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STUDY OF COMPOSITION AND VEGETATION POTENTIAL OF PRODUCTION FOREST IN KPH DAMPELAS TINOMBO SOUTH TINOMBO SUB-DISTRICT, PARIGI MOUTONG DISTRICT

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ABSTRACT

Therefore, the forest must be managed and utilized wisely as a manifestation of gratitude to Allah SWT. The production forest area in the KPH Dampelas Tinombo area that is included in Parisan Agung Village, Dampelas Sub-district, which is indicated to have suffered damage, has an area of around 410 hectares. Therefore, a study on the composition and potential of production forests in Parisan Agung Village is needed for planning the utilization and development of plantation forests with the aim of providing welfare for the people living around the forest area without changing its main function. This research was carried out for 3 months starting from January to March 2020. The location of this research is located in the production forest in the KPHP Model Dampelas Tinombo area which is included in the Parisan Agung Village area, Dampelas District, Donggala Regency, Central Sulawesi Province. The composition of vegetation types of Parisan Agung Village production forest consists of 28 types of vegetation. at the tree level in the plot as many as 165 individuals from 25 types of vegetation while pole level vegetation as many as 140 individuals from 25 types of vegetation, stake level as many as 145 individuals from 28 types of vegetation and seedling level as many as 154 individuals from 28 types of vegetation. While the potential volume of trees in the observation plot is 162.53 m3 from 165 individuals, the bayas species has the largest volume with 13.17 m3 and the pole level volume in the observation plot is 17.89 m3 from 140 individuals, the prupuk species has the largest volume with 1.63 m3.

Keywords: Vegatation, KPH Dampelas Tinombo, Parisan Agung Village.

INTRODUCTION

Forests as national development capital have tangible benefits for the lives and livelihoods of Indonesians, both social, cultural and economic ecological benefits, in a balanced and dynamic manner. For this reason, forests must be managed, protected and utilized in a sustainable manner for the welfare of the Indonesian people, both present and future generations.

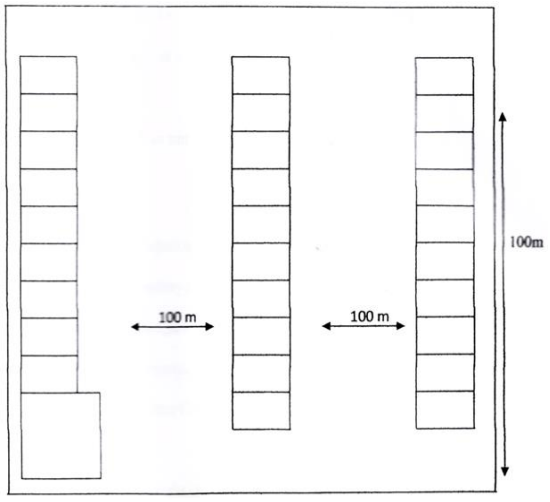
The production forest located in Sigenti Barat Village, Tinombo Selatan

Sub-district, Parigi Moutong Regency, Central Sulawesi is part of the management area of KPHP DampelasTinombo in Parigi Moutong Regency, which has a total area of 112,634 ha. And which is included in the production forest area of Parisan Agung Village, which is 410 hectares.

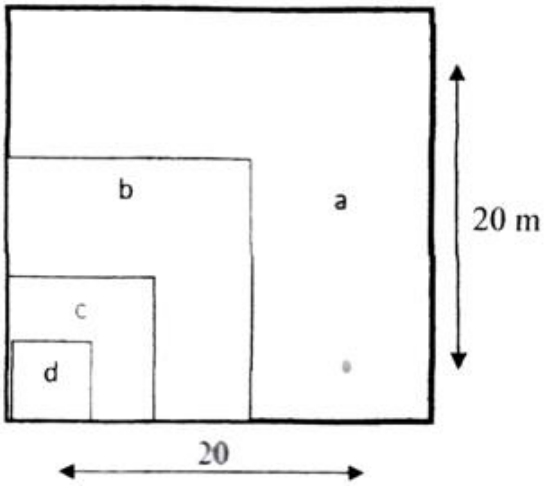
Forest natural resources play an important role in the continuity of development and community life. Forests can fulfill some of the many basic human needs, including the need for wood, water, food, medicine and healthy air. Forests can also be used as a tourist attraction, shelter, wildlife habitat, and as a place to conduct research. So as to know the composition and potential level of trees and to know the types of trees that dominate the production forest area of KPHP DampelasTinombo.

