

**ASSESSMENT OF BAMBOO POTENTIAL AND ITS DEVELOPMENT
IN WEST CERAM REGENCY
(Case Study of Three Subdistrict of West Ceram Regency)**

**By
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I. INTRODUCTION

1.1. Background

Bamboo is a plant which has many benefit. It grows in any land with little requirement Bamboo can be found in any place that be plant or grow naturally.

There is many advantage taken from every part of bamboo plant likes its roots, cane and bamboo shoots. Its roots prevent soil erosion. Its cane use for wall, pole, floor, door, window and roof. As a raw material, bamboo can be made into household tool likes curtain, mat, tablecloth, lamp shield, basket, furniture, cupboard, bed, TV rack, etc. Bamboo cane be used to make chopstick, plybamboo, pulp and paper, music instruments, traditional weapon, sport and recreation. Its leaves used to make medicine, and wrapper. Bamboo shoots was known as a delicious vegetable.

Regency of West Ceram possess big potency of bamboo plant which is live find in certain part of the region.

1.2. Objective.

Objective of the study is to assess potency of bamboo plant and its development in West Ceram regency.

II. GENERAL

2.1. Subdistrict of Taniwel

Subdistrict of Taniwel located between $2.75^{\circ} - 3^{\circ}$ south longitude and $28^{\circ} - 28,84^{\circ}$ east meridian comprise of 34 villages. Total area of Taniwel is 678.52 km^2 . North boundary is Ceram Sea, south boundary is subdistrict of Amahai and Kairatu, west boundary is subdistrict of of Pitu, east boundary is subdistrict of North Ceram

2.2. Subdistrict of Piru

Subdistrict of Piru located between $3^{\circ} - 30^{\circ}$ south longitude and $125^{\circ} - 55^{\circ}$ east meridian comprise of 12 villages including 10 small islands. Total area of Piru is 446.61 km^2 . North boundary is subdistrict Taniwel, south boundary is subdistrict of Leihitu, west boundary is Manipa strait, east boundary is subdistrict of Kairatu.

2.3. Subdistrict of Kairatu

Subdistrict of Kairatu located between 03° - 03.30° south longitude and $128,30^{\circ}$ - $128,15^{\circ}$ east meridian comprise of 29 villages. Total area of Kairatu is $2,671.1 \text{ km}^2$. North boundary is subdistrict Taniwel, south boundary is Cram sea, west boundary is subdistrict of Piru, east boundary is subdistrict of Amahai.

III. RESULT AND DISCUSSION

3.1. Bamboo potential in West Ceram (three subdistricts)

Bamboo potential in the subdistrict of Taniwel comprise of several village which is Rumahsoal, Lohta Sapalewa, Laturake, Buria, Riring dan desa Niniari; in the subdistrict of Piru which is Morekao and Lumoli and subdistrict of Kairatu which is Seriholo, Tala, Sumeit Pasinaro, Ahiolo-Abia, Watui, Huku kecil, Rumakai, Latu and Hualoi.

Based on a survey made by Agriculture and Forestry Agency of West Ceram regency was listed as follow,

Table 1. Kinds of species and area of bamboo plant in the village of subdistrict Taniwel, Kairatu and Piru.

Subdistrict/village	Area of village (Hectares)	Species of bamboos	Area of bamboo (hectares)
Taniwel			
1. Buria	5366,3	Petung	650
2. Uweth	1826,3	Petung	140
3. Hulung	2142,6	Petung	70
4. Kasie	4750,3	Petung	60
5. Sohuwe	5235,6	Petung	100
		Apus (Sero)	45
6. Hatunuru	7124,3	Petung	100
		Apus (Sero)	30
7. Lumapelu	1833,6	Petung	50
		Apus (Sero)	40
Kairatu			
1. Tala	450,0	Petung	15
2. Latu	1640,0	Petung	15
3. Rumahkay	3400,0	Petung	10

4. Tihulale	1120,0	Petung	12
5. Urau	430,0	Petung	5
Piru			
1. Morekau	344,3	Petung	10
2. Lumoli	230,7	Petung	5

Source: Dinas Pertanian dan Kehutanan, Kabupaten SBB, 2005.
Kecamatan Taniwel, Kairata dan Piru dalam Angka, 2003

Based on field observation bamboo clump is distribute evenly in forest land belongs to village (negeri) or local people. Bamboo clump grows naturally together with cash crops likes coconut, clove and nutmeg, cocoa and various tree species. Big area of bamboo plant live in subdistrict of Taniwel especially Buria. Chopstick company reside in Taniwel which is 18 km from Buria. At the subdistrict of Kairatu, bamboo grown up in several village which is Seriholo, Tala, Sumeit Pasinaro, Ahiolo-Abia, Watui, Huku kecil, Rumakai, Latu and Hualoi.

