JURNAL VOKASI INDONESIA
Journal of Vocational Program University of Indonesia
5/1 (2017), 40-44

Traditional Medicinal Plants as an Element of Thematic Garden Landscape at SMAN 1 Pondidaha, Konawe Selatan, Sulawesi Tenggara

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Diterima : 15 Februari 2017
Layak Terbit : 19 Juni 2017

Abstract

Knowledge of traditional medicinal plants among teenagers are quite low, that caused by the information is very limited as well as the difficulty of obtaining real-life examples of traditional medicinal plants. Those inspired us to cooperate with SMAN 1 Pondidaha District Konawe (Sulawesi Tenggara) in an effort to provide solutions to these problems. SMAN 1 Pondidaha has vacant land large enough. Through IbM program (Ipteks bagi Masyarakat, science and technology for the People) Ministry or Research and Technology and Higher Education, we made thematic landscape in SMAN 1 Pondidaha locations using traditional medicinal plants as fillers garden or park. The method was conducted on the survey and measurement, search species of plants data that suitable with the design, preparation of location and soil for planting of medicinal plants, labeling and maintenance. The results showed there are 6 types of medicinal plants are required for the design, namely 1) medicinal plants such as jarak (Jatropha curcas), jarak merah (J. gossypifolia), jarak tintir (J. multifida) and bougainvillea (Bougenvillea spectabilis), 2) medicinal plants and aesthetics, for example kembang sepatu (Hisbiscus rosasinensis), kembang nusa endah (Mussaenda philippia), tapak dara (Catharanthus roseus), 3) Barrier crops include gandaruso (Justisia gandarusso), Ashoka (Saraca asoca), teh-tehan (Duranti erecta), kroton (Codiacum variegatum), mangkokan (Notophanax scutellarium), 4) Vertical garden Plants include lavender (Lavendula angustifolia), selasih (Ocium sp.), pancawarna (Hydrongea macrophylla), cabe hias (Solanum pseudo-capsicum), 5) Shade plants, for example pule (Alstonia scholaris), ketapang (Terminalia catappa), kelapa (Cocus nucifera), kamboja (Plumeria sp.), beringin (Ficus benjamina) and 6) Cover crops such as bunga kriminil (Althenantera amoena), rumput gajah (Pennisetum purpureum), rumput jepang (Zoysia japonica). These plants are used by the people as a remedy for various diseases.

Keywords: *Traditional medicinal plants, landscape, thematic, SMAN 1 Pondidaha*

Abstrak

Tanaman Obat Tradisional sebagai Elemen Lansekap Taman Tematik di SMAN 1 Pondidaha, Konawe Selatan, Sulawesi Tenggara. Pengetahuan tentang tanaman obat tradisional di kalangan remaja cukup rendah, yang disebabkan oleh informasinya sangat terbatas sekaligus sulitnya mendapatkan contoh tanaman obat tradisional. Mereka mengilhami kita untuk bekerja sama dengan SMAN 1 Pondidaha Kabupaten Konawe (Sulawesi Tenggara) dalam upaya memberikan solusi atas permasalahan tersebut. SMAN 1 Pondidaha memiliki lahan kosong yang cukup luas. Melalui program IbM atau Kementerian Riset dan Teknologi dan Perguruan Tinggi, kami membuat lansekap tematik di lokasi SMAN 1 Pondidaha dengan menggunakan tanaman obat tradisional sebagai taman pengisi atau taman. Metode yang dilakukan pada survei dan pengukuran, mencari jenis data tanaman yang sesuai dengan disain, persiapan lokasi dan tanah untuk penanaman tanaman obat, pelabelan dan perawatan. Hasil penelitian menunjukkan ada 6 jenis tanaman obat yang dibutuhkan untuk disain, yaitu 1) tanaman obat seperti jarak (jarak pagar), jarak merah (J. gossypifolia), jarak tintir (J. multifida) dan bougainvillea (Bougenvillea spectabilis) , 2) tanaman obat dan estetika, misalnya kembang sepatu (Hisbiscus rosasinensis), kembang nusa endah (mussaenda philippia), tapak dara (Catharanthus roseus), 3) Tanaman penghalang meliputi gandaruso (justisia gandarusso), asoka (Saraca asoca), teh Tanaman vertikal meliputi

