barat	0	0	0	0	0	0
3	Lombok Tengah	0	0	0	0	0	0
4	Lombok Timur	4.977	0	0	0	0	4.977 *)
5	Lombok Utara	0	0	0	0	0	0
6	Sumbawa Barat	0	0	0	0	0	0
7	Sumbawa	0	0	0	0	0	0
8	Dompu	1.198,88	0	0	0	0	1.198,88 **)
9	Kota Bima	0	0	0	0	0	0
10	Bima	0	0	0	0	0	0
TOTAL		6.175,88	0	0	0	0	6.175,88

Sumber : Bidang Pemanfaatan Hutan Dinas Kehutanan Provinsi NTB

Keterangan :

*) Produksi HTI PT. Sadhana Arifnusa

***) Produksi PT. Agro Wahana Bumi

The unassertive stance of the Department of Forestry has become a trigger for conflict between companies and local communities. Villagers in Central Lombok and West Lombok acknowledged the use of Community Forestry (IUPHKM) permits. However, the Department of Forestry chose to neglect these permits to the local community, instead granting plantation forest permits to the company. Researchers have sought to seek clarification on why community forestry permits were not granted to communities, but there was no official clarification from the Department of Forestry.

However, the condition is different as the government went on to grant permits to companies for lands that were previously applied for by local communities. As the local communities were very dependent on those lands, certainly they rejected this action. Based on the Regulation of the Indonesian Ministry of Forestry no. P.88/Menhut-II /2014 on Community Forests that aims to empower communities, the empowerment of local communities is an effort to improve the ability and independence of the community to obtain the forest resources optimally and fairly through capacity development and providing access in order to improve the welfare of the local community.

With this objective in mind, the government should show its stance towards empowering the community, not the companies. Rejection from the community is caused by the threat to their economic activities from companies who are known to have little interest in the community's wellbeing.

From the three regencies, studies were conducted in two of them which consisted of 12 villages. In only two of the villages was a partnership present between villagers and the company. This is caused by the company's ability to fulfil the interests of the villagers therefore having the ability to reach an agreement. However, in the other villages, it was felt that the approach of the company and the regulations issued by the government were not sufficient, triggering the rage of the local community.

The absorption of forest potential through non-tax state revenues in NTB was not significant because of the small forest area. The same can also be said of tax revenues from the forestry sector in NTB. The management of these forests was mainly through plantation forest management.

South Sulawesi Province (Bantaeng Regency)

The rate of economic growth in the Bantaeng regency has seen a drastic increase in the past ten years and the region has transformed from a generally poor area into a well-developed economic area. With an area of 395.83 km, the majority of land is utilized for agricultural purposes. The government of Bantaeng Regency made a serious effort to improve agricultural development. The rate of economic growth since 2008 has risen from 4.7% up to 9.2% in 2016. According to the Head of the Agriculture Department of Bantaeng Regency, economic growth in Bantaeng is caused by the seriousness of the regency's government efforts to improve the quality of agriculture. Bantaeng conducts agricultural assistance on the use of agricultural technology, the use of superior seeds and the management of agricultural land using an effective system. In general, agriculture in Bantaeng thrives and has become one of the rice granaries in South Sulawesi. Development in the agricultural sector affects the welfare of the community, according to the bureau of statistics in Bantaeng, in 2008 the poverty rate of Bantaeng District was at 21% but decreased to 5% in 2016. Besides agriculture, the Bantaeng Regional Head also seeks to convert Bantaeng into an industrial city.

The gross regional domestic product (PDRB) of Bantaeng Regency based on the current price of 2015 reached 5,604,991.69 million rupiah, while at constant 2010 prices reached 4,073,151.65 million rupiah. The most influential sectors of Bantaeng Regency's economy are agriculture, forestry and fishery, which contribute to 32.12 percent of the gross regional domestic product.

Conflict between Pt Adimitra and the Local Community

In Bantaeng regency, the overall forest area of 6,222 ha is divided into 1,262 ha of limited protected forest and 2,773 ha of protected forest. Bantaeng District handed over forest management from the state to the local community. This handing of management rights conducted through the Village Forest Program (*Hutan Desa*, HD) provides legal access to the forest for the local community for a duration of 35 years. This access to forests has benefited the community. Before the creation of this program, people hoping to plant coffee were thrown out of forests by the forest police. The creation of the village forest program has enabled the legal utilization of forested areas. The goal is to create a forest management system based on the interests of the village community. Villages that obtained forest management permits were Labbo with 342 ha, Pattaneteang with 339 ha, and Campaga with 23.68 ha.

