Plant knowledge richness in the Sundanese upland village: A case study in Sindangsari, West Java, Indonesia

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Abstract. Soemarwoto R, Iskandar J. 2021. Plant knowledge richness in the Sundanese upland village: A case study in Sindangsari, West Java, Indonesia. Biodiversitas 22: 3722-3735. According to ecological history, Sundanese people of West Java, Indonesia, have highly rich knowledge of plants. However, due to population increase, rapid development of market economy, and rapid change of rural ecosystem, the local plants knowledge has tended to decrease rapidly. This research’s objective is to elucidate the plant knowledge richness of the Sundanese. The study was undertaken in the upland village of Sindangsari, West Java, using mixed-method with ethnobotanical approach, from July to August 2017, and March 2018. The study found 204 landraces which consisted of 181 species, representing 161 genera, and 70 families. The use of plants could be classified into food, spices, medicine, construction, ornament, cosmetic, commercial plants, fodder, industry, food color, erosion control, and social function. The highest secondary citations, that is plants for food and medicine, were known by less than 50% of respondents; other plants were hardly known, recognized only by 0.1% to 0.5% of respondents. The results showed little practical knowledge among the younger generation. The intensive mobility of young population between the village and the city induces intergenerational transfer of knowledge between old and young generations mainly through oral narratives. This study concludes that it is important to consider population mobility of the young generation to predict knowledge loss.

Keywords: Knowledge exchange, plant knowledge richness, population mobility, upland village

INTRODUCTION

Plants knowledge has notably had positive impact on the economic and health care development, conservation, and sustainable development program (Yuan et al. 2016; Baydoun et al. 2017; de la Parra and Quave 2017; Shrestha and Medley 2017; Pandey and Tripathi 2017). A plant knowledge approach to local culinary and healing practices has become essential for providing food and drug research (Quave and Pieroni 2015). In biodiversity, the knowledge on the utilization and types of germplasm is a prerequisite for the maintenance of food crops (Brouwer et al. 2016) and becomes a buffer of losing genetic diversity due to genetic pollution (Carvalho et al. 2012). In Indonesia, the recent development of plant use is reflected in the raising license application for distribution of traditional medicine. According to Drug and Food Monitoring Agency (Badan Pengawasan Obat dan Makanan-BPOM 2017), in the period of 2015 to 2017, there was an increase in the applications for the traditional medicine distribution licenses; 34.46% from 2015 to 2016, and 52.63% from 2016 to 2017. Accordingly, the permits issued by BPOM rose from 29.58% in 2016 to 56.90% in 2017. At present, traditional medicines are easily found in the form of sachets at convenience stores at an affordable price.

However, some studies show that regional development and environmental changes often lead to the loss of local plants use (Wiryono et al. 2017; Aswani et al. 2018; Hopping et al. 2018; Ludwinsky and Hanazaki 2018; Suryana et al. 2018; Wiryono et al. 2019). In Colombia, unsustainable land use, overharvesting, and climate change are the direct causes of declining availability of medicinal plants (Rodríguez et al. 2018). Some studies show that caution is needed to declare the loss of ethnobotanical knowledge (Carvalho et al. 2012; Vandevoort and Balick 2012). Transformation, segmentation, and heterogeneity of ethnobotanical knowledge are also influenced by demographic, geographic, and communication factors (Mathez-Stiefel and Vandevoort 2012; Pirker et al. 2012; Hopkins et al. 2015; Caneva et al. 2017; Weckmüller et al. 2019). Levi-Strauss (Levi-Strauss 1966) argues that traditional knowledge is rooted in day-to-day curiosity to solve problems and fulfill the needs. Thus, it differentiates knowledge as a concept of know and a practice of know-how. Continuous desirable results substantiate the need of mastering and transferring knowledge to the next generation (Tam 2015; Sharif et al. 2016).

This study reveals the richness of plant knowledge consisting of plant names, uses, and cultivation sites, related to population mobilization in Sindangsari Village, West Java Province, Indonesia.
MATERIALS AND METHODS

Study area
This research was undertaken in Sindangsari, Sumedang, West Java Province, Indonesia (Figure 1). Sindangsari is an upland village situated at around 1,287 m above sea level in the hillside of Manglayang Mountain (Figure 2). The climate of Sindangsari belongs to type A (MoA 2015). The average annual temperatures range from 25°C to 30°C, and the humidity varies between 79% to 82%. It has an average annual rainfall in between 1,294-2,827 mm with a sequential pattern of monsoonal. The highest rainfall usually occurs in January. In June, July, Augustus, and September, rainfall is usually low. The number of dry months with intensity < 100 mm/month is 3-5 months, and intensity > 200mm/month is 6-7 months. As there is no fully linked irrigation channel infrastructure, the village agricultural activities depend on the season.

![Figure 1](image1.png)

**Figure 1.** Study area, Sindangsari Village, Sukasari Sub-District, Sumedang District, West Java, Indonesia

![Figure 2](image2.png)

**Figure 2.** The village office (A) is located in the Manglayang mountain valley (B) of Sumedang District, West Java, Indonesia
The Sindangsari population is dominated by the Sundanese who have been practicing agricultural way of life for generations. Their village land consists of 69 ha sawah (irrigated ricefields) and 509 ha other rain-fed rice fields, gardens, and homegardens. During the dry season, there is usually no enough water for agriculture (Kabupaten Sumedang 2018). The village flat lands cater freshwater fishes and chickens whilst the hilly ones are for goats, sheeps, and cows.

**Procedures**

The methodology used in this study was mixed-method with ethnobotanical approach to provide complementary insights into the overall topic of interest, which is focused on the interaction of plants and village people (Newing et al. 2010). Lynch et al. (1974) statistical formula was used to determine the number of random respondents. The calculation is as follow:

\[
\frac{n \times Z^2 \times P(1-P)}{N \times d^2 + Z^2 \times P(1-P)}
\]

\(n : \text{sample number (respondents)} = 91\)

\(N : \text{total population of households} = 1891\)

\(Z : \text{normal variable value} = 1.96\)

\(P : \text{possible maximum proportion} = 0.50\)

\(d : \text{error} = 0.10\)

\[
\frac{1891 \times 1.96^2 \times 0.50 (1-0.50)}{1891 \times 0.50^2 + 1.96^2 \times 0.50 (1-0.50)} = 1816.17
\]

The total number of respondents was 91. The demographic data recorded age, sex, occupation, and place of residency. There is no record of formal education as it has not significantly affected traditional knowledge (Surtikanti et al. 2019); and plants knowledge listed ricefield, home garden, and garden plants name and use. The survey was followed by ‘walking in the field’, observation ‘on the practice of plants use’, and in-depth interviews (Tongco 2007). The informants were purposely selected based on their competency, that is local experts, including the village leader and his staff, informal leaders, men, women, young and old (Martin 2004; Torres-Avilez, de Medeiros, and Albuquerque 2016; Voeks 2007; Albuquerque et al. 2017). The research was undertaken from July to August 2017 and March 2018. The interview was carried out in both Bahasa Indonesia, and local language, Sundanese. Prior informed consent was always obtained.

