

## **Socialization on Ecotourism Development of Kahayan River, Palangka Raya, Central Kalimantan, Indonesia**

**Indrawan Permana, Firlianty, and Yennita**

*Palangka Raya University, Central Kalimantan Indonesia*

---

### **Abstract**

Kahayan River has a size of 450 m long and 100 m wide. The characteristic of the locality shows the uniqueness along the bank of Kahayan River, in which daily people activities physically influence the settlement model. The settlement along the river bank is initial settlement following the river configuration. The houses face the river as part of the settlement environment and interesting place to live. The settlement model at the river bank has two types, raft houses and (2) pillar houses. Pollution occurs because of lack of awareness of the environmental impact that causes the water condition to be in abnormal limit. When the water condition is out of the normal one, the water can be categorized as polluted, and it could then impact to the environment and human. The community service was done in Pahandut Seberang near Kahayan River through socialization that the local communities could manage the environment along Kahayan River well. People participation is highly needed to maintain the sustainability and the cleanliness along the bank of Kahayan River, and the comprehension on the importance of public awareness so as not to litter for Kahayan River development as ecotourism object to increase people income along the river bank.

**Key Words:** Palangka Raya, water pollution, Pahandut, settlement

---

Date of Submission: 05-10-2021

Date of Acceptance: 20-10-2021

---

### **I. INTRODUCTION**

Change in tourism practices has recently created a new tourism concept called as ecotourism, a sustainable and environmental friendly natural resource utilization through tourism (Bachri, 2004). This concept, according to Gurung (2010), is one of sustainable development system mechanisms that are capable of balancing the natural resources functions and human and development activities through biodiversity as tourism object and attractiveness, that is back to nature. Ecotourism is a form of responsible tourism to the nature conservation, that yields economic benefit and maintain the cultural unity for local communities. Therefore, ecotourism is basically a conservation actions conducted by the communities (Fandeli & Mukhlison, 2000).

Ecotourism emphasizes on three major aspects as follows: nature sustainability or ecology, providing economic benefit, and psychologically acceptable to the community's social life. Thus, ecotourism activities directly give access to all people to see, know, and enjoy the nature experience, the intellectuality, and the local community's cultures (Satria, 2009). One of the ecotourism potentials in Palangka Raya is Kahayan River, the largest river in Central Kalimantan. This river has important role for people in Palangka Raya area, particularly Pahandut district. The river itself seems to be not able to be separated from the public culture of Palangka Raya in general.

River itself has numerous benefits for surrounding communities to fulfil their living needs, and there are many potentials that we can benefit from Kahayan River, one of which is fish cultivation. Aquaculture is an effort to maintain and breed fish and other aquatic organisms, such as clams, shrimps, and aquatic plants. Fish culture production always rises because of its high demand as consumption fish for protein and affordable price. The fish culture activities run by the communities near Kahayan River has revealed that aquaculture has good business prospect. Among 5 districts of Palangka Raya, Pahandut is one with the highest fish culture production from floating fish cages that are distributed in 6 villages, Pahandut, Panarung, Langkai, Tumbang Rungan, Tanjung Pinang, and Pahandut Seberang.

Based on the profile of Pahandut Seberang in 2018, Pahandut Seberang possessed the highest number of fish farmers and floating fish cages, 179 people and 250 units of fish cages, respectively, and these numbers are developing every year. Fish culture activities are done not only by the fish farmers, but also through profit sharing between the fish farmers and investors. Profit sharing is an alternative taken to run all the floating cage fish culture due to insufficient capital. Freshwater fish culture is highly needed to balance and help the decreasing fish production from fishing. Modernization and population growth have led to increased need for

animal protein with year, so that fish production needs to be raised as food and protein source. Fish culture activities along the bank of Kahayan River can become one of the tourism objects. Other unique object is houses along the river called lanting. This type of house is made of wood to be floating, with float base of 3 wooden beams. The house is usually tied to the wooden poles stuck in the riverbed to protect it from carried away by water currents. Therefore, clear information is needed on how the people living along Kahayan River actually participate in tourism potential development to realize the ecotourism. This information could then be benefitted as basic guide to ecotourism development implementation in Kahayan River.