The process of transforming rights, benefits, and roles in the management of forests in Bantaeng district begins with institutional strengthening at the village level through village management mechanisms created by BUMDes (village-owned enterprise). The form of governance of forest management institutions by Bumdes includes rules that have a common purpose and that are defined for the common good. The rules specify, for example, that forest management should not be transferred, that damaging trees, forest burning, and changing land functions is prohibited. BUMDes also imposes sanctions on communities that commit violations. Similarly, with any violations of the agreement between BUMDes and the tiller, BUMDes' institution will evaluate the rights granted to the community concerned. A village forest management permit from the Ministry of Forestry was granted to BUMDes Ganting Desa Labbo as the management permit holder for 35 years. BUMDes has a rule that 20% of farmer's income in forest area is given to BUMDes.

The management of forests through the Village Forest Program (HD) is hoped to have a positive impact on the livelihoods of communities surrounding forest areas. As an economic indicator,

before the creation of this program the average household was only able to generate IDR 3,508,936/household/year, far from the ideal number of IDR 4,767,964/household/year. With the creation of this program, the welfare of the community has seen a significant increase. Local farmers manage these forests by planting fruits, coffee, and rattan. In addition, BUMDes also receives revenue from the revenue sharing agreement.

In addition to the management of land in forested areas, BUMDes manages the water in the village forest. This management started in 2013 as a means to provide clean water to the household. The program did not last long as conflict over the election of a village head stopped the implementation of this program.

In an area with an abundance of water resources, BUMDes supplies water into people's homes. An institutional system was built, and each house pays a fee of 500 per month as a fixed cost and an additional 250 rupiah for every liter of water consumed.

The Bantaeng district government has been serious in providing forest management to the community through the village forest program. Giving rights to the people has an impact on economic growth. Government must have a commitment to maximizing power in production management. This means that local institutions are required at the village level to ensure community discipline in managing forests.

The partnership found in Bantaeng between the government and the local people can be an example of a win-win solution between stakeholders and the community. The district government involves the community as a spearhead in forest management. From that awareness, the government of Bantaeng District encourages 80% of all forest areas to be managed in a social forestry scheme. Where people are given legal access to manage village forests for 35 years.

Issues in the Forestry Sector of Bantaeng

Despite good relationships between the district government and the local community, several issues concerning forest governance still occur. PT Adimitra located in Bonto Lojong Village entered the area in early 2016, with the permission of the Bantaeng Regent, and deals in the tapping of pine sap. Tapping activities are conducted in four villages: Bonto Lojong village, Bonto Marannu Village, Bonto Tangnga Village (Ulu Ere Sub district), and Pa'bumbungang Village of the Eremerasa Subdistrict.

To increase the effectivity of the pine tapping process, PT Adimatra worked with village officials and the Village Forest Management Institutions (LPHD) located in each village. The cooperation had the following agreements:

1. PT. Adimitra is required to set aside 5% of profits for the village government and LPHD as a form of the Village Original Income (PAD).
2. PT Adimitra employs workers from the village.

However, within a few months, PT Admira did not fulfil this agreement. First, some laborers were taken from Java and were given a different wage. On this basis, workers came to the village head and the LPHD to question the inequality of wages. Finally, the head of LPHD, in this case Dg Sampara, protested to PT Adimitra and threatened to stop the partnership. The threat issued by the chairman of LPHD, was responded to by PT Admira, saying that the difference is reasonable because of the difference in skills found in the employees of local people and those of Java.

Tough negotiations ensued until a new deal was agreed to. With the establishment of this agreement, village heads and LPHD raised the revenue contribution tariff to village government and LPHD to 10%. However, disappointment grew within the community, specifically those who managed the forested lands in 1980. At that time, the government planned the rehabilitation of forests with the planting of pine trees. Under an agreement made, the local community would be granted the rights to manage those pine trees. Over time, tort took place and the permit of the exploitation of those pine stands were given to PT Admira. This caused a massive whiplash from the community as they rejected the motion until mediation had to be reached between the two parties.

Local Government Contributions to the Granting of Access to Forests for Local Communities

The Village Forest Program (*Hutan Desa*, HD) provided legal access to forests for the local community for a duration of 35 years. This access to forests has benefited the community immensely. Before the creation of this program, people hoping to plant coffee were thrown out of forests by the forest police

Central Sulawesi

Conflicts of Local Community with the Government and Companies

In the village of Samili of the Sojol District, local people rejected the presence of a mining company that was felt to be disturbing the economic activities of the local people. This rejection was conducted on the behalf of the local community, by first going to the village head and went as far as to block the drilling employees of the mining company. Unfortunately, these efforts did result to any changes. Meanwhile mining activities were continued, whereas according to the local community, official permits for exploration had not been issued. The total area mined was 8,700 hectares but was later reduced to 8,200 hectares in the villages of Tongolobibi, Samalili, and Siboang.