METHODOLOGY

This study uses the method *linepurposive sampling continue*, namely by determining the plot deliberately sustainable on the observation path measuring 200 m, and the distance between the lines of observation plots is 100 m; and the number of research plots as many as 30 plots with the size of each plot 20 x 20 m. The shape and size of the observation path and observation plots can be seen in the following figure:



Shape and size of observation lanes and observation plots



Shape and Size of Observation Subplots

Observation description:

a. 20 m x 20 m plot for tree observation (DBH >20 cm)
b. 10 m x 10 m plot for pole observation (DBH > 10-20 cm)
c. 5 m x 5 m plot for sapling observation (DBH < 10 cm height >1.5 m)
d. 2 m x 2 m plot for seedling observation (height < 1.5 m).

Data obtained from observations in the field were then collected and then analyzed to determine the Important Value Index (INP). According to Soerianegara and Indrawan (2015), the Important Value Index (INP) is obtained by summing up the quantities: Relative Density (KR), Relative Dominance (DR), and Relative Frequency (FR), as follows:

a. Density (K)

$$K=\frac{\text{Jumlah Individu suatu jenis}}{\text{luas petak contoh}}$$

b. Relative density (KR)

$$KR=\frac{\text{kerapatan suatu jenis}}{\text{kerapatan seluruh jenis}} \times 100\%$$

c. Frequency (F)

$$F=\frac{\text{jumlah petak yang diteukan suatu jenis}}{\text{jumlah seluruh petak}}$$

d. Relative Frequency (FR)

$$FR=\frac{\text{jumlah petak yang ditentukan suatu jenis}}{\text{jumlah seluruh petak}} X\ 100\%$$

Determination of the dominance of a species is calculated based on the base area using the following formula:

$$LBD=\tfrac{1}{4}\pi\ (d/100)^2$$

Description:

π = 3,14
d = Diameter

e. Dominance (D)

$$D = \frac{\text{jumlah luas bidang datar suatu jenis}}{\text{luas petak contoh}}$$

f. Relative dominance (DR)

$$DR = \frac{\text{dominasi suatu jenis}}{\text{dominasi seluruh jenis}} \times 100$$

Index of importance (INP) for trees and poles = KR + FR + DR

Index of importance (INP) of mob* saplings and seedlings = KR + FR

Data analysis to determine vegetation potential was estimated by calculating the volume of trees and poles, the volume formula is as follows:

$$V = \frac{1}{4}\pi.d^2 .t.fk$$

Description :

v = volume
π= 3,14
d = Diameter
t=tree height
fk = correction factor (0.7)

RESULTS AND DISCUSSION

Vegetation Type Composition

From the results of vegetation identification in the production forest in Parisan Agung village, Dampelas sub-district, Donggala Regency which is located at an altitude of 799 m above sea level. While the location of the first observation plot in this study is at the coordinates N 34^0 00^0 $00{,}0^{00}$ and E 106^0 52^0 $30{,}01^{00}$, the following results were obtained: there are 28 types of vegetation from 30 observation plots made. The total population is 605 individuals.