**Data analysis**

Qualitative data were analyzed by several steps namely cross-checking, summarising, and synthesizing from different sources to build up a narrative account (Newing et al. 2010). The cross-checking was undertaken to check the correct data collected by direct observation and answers from some informants, including some document reports and statistical data. The appropriate data were then summarized and synthesized. Furthermore, a narrative, which is descriptive analysis and evaluative, was made.

While, the quantitative data were analyzed using statistics, the frequency was calculated based on a respondent’s answer to the total respondents, then the descriptive analysis and evaluation were narrated. Some books, including Backer and Bakhuizen v.d. Brink (1963, 1965, 1968), Heyne (1987), Partoharjono and Grubben (1996), Siemonsa and Grubben (1996), and Widjaja (2019) were used to identify the plant species in the study area.

The quantitative data collected by structured interview with respondents were analyzed by simple statistical calculation as follows (Newing et al. 2010):

\[
P = \frac{f}{n \times 100\%}
\]

Where,

\(P : \text{percentage of the total answer of respondents}\)

\(f : \text{number of respondent answers}\)

\(n : \text{total respondent}\)

The results of statistical analysis were interpretationed and narrated with descriptive and evaluated analyses.

**RESULTS AND DISCUSSION**

The demographic data recorded in Table 1 show that the highest number of respondents is in the age between 41 to 50 years. They are within the highest demand category for economic, social, and cultural choruses of households and families. The occupation composition is expected to result in knowledgeable respondents; the composition of women to men, 61: 30, means that plants for medicinal uses may represent more than other uses. Many literature mentions the richness of medicinal knowledge belongs to women (Alqethami et al. 2017) who mostly work on homegarden; the place of residency distributed to nine neighborhood associations may represent extensive dissemination of knowledge throughout the village.

The landrace in Sindangsari

The interviews with respondents revealed that 204 landraces were found in the agroecosystem types, namely wet-rice fields, gardens, and homegarden. We use the word landrace which is applied by scholars, including Iskandar and Ellen (Iskandar and Ellen 1999) to distinguish local categories of plants, based on knowledge of Sindangsari people, Sumedang, with Western botanical sense. The landrace is different from the botanical scientific name in that it is based on categories for subdivision of ancestral plant species and varieties in the conventional Western taxonomic sense. Total 204 landraces documented in Sindangsari consists of 181 species, representing 161 genera, and 70 families (Figure 3). Figure 3 shows the ratio between the number of plants species, citations, and secondary citations show the narrow diversity use per plant.
Table 1. Demographic data of respondents of Sindangsari Village, West Java, Indonesia

| Demographic data | n = 91 | % |
|------------------|--------|---|
| **Age**          |        |   |
| 21-30            | 10     | 10.99 |
| 31-40            | 19     | 20.89 |
| 41-50            | 28     | 30.77 |
| 51-60            | 17     | 18.68 |
| 61-70            | 11     | 12.09 |
| 71-80            | 3      | 3.30  |
| 81-90            | 3      | 3.30  |
| **Sex**          |        |   |
| Men              | 30     | 32.97 |
| Women            | 61     | 67.03 |
| **Occupation**   |        |   |
| Worker           | 12     | 13.19 |
| Housewife        | 34     | 37.36 |
| Farmer           | 18     | 19.78 |
| Breeders         | 4      | 4.40  |
| Entrepreneur     | 18     | 19.78 |
| No job           | 5      | 5.50  |
| **Place of Residency** |    |   |
| Salam (RW1)      | 5      | 5.49  |
| Salam (RW2)      | 6      | 6.59  |
| Babakan Kawung (RW3) | 19  | 20.88 |
| Babakan Kawung (RW4) | 18  | 19.78 |
| Babakan Kawung (RW5) | 1   | 1.09  |
| Sindanglaya (RW6) | 5     | 5.49  |
| Sindanglaya (RW7) | 11    | 12.09 |
| Cibacang (RW8)   | 25     | 27.47 |
| Cibacang (RW9)   | 1      | 1.10  |
| Total            | 91     | 100.00 |

Note: The occupation classification follows the Indonesian Central Bureau of Statistics (Badan Pusat Statistik Indonesia), which is then modified following natives definition. However, there are no clear cut in-between categories, but they are the respondents' first occupation. A worker is a respondent who mainly has routine and full-time work outside agricultural sector, such as civil servants and factory laborers. A housewife is a respondent who mostly spends their time on domestic chores. A farmer is a respondent who mainly works in agricultural sector. Amongst them are the farmer with their land, a worker who works on someone else’s land, a farmer who seeds for trading, and a farmer who has small number of livestock such as chicken and sheep. A breeder is a respondent who keeps livestock, and planting grasses, for trading. The livestock generally includes sheep, goat, and cow. An entrepreneur is a respondent who owns a business. Some respondents open a small village shop. Included in this category is respondent who makes a house wall from woven bamboo. A no job is a respondent who is not able to do a job. They are not able due to being physically unable or being ‘sepuluh’ (lit. old age); thus, they are not allowed to work by their relatives.

The traditional knowledge of species in Sindangsari

On the survey of the plants use, the various plants can be categorized into twelve: food, spices, medicine, construction, ornament, cosmetic, commercial plants, fodder, industry, food color, erosion control, and social function, as shown in Table 2, while, more detail of the plant species and commonly utilized by the village people of Sindangsari can be seen in Figure 4.

Figure 4 shows that the plants usage overlap in-between categories, that is one species may have more than one category of use. For example, one plant may be used for curing illnesses, for spices and ornament, and so on (Figure 5). It means the definition of category itself may sometimes overlap. For example, medicine is defined as plants to cure illnesses, but sometimes it also includes plants for preventing illnesses (but also in spices category) and casting out a negative supernatural power (an ornament).

