Assessment of public open space management: case study of Siquijor Island, Philippines

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Abstract. Public open space or POS is an area for people to be accessed. The physical elements of POS offer many benefits in improving the quality of life: health, social interaction, and economic value. This paper outlined the different management practices, quality, stakeholder involvement, and current challenges of selected POS in Siquijor. The researchers conducted key informant interviews among key local government officials, individuals from various municipalities. Focused group discussion was employed to determine vital issues and concerns. Study reveals that several management approaches were utilized for the selected POS. In general, local government units or LGUs of various municipalities directly operate and monitor the well-being of POS. Volunteers from residents surrounding POS takes an active role in the maintenance aspect, while business entity, non-governmental organizations, schools are among other stakeholders who joined the LGUs in maintaining the POS. However, these POS are faced with several challenges such as rapid development which tends to reduce their functions, the limited budget, the diminishing public interest among others. This study recommends that local government units shall endeavor a more active role in the preservation of POS by introducing various programs and activities that ensure the sustainability of POS.

I. Introduction
Siquijor is the smallest island province in the Central Visayas Region. It's geographically located midway between the Visayas and Mindanao Islands. It is bounded on the Northwest by the islands of Cebu, on the Northeast by Bohol, on the East by Camiguin Island, on the South by mainland Mindanao and on the West by Negros Island. On its northern shore lays the Bohol strait, on its southeast shore, the Mindanao Sea.

Siquijor is one of the well-visited tourist destinations in the Visayas region wherein both local and foreign tourists would always want to visit the area due to its pristine natural environment. Siquijor tourism has been improving for the last decade and this is manifested by the kind of development and improvement that took place on the small island. People from all over the country would like to visit the island to witness all extraordinary attraction it can offer such as the beaches, old churches with Spanish history, caves, falls and other Public open space (POS) that provides an extraordinary experience among its visitors.

2. Research problem
The main research problem of this study hinges on determining how POS in Siquijor are managed by the different stakeholders. The following questions were formulated as sub-problems:

1. What is the current condition of public open spaces in Siquijor?
2. How are public open spaces in Siquijor being managed by the different stakeholders?
   a. Who are the stakeholders involved in the management of public open spaces?
b. What are the challenges being confronted by the different stakeholders in the effective management of public open spaces?

3. What are the strategies and programs currently being undertaken by the various stakeholders (i.e., LGU, Community, NGOs, etc.) in order to effectively manage and conserve these public open spaces.

2.1. Significance of the study

Management of public open spaces is crucial to Siquijor’s future growth and development. POS, if conserved and managed properly, contributes to the well-being of the island in terms of social, economic, and environmental benefits. This study provided a clear picture and understanding of the current situation of selected POS within the island.

2.2. Objectives of the study

The study will attempt to: 1. Conduct an inventory of the existing POS in the province of Siquijor; 2. Classify the various typology of POS in Siquijor; 3. Conduct case study analysis of the various POS identified and selected; 4. Determine how each POS are managed by the various stakeholders, and identify issues and concerns confronting effective management of POS, and 5. Identify various programs and strategies being undertaken by various stakeholders in the management of POS.

2.3. Scope and limitations

The study covers the identification and classification of the various existing POS in the entire island of Siquijor. Likewise, this study determines the current conditions, issues, and concerns of each POS. This study analyzes the role of various stakeholders involved in the conservation and management of POS and identifies programs and strategies employed by these stakeholders. Selected typologies of POS were chosen such as esplanade or bay boulevard found in the Municipality of Siquijor, the Mt. Bandilaan National Park located in Brgy. Bandilaan, Siquijor, the Capilay Spring Park located in San Juan Municipality, and Plaza Complex of Municipality of Siquijor. Other POS were not analyzed and evaluated.

2.4. Review of related literature

2.4.1. Definition of public open space. Historically, POS has evolved from pieces of land set aside informally for grazing, into multi-purpose urban spaces for recreation, escape, and social gathering. This evolution of the uses and purposes of POS makes an established definition of the term impossible. Another reason why the definition varies is cause it overlaps with general park terminology. According to [1], in the United States, in particular, the definition of “public open space” became problematic after it became a government institution service. She argues that today, the word “public space” is applied. However, [2] definition of a POS as “any public area of land set aside for aesthetic, educational, recreational or cultural use by the public amidst essentially urban surroundings.”