## **II. MATERIALS AND METHOD**

The community service was carried out in Kahayan River region that passes the city of Palangka Raya, Central Kalimantan Province, from June to October 2021.



**Figure 1.** Kahayan River passing the city of Palangka Raya with residential area along the river bank of Pahandut Seberang

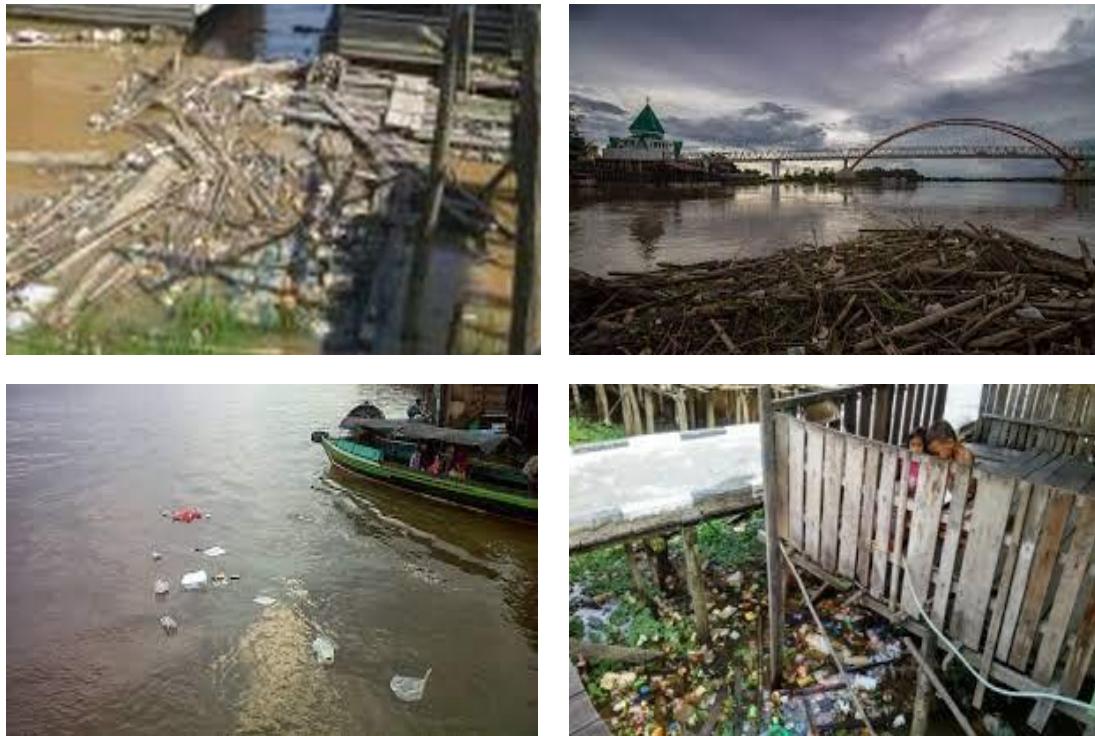
Equipment and materials used in this community service were a digital camera, marker, writing pad, tape, scissor/cutter, and site guide for field observations. Approach technique to the community in Pahandut Seberang near Kahayan River was done through socialization to encourage people to well-manage the environment along the river.

## **III.RESULTS AND DISCUSSION**

Central Kalimantan possesses 11 large rivers flowing to Java Sea, one of which is Kahayan River that passes the city of Palangka Raya, but the river has, in fact, been degraded from pollution. Human, private companies, and government institution activities have directly and indirectly caused remarkable change in water quality since 1980s. Plantation and mining companies that put huge investments and public gold mining in Kahayan watershed increase the disposals and wastes into the river, particularly total suspended solids from erosion causing the river water be turbid along the year in Kahayan River and Rungan watershed.