According to local people there is eight species of bamboo which used traditionally called in local tongue which is bambu jawa, bambu sero (*Gigantochloa apus*), bambu suanggi, bambu suanggi baduri, bambu patong (*Dendrocalamus asper*), bambu loleba (*Bambusa atra*), bambu tui (*Schizostachyum lima*), bambu tapir and bambu tutul (*Bambusa vulgaris*) which the only bamboo cane utilize in the fumiture making at Morekao (Piru subdistrict).

Bambu Jawa utilize to make water duct for housing, traditional fish trap made from bamboo. Mostly bamboo crafter used to make fumiture from bambu jawa and bambu sero in the small part of fumiture and handicrfat.

Bambu sero utilize to make fences because it is resistance to beetle, water duct, fishing trap, rafting and container for food cooking.

Bambu Suanggi and suanggi baduri utilize to make stick for support building construction and traditional hammer called “nani” to beat stem of sago palm (*Metroxylum sp*) to make sago flour.

Bambu petung utilize to make house building as pole and crossbar, and its bamboo shoot called “rebung” for food, and ever been utilize to make chopstick at Taniwel.

Bambu loleba utilize to make flat basket called “nyiru”, rope to knitt sago leaves for roof making, fruit picker and rafter.

Bambu Tui and bambu tapir utilize to weaving, to make flute, bamboo shoot for food.

Bambu tutul is the only bamboo plant which is introduced by farmer as ornamental plant but it utilize to make furniture and handicraft.

3.2. Population

Based on registration 2003, total population of Taniwel subdistrict is 16.864 comprise 8.910 male and 7.954 female (25 per km²). Total population of Kairatu is 49.184 comprise of 25.791 male and 23.465 female (18 per km²). Total population of Piru is 53.580 comprise of 26.852 male and 26.728 female (119,97 per km²).

Total population and density of subdistrict was listed as follow,

Table 2. Total population and density of subdistrict Taniwel, Kairatu and Piru

Subsdistrict/village	Population	Density (per km ²)
Taniwel		
1. Buria	1261	51,83
2. Uweth	445	53,71
3. Hulung	677	69,72
4. Kasie	854	39,67
5. Sohuwe	509	21,46
6. Hatunuru	275	8,52
7. Lumapelu	447	53,79
Kairatu		
1. Tala	450	11,00
2. Latu	3063	18,68
3. Rumahkay	1839	5,41
4. Tihulale	1387	12,38
5. Uraur	1327	30,86
Piru		
1. Morekau	522	15,17
2. Lumoli	960	41,58

Source : Kecamatan Taniwel, Kairata dan Piru dalam Angka, 2003.

3.3. Type of bamboo craft product.

There is no bamboo crafter in Taniwel and Kairatu. Only one bamboo crafter live in Morekau that is six kilometers from city of Piru subdistrict. Various bamboo

product was made likes furnitur, shaky chair, bed, television rack, tray, lamp cover, cigarette box, cigarette lighter box, decorated wall made of bamboo.

3.4. Social and economic of bamboo furniture and handicraft.

People of Ceram island can not develop bamboo by themselves but traditionally used it for daily life for examples basket, rope, weaving the roof, water container, cooking food container, fences, pole and crossbar in house construction, and bamboo shoot which is called “rebung” as food. People consider bamboo plant is worthless substance that it is available in the nature and freely to use. Bamboo plant do not give money likes cloves and nutmeg which is traditional cash crops of Mollucas island, dry coconut, and cocoa.

Chopstick company ever been established in subdistrict of Taniwel. This company made a contract 100 hectare bamboo natural plant to the local people. Six meters bamboo was value Rp 3000. Since 1998 the company was no longer operated because of mismanagement. In the other hand, 50 thousand bamboo cane was rotten in the field without compensation according to the contract which makes people disappointed.

There is one bamboo crafter living in Morekao the countryside of Piru’s subdistrict. He already have trade license to make various bamboo product likes,

- one chair = Rp 75.000,-
- one set chair & table = Rp. 750.000,-
- 14” TV rack = Rp. 350.000,-
- 20” TV rack = Rp. 450.000,-
- tray 25 x 35 cm = Rp 15.000,-
- tray 35 x 45 cm = Rp. 25.000,-
- bed = Rp. 300.000 - Rp 400.000,-
- shaky chair = Rp 200.000 - Rp 300.000,-
- decorated wall drawing = Rp. 100.000 - Rp 150.000,-
- Tissue box = Rp. 5000 s/d Rp 20.000,-

Bamboo cane sold by people Rp. 2.500 per cane which 4 m long, and Rp 1.000/cane if cut by bamboo crafter. Kinds of species utilize in bamboo furniture and handicraft is bambu jawa as main part, bambu sero as supplement and sometime bambu tutul.

