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PROXIMITY TO THE RIVER A MUTUAL ROLE: A PHENOMENOLOGICAL STUDY

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ABSTRACT

The mutual role of the river's nearby residents creates balance and benefit in the coexistence of humans and their immediate environment. The study focused on the experiences of residents near the San Juan River in Aborlan, Palawan, employing a descriptive phenomenological approach and the seven steps of Colaizzi's (1978) method. The following themes were identified: river benefits, threats encountered, and initiatives, participation, and advocacy. All of the participants have prior swimming experience, with the majority of them learning in the river itself. Aquatic products such as milk fish, shellfish, and fresh water prawns have been observed in the river, but not in sufficient quantities to sustain a livelihood due to a handful catch at a time. Quarrying is the river's most serious threat, and it has been forced to halt due to a petition. Residents demonstrated care and concern for the river by collecting garbage, educating visitors, involving their families in tree planting activities in the area, and suggesting to community leaders or the LGU to develop policies and plans for the river's utilization, conservation, and protection, such as livelihood and ecotourism projects. With of the participants' proximity to the river, they pledge their full support for river protection if the community is led by someone. A conservation model was developed in collaboration with the local government, academia, and the community.

Keywords: mutual role; phenomenological study; proximity; river experiences

INTRODUCTION

Rivers have very essential role in well-being of human (Parker & Oates, 2016). They serve to connect individuals from various dimensions (Anderson et al., 2019). They are also important in human activities such as relaxation, recreation while interacting with environment (Sobel, 2011). The community's source of potable and fresh water also provides meaningful interaction between people and the natural environment around him, allowing him to temporarily forget modern life and recreate genuine experiences (Bricker et al., 2002). Along with lakes and wetlands, rivers contribute to the balance of ecosystems promoting diversity of life elsewhere which give essential products to people (Falkenmark, 2003).

The naturally functional water system indicates the health of a river (Liu et al., 2009), which can either be stable or imbalance. In order to consider that the river is healthy, river bed, water quality and ecosystem should equate its role and relationship in the nearby community.

Proximity of individuals to the river especially in terms of residence makes them the immediate person to be affected by what happened to the river. They are also the primary persons to benefit on what the river brings thus it is mutual for them to play the active and sustained role to make the river healthy. Rouwendal et al. (2017) stated that the proximity to the water of residence gives greater effect to water and it becomes lesser with distance up to sixty meters.

Parker and Oates (2016) encourages studies focusing on the river-society across spatial and temporal dimensions. Thus, this research was conducted to describe the river-resident experiences of the human beings proximate to the river. This study can be a basis for community leader in the formulation and implementation of policies regarding the protection and conservation of the river. This also could provide ideas of potential beneficial projects such as ecotourism and livelihood for the community.

The study examined the river activities experiences of participants living along the river bank, the threats or destructions they observed or encountered in the utilization of river and their initiative and active role in terms of protection and conservation of the river.

METHODOLOGY

This study used descriptive phenomenology research design using Collazzi's (1978) method to describe the river experiences of the participants living along the river (Morrow et al., 2017). Purposive sampling was employed in this research to obtain relevant data relative to the study objectives (Ames et al., 2019). The participants of the study were the 11 residents of San Juan, Aborlan, Palawan, Philippines who reside in the riverbank because their habitat has the highest proximity to the river. The data were collected through individual in-depth interviews with semi structured questions based on the objectives of the study. The participants were allowed to express their thoughts regarding their experiences, threats or destructions they encountered as well as their initiative and active role in protecting and conserving the San Juan River. The following steps represents the Colaizzi's (1978) process in analyzing the data as cited by Xu et al. (2019). The researcher reached the participants again to verify their statements through the messenger. The data were triangulated with the oldest resident proximate to the river.