Table 1. Vegetation Type Composition at Tree Level

No.	Local Name	Scientific Name	Total	KR(%)	FR(%)	DR(%)	INP(%)
1	Mompi	*Santrialeavigata*	10	6,20	6,32	8,33	20,85
2	Malapoga	*Melia sp*	3	1,55	1,91	1,38	4,84
3	Togalana	*Agathis philipipnensis*	13	7,75	7,66	8,33	23,74
4	Sugimanai	*Anthochepaluscadamba*	9	5,42	5,47	6,94	18,10
5	Tombo	*Vaticaflavovirens*	5	3,10	3,06	1,38	7,54
6	English wood	*Eucalyptus deglupta*	4	2,32	2,49	1,38	6,19
7	Perupuk	*Loptopetalumspp*	13	7,75	8,23	6,94	22,92
8	Maramaku	*Podocarpus rumphii*	5	3,10	3,06	5,55	11,71
9	Kolaka	*Parinaricorymbosae*	8	4,65	3,83	5,55	14,03
10	Dara-dara	*Myristica gronov*	6	3,87	3,83	5,55	13,25
11	Mayapo	*Macorangahibsida*	5	3,10	3,06	4,16	10,32
12	Bayur	*Pterospemumcelebica*	6	3,87	3,83	2,77	10,47
13	Suri	*Koordersiodendron P*	6	3,87	3,83	4,16	11,86
14	Staror	*Callophylumsp*	9	5,42	5,47	4,16	15,32
15	Guava	*Kjellbergiondendron C*	13	7,75	6,32	8,33	22,40
16	Nantu	*Palaquiumsp*	5	3,10	3,06	1,38	7,54
17	Maraula	*Diosphioros*	8	4,65	4,98	4,16	13,79
18	Tabang	*macrophylla*	6	3,87	3,83	2,77	10,47
19	Silo	*Lophocetalumsp*	5	3,10	3,06	1,38	7,54
20	Lengaru	*Canarium aspermum*	5	3,10	3,06	2,77	8,93
21	Bolongita	*Alstoniascholaris*	3	1,55	1,91	2,77	6,23
22	Putemata	*Tetramelesnudiflora*	6	3,87	3,83	1,38	9,08
23	Simevava	*Unidentified*	2	0,77	1,12	1,38	3,29
24	Palapi	*Unidentified*	5	3,10	3,06	1,38	7,54
25	Binuang	*Heritiera javanica Octomelessumatrana*	5	3,10	3,06	5,55	11,71
	Total		165	100	100	100	300

Table 2: Vegetation Species Composition at the Pole Level

No.	Local Name	Scientific Name	Total	KR(%)	FR(%)	DR(%)	INP(%)
1	Mompi	*Santrialeavigata*	7	4,93	4,66	3,70	13,29
2	Malapoga	*Melia sp*	3	2,24	2,33	3,70	8,27
3	Togalana	*Agathis philipipnensis*	9	6,72	6,06	3,70	16,48
4	Sugimanai	*Anthochepaluscadamba*	7	4,93	3,36	3,70	13,99
5	Tombo	*Vaticaflavovirens*	6	4,48	3,72	3,70	11,90
6	English wood	*Eucalyptus deglupta*	4	2,69	3,03	3,70	9,42
7	Perupuk	*Loptopetalumspp*	10	7,17	6,99	7,40	21,56
8	Maramaku	*Podocarpus rumphii*	4	2,69	3,03	3,70	9,42
9	Kolaka	*Parinaricorymbosae*	5	3,58	3,72	3,70	11,00
10	Dara-dara	*Myristica gronov*	4	2,89	3,03	3,70	9,42
11	Mayapo	*Macorangahibsida*	5	3,58	3,72	3,70	11,00
12	Bayur	*Pterospemumcelebica*	5	3,58	3,03	3,70	10,31
13	Suri	*Koordersiodendron P*	8	5,82	4,66	3,70	14,18
14	Staror	*Callophylumsp*	7	4,93	5,36	3,70	13,99
15	Guava	*Kjellbergiondendron C*	11	8,07	7,69	7,40	23,16
16	Nantu	*Palaquiumsp*	3	2,24	2,33	3,70	8,27
17	Maraula	*Diosphioros macrophylla*	7	4,93	4,66	3,70	13,29
18	Tabang	*Lophocetalumsp*	6	4,48	4,66	3,70	12,84
19	Silo	*Canarium aspermum*	5	3,58	3,72	3,70	11,00
20	Lengaru	*Alstoniascholaris*	4	2,69	3,03	3,70	9,42
21	Bolongita	*Tetramelesnudiflora*	3	2,24	2,33	3,70	8,27
22	Putemata	*Unidentified*	5	3,58	3,72	3,70	11,00
23	Simevava	*Unidentified*	4	2,69	3,03	3,70	9,42
24	Palapi	*Heritiera javanica*	4	2,69	3,03	3,70	9,42
25	Binuang	*Octomelessumatrana*	4	2,69	3,03	3,70	9,42
	Total		140	100	100	100	300

At the tree level in the observation plot there were 165 individuals of 25 types of vegetation at the pole level as many as 140 of 25 types of vegetation, at the sapling level there were 146 of 28 types of vegetation while at the seedling level there were 154 of 28 types of vegetation.

The results obtained from plot measurements in the production forest in Parisan Agung Village with a total area of 120 m^2 for the tree level can be seen in the table below.