Environmental Agency data of Central Kalimantan Province of 2015 show that Kahayan River has been polluted with lightly polluted status based on pollutant index calculation, especially for turbidity, TSS, BOD, and COD (Environmental Agency of Central Kalimantan, 2015). It is supported with the environmental study of Pulang Pisau Regency in 2014 with more or less similar finding, in which TSS, BOD, COD, Pb, Cl, and phenol reached the standard quality of the environment regulation numbered 82/2001 (Government of Pulang Pisau Regency, 2014).

Ironically, there are many wastes along the bank of Kahayan River that highly disturb the environmental aesthetic and health. The socialization was done to the community along the river that they no longer dispose wastes carelessly that the river environmental conservation could be done and Kahayan River could become new prima donna as a reliable ecotourism area with easy access, since it is located inside the city of Palangka Raya. There are so many plastic disposals and wood from human activities along the bank of Kahayan River.



**Figure 2.** Disposals found in Kahayan River, the city of Palangka Raya



**Figure 3.** Drainageto Kahayen Riverin Palangka Raya

People's perception on the ecotourism development along Kahayan River bank is closely related to public assessment concerning the comprehension on the meaning, purposes, and goal of environmental and ecotourism management and people's comprehension on the benefit of ecotourism development, particularly in relation with added value that can be gained by the ecotourism to the public income. Interviews with those living along the river of Kahayan showed that nearly all of them were agree and happy with the ecotourism development plan in the area, but they do not know how and what is it? Local people basically support the ecotourism development, but they still training from related institution to be better understood concerning the ecotourism concept.

The ignorance on the meaning, purposes, and goal of the ecotourism and its development makes the community consider the ecotourism to be the same as mass tourism and not as special interest tourism with the purpose to enrich exotic knowledge and experience to the tourists. With this poor understanding, the public mind

set and the expectation on tourism development in Palangka Rayawill not be consistent with ecotourism principles.

The community service conducted for socialization on the potential of Kahayan River as.Kahayan River potential as tourism object will be directly able to increase more income to the surrounding communities. Their participation around the river is highly needed to maintain the sustaoinability and the cleanliness of Kahayan River.

#### **IV. CONCLUSION AND RECOMMENDATION**

##### **Conclusion**

People of Palangka Raya, especially those who live along the bank of Kahayan River, do not really participate in ecotourism development, since there is low awareness and responsibility of the local communities to develop their nature potentials and culture. People along Kahayan River have not also been involved in the ecotourism development process from planning, management, and monitoring/evaluation stages. The community service activity through this socialization has highly helped the communities in understanding the benefit of maintaining the sustainability and the cleanliness of Kahayan River that contains ecotourism potentials.

##### **Recommendation**

The community service needs to be periodically done to increase the community's participation in conservation and environmental neatness.