The category of plants for food and medicine shows significantly a high number of species and secondary use. The most cited plant use category is food, followed by medicine, commercial, ornament, spices, and construction. The sum citations of other uses of plants, such as food color, cosmetics, fodder, industrial, erosion control, and social functions, have fallen to no more than 10 citations. The data represent that plants link to people immediate compare to secondary needs are likely cited higher. Interestingly, although, by the number, the category of social function are cited low, the informants emphasize its importance.

Knowledge on cultivated site and knowledge distribution

On the survey of plant cultivation sites, it was found that based on respondent perception, 108 landraces were present in homegardens, 55 in gardens, and 41 in sawahs, as shown in Table 3. The result may link to the higher number of women respondents than men. Further, the definition of sawah and garden are interchangeable depending on the season. As the time of the survey is in the dry season, sawah is drying up and the respondent defines some as garden. This dried-up sawah is planted with seasonal garden species (Figure 6).
Figure 4. The main functions of plants and number citations are based on respondents. Note: The category definition of plants use as respondents explain them: **Food**: plants that are eaten on their own or together with other parts of the plants: fresh fruits, vegetables, *lalab* (raw vegetables to be eaten with chili sauce or paste), *lotek* (salad of slightly boiled), leaf jelly (*cincau*), *sambal* (chili sauce or paste), *combro* (grated cassava and *oncom*, fermented peanut residue), chips (*kiripik*). **Spices**: herbs. **Food color**: color additives for food. **Medicine**: high blood pressure, constipation, diabetes, flatulence, cracked skin, diarrhea, kidney disease, sore itching, uric acid, skin itchy, stomach problems, maintain health, ulcers abscess, gout, fever, heartburn, rheumatic, cough, muscle pain, chills, stomach ache, myalgia, gastric problem, diuretic problem, back pain, sprue, sprain, external wound, toothache, postnatal care, hair care, casting out negative supernatural power. **Cosmetic**: plants for face powder. **Construction**: plants for building materials. **Ornament**: plants for adding aesthetics values to house, including casting out a negative supernatural power. **Commercial**: plants that can be sold, such as wood, seeds/seedling, and firewood. **Fodder**: plants for animal food, such as beehives. **Industry**: processed products. **Erosion control**: plant to prevent avalanche. **Social functions**: plants to be shared with neighbors, give a shade for people, or function as windbreak for the village.

