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CASE STUDY  
THE TRANSITION OF  
FOREST BASED MEDECINAL PLANTS  
TO GARDEN BASED MEDICINAL PLANT  
( IN DAK DAM COMMUNE, O'REANG DISTRICT, MONDULKIRI PROVINCE CAMBOIDA )





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## I. Introduction

In Northeast Cambodia, near the Vietnamese border, lies the province of Mondulkiri. This province has been studied primarily by zoologists, whose research has proved that the areas wide range of habitats supports an exceptionally high diversity of fauna (Walston et al., 2001; Rawson et al., 2009; Phan et al., 2010). Although its rich diversity of habitats also makes Mondulkiri an extremely interesting subject for botanists, only a handful of surveys have been conducted thus far (Jung et al., 2014). The province's largest ethnic group is the indigenous Bunong, one of the highland minorities who are considered to be among the first inhabitants

a strong relationship with their natural environment (Bourdier, 2006). They are known for their extensive knowledge of plants, which they use for various purposes, such as medicine, food, building and hunting (Laval et al., 2011). Their local knowledge has already been advantageous for ecological assessments of mammal species (Starr et al., 2011) and we predicted this could also be used as a basis for botanical field studies, potentially helping to uncover new plant species.

## II. Traditional Treatment of basic ailment & Injury by Bunong Indigenous People

Thanks to the knowledge of the Bunong that we discovered the traditional described plant species including tubers and shrubs for traditional treatment of basic ailment & Injury even such bone-injury. The Bunong people of Dam Dam commune, before the project, have used plant as a traditional treatment for basic treatment such as malaria, fevers and other women related ailment including maternity. For bon-related injury, Bunong people use tuber plant by grinding and mix with rice wine for surplice application of the affected area. Traditionally in the past, medicinal plants represent 100% of medicine for all sort of treatments. however, with the present of local health centers and private medicine retailers



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in the villages, the use of the traditional medicinal plant have decreased, however, the traditional medicinal plant still play important roles in common remedy such as fevers, diarrhea, for women-maternity and bone-fracture treatment. The traditional healers are still very important for their knowledge of medicinal plants and their knowledge of processing and prescription of the medicinal plants.

### III. Collection, Storage, Preserving and Processing of Medicinal Plant

Normally, the traditional healers or individual indigenous people who need specific medicinal plants would come to the nearest forest to collect the plants, often plenty in the forest. Depend on the traditional processing method, The Bunong people collect the medicinal plant and cut it into small pieces, which are mostly boiled for 15 minutes till being brewed as the drink medicines. The patient drinks this remedy four to six times per day until his condition has improved. It is also other possible to make a steam bath with the boiling water for other prescription. For other methods, mainly for tuber medicinal plant, they would grind it and mix with rice wine to extract the substance from the plant, then they can, for some, they can drink it or some only for surface application, especially for bon-fracture.

Though seem that Bunong people can process the medicinal plants, but the processing and prescription never been a clinical-approach like the chines -oriental medicine.

However, as the conclusion as agreed by Bunong indigenous people and their traditional healers, the medicinal plants do work for treatment of common ailment or even save many lives.



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#### IV. Traditional Domestication of Medicinal Plant by Bunong Indigenous People,

Traditionally, we observe that understanding the value and need of medicinal plants, Indigenous people households, randomly, have collected the medicinal plants from forests, mainly tuber, to be planted in their home garden. So far, in the areas, people do not harvest and stock much medicinal plants at homes. Not often, we find some families Have some sort of traditional medicine made of plants at their homes in form of mixture with rice wine and dried-plant such as leafs and tubers.





## V. ALiSEA support to expand domestication of traditional medicinal plants by adding medicinal shrubs

Capitalizing on Bunong community knowledge's and practices on medicinal plants, with the initiative grants from ALiSEA, MIPAD in consultation with indigenous traditional healers have agreed and worked together with community to set up an-inside-community medicinal plant forest inside their local protected spirit forest. The project support traditional healers and villagers to collect important medicinal plants, from state-protected forest, that they might need often for treatment to be domesticated and replanted inside the community medicinal plant forest with the size 2500m<sup>2</sup> inside their community, basically, very close to their households in village of Pu Treng in Dak-Dam commune.