Based on Table 3 above, it can be concluded that the type of vegetation at the tree level that has the highest INP is Togalana (*Agathis philipipnensis*) with an INP value of 23.74% followed by perupuk species (*Lophopetalumsp*) with an INP value of 22.92% and guava species (*Kjellbergiondendron celebicum*) with an INP value of 22.40%. While the lowest species at the tree level is the *unidentified* species with an INP value of 3.29%.

The results obtained from measuring the plate in the production forest in Parisan Agung Village with a total area of 60 m^2 for the pole level can be seen in table 4.

Based on Table 4 above, it can be concluded that the type of vegetation at the pole level that has the highest INP is guava (*Kjellbergiondendron celebicum)* with an INP value of 23.16% followed by the type of perupuk (*Lophopetalumsp*) with an INP value of 21.56% and the type of Togalana (*Agathis philipipnensis*) with an INP value of 16.48%.

While the lowest species at the pole level are bolangita (*Tetramelesnudiflora*), Nantu (*Palaquiumsp*) and Malapoga (*Melia sp*) with a value of 8.27%.

The results obtained from plot measurements in the production forest in Parisan Agung Village with a total area of 30 m^2 for the sapling level can be seen in Table 5 .

Table 3. Vegetation species composition at Stake Level.

No.	Local Name	Scientific Name	Total	KR(%)	FR(%)	INP(%)
1	Mompi	*Santrialeavigata*	8	5,42	5,66	11,08
2	Malapoga	*Melia sp*	3	2,08	2,17	4,25
3	Togalana	*Agathis philipipnensis*	7	4,80	4,35	9,15
4	Sugimanai	*Anthochepaluscadamba*	7	4,80	5,01	9,81
5	Tombo	*Vaticaflavovirens*	4	2,71	2,38	5,54
6	English wood	*Eucalyptus deglupta*	4	2,71	2,38	5,54
7	Perupuk	*Loptopetalumspp*	8	5,42	5,66	11,08
8	Maramaku	*Podocarpus rumphii*	4	2,71	2,38	5,54
9	Dara-dara	*Myristica gronov*	5	3,34	2,38	6,17
10	Kolaka	*Parinaricorymbosae*	6	4,17	3,48	7,65
11	Mayapo	*Macorangahibsida*	6	4,17	4,35	8,52
12	Bayur	*Pterospemumcelebica*	6	4,17	4,35	8,52
13	Suri	*Koordersiodendron P*	6	4,17	4,35	8,52
14	Guava	*Kjellbergiondendron C*	9	6,26	6,53	12,79
15	Staror	*Callophylumsp*	8	5,42	5,66	11,08
16	Nantu	*Palaquiumsp*	4	2,71	2,83	5,54
17	Maraula	*Diosphioros*	7	4,80	3,48	8,28
18	Silo	*macrophylla*	4	2,71	2,83	5,54
19	Lengaru	*Canarium aspermum*	6	4,17	4,35	8,52
20	Bolongita	*Alstoniascholaris*	3	2,08	2,17	4,25
21	Putemata	*Tetramelesnudiflora*	3	2,08	2,17	4,25
22	Simevava	*Unidentified*	3	2,08	2,17	4,25
23	Palapi	*Unidentified*	4	2,71	2,83	5,54
24	Binuang	*Heritiera javanica*	4	2,71	2,83	5,54
25	Lambusu	*Octomelessumatrana*	4	2,71	2,83	5,54
26	Aga wood	*Unidentified*	4	2,71	2,83	5,54
27	uru wood	*Ficus sycomoroides*	4	2,71	2,83	5,54
28	Mayapo	*Elmirrilia ovalis Macaranga hibsida*	5	2,71	2,83	6,17
	Total		146	100	100	100

Based on Table 5 above, it shows that the type of sapling level vegetation that has the highest Important Value Index is the Bintangor (*Callophylumsp*) species with an INP value of 12.79% followed by the Nantu (*Palaquironsp*), Perupuk (*Lophopetalumspp*) and Mompi (*Santirialeavigata*) species with an INP value of 11.08%. While the lowest species at the sapling level are Malapoga (*Melia sp)* bolangita (*Tetramelesnudiflora*), Putemata (*Unidentified*) and simevava (*Unidentified*) with an INP value of 4.25%.