Figure 5. A. *Katuk* (*Sauropus androgynus*)-leaves are used as vegetable and medicinal feverish; B. *Manalika* (*Anona muricata*) fruit is used as fresh fruit and medicinal stomach; C. *Tomat* (*Solanum lycopersicum*)-fruit is used as spices and medicinal sprue (left); D. *Sereh* (*Cymbopogon citratus*) stem is used as spices and as medicinal a high blood pressure
| Vernacular name/landraces | Scientific name                  | Family       | Plant part | Used method/function                                                                 | Utilization                                      |
|--------------------------|----------------------------------|--------------|------------|--------------------------------------------------------------------------------------|-------------------------------------------------|
| Akasia                   | Acacia decurrens Wild            | Fabaceae     | Seedling   | The seedlings are sold; function as commercial                                        |                                                 |
| Alkor                    | Sp. 3                             |              | Trunk      | The wood is used for construction materials; functions as construction               |                                                 |
| Alpuket/Alpukat          | Persea americana Mill            | Lauraceae    | Fruit      | The fruit is used as fresh fruit, to treat high blood pressure, and sold; function as food, medicine |                                                 |
| Anggrek kalajengking     | Arachys flos-aeris (L) Archb.f    | Orchidaceae  | Flower     | The flowers are used for ornament; function as ornament                               |                                                 |
| Anggur                   | Vitis vinifera L                 | Vitaceae     | Fruit      | The fruit is used as fresh fruit; functions as food                                   |                                                 |
| Antanan                  | Centella asiatica (L) Urban      | Apiceae      | Leaf       | The leaves are used to treat itchy skin; function as medicine                         |                                                 |
| Arbei                    | Morus alba L                     | Moraceae     | Fruit      | The fruit is used as fresh fruit, to treat high blood pressure and constipation; function as food, medicine |                                                 |
| Aren/Kawung              | Arenga pinnata (Wurmb) Merr      | Areceaceae   | Inflorescences | The inflorescences are sap for making sugar, fruits are made for making sweetmeat (kolang-kaling); function as an industry |                                                 |
| Asem                     | Tamarindus indica L              | Fabaceae     | Fruit      | The fruit is used for spices; function as food                                       |                                                 |
| Awi betung               | Dendrocalamus asper (Schult.f) Backer | Poaceae      | Clumps     | The culms are used for construction material; function as construction, industry     |                                                 |
| Awi cangker              | Bambusa sp.                      | Poaceae      | Clumps     | The culms are used as ornament; function as ornament                                   |                                                 |
| Awi gombong, Awi surat   | Gigantochloa verticillata (Wild) Munro | Poaceae      | Clumps     | The culms are used for sale, construction materials, tools; function as construction, industry |                                                 |
| Awi hideung              | Gigantochloa atroviolacea Widjaja | Poaceae      | Clumps     | The culms are used for construction materials and Sundanese musical instrument material (calung); function as construction, industry |                                                 |
| Awi tali                 | Gigantochloa apus (Schult.f) Kurz | Poaceae      | Clumps     | The culms are used for sale, construction material, woven bamboo, and kite; function as construction, industry |                                                 |
| Awi temen                | Gigantochloa atter (Hassk) Kurz   | Poaceae      | Clumps     | The culms are used for construction and for sale; function as construction and industry |                                                 |
| Bako/Tembakau            | Nicotiana tabacum L              | Solanaceae   | Leaf       | The leaves and processed leaf products are sold; function as industry                 |                                                 |
| Baktung                  | Crinum asiaticum L               | Liliaceae    | Flower     | The flowers are used as ornament; function as ornament                                |                                                 |
| Baluntas                 | Pluchea indica L                 | Lauraceae    | Leaf       | The leaves are used to treat stomach problems; function as medicine                   |                                                 |
| Bambu totol              | Bambusa maculata Widjaja          | Poaceae      | Tree       | The tree is used as ornament; function as ornament                                     |                                                 |
| Batrawali                | Tinospora crispa L               | Menispermacea| Stem       | The stem is used to maintain health; function as medicine                              |                                                 |
| Bawang beureum/          | Allium fistulosum L              | Amaryllidaceae| Bulb      | The bulb is used as spices, and sold; function as spices, commercial                 |                                                 |
| Bawang merah             | Allium fistulosum L              | Amaryllidaceae| Leaf      | The leaves are used as spices, sold, and given to neighbors; function as species, commercial, social |                                                 |
| Bawang daun              | Allium fistulosum L              | Amaryllidaceae| Bulb      | The bulb is used as spices; function as spices                                       |                                                 |
| Bayem hejo               | Amanthus hybridus L              | Amanthaceae  | Leaf       | The leaves and stems are cooked and consumed; function as food                       |                                                 |
| Bayem beureum/           | Amanthus tricolor L              | Amanthaceae  | Stem       | The stem and leaves are used as vegetable, and to treat gout; function as food, medicine |                                                 |
| Belimbing                | Averrhoa carambola L             | Amaryllidaceae| Fruit     | The fruit is eaten as fresh fruit; function as food                                   |                                                 |
| Binahong                 | Anredera cordifolia (Ten) Stenis  | Basellaceae  | Leaf       | The leaves are used to treat high blood pressure, skin itchy, ulcers, immediately eaten; function as medicine |                                                 |
| Bonsai beringin          | Ficus benjamina L                | Moraceae     | Tree       | The tree is used as ornament; function as ornament                                    |                                                 |
| Plant Name     | Scientific Name                  | Family          | Part Used            | Function                          |
|---------------|----------------------------------|-----------------|----------------------|-----------------------------------|
| Borneo        | Sp. 4                            |                 | Trunk                | The wood is used as construction and sold; function as construction, commercial |
| Brokoli       | Brassica oleracea var. “italica” | Brassicaceae    | Leaf                 | The leaves are used as vegetable and sold; function as food, commercial         |
| Buah/Mangga   | Mangifera indica L               | Anacardiaceae   | Fruit and tree       | The fruit is used as fresh fruit, the trees are used as shade from the sunshine and to blocking the strong wind; function as food, social |
| Buah naga     | Hylcorhexus lemairei (Hook.) Briton & Rose | Cactaceae     | Fruit                | The fruit is used as fresh fruit; function as food, commercial                  |
| Bugenvil      | Bougainvillea spectabilis Wildl  | Nyctaginaceae   | Flower               | The flowers are used as ornament; function as ornament                         |
| Buncis        | Phaseolus vulgaris L             | Papilionaceae   | Leaf                 | The leaves are used to maintain health; function as medicine                    |
| Buntris       | Kalanchoe pinnata (Lamk) Pers    | Crassulaceae    | Leaf                 | The leaves are used to treat fever and heartburn; function as medicine          |
| Cabe bendot   | Capsicum annuum L var “grossum”  | Solanaceae      | Fruit                | The fruits are used as spices; function as spices                              |
| Cabe kriting   | Capsicum annuum L                | Solanaceae      | Fruit                | The fruits are used as spices; function as spices                              |
| Cabe/Cabe merah| Capsicum annuum L                | Solanaceae      | Fruit                | The fruits are used as spices and sold; function as spices, commercial          |
| Calincing     | Oxalis acetosella                | Oxalidaceae     | Leaf                 | The leaves are used to treat fever, diarrhea; function as medicine              |
| Caludih       | Gymnura divaricata (L.) DC        | Asteraceae      | Leaf                 | The leaves are used to treat fever, stomach ache; function as medicine          |
| Camcau/Cincau | Cyclea barbata Miers             | Menispermaceae  | Leaf                 | The leaves are used for making a leaf jelly (cincau) and eaten; function as food|