The following medicinal plants that are available from the community spirit forest:

No.	Medicinal Plants in Khmer	Medicinal Plants in English	Amount (in tree or bush)
1	ដើមបណ្ណាលមាន់	Chicken Poultry	1
2	ដើមក្រខុបព្រៃ	Scolopia spinosa	4
3	ពន្លៃ	Zingiber purpureum	2
4	ដើមទេព-ទារុ	Cinnamomum cambodianum	3
5	ដើមស្រទាប់	Dillenia ovata	1
6	ដើមទឹកដោះខ្លាធំ	Holarrhena pubescens	2
7	មើមពពកវិល	Iris pallidi	2
8	ដើមក្របីបី	Premna latifolia	2



9	មើមថ្នាំចិន	SmicaxchinaL	9
10	ដើមទឹកដោះ	Euphorbia hirta	3
11	ដើមរកា	Bombax ceiba	1
12	ប្រទាលស្នេហ៍	Zingiber	2
13	ពពាលខែឈ្មួល(២)ដើម	Terminalia bialata	2
14	ដើមចុងផ្កា	Calamus bousigoni	4
15	ដើមក្រូចព្រៃ	Atalantia citroides	3
16	ដើមត្រាច	Diptocarpus intricatus	2
17	វល្លិណាម	Stephania venosa	2
18	ដើមស្រឡៅ	Lagerstroemia calyculata	2
19	ដើមព្រីងបាយ	Syzygiumcumini	1
20	ដើមដង្កៀមក្តាម	Antidesma gheasembilla	2
21	ដើមបេង	Azelia xylocarpa	4
22	វល្លិដំណើបស្វាយតូច	Stephenia venosa	2
23	ដើមក្រញ៉ូងឈាមមាន់	Dalbergia cochinchinensis	1
24	ដើមកកោះ	Sindora siamensis var .siamensis	4
25	ដើមផ្កាស្រូវ	Rice Seedlings	4
26	វល្លិរមៀត	Teramnus labialis	2
27	ដើមធុង	Pterocarpus indicus	2
28	ដើមអូយម៉ូយ	Cassia grandis	2
29	ដើមក្រមួន ចំបក់	Sapium sebiferum	8
30	អំបោសស្មៅ	Desmodinm auricomum	3
31	កុលាផ្លែ	Zingiber sp.	1



32	ក្រវាញ់ជ្រូក	Cyperus rotundus	3
33	ដើមកណ្តាល	Careya arborea	3
34	រំដេញមាស	Prismatomcris tctrandra	4
35	ប្រទាលសត្វអឿត	ZiNGiBER SP	2
36	ដើមអណ្តាតគោ	Achyranthes	2
37	ដើមអង្រែដែក	Droogmansia	2
38	មើមក្រវាញ	Amomum Krervenh	2
39	ដើមទឹកដោះខ្លាតូច	Peninsule indochinoise4	4
40	កុកខាន់ល្បឿងឡាវ	Lao Kok Lao	1
41	ដើមបញ្ជីក្អែក	Helixanthera longispicata	1
42	ផ្កាដំបង	Calamus rudentum	2
43	វល្លីត្រីជិត	Cayratia Trifolia	3
44	វល្លីបណ្តាលពេជ	Tinospora crispa. Miers. Ax Hook. F.& Thoms.	3
45	អន្សែ	Caryota urens	2
46	ដើមក្បាលដែក	Steel Head	2
47	ដើមដៃណាត	Native Hands	4
48	ប្រទាលកន្ទុយក្រពើ	Aloe vera Lin.var.chinensis	4
49	បួសរឿត	Russei Pong	2
50	ដើមជើងគោ	Baseball	4
51	ផ្កាអូរគីដេ	Orchit	2
52	ស្មៅជើងក្រាស់	Eleusine insine (L.) Gaertn	4



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## PLANTING MEDICINAL PLANTS INSIDE SPIRITUAL FOREST INSIDE



### VI. The success

Internally in the community, it is a good imitative and small success, So far, there are about 139 medicinal plants have been planted and growing quite well. though, intended to let the plants fully grown and for sustainable harvest, community people at the moment have limited access to collect the domesticated medicinal plants for treatments, but gradually, community will be able to harvest more medicinal plant from the community spirit forest.





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For example, *Dillenia ovara* is helped to produce breast milk for women that just gave birth and Chicken Poultry is used for caught treatment. Though the project does not have a good record of how many people have so far access to collect medicinal plants, but among 459 indigenous people in the community, more and more people now are interested and value the medicinal forest they have created. Having medicinal plants close to their households, it is easier for old-people, mainly traditional healers to pass their knowledge to younger generation. for instance, together with local indigenous youth and traditional healers, the project have documented and computerized a number of medicinal plant details for future reference and use by the communities mainly the youth who can read and write.

**Externally**, this initiative have brought MIPAD to better direction of more research and domestication of the medicinal plants, from that MIPAD have discussed the concept with WWF for a joint project to domestication and on-farm production of medicinal plants and intended to commercialize it through processing and packaging of healthy-medicinal tea-drink. A healthy tea-drink from the wild. WWF and MIPAD is committed to make this happen, potentially, MIPAD strongly expect the further support from AliSEA. From this result of medicinal plant garden, we will work with community to establish a Bunong traditional medicine committee once we have a fund support on agro-forestry in 2018.