The local community has purposely cut down forested areas as means to open up land for plantation activities, but new permits have continued to arise from businesses such as mining, timber exploitation, and rubber plantation forests. The opening of markets related to the presence of rubber plantations will trigger the planting of similar products by local communities in order to take advantage of the available market. Unfortunately, an absence of the proper permits and documents of their lands will surely evict local villagers from the area as the company will continue to seize land permitted to them. It seems as though the government's concern about the local communities' welfare is just a veil, where in reality the local community is powerless and fearful of these permits as they are able to destroy their livelihoods.

In addition to exploration, residents have identified the existence of deforestation activities. Previously there was another mining company that entered the Sojol district, named Al Rizky. Initially the permit that came out was only a permit of C excavation, but this did not last long as the permitted drilling efforts were unable to find any meaningful findings. Meanwhile, the opportunity was taken to mine in forested areas. The use of the name Al Rizky seemed to indicate a locally run company, but in reality the company was an outside investment to extract natural resources.

A mining company by the name of MAP involved the local people in the process of forest degradation. The community was persuaded to open a clove plantation facilitated by the government. The extraction of wood usually occurred during the night or close to dawn. Previously timber was cautiously sneaked out through waterways, now the transportation of wood is carried out during the day using trucks. Mr. Sabar and several residents predicts that whether it be plantation forest exploitation or natural forest exploitation, the goal was the same: the complete extraction of resources. Even by mining companies that also exploited timber products. They also questioned the use of permits, such as the business permit for the exploitation of forest products (IUPHHK) as the lands proposed have already changed in function to plantations.

Other instances of forest clearing were found in Sojol and Dampelas with the presence of a paper wood plantation forest. This plantation forest company came to the area in 1984 after transmigrants had entered the district. The village was previously named "hill of happiness," but has since then been changed to "hill of hope." With the arrival of trans migrants, land was made available to them for exploitation. Mr. Sabar also mentioned the presence of Mrs. Tin Suharto on the ownership documents of the HTI.

Mining companies have also taken the opportunity to extract timber. Security workers from this company have also participated in the taking of timber. The submission of a timber exploitation permit was rejected by the local people as it was thought to be harmful to the community. However, with the presence of the mining company, timber logging has been conducted in broad daylight. Whereas previously, the extraction of timber was confiscated, even though whereabouts of the products of confiscation were unknown.

Permits, such as for land exploitation and business rights, often overlap, such as soil excavation sites, forestry, and mining sites. In the end, the community is the one who ends up being affected negatively as they are expelled from the area for reasons such as residing in protected forests or a nature reserve. Although, as if on purpose, government officials neglect to notify the local community, only once local people have started planting do these officials notify and evict the local community. This was the case in the Dongi-dongi and Katu villages that were located in the Lore Lindu protected forest. Even with protests and whiplash from the local community, the government has turned their back on this issue, while permitting more and more companies into the area through the granting of exploitation permits and business permits, such as the Poso conflict.

Entrepreneurs have reaped natural timber resources from mining activities along with illegal logging even without the having the proper permits. The inquiry for a change of permits may occur when the material sought after was not as potential as other material, such as gold, in the area. That is why operations continue on without the possession of proper permits, thus illegal income is continually received through these unpermitted processes. The procurement of permits is often overlooked as they are deemed to be easy to obtain through "back doors."⁶

Additional information was obtained from Mr. Sabar through his complaints about the local plantation forest activities in Sojol and Dampelas. He reported that there was no longer any paper wood production. There have been no replanting efforts made for the original forest that was

⁶ Interview with Mr. Sabarudin (32) resident of Sambilili village Sojol sub district, Land advocacy figure with Jatam

cleared to plant paper wood. Often trucks would come through village streets escorted by thugs and plain clothed police. There have also been indications of arrangements made with the government.⁷

Findings of Illegal Levies

- Transaction price: Chainsaw operator, 1 million per cubic. Extraction, 200-300 thousand per cubic meter until roadside (usually lifted using cows). Wood loading (lifted from the ground to a truck) 1 truck 100 thousand. Overall, the total amount of transactions for the extraction of timber from the forest to trucks amount to a maximum of 1.5 million rupiah per cubic meter.
- Document for transportation have to be obtained from the village head and the local police, each having a cost of 500 thousand rupiah. Other costs include fees from certain village individuals with a fee of 100 thousand rupiah per truck
- 1 Day 2 Trucks.
 - 1 Truck Is filled with six to seven cubic meters of timber.1 cubic meter is valued at IDR 800,000 - 1,500,000 meaning the value of timber in one truck is $1,500,000 \times 7 = 10,500,000$ rupiah. So, if there are three extractions per week with two trucks per extraction and the assumption of an equal lift, then for each week the value of wood extracted is $21,000,000 \times 3 = 63,000,000$ rupiah, and in one month 252,000,000 rupiah.