| Campoleh      | Madhuca cuneta (Bl) Macbr.       | Sapotaceae      | Fruit                | The fruit is used as fresh fruit; function as food                              |
| Cangkudu/Mengkudu | Morinda citrifolia L         | Rubiaceae       | Fruit                | The fruit is used to treat high blood pressure; function as medicine            |
| Cau ambon bodas | Musa x varadisiaca L var.”sapientum’’ | Musaceae      | Fruit                | The fruit is used as fresh fruit, and sold; function as food, commercial        |
| Cau bogo      | Musa x paradisiaca L             | Musaceae        | Fruit                | The fruit is used as fresh fruit, and sold; function as food, commercial        |
| Cau nangka    | Musa x paradisiaca L             | Musaceae        | Fruit                | The fruit is used as fresh fruit, and sold; function as food, commercial        |
| Ceenet/Ceplukan | Physalis angulate L             | Solanaceae      | Leaf                 | The fruits are used as vegetable and sold; function as food, commercial         |
| Cempaka putih | Magnolia champaca (L.) Figlar    | Magnoliaceae    | Fruit                | The fruit is used as vegetable and sold; function as food, commercial           |
| Cengek        | Capsicum frutescens L            | Solanaceae      | Fruit                | The fruit is used as vegetable and sold; made for lotek (salad of slightly boiled), sold; function as food, medicine, commercial |
| Cengkeh       | Syzygium aromaticum L           | Myrtaceae       | Fruit                | The fruit is used to treat stomach aches; function as medicine                  |
| Cikur/Kencur  | Kaempferia galanga L             | Zingiberaceae   | Rhizome              | The rhizome is used as spices; function as spices                              |
| Dangdeur      | Bombax ceiba L                   | Bombaceae       | Leaf                 | The leaves are used to treat stomachache; function as medicine                  |
| Daun adam hawa | Rhoeo spathacea (Sw.) Stern      | Commelinaceae   | Plant                | The plant is used as ornament; function as ornament                            |
| Daun edi      | Abelmoschus manihot L           | Malvaceae       | Leaf                 | The leaves are used to treat spruce; function as medicine                       |
| Daun insulin  | Smallanthus sonchifolius Poepp & Endl | Asteraceae   | Leaf                 | The leaves are used to treat diabetes; function as medicine                     |
| Daun sembung  | Blumea balsamifera L             | Acanthaceae     | Leaf                 | The leaves are used to treat flatulence; function as medicine                   |
| Delima        | Punica granatum L                | Punicaceae      | Fruit                | The fruit is used as fresh fruit; function as food                              |
| Durian        | Durio zibethinus L               | Malvaceae       | Fruit                | The fruit is used as fresh fruit; function as food                              |
| Engkol/Kol    | Brassica oleracea L              | Brassicaceae    | Leaf                 | The leaves for fresh vegetable, and made for lotek (salad of slightly boiled), sold; function as food, commercial |
| Eurih         | Imperata cylindrica C.E. Hubb    | Graminace       | Trunk                | The wood is used for construction materials; function as construction          |
| Gabon, Jabon  | Androcephalus cadamba Miq        | Rubiaceae       | Root and stem        | Roots and stems are used to treat high blood pressure; function as medicine     |
| Gedang/Pepaya | Carica papaya L                  | Caricaceae      | Fruit and leaf       | The fruit, young fruit is used as salad, young leaves as vegetables, to treat cracked skin; function as food, medicine |
| Gedang ranti  | Carica papaya L                  | Caricaceae      | Fruit                | The fruit is used to treat ulcer; function as medicine                         |
| Ginseng       | Panax sp                        | Araliaceae      | Root                 | The roots are used to maintain health; function as medicine                     |
| Hanjuang      | Cordyline fruticosa (L.) A.Chev  | Asparagaceae    | Plant                | The plant is used as ornament, and to withhold negative supernatural power; function as ornament, medicine |
| Term            | Scientific Name                                      | Family       | Description                                                                 |
|-----------------|------------------------------------------------------|--------------|------------------------------------------------------------------------------|
| Haur hejo       | Bambusa vulgaris var striata                        | Poaceae      | The tree is used as ornament; function as ornament                            |
| Haur hitam      | Gigantochloa atroviolacea Widjaja                    | Poaceae      | The tree is used as ornament; function as ornament                            |
| Haur koneng     | Bambusa vulgaris var “vulgaris” Schrad. ex J.C. Wendl | Poaceae      | The tree is used as ornament; function as ornament                            |
| Hiris           | Cajanus cajan (Linn.) Mills                         | Leguminosae  | The beans are used as vegetable and to make salad; function as food           |
| Honje           | Elingera elatior (Jack) R.M Smith                   | Zingiberaceae| The fruit and flower are used as spices, and to treat high blood pressure; function as spices, medicine |
| Hui/Ubii        | Ipomoea batatas (L.) Lam                           | Convolvulaceae| The tuber is used as food, sold; function as food, commercial                |
| Indri           | Sp. 5                                               | Trunk        | The roasted and boiled corn are used as food, processed, and sold; function as food, commercial |
| Jagong          | Zea mays L.                                         | Poaceae      | The fruit is used for chewing; function as food                              |
| Jahe            | Zingiber officinale Roscoe                          | Zingiberaceae| The rhizome is used as spices, and to treat toothache; function as spices, medicine |
| Jambe/Pinang    | Areca catechu L.                                    | Arecaceae    | The tree is used for burning; recovering women after giving birth; function as medicine |
| Jambu batu/Jambu biji | Psidium guajava L                               | Myrtaceae    | The fruit is used as fresh fruit; function as food                            |
| Jambu air       | Syzigium aquaeum (Burm.f.) Alston                  | Myrtaceae    | The fruit is used as fresh fruit; function as food                            |
| Jaringgo        | Acorus calamus L.                                   | Accoraceae   | The leaves are used to treat myalgia (nyeri otot); function as medicine      |
| Jati/Jati bodas/Jabon | Gmelia arborea Roxb                              | Verbenaceae  | The wood is used as construction material, sold; function as construction, commercial |
| Jawer potok    | Coleus scutellarioides (L.) Benth                  | Lamiaceae    | The wood is used as construction material; sold; function as construction, commercial |
| Jawer ayam      | Celosia argentina L. var. “cristata”               | Amaranthaceae| The plant is used as ornament; function as ornament                           |
| Jayanti         | Sesbania sesban (L.) Merr                          | Fabaceae     | The leaves are used to treat high blood pressure, diuretic problems; function as medicine |
| Jengjen/Albasiah| Paraserianthes falcataaria (L.) Nielsen             | Fabaceae     | The tree is used as ornament; function as ornament                            |
| Jengkol         | Archidendron pauciflorum (Benth.) I.C Nielsen      | Fabaceae     | The fruits are used as vegetable; function as food                           |
| Jeruk           | Citrus sp.                                          | Rutaceae     | The fruit is used as fresh fruit, to treat fever; function as food, medicine  |
| Jeruk purut     | Citrus hystrix DC                                   | Rutaceae     | The fruits are used as various spicy side dishes (sambal); function as spices |
| Jeruk lemon     | Citrus limon L.                                     | Rutaceae     | The fruit is used as spices; function as spices                              |
| Jeruk garut     | Citrus sp.                                          | Rutaceae     | The fruit is used as fresh fruit; function as food                            |
| Jeruk bali      | Citrus maxima (Burm.) Merr.                         | Rutaceae     | The fruit is used as fresh fruit; function as food                            |
| Jeruk nipsis    | Citrus aurantifolia (Christm)                      | Rutaceae     | The fruit is used for spices; function as spices                            |
| Jeruk paris     | Sp. 1                                               | Fruit        | The fruit is used as fresh fruit; function as food                            |
| Jukut ibun      | Drynia hirsute Bartl                                | Caryophyllaceae| The grasses are used to treat ulcer abscess, constipation; function as medicine |
| Jukut bengala/Kaso/Bede | Duranta erecta L                              | Verbenaceae  | The plant is used for ornament; function as ornament                          |
| Jukut pelak     | Sp. 1                                               | Leaf         | The grasses are used for fodder; function as fodder                          |
| Kacang panjang  | Vigna unguiculata (L) Walp                          | Fabaceae     | The bean is used as vegetable, sold; function as food, commercial            |
