

# PRELIMINARY PROJECT SOCIAL IMPACT STUDY ON PLANTING BAMBOO AND RATTAN RAW HANDICRAFT MATERIALS WITH LOCAL COMMUNITIES IN THE INTERIOR OF SABAH

*Yap Sau Wai<sup>1</sup>, Rosnita Razalie<sup>2</sup>, Jupilin Gilau<sup>3</sup> dan Eva Leza Gerard Wilfred<sup>4</sup>*

*Bahagian Penyelidikan, Yayasan Sabah  
Tingkat 9, Menara Tun Mustapha, Jalan Sulaman, Teluk Likas,  
P.O.Box 11623, 88817 Kota Kinabalu  
(evalezaums@gmail.com)*

## ABSTRACT

The Bamboo and Rattan Raw Materials Planting Project (PPBM) is an important initiative that strive to ensure a continuous and consistent supply of raw materials to the handicraft industry in Sabah. This project is implemented under the Sabah Native Special Program (PKAN) and is managed by the Pusat Kraftangan Sabah (PKS), Keningau as the main implementation agency. The participants of this project are youths from all over Sabah state who are being exposed to knowledge about planting bamboo and rattan with the hope that they will one day become a successful handicraft entrepreneur in the future. A preliminary study on the social impact of PPBM on these participants was initially conducted after nearly five months of their involvement in this program. A total of 45 PPBM participants were involved, consisting of 37 men (82.2%) and 8 women (17.8%), aged between 18 and 45 years. Their education levels are as follows: 1 person (2.2%) graduated from STPM, 39 people (86.7%) graduated from SPM, and 2 people (4.4%) graduated at the PMR level. Out of the total participants, 5 people (11.1%) are married and 40 people (88.9%) are still single. Although 29 participants (64.4%) had work experiences, they were not working or not working permanently when they joined PPBM. All participants underwent a five-month course at PKS, Keningau, learning various aspects of the raw materials. This course consists of four components: farming, expert services, soft skills, and study visits. Our early study found that PPBM has provided positive impacts in two dimensions: immediate impact and future impact. In terms of immediate impact, PPBM has provided job opportunities and subsequent monthly income of RM1,000.00, along with other benefits such as free accommodation and transportation while in training. These participants also gained basic knowledge about the production of handicrafts based on bamboo and rattan materials including types of bamboo and rattan suitability as crafting materials in Malaysia. Beside increasing participants' side income as targeted in this project, the future impact will only be known after the participants have been in PPBM for a more longer period.

**Key Words:** *The Bamboo and Rattan Raw Materials Planting Project (PPBM), Handicraft Industry, Pusat Kraftangan Sabah (PKS), Social impact on local communities, Sabah.*

## INTRODUCTION

The Bamboo and Rattan Raw Materials Planting Project (PPBM) is an effort to ensure a continuous and consistent supply of raw materials to the handicraft industry in Sabah. This project is implemented under the Sabah Native Special Program (PKAN), which is managed by the Pusat Kraftangan Sabah, Keningau as the Lead Agency. The planting location for this raw materials of bamboo and rattan is at Yayasan Sabah Logging Concession Area, within Sungai Pinangah Class II (Commercial) Forest Reserve, under the Forest Management Unit (FMU) 15, interior of Nabawan District, Sabah with an estimated area of 80 hectares or 200 acres. The participants of this project involves youths that are recruited by the Pusat Kraftangan Sabah (PKS) from all over

the state of Sabah. Participants who are successful in the interview for the project will undergo the "Basic Level" programme at the Pusat Kraftangan Sabah, Keningau (PKS), for five months. This "Basic Level" course consists of four components, namely, Farming, Expert Services, Soft skills and Study Tours. This Basic course also aims to provide knowledge for participants about planting both raw materials, skills in handicraft makings, and entrepreneurship trainings to venture into the handicraft industry in the future.

**METHODOLOGY**

A preliminary social impact study of PPBM on its participants was conducted after almost five months of them participating in PPBM. The objectives of this preliminary study is to see the initial social impacts of PPBM project on the participants in terms of knowledge, job opportunities, types of training required and income as well as the participants level of confidence in participating in this project. At the end of the study, we also need to evaluate the sustainability of the project in terms of the environment and/or the raw resources, economic and social aspects of the project.