#### **REFERENCES**

- [1]. Abbas, R. 2005. Mekanisme Perencanaan Partisipasi Stakeholder Taman Nasional Gunung Rinjani. [disertasi]. Bogor: Sekolah Pascasarjana Institut Pertanian Bogor.
- [2]. Avenzora, R. 2003. Ecotourism- evaluasi tentang konsep. Makalah dalam Pertemuan Ekowisata Hotel Salak, Bogor.
- [3]. Bachri, T. 2004. Strategi Pembangunan dan Pemasaran Kepariwisataan Nasional. Makalah disampaikan dalam Seminar Sehari Dies Natalis AKPAR Makassar.
- [4]. Buku Statistik Balai Taman Nasional Sebangau (BSTNS). 2014. Kementerian Kehutanan. Direktorat Jenderal Perlindungan Hutan dan Konservasi Alam. Balai Taman Nasional Sebangau.
- [5]. Bryson JM, Robert CE. 1988. The future of strategic planning for public purposes. American Planning Association. Chicago.
- [6]. Cohen, L., Manion, L., dan Morrison, K..2007. Research Methods in Education. New York: Routledge.
- [7]. Cooper, C., J, Fletcher., D, Gilbert., and S, Wanhill. 1993. Tourism; Principles and Practice. Longman Group Limited. England..
- [8]. Clark, J/R. 1996. Coastal zone management. Lewis Publishers.
- [9]. Departemen Kebudayaan dan Pariwisata. 2007. Pedoman Objek dan Daya Tarik Wisata Andalan. Jakarta: Direktorat Jenderal Pengembangan Produk Pariwisat
- [10]. Departemen Kehutanan Republik Indonesia. 2007. Kemungkinan Meningkatkan Ekowisata. Perlindungan dan Hutan Pelestarian Alam. Jakarta
- [11]. Dirjen PHKA Direktorat Jenderal Perlindungan Hutan dan Konservasi Alam. 2002. Kriteria Standar Penilaian Obyek dan Daya Tarik Wisata Alam (Analisis Daerah Operasi). Bogor: Direktorat Jendral Perlindungan Hutan dan Konservasi Alam Departemen Kehutanan.
- [12]. Dirjen PHKA Direktorat Jendral Pelestarian Hutan dan Konservasi Alam. 2005. Kriteria Penilaian Obyek dan Daya Tarik Wisata Alam. Direktorat Jendral PHKA. Bogor.
- [13]. Fennel, D. A. 2005. Ecotourism. Second Edition. Routledge, Canada
- [14]. Fennel D.A., Dowling RK. 2003. Ecotourism policy and planning. CABI Publishing, Cambridge, USA.
- [15]. Gunn, C. 1997. Tourism; Planning and Design. Prentince Hall . New York .
- [16]. Gurung, H.B.. 2010. Trends in protected areas. CRC for Sustainable Tourism Pty Ltd. Gold Coast, Queensland, Australia.
- [17]. Ife J, &Frank T. 2008. Community Development: Alternatif Pengembangan Masyarakat di Era Globalisasi [Terjemahan]. Edisi ke-3. Yogyakarta: Pustaka Pelajar.
- [18]. INDECON. 1999. Pelatihan Ekowisata; Memperkuat Perspektif Pemahaman Ekowisata di Indonesia. Yayasan Indecon. Jakarta.
- [19]. Inskeep, E. 1991. Tourism Planning an Integrated Sustainable Development Approach, Van Notrand Reinhold, New York..
- [20]. Ismet, Y. 2011. Konsep Pengembangan Lanskap Berbasis Ekowisata di Kawasan Taman Wisata Alam Lembah Harau, Sumatera Barat. Skripsi. IPB.