| Kacang beurum/  | Vigna angularis (Wildl.) Ohwi & H.Ohashi           | Fabaceae     | The bean is used as vegetable, sold; function as food, commercial            |
| Kacaping         | Gardenia augusta (L.) Merr                          | Rubiaceae    | The plant for ornament, function as ornament                                 |
| Kaktus           | Mammillaria sp                                      | Cactaceae    | The plant for ornament, function as ornament                                 |
| Kalendra        | Acasia abida (Del.)                                 | Fabaceae     | The stems and trees are used as firewood, leaves as fodder, and flowers are used as source food of honey bees; function as commercial, fodder |
| Kaliaget         | Sp. 6                                               | Plant        | The plant for ornament, function as ornament                                 |
| Kaliki beurum   | Jatropha gossypifolia L.                            | Euphorbiaceae| The leaves are used to release constipation, function as medicine            |
| Kalitis/Litus   | Eucalyptus sp.                                      | Myrtaceae    | The wood is used as construction, function as construction                    |
| Plant Name | Genus and Species | Family | Part Used | Function |
|------------|------------------|--------|-----------|----------|
| Kamboja    | Plumeria acuminata W.T. Aiton | Apocynaceae | Plant | The plant is used for ornament, function as ornament |
| Jampep    | Dryolanops aromatic Gaertn.F | Dipterocarpaceae | Trunk | The wood is used for construction, sold; function as construction, commercial |
| Nanas Muncang/Kemiri | Ipomoea reptans L | Convolvulaceae | Leaf | The leaves and stems are cooked as vegetable; function for food |
| Mawa | Annona squamosa L | Annonaceae | Fruit | The fruit is used to treat high blood pressure; function as medicine |
| Markisa | Elettaria cardamomum (L.) Maton | Zingiberaceae | Rhizome | The rhizome is used as spices, to treat stomach problems; function as spices, medicine |
| Karet | Hevea brasiliensis (Willd ex A. Juss) M.A | Euphorbiaceae | Sap | Sap is tapped and sold; function as commercial |
| Katuk/Katepos | Saurous andorogenus (L.) Merr | Phyllanthaceae | Leaf | The leaves are used as vegetable, cooked, to treat fever; function as food, medicine |
| Kawawi | Mangifera odorata Griff | Anacardiaceae | Fruit | The fruit is used as fresh fruit; function as food |
| Kedelai | Glycine max (L.) Merr | Fabaceae | Bean | The bean is used as vegetable; function as food |
| Kelapa | Cocos nucifera L | Arecaeeae | Fruit | The fruit is used as fresh drink; function as food |
| Keladi | Ananas comosus | Bromeliaceae | Plant | The plant is used as ornament; function as ornament |
| Kemuning | Murraya paniculata (L.) Schott | Rutaceae | Seedling | The seedlings are usually sold; function as commercial |
| Kentang | Solanum tuberosum L | Solanaceae | Tuber | The tuber is usually sold; function as commercial |
| Kicit | Ficus septica Burm.F | Moraceae | Leaf | The leaves are used to treat gastric pain or gastric ulcer; function as medicine |
| Kewiwi | Brassica oleracea L | Brassicaceae | Leaf | The leaves are used as salad of slightly boiled (sayur lotek); function as food |
| Kijambe | Cucus revolute Tumb | Cucadeaceae | Trunk | The wood is used as construction material; function as construction |
| Ki urat | Plantago major L | Plantaginaceae | Leaf | The leaves are used to treat sprain, high blood pressure, back pain; function as medicine |
| Koneng/Kunyit | Carcuma longa L | Zingiberaceae | Rhizome | The rhizome is used as spices, sold; function as spices, commercial |
| Kopi | Coffea arabica L | Rubiaceae | Fruit, seeds | The fruits are used to treat fever, mature seeds are sold, and seedling are sold; function as medicine, commercial |
| Kumis kucing | Orthosiphon aristatus (Blume) Miq | Lamiaceae | Leaf | The leaves are used to treat fever, rheumatics, high blood pressure, cough, constipation; function as medicine |
| Kuping gajah | Anthurium sp | Araceae | Plant | The plant is used as ornament; function as ornament |
| Laja | Alpinia galanga (L) Willd | Zingiberaceae | Rhizome | The rhizome is used as spices, to treat muscle pain; function spices, medicine |
| Lampuyang | Zingiber zerumbet (L.) Smith | Zingiberaceae | Rhizome | The rhizome is used to treat high blood pressure; function as medicine |
| Lejeth/Waluh siem | Sechium edule (Jacq) Sw | Cucurbitaceae | Fruit | The fruit is used as cooked vegetable, made lotek (salad of slightly boiled), to treat high blood pressure; function as food, medicine |
| Lengkeng | Dinocarpus longan Lour | Sapindaceae | Fruit | The fruit is used as fresh fruit; function as food |
| Leuca | Piper nigrum L | Piperaceae | Fruit | The fruit is used as fresh vegetable and cooked; function as food |
| Lida buaya | Aloe vera | Asphodelaceae | Leaf | The leaves are used to treat fever, heartburn, external wound, hair care; function as medicine |
| Lidah mertua | Sansieviera sp | Asparagaceae | Plant | The plant is used as ornament; function as ornament |
| Lili paris | Chlorophytum comosum (Thunb) Jaques | Agaveaceae | Plant | The plant is used as ornament; function as ornament |
| Mahkota dewa | Phalaeria macrocarpa (Scheff) Boerl | Thymelaeaceae | Fruit | The fruit is used to treat diabetes; function as medicine |
| Mahkota duri | Euphorbia millii Des Moul | Euphorbiaceae | Plant | The plant is used as ornament; function as ornament |
| Mahoni | Swietenia mahagoni (L.) Jacq | Meliaceae | Trunk, seeds | The wood is used as construction material, seeds are used to treat high blood pressure; function as construction, medicine |
| Manalika/Sirsak | Annona muricata L | Annonaceae | Fruit | The fruit is used as fresh fruit, to treat diarrhea; function as food, medicine |
| Markisa | Passiflora edulis Sims | Passifloraceae | Fruit | The fruit is used as fresh fruit, to treat stomach ache; function as food, medicine |
| Mawar | Rosa hybrida Hort | Rosaceae | Plant | The plant is used as ornament; function as ornament |
| Muncang/Kemiri | Aleurites moluccana (L.) Willd | Euphorbiaceae | Fruit | The fruits are sold; function as commercial |
| Nanas | Ananas comosus (L.) Merr | Bromeliaceae | Fruit | The fruit is used as fresh fruit; function as food |
| Name                  | Scientific Name                                      | Family                | Part Used                     | Function                                                                 |
|-----------------------|------------------------------------------------------|-----------------------|-------------------------------|--------------------------------------------------------------------------|
| Nangka                | Artocarpus heterophyllus Lam                         | Moraceae              | Fruit, trunk                  | The fruit is used as fresh fruit, cooked, sold; its wood is used as construction material; function as food, construction |
| Pacing                | Costus speciosus (J. Koeinig) Sm                     | Costaceae             | Rhizome                       | The rhizome is used to treat kidney disease; function as medicine         |
| Paku ekor kuda        | Equisetum debile Roxb ex. Vaucher                   | Equisetaceae          | Plant                         | The plant is used as ornament; function as ornament                       |
| Palem                 | Cryptostachys renda Blume                            | Arecaceae             | Plant                         | The plant is used as ornament; function as ornament                       |
| Pandan wangi          | Pandanus amaryllifolius Roxb                         | Pandanaceae           | Leaf                          | The leaves are used as spices; function as spices                        |
| Panglay               | Zingiber cassumunar Roxb                             | Zingiberaceae         | Rhizome, plant                | The rhizome is used as spices, the plant to protect from negative supernatural power: function as spices, medicine |
| Pare/Padi             | Oryza sativa L                                      | Poaceae               | Fruit                         | The fruts are used as staple food; function as food                      |
| Pecah bering          | Stroblantes crispus L                                | Acanthaceae           | Fruit                         | The leaves are used as to treat fever, the feeling of chills; function as medicine |
| Pecay                 | Brasica oleracea L                                  | Brassicaceae          | Leaf                          | The leaves are used as vegetable, sold; function as food, commercial     |
| Peuteuy/Petaj/Petaj   | Parkia speciosa Hassk                               | Fabaceae              | Fruit                         | The fruit is used as vegetable; function as food                         |
| Peuteuy selong/Pudam  | Leucaena leucocephala Hassk                         | Fabaceae              | Fruit                         | The mature fruits are cooked as vegetable; function as food               |
| Selong/Lamtoro        |                                                      |                       |                               |                                                                          |
| Pilisium/Klara payung | Filicium decipiens (Wight & Arn)                    | Sapindaceae           | Trunk                         | The wood is used as construction material, sold; function as construction, commercial |
| Pisuk                 | Pinus merkusii Jungh. & de Priese                   | Pinaceae              | Trunk                         | The wood is used as construction material; function as construction       |
| Poohopon              | Pilea melastomoides (Poir) Bl                        | Urticaceae            | Leaf                          | The leaves are used as vegetable, to maintain health; function as food, medicine |