The study was conducted upon 45 participants of PPBM project consisting of 37 males participants (82.2%) and 8 female participants (17.8%). The participants involved aged between 18 and 45 years old with the highest education level, STPM level (1 person or representing 2.2%), SPM level (39 people or 86.7%) and 2 people or 4.4% with PMR equivalent qualification. Out of 45 participants, 5 people (11.1%) are married and 40 people (88.9%) are still single. Although 29 participants (64.4%) had previous work experiences, all of these participants were not working or not working regularly when they joined PPBM.

Participants data collection are taken using questionnaire that includes basic information about participants' profiles, education level, employment experiences, skills availability, finances, handicraft skills as well as the purposes or reasons for joining PPBM. The information obtained were analysed using SPSS version 28.

**RESULTS**

The results of the preliminary study showed that PPBM has had two dimensional impacts, namely immediate impact and future impact. The immediate impact is a very significant impact on the PPBM participants that is to provide immediate job opportunities, opportunities to earn more income, increase knowledge about bamboo and rattan raw materials and the knowledge of making handicrafts based on bamboo and rattan materials.

In terms of employment opportunities, all participants (100%) admitted that PPBM had provided them with job opportunities since they did not have any permanent jobs nor did have any work before joining PPBM. This job opportunity helped to reduce youth unemployment rate in this state in general even if this job is temporary or as contract basis.

Table 5.1 - Impact on Employment Opportunities

Before PPBM	During PPBM	Achievement (%)
All participants (45 people) do not have a job/not working	Work with PPBM	100%

Furthermore, PPBM has made a direct impact in providing monthly income to all participants (100%) through the payment allowance of RM1,000.00 per month in addition to other benefits such as free accommodation, programme facilities, insurance coverage, learning kits, programme tools and equipment and transportation (from their homes to PKS). Participants acknowledged that the allowance they received gradually helped them to cover their daily expenses and for their families.

Table 5.2 – Impact on Sources of Income

Before PPBM	During PPBM	Achievement (%)
All participants (45 people) have no fixed income/source of income	Have an income (participants are paid an allowance of RM1,000.00 per month)	100%

The next immediate effect is that the participants (100%) acquire the foundation knowledge of making handicrafts in preparation for learning more complicated and advanced handicrafts later, especially when they are involved in the handicraft industry. There are various 'easy' handicrafts that they have learned throughout the program such as making cutleries, keychain making, whistle, erecting mini gazebo, bird cages, dragonfly's figurines and telephone stands. They admitted that they had no knowledge of making handicrafts or furniture before joining PPBM but after five months of the course, their knowledge increased and they able produce basic handicrafts. Moreover, this training has also opened up their interests to delve and venture further into handicraft making as well as take on the challenge of becoming a handicraft entrepreneur in the near future. In addition to the knowledge of handicraft making, the participants also gained life experiences in using and maintaining handicraft machines used in Pusat Kraftangan Sabah, Keningau.

Table 5.3 – Basic Knowledge of Handicraft Making

Before PPBM	During PPBM	Achievement (%)
All participants (45 people) did not have basic knowledge in making handicrafts	Have basic or semi-proficient knowledge	100%

In addition to the knowledge of making handicrafts, the participants (100%) also learned the types of bamboo and rattan raw materials that are available in our country and the suitability of these materials for craft materials such as Betong Bamboo (*Dendrocalamus asper*), Poring Bamboo (*Gigantochloa levis*), Pus Bamboo (*Schizostachyum pilosum*), Tamalang Bamboo (*Bambusa vulgaris*) and Honey Bamboo (*Gigantochloa albociliata*) as well as Rattan manan (*Calamus manau*) and Rattan sega (*Calamus caesius*).

Table 5.4 – Basic Knowledge of Types of Bamboo and Rattan

Before PPBM	During PPBM	Achievement (%)
All the participants (45 people) had no knowledge about bamboo and rattan species suitable for making crafts	Have basic knowledge	100%

The participants are now able to know the techniques for raising bamboo and rattan seedlings, site preparation and planting and maintenance of growing these raw materials to maturity. In addition to paying attention to the impact of PPBM on the participants, this study also aims to find out the level of confidence of the participants in participating in PPBM after nearly five months of training at the PKS and the results are as shown in the Table 5.5 below.