RESULTS AND DISCUSSION

The participants freely share their river activities experienced, threats or destructions observed or encountered in the utilization of river and their role in terms of protection and conservation of the river. The following key concepts were garnered:

Theme 1: Benefits in the River

Related Theme 1: A river of Various Events

The residents showed richness of experience being proximate to the river revealed in their utilization and enjoyment in various activities and experiences both few times and repeated constantly. All of them mentioned that they regularly visit the river for swimming. Meanwhile it also became venue of lots of family, community and religious gatherings as well as recreational activities and locally developed games such as clay molding and clay ball fight (Nelson 2008). Washing clothes area, drinking spot for animals, and cite of gravel and sand for personal use

are all expressed of ways to make the river more useful. In the San Juan River, memories were made of learning to swim with their parents or friends as their trainers, meeting and courting a wife, and a tragic memory of twin brother classmates drowning and dying while swimming in the river. That event became known also in the community. Meanwhile, some also experience being drowned and almost died. Peden et al. (2016) found out that river is a common location for drowning.

P2 […] the unforgettable memory is the bond with my family and cousins, […] church activity such as water baptism where being conducted
P4 […] we had family picnic there…
P5 […] we then bathe and clean almost at every time…
P6 […] one of the memories in the river is that my classmates drowned, the twin brothers, they both died…
P7 […] we make ball made of sand, then we throw ball with each other, […] my remarkable memory is when I am about to drowned…
P8 […] the river is a big help to me because I am laundry woman "labandera", and for that my son finished his studies…
P10 […] in that river I learned to swim, serve as my practice area in swimming,
P11 […] I met my wife there, where I always help her washing clothes…

Related Theme 2: Products in the River

This river has been a source of aquatic products for the locals for food consumption however not enough for commercial purposes because of handful harvest and decreasing volume and sizes. The products include milkfish (Chanos chanos), fresh water prawn (Macrobrachium rosenbergii), cat fish (Clarias clarias), eels (Anguilla luzonensis), fresh water golden apple snail (Pomacea canaliculata). Brownlie et al. (2017) stated that pollution is significantly reducing freshwater biodiversity in many regions. They also shared that they catch fish by fish line, using improvised nets made of old mosquito nets, and locally made spear guns.

P1 […] I used to do a lot of things I did in the river, there is a lot of fish before like milkfish, but seems to be decreasing nowadays, […] I am collecting golden apple snail…
P3 […] at night time, I used to catch prawn "urang"
P6 […] we used mosquito net to catch fish, and also improvised fish line…

Theme 2: River Threats Encountered

Related Theme 1: Man-made Destructions

There are no industrial structures and factories located at the area however the greatest threat in the river was massive quarrying. This widens the river and un stabilized its banks which caused residential land area to wash out during heavy rain. It disrupted the clear water surface making it murky and unpleasant for swimming. Quarrying activity is a necessity that provides much of the materials used in traditional hard flooring, such as granite, limestone, marble, sandstone, slate and even just clay to make ceramic tiles (Lameed & Ayodele, 2010). However,

like many other man-made activities (anthropogenic factors) (Zhao et al., 2019), quarrying activities cause significant impact on the environment (Ediagbonya et al., 2020).

Garbage thrown to the river mostly done by the nonresident proximate to the river specially those who go to the river for drinking sessions also destroys the beauty and quality of water. They never bother of carrying their trash or placing them at the right area. Garbage are usually in a form of plastic wrappers, bottles which are left after a group of people spend time in the river. There were also dead animals seen floating which are intentionally thrown to the river. Some of the participants also noticed that there were oil wastes from the vehicles being cleaned in the shallow part of the river. Local people living in natural protected areas might to care about (Vasquez & Bellesteros, 2018).

There are also fishing methods which are culprit in the decrease of population and size of aquatic products. The local witness some of their colleagues used poisonous plants locally known as Tubli (Derris elliptica Benth) or Ulam as well as insecticide to catch fish. Some also used electric current to stun or kill fish. Surrounding communities that have a negative impact on the water quality of the river by using chemicals in the river (FishBio, 2019). Some also told stories of individuals using electric current to kill or to stun fish. These methods killed or affected not only the needed fish or products but all the aquatic animals in the area including the fish fry and fingerlings.