| Pucuk merah           | Syzigium myrtifolium Walp                           | Myrtaceae             | Plant                         | The plant is used as ornament, sold; function as ornament, commercial     |
| Pupur Jawa            | Sp. 7                                                |                       | Leaf                          | The leaves are used as powder cosmetic; function as cosmetic              |
| Puring                | Codiaeum variegatum L                               | Euphorbiaceae         | Plant                         | The plant is used as ornament; function as ornament                       |
| Puspa                 | Schima wallichii (DC) Korth                         | Theaceae              | Trunk                         | The wood is used as construction material; function as construction       |
| Rambutan              | Nepheleium lappaceum L                              | Sapindaceae           | Fruit                         | The fruit is used as fresh fruit; function as food                        |
| Rosela                | Hibiscus sabdariffa L                               | Malvaceae             | Flower                         | The flowers are used to maintain health; function as medicine             |
| Roay                  | Lablab purpureus (L.) Sweet                         | Fabaceae              | Bean                          | The beans are used as vegetable; function as food                        |
| Randa midang          | Cosmos caudatus Kunth                               | Asteraceae            | Leaf                          | The leaves are used to treat gastric problems; function as medicine       |
| Rumpat carulang       | Eulisine indica (Linn) Gaertn                       | Paeoneae              | Leaf                          | The grasses are used as fodder; function as fodder                        |
| Saga                  | Abrus precatorius L                                 | Fabaceae              | Leaf                          | The leaves are used to treat cough; function as medicine                  |
| Salak                 | Salacca zapota (L.) P. Royen                        | Sapotaceae            | Fruit                         | The fruit is used as fresh fruit; function as food                        |
| Selada bokor          | Nasturtium officinale W.T Aiton                     | Brassicaceae          | Leaf                          | The leaves are used as vegetables; function as food                      |
| Salendri              | Apium graveolens L                                  | Apiaceae              | Leaf                          | The leaves are used as spices, vegetable, to treat high blood pressure; function as spices, medicine   |
| Salam                 | Syzygium polyanthum (Wight) Walp                    | Myrtaceae             | Leaf                          | The leaves are used as spices; function as spices                        |
| Salowedia             | Sp.9                                                 |                       |                               |                                                                          |
| Sambiloto             | Adrographis paniculata (Burm.f.) Wall ex Nees       | Acanthaceae           | Plant                         | The plant is used as ornament, sold; function as ornament, commercial    |
| Sambung nyawa         | Gynura procumbens (Lour) Merr                        | Acanthaceae           | Leaf                          | The leaves are used to treat diabetes; function as medicine               |
| Sampeu/Singkong       | Manihot esculenta Crantz                            | Euphorbiaceae         | Tuber                         | The tuber is used as food, cooked leaves is used as vegetable, made of cassava chips (kiripik), mixed with fermented cake made from peanut sediment (combro), sold; function as food, commercial |
| Sancang               | Premna microphylla Turcz                            | Lamiaceae             | Plant                         | The plant is used as ornament; function as ornament                       |
| Sawo                  | Manilkara zapota (L)                                 | Sapotaceae            | Fruit                         | The fruit is used as fresh fruit; function as food                        |
| Sebet/Bunga tashih    | Canna hybrid Hort ex Back                           | Cannaceae             | Plant                         | The plant is used as ornament; function as ornament                       |
| Sedap Malam           | Polianthes tuberosa L                               | Amarnyllidaceae       | Plant                         | The plant is used as ornament; function as ornament                       |
| Sereh/Serai           | Cymbopogon citratus (DC) Stapf                      | Poaceae               | Stem and leaf                 | The stem is used as spices, leave is used to treat high blood pressure; function as spices, medicine |
| Name               | Scientific Name                  | Family           | Part Used         | Function                          |
|--------------------|----------------------------------|------------------|-------------------|-----------------------------------|
| Seureuh/Sirih      | *Piper betle* L                  | Piperaceae       | Leaf              | The leaf is used to treat sore itching, chewing (*nyeupah*); function as food, medicine |
| Sikas              | *Cycas circinalis* L             | Cycadaceae       | Plant             | The plant is used as ornament, sold; function as ornament, commercial |
| Sintrong           | *Crassocephalum crepidioides* (Benth) |                  | Leaf              | The leaf is used as vegetable; function as food |
| Sobsi/Kayu Afrika  | *Maesopsis eminii* Engl          | Rhamnaceae       | Trunk             | The wood is used as construction; function as construction |
| Sosin              | *Brassica rapa* L                | Brassicaceae     | Leaf              | The leaf is used as vegetable, cooked, sold; function as food, commercial |
| Sri rejeki         | *Aglaochema* sp                  | Araceae          | Plant             | The plant is used as ornament; function as ornament |
| Stroberi           | *Fragaria x ananassa* Duch       | Rosaceae         | Fruit             | The fruit is used as fresh fruit; function as food |
| Suji               | *Pleomele angustifolia* (Roxb) N.E. Br | Moraceae        | Leaf              | The leaves are used as food coloring; function as food color |
| Sukun              | *Artocarpus communis* (Parkison) Fosberg | Asteraceae     | Fruit             | The fruit is used as fresh fruit; function as food |
| Surawung           | *Ocimum basilicum* L             | Lamiaceae        | Leaf              | The leaf is used as spices, vegetable, sauce made by crushing spices in a mortar (*sambal nyibek*); function as food, spices |
| Surian/Suren       | *Toona sureni* (Blume) Merr      | Meliaceae        | Trunk             | The wood is used as construction material; function as construction |
| Suuk/Kacang tanah  | *Arachis hypogaea* L             | Fabaceae         | Fruit             | The fruit is used as food, made *lotek* (salad of slightly boiled), sold; function as food, commercial |
| Taleus lahan indung| *Colocasia esculenta* (L.) Schott | Araceae          | Tuber             | The tuber is used as food, to treat high blood pressure; function as food, medicine |
| Taleus padang      | *Colocasia esculenta* (L.) Schott | Araceae          | Tuber             | The tuber is used as food, to treat high blood pressure; function as food, medicine |
| Takokak            | *Solanum torvum* Sw              | Solanaceae       | Leaf              | The leaves are used to treat uric acid; function as medicine |
| Tangkil/Malino     | *Gnetum gnemon* L                | Zingiberaceae    | Fruit             | The fruit is used as vegetable; function as food |
| Tenu kunci         | *Boesenbergia rotunda* (L.) Mansf | Apocynaceae      | Rhizome           | The rhizome is used as spices; function as spices |
| Tapak dara         | *Catharanthus roseus* (L.) G.Don | Poaceae          | Plant             | The plant is used as ornament; function as ornament |
| Tepemegah tanah    | Sp10                             |                  | Tree              | The trees are used as soil erosion control; function erosion control |
| Terong             | *Solanum melongena* L            | Solanaceae       | Tree              | The fruit is used as fresh vegetable and cooked; function as food |
| Tisuk              | *Hibiscus macrophyllus* Roxb. ex.Hornem | Malvaceae        | Trunk, tree       | The wood is used as construction material, tree is used as ornament; function as construction, ornament |
| Tiwa/Tebu          | *Sacharum officinarum* L         | Poaceae          | Stem              | The thick stem is made sugar; function as food |
| Tomat              | *Solanum lycopersicum* L         | Solanaceae       | Fruit             | The fruit is used as spices, fresh fruit, to treat sprue, sold; function as food, spices, medicine |
| Wijaya kusumah     | *Epiphyllum anguliger* (Lem.) G.Don | Cactaceae        | Plant             | The plant is used as ornament; function as ornament |
Table 3 shows that it is generally accepted that the diversity of crops in wet-rice fields or gardens is lower than that of homegarden (Iskandar and Iskandar 2011). The village homegardens of West Java not only function as settlement but also in a variety of other roles. In a typical village in West Java, the houses are almost completely concealed by trees which has an important role in ecological functions, including hydrologic and erosion control, gene bank, and microclimatic effect, and socioeconomic functions, such as subsistence and commercial production of fruits, vegetable, spices, and so on (Soemarwoto and Soemarwoto 1984).