- [21]. Justiano, M. nd. Learning trough travel ; A guide to teaching ecotourism about wild life Conservation .web-site. <http://www.brazilenature.com/ingles/guido.html>,[12 Mei 2021].
- [22]. Kementerian Pariwisata. 2015. Rencana Strategis: Pengembangan Destinasi dan Industri Pariwisata Kementrian Pariwisata Tahun 2015-2019. Jakarta: Deputi Bidang Pengembangan Destinasi dan Industri Pariwisata Kementrian Pariwisata. Lascuarin, H. C. 1996 . Tourism ,Ecotourism and Protected Areas. IUCN-World Conservation Union.
- [23]. Lascuarin, H. C. 1996 . Tourism ,Ecotourism and Protected Areas. IUCN-World Conservation Union.
- [24]. Mahmud. 2011. Metode Pengabdian Kepada Masyarakat Pendidikan. Bandung: Pustaka Setia.
- [25]. Marta, A. 2016. Strategi Pemerintah dalam Pengembangan Ekowisata (Studi di Kawasan Taman Nasional Bukit Tiga Puluh Kabupaten Indragiri Hulu Provinsi Riau).
- [26]. Meta. 2002. Planning for marine ecotourism in the UE Atlantic Area. University of the West of England, Bristol.
- [27]. Peraturan Pemerintah Nomor 38 Tahun 2007 tentang Pembagian Urusan Pemerintah Antara Pemerintah, Pemerintah Daerah Provinsi dan Pemerintah Daerah Kabupaten/Kota.
- [28]. Peraturan Pemerintah Nomor 15 Tahun 2010 tentang Penyelenggaraan Penataan Ruang.
- [29]. Peraturan Pemerintah Nomor 28 Tahun 2011 tentang Pengelolaan KSA dan KPA.
- [30]. Peraturan Pemerintah Nomor 36 Tahun 2010 tentang Pengusahaan Pariwisata Alamdi Suaka Margasatwa, Taman Nasional, Taman Hutan Raya dan Taman Nasional.
- [31]. Peraturan Pemerintah Nomor 50 Tahun 2011 tentang Rencana Induk Pembangunan Pariwisata Nasional Tahun 2010.
- [32]. Peraturan Menteri dalam Negeri Nomor 33 Tahun 2009 Tentang Pedoman Pengembangan Ekowisata di Daerah
- [33]. Peraturan Menteri Kehutanan Nomor P.48/Menhet-II/2011 jo Peraturan Menteri Kehutanan Nomor P.4 Menhet-II/2012 tentang Pengusahaan Pariwisata Alam di Suaka Marga Satwa, TamanNasional, Taman Hutan Raya dan Taman Wisata Alam.
- [34]. Peraturan Direktur jenderal perlindungan hutan dan konservasi alam Nomor P.3/IV-SET/2011 tentang Pedoman Penyusunan Desain Tapak Pengelolaan Pariwisata Alam di Suaka Margasatwa, Taman Nasional, Taman Hutan Raya danTaman Wisata Alam.
- [35]. Peraturan Direktur Jenderal Perlindungan Hutan dan Konservasi Alam NomorP.2/IV-SET/2012 tentang Pembangunan Sarana Pariwisata Alam di Taman Nasional, Taman Hutan Raya dan Taman Wisata Alam.
- [36]. Peraturan Direktur Jenderal Perlindungan Hutan dan Konservasi Alam Nomor P.5/IV-Set/2015 tentang Pedoman Penyusunan Desain Tapak Pengelolaan Pariwisata Alam di Suaka Margasatwa, Taman Nasional, Taman Hutan Raya dan Taman Wisata Alam.
- [37]. Purnomo, E. P.2007. Menakar Kebijakan Pemerintah Yang Sadar Ekologi. Muhammadiyah Yogyakarta, Yogyakarta.
- [38]. Purwanto, S., Syaufina, L., & Gunawan, A. (2014). Kajian Potensi dan DayaDukung Taman Wisata Alam Bukit Kelam untuk Strategi PengembanganEkowisata. Jurnal pengelolaan Sumberdaya Alam dan Lingkungan 4 (2):119-125.
- [39]. Putri, R. K. 2015. Pengembangan Pariwisata Oleh Dinas Kebudayaan dan Pariwisata (DISBUDPAR) Kota Bukittinggi untuk Meningkatkan Pendapat Asli Daerah. Skripsi (Tidak Diterbitkan). Padang: Universitas Andalas.
- [40]. Rahayuningsih, T., Muntasib, E. K. S. H., & Budi, L. (2016). Nature Based Tourism Resources Assessment Using Geographic Information System (GIS): Case Study in Bogor. Procedia Environmental Sciences Journal 33, 365-375. <https://doi.org/10.1016/j.proenv.2016.03.087>
- [41]. Reed, S.M., Graves, A., Dandy, N., Posthumus, H., Huback, K., Morris, J., &, Stringer, L.C. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resources management. Journal of Environmental Management, 90, 1933-1949.
- [42]. Riwayatiningsih, Purnaweni, H. 2017. Pemanfaatan Sistem Informasi Geografi dalam Pengembangan Pariwisata. Proceeding Biology Education Conference.vol. 14 (1): 154-161.
- [43]. Sekartjakrarini, S. 2004. Ekowisata: Batasan dan Pengertian. Dalam Seri Ekowisata. IdeA. Jakarta.
- [44]. Sekartjakrarini, S. 2004 b. Ekowisata; Konsep Pengembangan dan Penyelenggaraan Pariwisata Ramah Lingkungan. Dalam Seri Ekowisata. IdeA. Jakarta.
- [45]. Shelly, R. and G, Wall. 2001. Evaluating Ecotourism; the Case North Sulawesi. *Annual Tourism Research* 23 [1]: 122-132.
- [46]. Soekadijo RG. 1996. Anatomi Pariwisata: Memahami Pariwisata sebagai Systemic Linkage. Jakarta: Gramedia Pustaka Utama.
- [47]. Siswanto, A. 2010. Strategi Pengembangan Ecotourism Taman Nasional Baluran di Kabupaten Sitobondo. Tesis. Universitas Udayana.
- [48]. Sugiyono. 2017. Metode Pengabdian Kepada Masyarakat Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta

- [49]. Suwantoro, G. 1997. Dasar-dasar Pariwisata. Yogyakarta: ANDI.
- [50]. Suwena K. I. dan Widyatmaja Ngr Gst I. 2010. *Pengetahuan Dasar Ilmu Pariwisata*. Udayana University Press Bali.
- [51]. Undang-Undang Nomor 5 tahun 1990 tentang Konservasi Sumberdaya Hayati dan Ekosistemnya untuk Mendukung Kesejahteraan dan Mutu Hidup Masyarakat.
- [52]. Undang-Undang Nomor 41 Tahun 1999 tentang Kehutanan.
- [53]. Undang-Undang Nomor 7 tahun 2004 tentang Pengelolaan Sumberdaya Air.
- [54]. Undang-Undang Nomor 25 tahun 2004 tentang Sistem Perencanaan Pembangunan Nasional.
- [55]. Undang-Undang Nomor 32 Tahun 2004 tentang Pemerintahan Daerah sebagaimana diubah dengan Undang-Undang Nomor 23 Tahun 2014.
- [56]. Undang-Undang Nomor 26 tahun 2007 tentang Penataan Ruang.
- [57]. Undang-Undang Republik Indonesia Nomor 10 Tahun 2009 tentang Kepariwisataan.
- [58]. Undang-Undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup.
- [59]. Untari, R. (2009). Strategi Pengembangan Ekowisata Bebasis Masyarakat di Zona Wisata Bogor Barat Kabupaten Bogor. Tesis. Institut Pertanian Bogor.  
Warpani, S.P., & Warpan, I.P. 2007 . Pariwisata dalam tata ruang wilayah. Bandung: ITB.
- [60]. Wiratno, D Indriyono, A Syarifuddin, A kartikasari. 2004. Berkaca di Cermin Retak ; Refleksi Konservasi dan Implikasi Bagi Pengelolaan Taman Nasional . The Gibbon Faoundation Indonesia dan PILI . Jakarta.
- [61]. Wright, K. 1993. Tapping into Market Potential for Ecotourism. Annual Tourism Research ELSEVIER SCIENCE 45 (2) : 56-67.
- [62]. Yoeti, A.O. 1996. Pengantar Ilmu Pariwisata. Angkasa. Bandung
- [63]. Yulianda, F. 2007. Indeks kepekaan lingkungan (Pendekatan pengelolaan lingkungan pesisir). Makalah Seminar Hasil Pengabdian Kepada Masyarakat PKSPL 10 Tahun. Departemen Manajemen Sumberdaya Perairan Fakultas Perikanan dan Ilmu Kelautan Institut Pertanian Bogor.
- [64]. Zuhriana, D. 2013. Peningkatan Peluang Kerja Bagi Masyarakat Lokal Melalui Pengembangan Ekowisata Di Taman Nasional Gunung Ciremai. Media Konservasi, 18, 28-39.

Indrawan Permana, et. al. "Socialization on Ecotourism Development of Kahayan River, Palangka Raya, Central Kalimantan, Indonesia." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 26(10), 2021, pp. 56-61.