2.4.2. Conservation and management public open spaces. In general, strategies to protect our environment and to promote the sustainable use of natural resources at local, national, and international levels are founded on principles of applied ecology. Modern conservation and management is a challenging multi-disciplinary field, and an effective conservation strategy requires good knowledge and understanding of the scientific, policy, and legislative frameworks, as well as sound people and project management skills. POS is managed for important conservation values and is dedicated to the preservation of their natural environments for the inspiration, use, and enjoyment of the public.

3. Methods

Figure 1 shows the flow of procedures in carrying out this study. The study was conducted in four (4) phases namely: 1) Inventory of public open spaces; 2) classification of various open spaces; 3) Identification of stakeholders and assessment of each typology thru case study analysis; and 4)
recommendations for effective POS management thru policies and/or guidelines for various stakeholders.

Summarizing all the results performed in phase 3, recommendations were made for more effective and successful management of POS that will guide different stakeholders at various level (i.e., Provincial government, local government units, NGOs, POs, business sectors, community, and other stakeholders who may have a direct or indirect role in the conservation and management of these public open spaces in the Province of Siquijor.

![Diagram of POS management process]

**Figure 1.** Research flow of data gathering and analysis.

**4. Results and discussion**

**4.1. Phase 1: inventory of public open space**

This study reveals that POS in the Province of Siquijor was composed of the following typologies:

**4.1.1. Public park and gardens.** Public parks on the island of Siquijor are categorized as a public park - publicly managed directly by the concerned local government units (LGU) and a public park - privately managed directly by the concerned entity or organization.

**4.1.2. Sea boulevard.** Also known as esplanade located along the shore situated in the municipality of Siquijor which attracts visitors from various places in Siquijor. This POS is normally patronized by local and foreign tourists at night. The area is well visited due to the food, view from the sea, and the presence of rides and games during night time.

**4.1.3. Nature park/incidental space.** Mt. Bandilaan Nature Park is situated at Brgy. Bandilaan. This public open space is very famous in Siquijor due to its geographic location being located at the highest mountain elevation of the province. Mt. Bandilaan is the venue for local and foreign tourists who visited the area for healing purposes especially during the Holy Week season.

**4.1.4. Play fields/public facilities.** Several playfields or areas for sports and recreation facilities were found in the municipality of Lazi, Siquijor, San Juan, and Enrique Villanueva. These facilities are built for the local residents specifically for the youth and adults of their respective constituents. These sports and recreational facilities are composed of a covered basketball area, volleyball, and other outdoor and indoor activities.
4.1.5. Informal/pocket parks. There are some informal parks that can be found in different municipalities of the province of Siquijor. These informal parks may have its limitation in its total area and very minimal facilities and amenities provided and yet provides a significant role to the local residents. These parks sometimes become the venue for social interaction, festival activities among others.

4.1.6. Others. Other public open spaces (POS) found in the Province of Siquijor are the following namely: Caves, falls, beaches which offer an extraordinary experience both for local and foreign visitors.

4.2. Phase 2: classification of public open spaces. Table 1 provides a summary of the various public open spaces found on the island of Siquijor. This study attempts to cover various typologies of POS and was utilized one (1) major representative for its analysis. Considering that the researcher lacks ample time and resources to cover all existing POS in the province, this study focuses only on one (1) sample typology which is subject for case study.

Table 1. Summary of public open spaces in Siquijor.

| Public Open Space (POS)        | Representative POS                          | Function                                     | Location                      |
|--------------------------------|---------------------------------------------|----------------------------------------------|-------------------------------|
| Public Parks and Gardens       | Capilay Spring Park, San Juan Municipality (POS 1) | Community Main Public Park and Gardens      | Municipality of San Juan     |
| Sea Boulevard/Esplanade        | Siquijor Boulevard (POS 2)                  | Public recreation area                       | Municipality of Siquijor     |
| Nature Parks/Incidental Space | Mt. Bandilaan Natural Park (POS 3)          | Healing Festival, Natural Eco-Park           | Brgy. Bandilaan              |
| Play Facilities                | Municipality of Maria, San Juan Sports Facilities (POS 4) | Sports and recreational spaces               | Municipality of San Juan and Maria |
| Informal/Pocket Parks          | St. Francis of Assisi Church/Siquijor Bell Tower (POS 5) | Public semi-park, recreational area         | Municipality of Siquijor     |
| Others: Public beaches         | San Juan Beach (POS 6)                      | Tourist destination/attraction areas         | Municipality of San Juan     |

4.3. Phase 3: Assessment of public open space in determining the level of quality and type of management employed

Each POS were managed uniquely by their respective entity, agency, or organization. The study reveals that for every POS, the management approach, or strategies that were utilized varies depending on the availability of resources (i.e., funding and manpower) therefore, the indicator of the quality of POS in the province of Siquijor may vary based on several factors. This study aims to provide a better understanding and appreciation of the current level of quality of POS and the strategies employed by the concerned entity/organizations thereby contributing to more effective conservation and management practices and decision-making thru the introduction of various policies, programs, and projects to sustain the very existence of these POS for the well-being of the community and its constituents.