P1 […] quarrying, […] people who are using the river no discipline, […] patay na manok, patay na baboy…
P2 […] hauling of gravel caused the river widen, […] Yong mga patay na hayop na nilalagay diyan, […] maybe it is because of the climate change, the water became shallow already
P3 […] one of the destructions I was observed is the quarry activity…
P4 […] the water not clear, started when there is quarrying activity, […] pounded poisonous plant root, to kill the fish**…**
P5 […] there's instance some people using insecticide and electric current to kill the fish…
P6 […] car washing can contribute to the river to become polluted…

Related Theme 2: Natural Phenomenon

The natural causes also made the river dangerous and threatened. Participants experience the different water level from dry riverbed to flooded banks over a year. There are times that the river becomes flooded that caused the soil erosion of the river banks. Drought also caused the river to become stagnant and completely dry in some areas the deep areas became dirty and smelly. Climate change will compound these problems and is already affecting freshwater ecosystems in regions that until now have been relatively unimpaired by human activity. Rising water temperatures are driving shifts in freshwater species distributions and will worsen water quality problems, especially in systems with high loading of nutrients (Settele et al., 2014).

P2 […] maybe it is because of the climate change, the water became shallow already
P4 […] when there is heavy rain, na e-erode ang pangpang ng ilog, yong mga kawayan at puno natitibag…

P5 […] if there is heavy rain, there is a flood, large volume of water may cause soil erosion…
P6 […] after the flood, a lot of plastic hanged on the trees…
9 […] the trees and bamboo get uprooted due to flood
P11 […] the natural disaster that affects the river is the flood, the river bank was washed out…

Theme 3: Initiative, Participation and Advocacy

Sub-Theme 1: Petition to Quarry

The residential proximity had played active role in the conservation and protection of San Juan River either by participation or initiative. Vasquez and Bellesteros (2018) stressed out the important role of the river side dwellers because they are the individuals who are primarily affected. There is some evidence that water management practices considered some aspects of society's relations with rivers, maintained by marginalized group. Boulton et al. (2013) regarded conservation to include activities such as active restoration, removal or mitigation of threats, and active management. Since one of the major threats of the river is land slide and soil erosion that may cause from quarrying. P9 initiated the petition to stop quarrying in the area while the other participants said that they signed that petition that made quarrying to stop. This community vigilance made it possible to bring out their collaborative and unified undertaking to stop destructions of the river like the presence of commercial quarrying.

P1 […] I asked them to stopped hauling gravel…
P3 […] I talk to an Attorney how can we hinder quarrying,
P5 […] I was included with those who signed the petition to stop quarry and thankfully it stopped
P9 […] I and my husband initiated the petition so that the residents can sign,
P10 […] what we did was sue them in our barangay captain…

Sub-Theme 2: Information and Tree Planting Drive

Proximity to the river becomes an untold responsibility because there is a need to respond to the nearest natural resource accessible. People learn to benefit from immediate natural resource but at the same time take care of it for sustainability. The residents were involved in educating the visitors about the simple ways to take care river and not to destroy plants and animal just for fun or any unproductive intentions. They also reminded the visitors not to leave trash. There were also confrontations initiated by the participants prohibiting the contractors from quarrying in the area and educating their fellow residents about the damage it may bring them. Community living in the riverside had also demonstrated clean up drive at their own initiative and influenced family members to do as well. A number of participants conducted tree planting activities which the members of the family were involved, it was concluded that planting trees could prevent soils from salinization and protect riverbanks from degradation. The use of vegetation for bank protection is most effective and hence some trees were planted in the riverbank area (Zhang, 2014). The residents reinforce lessons in the classroom to take care of the environment by reminding them to be responsible users of the river.