In terms of the village knowledge, based on the survey of distribution of knowledge, it revealed that two to 10 people cited 80 species. This is the highest number of species cited by respondents. It means that the wealthiest use of plants species knowledge belongs to two to 10 people, and 41 to 50 people only known one species. The deep knowledge of plants uses confine to restricted people within population (Table 4).

The depth interview, observation, and ‘walk in the fields’ revealed that the younger generation memorized the names and uses of plants but doubtful to point out plants when in the field. For example, one informant confidently spelled the name and use of panglay (Zingiber cassumunar) but failed to identify the panglay when they grew in groups with similar plants. Panglay is one of the most ingredients in quite lots of rituals.

Richness of plant knowledge

Some factors affect the richness of plants knowledge. In the research of plants knowledge of the upland people of Sindangsari, the combination of the mobility of young generation takes a decisive role, added by the modernization of health and food system as an interfering factor.

The government’s policy to establish Jatinangor as the Higher Education Region (Kawasan Pendidikan Tinggi), at about five-kilometer, opens opportunities for the Sindangsari population to work outside their village. Interviews with parents, young people, and the wives of the Sindangsari residents show that they agree and encourage their relatives to find a job in Jatinangor. However, most Sindangsari people work in low-paid jobs; therefore, they keep attached to the village, which provides the silih life, taking care of each other. As the silih is enforced through village ceremonies and rituals that construct and enforce kinship, the mobile villagers being enforced to be participated (Janowski and Kerlogue 2007). However, the rituals involve plants elaboration and transformation from one state to another, physically and spiritually, such as the rice grains (pare) to rice (nasi) from the sacred to mundane. To fulfill the participation, the mobile villagers arrange for someone else to accomplished the task for them. As a result, they have lost their practical ability. The skill of practicing for the young mobile villagers becomes doubtful and less convincing. Moreover, the young have learned to use ready-made herbal sachets.

Table 3. Cultivated site and number of species based on respondents of Sindangsari people

| Agroecosystem types | Number of landraces | Percent to total (%) |
|---------------------|---------------------|----------------------|
| Homegarden          | 108                 | 52.94                |
| Garden              | 55                  | 26.96                |
| Sawah*              | 41                  | 20.09                |
| Total               | 204                 | 100.00               |

Note: *) During the dry season is predominantly planted by non-paddy

Table 4. The plant species are recognized by respondent (n=91)

| Respondent number | Species number recognized | Percentage of total |
|-------------------|---------------------------|---------------------|
| 51-55             | 2                         | 1.10                |
| 41-50             | 1                         | 0.55                |
| 31-40             | 2                         | 1.10                |
| 21-30             | 6                         | 3.31                |
| 11-20             | 12                        | 6.62                |
| 2-10              | 89                        | 49.17               |
| 1                 | 70                         | 0.55                |
| Total 91 respondents | 181 species                | 100.00               |
In this study, it can be recognized that 204 landraces were recognized by the village people of Sindangsari, Sumedang. Based on scientific-botanical knowledge, it consists of 181 species, representing 161 genera, and 70 families. This research presents case of plants knowledge decline due to development, particularly among the young generation. In the form of knowledge, the Sindangsari people practice less of their traditional plants knowledge.

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