Table 5.5 – Level of Confidence in Participating in PPBM (working in crop fields)

Level	Frequency	Percentage
Very Sure	36	80%
Certain	4	8.9%
Not Sure	5	11.1%
Amount/Total	45	100%

Table 5.5 showed that 36 participants (80%) felt very confident while 4 participants are somewhat confident and the remaining 5 feel unsure about the future in planting these raw materials in the field. Other information obtained from this preliminary study is for what purpose/s the participants join in PPBM. The results are shown in Table 5.6.

Table 5.6 – Reasons for joining PPBM

No	Reasons for joining PPBM	Responses				
		Strongly agree	Agree	Not sure	Don't agree	Strongly Disagree
1.	Interest in bamboo & rattan	5	35	5	-	-
2.	For not having a job	-	27	13	5	-
3.	Interested in the facilities provided by PKS	8	35	2	1	1
4.	Ordered by a family member	1	7	29	8	-
5.	Want to become a bamboo and rattan-based handicraft entrepreneur	7	24	14	-	-
6.	Follow friends	-	14	15	16	-
7.	Want to learn bamboo and rattan crafts	6	38	1	-	-
8.	Just to pass the time	-	6	21	17	1

In terms of the participants' purpose/s for participating in PPBM, they said that the desire to learn bamboo and rattan handicrafts was the main reason that motivated them to participate in this project (44 participants or 97.7% said so). This was followed by 43 participants (95.5%) being interested in the facilities provided by PKS and 40 participants (88.8%) feel interested in bamboo and rattan materials. 31 participants (68.8%) want to be a handicraft entrepreneur while 27 participants (60.0%) said they do not have a job so they want to join. Some prefer to follow friends (14 participants or 31.1%) while some are being ordered by a family member (7 people or 15.5%) and lastly, some participants joined just to fill the time (6 people or 13.3%).

As for the future impact, this will only be known after the participants have been in PPBM for a longer time as it has to compare with the original purpose of establishing PPBM long term impact, that is, to produce handicraft entrepreneurs with a side income of RM501.00 to RM1,200.00 per month.

## CONCLUSION

In conclusion, the PPBM project has had a positive initial impact on the participants who are mostly from the rural poor communities to be involved in the plantation sector and to reduce unemployment rate in state as stated by Embong (2011). Youths nowadays seek opportunities to thrive experiences as a pathway to build career. Moreover, the immediate impact experienced by the participants in terms of job opportunities and increased income also helps to reduce the migration of youths out of their villages to urban areas, provided good facilities and proper programme guidance to have better visions for their future (Sabri 1980). It also provides more opportunities for women and youth to be involved in plantations and subsequently, the bamboo and rattan-based handicraft industry. With increasing knowledge about bamboo and rattan and its uses in the handicraft manufacturing industry opened the minds and interests of the participants to venture into this field to generate side income. PPBM also help in the development of human capital through more courses and trainings especially when they are in the "Basic Level" and slowly advancing to "Advance Level".

Based on the above summary, several suggestions are recommended to ensure PPBM can obtain optimum impacts in accordance with its original objectives and as expected by the funders and all stakeholders in this project.

### 1. Periodic Continuous Monitoring

The project should be monitored periodically and continuously consistent to ensure that the implementation of the project is always on the right platform.

## 2. Periodic Continuous Trainings

Continuous trainings and education for participants on the best techniques in planting, maintenance, and uses of bamboo and rattan products should be conducted regularly and continuously. These courses include modules related to entrepreneurship and marketing. Workshops or study tours to share experiences among participants and experts in the bamboo and rattan handicraft and furniture making industry should also be continued. Participants should also be involved and exposed to expo programmes and/or exhibitions either at the local level or at the state level.

## 3. Mid-term and Final Project Review

A mid-term and end-of-project studies should be conducted to assess and evaluate any further effects of PPBM on the participants. These studies can focus on the socio-economics of the participants, gap analysis on the type of trainings and training needs so as to increase in honing their skills and experiences to produce better and fine quality products as well as increase their income. The same goes for the assessment of technical skills in planting, harvesting and processing bamboo and rattan handicrafts or furniture making. Assessment should also be made in Human Capital Development and Entrepreneurial aspects. Project sustainability is also very important and need to be assessed and evaluated in all environment, economic and social aspects.