lavender (Lavendula angustifolia), selasih (Ocium sp.), pancawarna (Hydrongea macrophylla), cabe hias (Solanum pseudo- kapsul), 5) Tanaman naungan, misalnya pule (Alstonia scholaris), ketapang (Terminalia catappa), kelapa (Cocus nucifera), kamboja (Plumeria sp.), beringin (Ficus benjamina) dan 6) Tutup tanaman seperti bunga kriminil Althenantera amoena), rumput gajah (Pe nnisetum purpureum), rumput jepang (Zoysia japonica). Tanaman ini digunakan oleh masyarakat sebagai obat untuk berbagai penyakit.
Kata kunci: Tanaman obat tradisional, landscape, tematik, SMAN 1 Pondidaha.

INTRODUCTION

Today, local wisdom and culture conservation are one of the issues that require solution. Information and knowledge of traditional medicinal plants decrease periodically from elder to younger generation. In grandmother/grandfather of our parents periods (5th generation above us), maybe more than 1000 species of medicinal plants and formula customs have been known and practiced. In our age, information of tradisional medicinal plants may be only 20% of it, and the time of our children and grandchildren in the future, the information of traditional medicinal plants and how mixes may be remaining 5% only. Publication of traditional medicinal plants of Indonesia has been published by international scientieste such as medicinal plants from Riau, antimalarial of East Kalimantan plants, tradisional medicinal plants of Ambonese, and gingers of Sulawesi. Today, the use of herbal remedies for various health purposes increases in the United States, 42% of the population use herbs to maintain their health. In general, the main raw material for manufacturing of herbal medicine is traditional medicinal plants. Various attempts to socialize traditional medicinal plants have been conducted through the program medicinal plant families (TOGA), which included women PKK members (TOGA PKK). Unfortunately, these activities will be seen its form when there are specific events like TOGA competition, visiting certain official and so on. In addition, the lack of success of the TOGA PKK caused by their use is strictly limited to the collection means these plants go unpunished. When a moment need TOGA, it can be purchased from elsewhere. When TOGA PKK can be used as a laboratory, then there is a concern to observe their growth or condition at any time. The utilization of TOGA PKK as a laboratory is very difficult, therefore, the use of TOGA as collection, laboratory, and attractions will do in senior high school (SMA). These objectives will be realized by a variety of activities including land arrangement (landscaping), designing green space for the school's garden, inventory, relocation (tillage and planting in the location of the school), maintenance, and education (socialization). This activity has been carried out at the University Halu Oleo. Further studies generating many potential medicinal compounds such as catechin and curcusone B of Jatropha as antibacterial drugs and atijamur, as well as curcusone B also effective as an anti-cancer.

MATERIALS AND METHODS

To achieve the above goal, the methods include surveys and landscape design, search species of plants that fit the design, preparation of location and planting of medicinal plants, labeling, maintenance and dissemination of the benefits of medicinal plants for the academic community of SMAN 1 Pondidaha.

RESULT AND DISCUSSION

The results of the study on land conditions at the site SMAN 1 Pondidaha produce six groups of traditional medicinal plants are suitable to be planted at the site. The initial condition and the final condition SMAN 1 Pondidaha area and the types of medicinal plants are suitable to be planted in each section is presented in the pigure 1-5.