Index of Importance (INP) metvpakait index of importance that describes the role of a vegetation type in its ecosystem. If the INP of a vegetation type is high, then the vegetation type is high, then the vegetation type is high.

This greatly affects the stability of the ecosystem. In order for the importance index to be interpreted, the following criteria are used: the highest important index value is divided by three so that INP can be grouped into three categories, namely high, medium and low (Fachrul, 2007).

The results obtained from plot measurements in the production forest in Parisan Agung Village with a total area of 13.5 m2 for seedling level can be seen in Table .

Table 6 shows that the seedling species with the highest INP is Mompi (*Santirialeavigata*) with an INP of 10.90% followed by Togalana (*Agathis philipipnensis*) with an INP of 9.57% and Sugimanai (*Anthochepaluscadamba*) with

an INP of 9.57%.' While the lowest species at the seedling level are Malapoga (*Melia sp*), Putemata (*Unidentified*), Lengaru (*Alsioniascholaris*) and Bolangita (*Tetramelesnudiflora*) with an INP value of 5.42%.

Density is a factor that affects the growth of trees, if the density is high then the competition for nutrients and sunlight is getting bigger and then a frequency value also describes the distribution pattern of a species in a habitat. If a species has a high frequency value, then the species will grow in a spread manner and preferably a species will grow in groups and few if the frequency value is low.

The importance index is useful for determining the dominance of plant species over other plant species, because in a heterogeneous type of vegetation parameter data alone from the value of frequency, density and dominance can not describe as a whole, then to determine the importance value has an attachment to the structure of the community can be known from the importance index.

Table 4. Vegetation species composition at seedling level.

No.	Local Name	Scientific Name	Total	KR(%)	FR(%)	INP(%)
1	Mompi	*Santrialeavigata*	9	5,84	5,06	10,90
2	Malapoga	*Melia sp*	4	2,56	2,86	5,42
3	Togalana	*Agathis philipipnensis*	7	4,51	5,06	9,57
4	Sugimanai	*Anthochepaluscadamba*	7	4,51	5,06	9,57
5	Tombo	*Vaticaflavovirens*	6	3,89	3,52	7,41
6	English wood	*Eucalyptus deglupta*	4	2,56	2,86	5,42
7	Perupuk	*Loptopetalumspp*	6	3,89	3,52	7,41
8	Maramaku	*Podocarpus rumphii*	5	3,27	3,52	6,79
9	Dara-dara	*Myristica gronov*	5	3,25	3,52	6,79
10	Kolaka	*Parinaricorymbosae*	4	2,56	2,86	5,42
11	Mayapo	*Macorangahibsida*	6	3,89	2,86	6,75
12	Bayur	*Pterospemumcelebica*	7	4,51	4,40	8,91
13	Suri	*Koordersiodendron P*	7	4,51	5,06	9,57
14	Guava	*Kjellbergiondendron C*	7	2,51	3,52	8,03
15	Staror	*Callophylumsp*	7	4,51	4,40	8,91
16	Nantu	*Palaquiumsp*	5	3,27	3,52	6,79
17	Maraula	*Diosphioros macrophylla*	5	3,27	3,52	6,79
18	Silo	*Canarium aspermum*	5	3,27	2,86	6,13
19	Lengaru	*Alstoniascholaris*	6	3,89	2,86	6,75
20	Bolongita	*Tetramelesnudiflora*	4	2,56	2,86	5,42
21	Putemata	*Unidentified*	4	2,56	2,86	5,42
22	Simevava	*Unidentified*	4	2,56	2,86	5,42
23	Palapi	*Heritiera javanica*	5	3,27	2,86	6,13
24	Binuang	*Octomelessumatrana*	5	3,27	3,52	6,79
25	Lambusu	*Unidentified*	5	3,27	3,52	6,79
26	Aga wood	*Ficus sycomoroides*	5	3,27	3,52	6,79
27	uru wood	*Elmirrilia ovalis*	5	3,27	3,52	6,79
28	Mayapo	*Macaranga hibsida*	5	3,27	3,52	6,79
	Total		146	100	100	200

The species that has the largest index of importance (INP) identifies that the species has a wide distribution and controls a forest area, according to (Mawazin and Subianto, 2013). The INP of a species shows the dominance of

other species in the community Species that have the highest INP are more likely to be able to maintain the growth and sustainability of their species.