According to local CSO official (Aris of Walhi), the practice of illegal levying occurs frequently around forest areas. Usually department officials turn a blind eye towards non-permitted activities.

This calculation was based on reports of villagers witnessing illegal non-permitted logging activities. This calculation does not include extraction of wood using waterways, which according to local residents has been conducted since before the arrival of the mining company, and the quantity of wood extracted is still unknown.

Findings on Permits

The findings of Fitri revealed that 12 Business Permits for the Exploitation of Forest Products, Plantation Forest (IUPHHK HTI), and Forest Business Rights (HPH) are still in effect. Revenues come from two sources, one is from leases and the other is from the production of the exploited area such as timber. The department of forestry only monitors the revenues from forest products. Leases, on the other hand, are monitored by the ministry, the holder of permits, or BPKH (Forest Area Consolidation Center). In reality, permits for upstream wood processing industries could be issued, but recently have not been issued as resources continue to deplete.

The company calculates the timber potential and the tariff owed. The tariff is paid up front. All forest products must be inventoried. After that, an action plan is created. Although with the issuing of permits, companies must first create an annual action plan before any operation is conducted. Based on data published by Jatam (Mining advocacy network) of Central Sulawesi, at least 18 mining companies in Central Sulawesi are located in protected forests. Furthermore, 85 mining permits that were issued were of locations that were located in protected forest areas. After further assessment by Jatam, it turned out that that in addition to being on villages, fields and paddy fields, the area of PT. MAP also overlapped protected forest areas.

⁷ Interview with Mr. resident of the Tongolobibi village

From those facts, permits granted for protected forest areas should have a conversion of land function. Referring to Law No. 41 of 1999 on Forestry stating changes in the function of forest areas are established by the government based on comprehensive research results. Thus, the process of land function conversion cannot be conducted rashly without detailed analysis. Due to the large number of mining permits that enter the forest area, this indirectly impacts the loss of utilization of forest potential and its conversion to mining areas. In addition, the environmental impact can be detrimental to the community.

With these clear regulations, it is up to the government to be assertive towards the issuing of permits for mining companies to operate in forested areas. This is vital to the forest sector's ability to contribute to state revenues.

Based on the findings in the field, permits for plantation forests have only been issued to PT Wana Rindang in the Tojo Una-una regency. While others in the SP1 process (First Order Document), the creation of an environmental impact assessment, is PT. Coltan Agro. To operate, other processes include the creation of boundaries, a business action plan, and an annual action plan have to be implemented before activities are conducted. In other words, companies who have not met requirements may not begin business activities.

In reference to initial modes of forest utilization, village governments play a part in the flexibility of forest management actors. Emerging issues, such as the destruction of forests have led to government officials and other actors to point fingers and accuse other parties.⁸

East Kalimantan

The function of forest Based on Regional Spatial Planning of East Kalimantan No. 01 of 2016 consisted of:

- Area of Forest Reserve Areas: 438,390 Ha
- Area of Protected Forests: 1,844,969 Ha
- Limited Production Forest Area: 2,908,256 Ha
- Area of Permanent Production Forests: 3,027,099 Ha
- Area of Conservation Forests: 120,437 Ha
- Other Uses Areas: 4,299,785 Ha
- Total: 12,638,936 Ha

Realization of Non-tax State Revenues According to SIPPUH

No	REGENCY/CITY	OBLIGATION *)		REALIZATION **)	
		Provision of Forest Resources (PSDH) (IDR)	Rehabilitation Funds (DR) (US\$)	Provision of Forest Resources (PSDH) (IDR)	Rehabilitation Funds (DR) (US\$)
1.	Berau Regency	44,094,661,800	9,631,771.04	31,400,991,580	6,861,227.23
2.	East Kutai Regency	26,052,449,110	5,706,573.85	33,368,239,880	7,280,150.20
3.	Mahakam Ulu Regency	16,263,551,710	3,547,244.08	17,090,275,930	3,728,758.10
4.	West Kutai Regency	15,905,235,540	3,536,133.71	15,735,408,080	3,494,708.85
5.	Paser Regency	3,920,975,010	933,663.65	2,217,077,210	530,951.42
6.	Kutai Karta Negara Regency	2,756,340,490	599,599.61	1,917,782,218	416,487.19

⁸ See <http://www.antarasulteng.com/berita/25227/dishut--penebangan-kayu-di-donggala-utara-ilegal>).