3.5. Constraint and solution for bamboo development.

1. Bamboo reside the isolated place which far away form city of regency where bamboo industries and furniture might be established.
2. Road in the subdistrict of Taniwel where natural bamboo reside in big area which is relatively bad compare to two other subdistrict. There are many curve that restraint the course of transportation.
3. People make their own householf tools likes basket, flat basket call “nyiru” using knife and short machete call “parang”. The furniture crafter also using simple tools for making their furniture and handicraft therefore in future there is need to introduce new modern tools.
4. There are few people involve in furniture and handicraft making despite of their skill is good enough. They have been trained in Ambon and Java therefore they can make good quality product.
5. Making a bamboo handicraft and furniture becoming a business vocation need capital to buy raw material, supporting substance and wages. Unfortunately this small business did not get credit from bank but traditional vendor which is called “kios”. It is better bank can lend money that make this bamboo handicraft and furniture might be stayed alive in the community.
6. At present, selling of furniture and handicraft make by order. No market of bamboo craft in city of regency. The most constraint is capital.
7. Although bamboo crafter have been trained but there is no hardworking and steadfasting therefore they look for other vocation. Probably bamboo product can not gain profit significantly.
8. Prime requirement of the bamboo industry is how much potential bamboo plant, kinds of commercial species, and the quality. Probably, bambu petung, bambu jawa, bambu sero and bambu leleba might be the future bamboo commercial. No precise and official data about how big the area, kinds of species and quality of natural bamboo. It is rational to establish bamboo plantation made of endemic species which is naturally grow in their comon habitat. Sustainability of bamboo as a raw material have to start through cultivating bamboo species.
9. Local people have no experience to plant bamboo. Educating and training people to restore and cultivate bamboo plant have to carry on that bamboo

cane and bamboo shoot available to cut any time. People have to protect bamboo plant from fire, destruction or to change into other crops through a regulation and ordinance. Bambu leleba going to extinct if there is no protection from fire and ingest by cow.

10. Plywood industry Waesarisa which is reside in regency's territory do not attracted to invest bamboo industry because there is no available data about bamboo potential, lack of information how to utilize bamboo in industry and where to market the bamboo product.
11. The legal authorities of bamboo concession should be assurance by local government. Conflict between bamboo concession with farmer which possess the bamboo plant might be come up in the future that threat bamboo industry. Traditional right of the land by local people is token by law.
12. Infrastructure of the region likes road, power line, water and port is primary requirement for establishment bamboo industry and stimulating investor be ready coming to west part of Ceram Island.
13. People consider bamboo furniture and handicraft is secondary venture comparing to the wood and rattan. The reason is price of bamboo craft might be cheap and difficult to sell.
14. Price of cash crops in Ceram Island is cheaper at local market therefore bamboo venture can not be survive in the region because cost of transportation is higher. Local government have to regulate and make incentive that bamboo crafter take benefit in term of price and quality.
15. Local people did not familiarize with bamboo product. Local market have to create through campaign and socialize in government and private office, display in the shop, lodge, school, coffee and food shop, or traditional market. Local and provincial government have to make exhibition and participate in the trade fair for bamboo furniture and handicraft to introduce market together with pearl shell and clove handicraft which is already recognized in national level as a unique traditional making.

IV. CONCLUSION

1. Bamboo as a natural resources is available to develop for benefit of local people in the new administration region which is regency of West Ceram

Island. The first place to make is a survey in term of potential and kinds of bamboo commercial that support bamboo furniture and handicraft, bamboo industry as a raw material.

2. Bamboo plantation and cultivate bamboo have to introduce to the local people, government and private business because bamboo grows naturally and suitable with the environment.
3. Traditionally, people used bamboo plant for household article, food and daily activity. It is oblige to introduce bamboo as commodity which can get good price and becoming a vocation capable to make various product from bamboo compare to traditionaly bamboo made long before.
4. Sanction and punishment have to introduce to local government and village level to protect bamboo plant from fire, destruction or ingest by cow. In the end bamboo might be extinct without take benefit from it therefore people have to tend and to cultivate bamboo plant for future generation.
5. Because lack of knowledge and information about bamboo product, it is better to train people about skill and technology of bamboo furniture and handicraft through MTC, business center, local government and NGO that stimulate establishment of new bamboo crafter going to business.

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