The dominant species is a species that is able to master the place to grow and develop itself according to its environmental conditions, which is entirely or mostly at the top level of all species in a vegetation community (Fari and sandan 2012).

Based on the relative dominance value, it can be concluded that the species of Jambu-jambu (*Kjellbergiondendron celebicum*), Perupuk (*LophypetalumSp)* and Togalana (*Agathis philipipnensis*) dominate the tree and pole level vegetation in the production forest in Parisan agung village, while at the sapling and seedling level vegetation that dominates are the species of Mompi (*Santrialeavigata)*, Bintangor (*callophylumsp*), Perupuk (*Lophopetalumsp*), Nantu (*Palaquiumsp*), Togalana (Agathis philipipnensis) and Sugimanai (*Anthochepaluscadamba)*.

Diameter Distribution

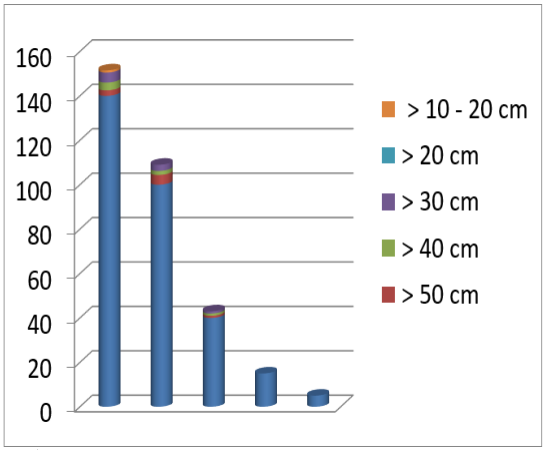
The diameter of the vegetation in this study was measured with the bark by measuring at chest height or 1.3 m from the ground for trees that are not bearing, while for bearing trees it was measured 20 cm above the banir of the vegetation, while the results of the diameter measurements can be seen in Table 7 below.

Table 5. Diameter Distribution in Parisan

No.	Diameter	Mast	Trees
1	10 - 20	140	
2	> 20		107
3	> 30		40
4	> 40		14
5	> 50		4
	Total	140	165

Agung Village Production Forest Based on Table 7 above, it is known that the diameter class of vegetation in the production of Parisan Agung village is < 10 cm which has the most individuals, namely 146 individuals, followed by the diameter class 10-20 cm as many as 140 individuals and the diameter class > 20 cm as many as 107 individuals. The largest diameter is > 50 cm as many as 4 individuals.

The following is a diagram of the distribution of vegetation diameter in Parisan Agung village.



Diameter Distribution

Vegetation Potential by Volume

The results of tree volume calculations in Parisan Agung Village within the 20 m x 20 m plot can be seen in Table 6 below.

Based on Table 8 above, it can be seen that the total volume of trees included in the observation plot in the production forest in Parisan Agung Village is 162.53 m^3 . the volume of mompi tree species is at the top of the list which has the most volume with a volume of 13.17 m^3 , this is because the Mompi species dominates in the production forest in Parisan Agung Village. Followed by the Binuang species (*Octomelessumatrana*) with a volume of 13.40 m^3 , and the Togalana species (*Agathis philippinensis*) as much as 12.20 m^3 . The lowest tree volume is in the type of simevava (*Unidentified*) with a volume of 1.54 m^3 .

The results of the pole volume calculation in the production forest located in Parisan Agung Village in the 10 m x 10 m plot can be seen in Table 7 below.