Thus, a case study was employed to determine the following: 1) determine the current physical condition of the different POS typology as presented in Table 1; 2) determine how POS are managed; 3) Identify the current challenges in the management of POS; 4) Identify who are the different
stakeholders, directly or indirectly involved in the operation and maintenance of POS; and 5) Determine programs and strategies employed by the different stakeholders. To determine the quality of POS, the following indicators were used such as accessibility, natural elements, and facility. Each indicator was assessed and analyzed.

4.4. Management and quality of public open spaces

4.4.1. Management strategies. In this study, six (6) types of public open space were considered to determine the management type/approaches utilized by the concerned entity/organization whether directly or indirectly. Analyzing how POS was managed will lead to the determination of how management strategies directly correlate with the level of quality of each public open space. Each open public space or POS was managed by their concerned entity/organization and provides the level of quality of each POS. Study reveals that out of six (6) selected case study, only one (1) or 16.67% (i.e., OS 5 - Informal/Pocket Parks) is managed by a private entity or organization and the rest of the five (5) or 83.33% POS are managed publicly by the concerned local government units/barangay.

4.4.2. Publicly-managed public open space (POS). Public open spaces are managed by the concerned municipality of San Juan, Siquijor, and Maria. In the case of POS 1, the Capilay Spring Park located at San Juan municipality, the local government directly operates and maintains the park. Based on the information provided by the current mayor of the municipality, the maintenance of the park is part of its mandate under the direct supervision of the municipalities’ park administration office. There is ample budget allocation given to the operation and maintenance of the park which partly comes from the municipal environmental fee. The municipality of San Juan employs at least three (3) park sweepers in order to ensure the cleanliness of the area. Volunteer groups such as non-governmental organizations or NGOs (i.e., Earth Movement) were involved from time to time to clean up the park and other areas in the town of San Juan.

On the other hand, the Siquijor Bay Boulevard (Esplanade) along the stretch of Siquijor Boulevard is operated and maintained by the municipality itself. There are several small scale establishments found in the area. Each pays a monthly rental to the local government unit. These establishments are all members of a cooperative.

4.4. Current challenges in the management of public open spaces

All selected POS as discussed previously have common issues and concerns more specifically in terms of its operational viability and maintenance undertakings. One major obstacle in the proper operation and maintenance aspect of these POS are the manpower requirements or people who will be responsible for the daily monitoring and assessment of their physical condition. Given the limited budget allocated for each area, POS management particularly its maintenance aspect continues to worsen. With limited participation of the various organization, the community, volunteer groups, business sectors among others, POS progressively decline its quality, thus the value of this areas will continue to decline also. Very few volunteer groups (i.e., NGOs) and individual residents from various communities or organizations value the significance, existence and role of these POS to maintain a quality and livable environment. The lack of public interest in POS added to the growing and worsening condition of these areas.

5. Conclusion

The island of Siquijor is truly endowed with natural resources for its constituents to enjoy and utilized. POS in the province plays a significant role in its quest for quality life today and in the near future. These POS (i.e., parks, beaches, esplanade, plaza, public facilities among others) is critical in the realization of its vision. POS therefore in the province should be managed properly by allocating proper resources to maintain its beauty, function so that the current generation will fully benefit from it. Though there are current challenges in the effective management of POS more specifically in the maintenance aspect, there are opportunities to be considered while addressing these numerous issues and concerns. Stakeholder’s participation at all levels particularly on the part of the local government units is crucial
in the survival of these POS. The community who are directly involved by voluntary participation in the maintenance would be the key in the successful preservation and with the assistance of other stakeholders (i.e., schools, NGOs, business sector).

6. Recommendations
This study recommends the following; 1) Inclusion in the study of other existing POS that may add valuable information in evaluating various management strategies employed by the various stakeholders in the maintenance of POS in Siquijor; 2) Utilization of other research methods be explored to come up with a more holistic approach in understanding management challenges faced by the different POS. Data gathering techniques should be widened to include focus group discussion with various stakeholders involved in the operation and maintenance management of POS and 3) Furthermore, this study suggests that there is a need to broaden the coverage of the study particularly the aspect of conservation of POS, financing, organizations among others.

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