## ACKNOWLEDGEMENTS

The researchers are very deeply grateful to the Management of Yayasan Sabah, PKS and the participants themselves for all the support and contributions in the study. Deep appreciation is also directed to the Government of Sabah especially Sabah State Economic Planning Unit (UPEN) for providing the Project Funds under the 12<sup>th</sup> Malaysian Plan and the Members of the Project Steering Committee, Malaysian Timber Industry Board (MTIB), Sabah Forestry Department (SFD), Forestry Division and Research Division of Yayasan Sabah Group for their guidance and assistance in making the Project a success. Thank you to SFD for allowing this paper to be presented at the Malaysian Forestry Conference 2024 in Sabah International Convention Centre, Kota Kinabalu (22 – 24 October, 2024). Appreciation is also extended to those who has helped directly and indirectly in the Project.

## REFERENCES

- Azmy, Hj. M. and Norini, Hj. H. 1990. Role of Malaysian bamboos in rural development. Bamboo Information Centre (BIC), India. 15 pp.
- Belcher, B. 2002. CIFOR research: forest products and people, rattan issues. Non-Wood Forest Products No.14. In: Dransfield, J., Tesoro, F.O., and Manokaran, N. [Eds.], *Rattan: current research issues and prospects for conservation and sustainable development*. FAO Rome, Italy. Pp 49-61.
- Embong, A. R. 2011. Pemandangan dan kehidupan bandar di Semenanjung Malaysia. *AKADEMIKA*, 81(2): 23-39.
- Hakeem, K. R., Ibrahim, S., Ibrahim, F. H., and Tombuloglu, H. 2015. Bamboo biomass: Various studies and potential applications for value-added products. In: Hakeem, K. R., Jawaid, M. and Alothman, O. Y. [Eds.], *Agricultural Biomass Based Potential Materials*, Springer International Publishing, Switzerland. 231-243 pp.
- Ibrahim A. S. 2004. Graduan & Isu Pengangguran. Kertas pemikiran ini dibentangkan pada Persidangan Pertama TNC(A)/Dekan/Pengarah Fakulti/Pusat IPTA, Universiti Putra Malaysia, Serdang.
- Ismail, S. Z. 1997. *The Traditional Malay Handicraft Design*. Dewan Bahasa dan Pustaka, Kuala Lumpur.
- Koshy K. C. 2006. Book Review on Bamboo: The Amazing Grass - A Guide to the Diversity and Study of Bamboos in Southeast Asia. *Rheedea* 16(2): 117-118.

- Leigh, B. 2000. *The Changing Face of Malaysian Crafts: Identity, Industry and Ingenuity*. Oxford University Press, Kuala Lumpur.
- Mansor, N. 2000. Malaysia: Protecting Workers and Fostering Growth (Oktober 1, 2000). East Asian Labor Markets and the Economic Crisis: Impacts, Responses & Lessons. Available at SSRN: <https://ssrn.com/abstract=2461070>
- Mohamad, A. 2000. Bamboo and rattan resources in Sabah: conservation status, biodiversity base and its strategic programme. *Borneo Sci* 7: 45 – 53
- Nawawi, N. M. 1989. *Malaysian Songket* (1st Ed.). Dewan Bahasa dan Pustaka, Kuala Lumpur.
- Ngo, S. K. J., 2010. *Sustaining the Magnificent Craft of Songket Weaving in Malaysia*. In Symposium Proceedings Textile Society of America. <http://digitalcommons.unl.edu/tsaconf/41>
- Ong, S. 2018. Unemployment rate among youths rising. Retrieved from The Malaysian Reserve. <https://themalaysianreserve.com/2018/10/02/unemployment-rateamong-youths-rising/>.
- Sabri, M. N. 1980. *Penghijrahan belia luar bandar ke bandar (Tumpuan khusus kepada belia Kampung Mesapol, Sipitang, Sabah)* Sabri Mohd Noh Undergraduates thesis, University of Malaya, Kuala Lumpur.
- Sheppard, M. 2011. *Malay Arts and Crafts*. The Malaysian Branch of the Royal Asiatic Society. Perpustakaan Negara Malaysia, Kuala Lumpur.
- Sundaram, D. J. K. 2022. *Malaysia's labour, productivity data misleading-economist*. Bernama. Retrieved October 15, 2024. <https://www.bernama.com/en/news.php?id=2091013>
- Yunus, N. A. 2014. *Malaysian batik: Reinventing a tradition*. Clarendon Press, Tuttle.
- Yunus, N.A. 2009. *Songket revolution*. Yayasan Tuanku Nur Zahirah, Kuala Lumpur.