Table 6. Tree-level Volume Per Type

No.	Local Name	Scientific Name	Total	Volume (m)^3
1	Mompi	*Santrialeavigata*	10	13,17
2	Malapoga	*Melia sp*	3	2,38
3	Togalana	*Agathis philipipnensis*	13	12,20
4	Sugimanai	*Anthochepaluscadamba*	9	9,83
5	Tombo	*Vaticaflavovirens*	5	3,07
6	English wood	*Eucalyptus deglupta*	4	2,96
7	Perupuk	*Loptopetalumspp*	13	8,62
8	Maramaku	*Podocarpus rumphii*	5	10,55
9	Kolaka	*Parinaricorymbosae*	8	9,38
10	Dara-dara	*Myristica gronov*	6	7,18
11	Mayapo	*Macorangahibsida*	5	8,53
12	Bayur	*Pterospemumcelebica*	6	4,66
13	Suri	*Koordersiodendron P*	6	6,24
14	Staror	*Callophylumsp*	9	5,88
15	Guava	*Kjellbergiondendron C*	13	2,33
16	Nantu	*Palaquiumsp*	5	12,07
17	Maraula	*Diosphioros macrophylla*	8	3,40
18	Tabang	*Lophocetalumsp*	6	6,90
19	Silo	*Canarium aspermum*	5	4,16
20	Lengaru	*Alstoniascholaris*	5	3,25
21	Bolongita	*Tetramelesnudiflora*	3	5,53
22	Putemata	*Unidentified*	6	2,94
23	Simevava	*Unidentified*	2	1,54
24	Palapi	*Heritiera javanica*	5	2,30
25	Binuang	*Octomelessumatrana*	5	13,14
	Total		165	162,53

Table 7. Volume of Pole level per Type

No.	Local Name	Scientific Name	Total	Volume (m)^3
1	Tabang	*Lophocetalumsp*	6	0,68
2	Silo	*Canarium aspermum*	5	0,58
3	Lengaru	*Alstoniascholaris*	4	0,47
4	Bolongita	*Tetramelesnudiflora*	3	0,41
5	Putemata	*Unidentified*	5	0,47
6	Simevava	*Unidentified*	4	0,35
7	Palapi	*Heritiera javanica*	4	0,44
8	Binuang	*Octomelessumatrana*	4	0,55
9	Mompi	*Santrialeavigata*	7	0,92
10	Malapoga	*Melia sp*	3	0,35
11	Togalana	*Agathis philipipnensis*	9	1,45
12	Sugimanai	*Anthochepaluscadamba*	7	0,99
13	Tombo	*Vaticaflavovirens*	6	0,77
14	English wood	*Eucalyptus deglupta*	4	0,61
15	Maramaku	*Podocarpus rumphii*	4	0,48
16	Perupuk	*Loptopetalumspp*	10	1,63
17	Dara-dara	*Myristica gronov*	5	0,59
18	Mayapo	*Macorangahibsida*	4	0,61
19	Kolaka	*Parinaricorymbosae*	5	0,57
20	Bayur	*Pterospemumcelebica*	5	0,66
21	Suri	*Koordersiodendron P*	8	0,85
22	Staror	*Callophylumsp*	7	0,90
23	Guava	*Kjellbergiondendron C*	11	1,16
24	Nantu	*Palaquiumsp*	3	0,32
25	Maraula	*Diosphioros macrophylla*	7	0,94
	Total		140	17,89

Based on Table 9 above, it can be seen that the total volume of pole-level vegetation included in the research plots in the production forest in Parisan Agung Village is 17.89 m^3 , the volume of Janis perupuk poles *(Lophopetalumspp*) is in the top rank which has the most volume with a volume of 1.63 m^3 , Followed by the type of Togalana (*Agathis philippinensis*) with a volume of 1.45 m^3 . And the type of guava (*Kjellbergiondendroncelebicum*) as much as 1.16 m^3 . The lowest pole volume is in the type of Nantu (*Palaquiumsp)* with a VOLUME of 0.32 m^3 .

Conclusion

The composition of vegetation types in the production forest of Parisan Agung Village consists of 28 types of vegetation, at the tree level in the plot there are 165 individuals of 25 types of vegetation, while pole level vegetation is 140 individuals of 25 types of vegetation, sapling level is 146 individuals of 28 types of vegetation and seedling level is 154 individuals of 28 types of vegetation.

The dominating vegetation types in the production forest are the Togalana (*Agathis philippinensis*) species at the tree level, the Guava (*Kjellbergiondendronb celebicum*) species dominates at the pole level, the Starbucks (*Callophylumsp*) species dominates at the sapling level and the Mompi (Santirialeavigata) species dominates at the seedling level, this is known based on the highest index value (INP) in these vegetation types.

The potential of vegetation in the production forest in the KPHP Model DampelasTinombo area of Parisan Agung Village can be seen based on the volume of trees in the observation plot of 162.53 m^3 from 165 individuals, the Mompi species (Santirialeavigata) has the largest volume with 13.17 m^3 and pole level volume in the observation plot of 17.89 m^3 from 140 individuals, the Prupuk species (*LophopetalumSpp*) has the largest volume with 1.63 m^3.

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