P6 […] If we go to the river, we carry our trash back home, […] I personally guard the river against commercial hauling…

P7 […] I reminded the folks, especially those who have drinking sessions in the river not to break the empty bottles because it may hurt others who are swimming… […] me and my husband plant paper trees in the riverbank…
P9 […] there should be a community care taker and a clean-up drive even once a month, […] there should be a community care taker and a clean-up drive even once a month…
P10 […] we plant paper tree and bamboo…
P11 […] I planted trees by myself because I know that it is our water reservation. […] I also plated bamboo to preserve soil…

CONCLUSION AND RECOMMENDATION

There is strong mutual connection between the social function of San Juan River and the role of the community proximate to it. The participants had different experiences which can be generally considered as happy and meaningful and a strong indication that the river is healthy and accomplishing its social function. The following themes were garnered: Theme 1) A River of Various Events, 2) Awareness of threat and destruction 3) Mutual role of Protection and Conservation. There are aquatic products that can be source of food but not enough to become livelihood of the people because they harvest only a handful. It is also noted that the residents fulfill the vital role in ensuring the conservation of the river. The most common threat of the river is quarrying. There was remarkable care, initiative and participation of community to conserve and protect the river.
The participants' simple dream is the sustainability and preservation of the river with the serious effort from the government evident and collaborated with the community. To ensure the health and resilience of the world's major river systems, as well as to protect the river, suggest the importance of policy that promotes a water conservation culture (Fielding et al., 2012), and explore the possibilities of developing the area as an ecotourism destination. Because of its integrative nature, river landscape management actors saw the ES concept as a valuable support for planning and decision-making processes (Bock et al., 2015).
The project output should be established with a joint effort from the community and the local government.

PROJECT OUTPUT

Title of the Project:
"Taga-Ilog, Taga Ingat":
An Integrated Community River Conservation Project

Challenges: Ecosystem loss, habitat degradation, property damage, domestic waste disposal and water quality

Objectives:

1. To conserve San Juan River
2. To provide security for water quality
3. To control flood and prevent property damage
4. To balance river social functions and promote local tourism

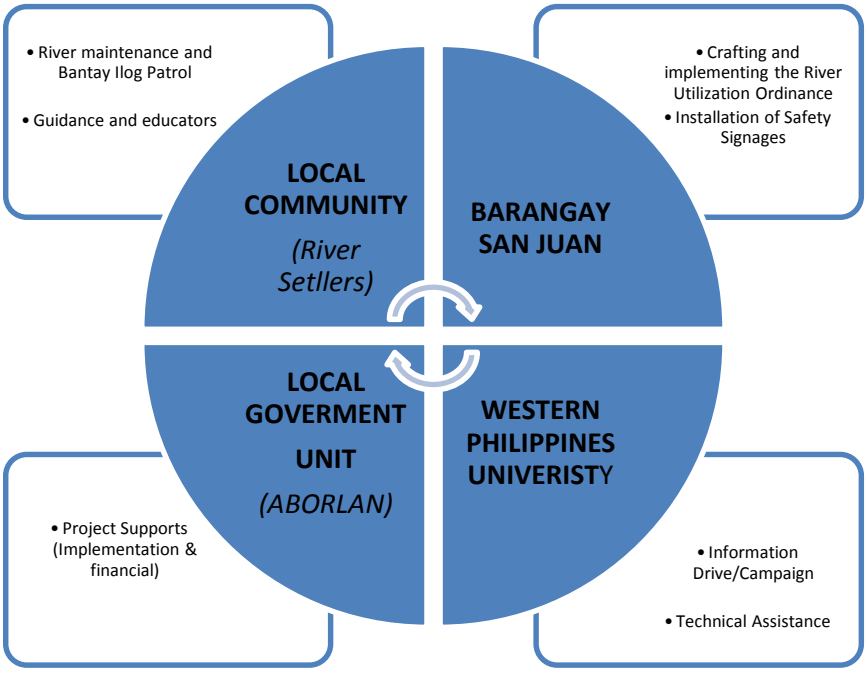
Approach how to address River Restoration Project addresses the challenges

1. Crafting and implementing River Ordinance
2. Creation of Bantay-Ilog Patrol or Be your River's Guardian
3. Local Eco-Tourism Development (building of cottages and safety signages for local residents)
4. Flood Control Infrastructure Projects
5. Tree Planting and Clean-up Drive Activities

Project Partners and their Functions/Roles

The River Conservation Project representing the commitment of the several groups/agencies to work together to conserve the San Juan River.

SAN JUAN CONSERVATION MODEL



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