7.	North Penajam Paser Regency	1,292,888,940	303,985.76	1,292,888,940	303,981.97
8.	Malinau Regency	90,198,320	19,582.99	90,198,320	19,582.53
9.	Bulungan Regency	0	0.00	0	0.00
10.	Nunukan Regency	0	0.00	0	0.00
11.	Tana Tidung Regency	0	0.00	0	0.00
12.	City Balikpapan	0	0.00	0	0.00
13.	City of Bontang	0	0.00	0	0.00
14.	City of Samarinda	0	0.00	0	0.00
15.	City of Tarakan	0	0.00	0	0.00
	TOTAL	110,376,300,920	24,278,554.68	103,112,862,158	22,635,847.49

Non-tax Revenue Sharing

Source of Revenue	REALIZATION	PERCENTAGE
Provision of Forest Resources (PSDH))18,217,625.78	0.58%
Forest Utilization Fee (IUPH)	8,023,104.38	0.25%
Land Rent	29,860,638.73	0.94%
Exploration Fe/Royalty	1,760,315,547.50	55.60%
Oil	303,849,562.85	9.60%
Natural Gas	1,045,951,857.47	33.03%
Total	3,166,218,336.71	100.00%

With a forest area of 12,638,936 hectares, East Kalimantan production forest accounts for 47% of the total forest area of East Kalimantan. Meanwhile its contribution of profit sharing revenue in the region is not more than 0.75% of the total Profit Sharing Fund (DHB). In contrast, it is dwarfed by the royalties and revenues from natural gas.

Conclusion

This research finds that the contribution of Indonesia's forestry sector to state revenues is not proportional to its potential. In addition, the government and society in general are still focused on the economic timber potential of forests, not on their ecological, hydrological and conservational potential. Forest potential can be maximized without having to cut down trees. Another surprising finding was that there was no valid data possessed by the Ministry of Forestry regarding the potential of timber, PNBP revenue, and other data. Thus, researchers tried to make their own calculations based on legislation regulating the potential collections from non-tax revenues in the forestry sector and found a significant disparity.

This inconsistency of the data raises questions with the validity of reports made to the government. As a result of these questions, civil society has no exact knowledge of the potential of forests in Indonesia. From the various areas analyzed, almost all showed problems with forest management, as in West Kalimantan, where researchers found general mistakes in the calculation of non-tax revenue, illegal collection of levies, and unsupervised flow of timber from forests into industries which all raise the potential of losses of state revenue.

In West Nusa Tenggara, researchers found conflicts between local people and companies struggling over land rights. The conflict was amplified by the government's inclination to issue

permits for PT Sadhana rather than giving that access to the local people. The study of two regencies in Central Lombok, showed that of 12 villages assessed, 10 had conflicts with the company while 2 had a partnership with the company.

Conflicts between the community and the government and companies reflects lack of support stakeholders have given to local communities. The government still prefers companies rather than providing access to community members. In addition, the arrogant pattern of companies in evicting communities from lands that were the backbone of welfare for the community has resulted in the resistance of the people. These facts show that the objective of raising communal welfare through forest management have not been met.

Findings in Central Sulawesi were similar to those of NTB and West Kalimantan, such as conflicts between the local people and companies over land rights, illegal levies, and a permit granting process that was not transparent.

The loss of potential state revenues from the forestry sector occurs because of the mismanagement of the sector. Indonesia's vast forests that were seen as a treasure was easily depleted. Temporary revenues are treasures that are not hard to find. Therefore, indications of corruption in the forestry sector is abundant. The weak supervision, the low integrity of officials, and a system that is untested have caused of loss in state revenue.

Aside from the management issues in the forestry sector, the Bantaeng regency can be made an example of forest management that involves in the local people. With a forest area of only 6,200 ha, the local government has given a chance for villages to access management through the establishment of community forests, with BUMDes being the regulating authority of the management system.

Issues facing the forestry sector range from a lack of transparency of permit processes to the potential bribery of government officials from entrepreneurs. In addition, changes in area's functional status are still abundant through the manipulation of regional regulations, such as conversions of forest areas into plantations and mines. Levies outside of present regulations automatically are not received by the state. Invalid data, and conflicts between communities and the government and companies are other issues still faced by the forestry sector.