Figure 1. SMAN 1 Pondidaha area from google map

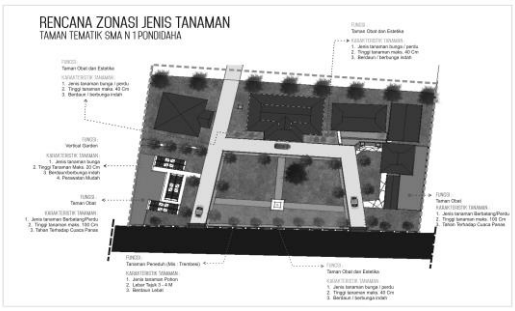

Figure 2. Planning of medicinal plants in SMAN 1 Pondidaha

Figure 3. Landscape desain of Taman 01 (Front office)

Figure 4. Landscape desain of Taman 02 (Front Office)

Figure 5. Landscape desain of Taman 03 (Parking area)

According to soil conditions, the results showed that the landscape design need 6 types of medicinal plants that are, the medicinal plants such as jatropha (Jatropha curcas), jarak merah (J. gossypifolia), jarak tintir (J. multifida) and bougainvillea (Bougenvillea spectabilis), Plant medicine and aesthetics, for example kembang sepatu (Hisbiscus rosasinensis), bunga nusa indah (Mussaenda philippia), mahkota dewa (Catharanthus roseus), Crop barrier includes gandaruso (Justisia gandarusso), Ashoka (Saraca asoca), teh-tehan (Duranti erecta), kroton (Codiacum variegatum), mangkokan (Notophanax scutellarium), Vertical garden plants such as lavender (Lavendula angustifolia), selasih (Ocium sp.), pancawarna (Hydrongea macrophylla), cabe hias (Solanum pseudo-capsicum), Shade plants for instance pule (Alstonia scholaris), ketapang (Terminalia catappa), coconut (Cocus nucifera), kamboja (Plumeria sp.), beringin (Ficus benjamina) and Ground cover plants such as bunga kriminil (Althenantera amoena), rumput gajah (Pennisetum purpureum), rumput jepang (Zoysia japonica). Some medicinal plants above are used widely by people at Southeast Sulawesi province as raw material for traditional medicine. The simple description of the plants as traditional medicines can be seen in Table 1.

Table 1. The plants as traditional medicines of Southeast Sulawesi people

No	Plants	Advantages	Figure (s)
1	Jarak Pagar (*Jatropha curcas*) = dama-dama (Tolakness Konawe), hulo-hulo (Tolakinese Mekongga) kalaki (Moronene Kepulauan), Ntanga-tanga	Wounds, toothache, hemorrhoids, bleeding after childbirth, smallpox, vomiting of blood, ear pus, jaundice, headaches, venereal diseases, fertilization disorder, high blood pressure, diabetes, fractures	

	(Munanese Kobunti, Kulisusu), papongke (Wangi-wangi, Kaledupa), tanga-tanga (Wawonii)		
2	Jarak merah (*Jatropha gossypifolia*) dama-dama momea (Tolaki Konawe), hulo-hulo momea (Tolaki Mekongga), kalaki motaha (Morone ne Kepulauan), papongke meha (Kaledupa), tanga-tanga memea (Wawonii)	Wounds, heartburn, fever, abdominal pain	
3	Pule (*Alstonia scholaris*), Kuuya (Tolaki), tongkea (Muna), rita (Wangi-wangi), kompanga (Kulisusu)	Malaria, toothache, fever, detoxifying, liver, diabetes, post-partum care	
4	Kelapa (*Cocos nucifera*), Kaluku momea (Tolaki Konawe), ni'I (Morone ne daratan), Ghai kadae (Muna Lawa)	Hypertension, smallpox, eliminating alcohol addiction, liver	

CONCLUSION

Restructuring schools area through thematic landscaping by utilizing the traditional medicinal plants as fillers of school garden is more effective in disseminating of traditional plants for the young generation, especially students.

ACKNOWLEDGMENT

We want to thanks to Ministry of Research and Technology and Higher Education of Republic of Indoesia for funding supporting by Community Service Program (IbM, Ipteks bagi Masyarakat) 2016.

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