

GENDER RESPONSIVENESS IN THE MANAGEMENT OF SIARGAO ISLAND PROTECTED LANDSCAPE AND SEASCAPE (SIPLAS), SURIGAO DEL NORTE, PHILIPPINES

Reymark Z. YBAÑEZ¹, Michael S. GALIGAO², Jay Mark G. CORTADO³

¹College of Agri-Fisheries and Allied Sciences, Surigao del Norte State University – Mainit Campus, Surigao del Norte 8407, Philippines

²Department of Environment and Natural Resources - Community Environment and Natural Resources Office, Protected Area Management Office – Dapa, Siargao Islands 8417, Philippines

³College of Agroforestry and Forestry, Don Mariano Marcos Memorial State University, Bacnotan, La Union 2515, Philippines

Corresponding author: Reymark Z. Ybañez

E-mail: reymarkzybanez1990@gmail.com

Abstract:

This study assessed the level of gender responsiveness in the management of the Siargao Islands Protected Landscape and Seascapes (SIPLAS) in Surigao del Norte, Philippines. Specifically, it examined the participation of men and women in management activities, identified gender-related issues, and evaluated existing programs supporting gender equality within the Protected Area Management Office (PAMO). Using a descriptive research design, data were collected through interviews and analyzed using frequency, percentage, and mean. Results revealed that women comprised 70% of the respondents, men 20%, and nonbinary individuals 10%, indicating strong female participation in administrative and technical roles, while men remained dominant in enforcement and field operations. Findings further showed that SIPLAS exhibits a moderately high level of gender responsiveness, with inclusive initiatives such as the celebration of Women's Month, the collection of gender-disaggregated data, and gender-sensitive environmental training. However, gaps remain in the institutionalization of gender indicators and in the awareness of Republic Act 9710 (Magna Carta of Women), particularly among male staff. The study concludes that while PAMO demonstrates a growing commitment to gender equity and inclusivity, sustained institutional support, leadership balance, and continued gender sensitivity training are needed to achieve transformative and gender-equitable conservation governance in SIPLAS.

Keywords: Gender Equality, Gender Responsiveness, Inclusive Conservation, Protected Area, SIPLAS

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INTRODUCTION

The Siargao Islands Protected Landscape and Seascapes (SIPLAS), located in the Province of Surigao del Norte, serves as both an ecological and cultural resource endowed with diverse marine and terrestrial ecosystems that sustain local economies and biodiversity. With its growing recognition at national and international levels, particularly the Del Carmen Mangrove Reserve, recently designated as a Wetland of International Importance (DENR, 2023), there is an urgent need to ensure inclusive and equitable management of these valuable natural resources.

Despite national frameworks promoting gender equality, such as the Magna Carta of Women (Republic Act 9710), gender disparities persist in the management of SIPLAS. Women remain underrepresented in decision-making, fieldwork, and leadership positions within the management of protected areas. Traditional gender norms and patriarchal systems continue to limit women's



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access to resources, opportunities, and recognition, thereby hindering both gender equality and the effectiveness of conservation efforts (Earth Journalism Network, 2024; PANORAMA, 2023).

This study attempts to evaluate the degree of gender responsiveness in SIPLAS management, determine the socio-demographic factors influencing gender participation, and identify existing gaps and actionable measures to enhance gender equity. Findings will inform policy-making and contribute to a more transformative and fair conservation model through the use of systematic gender assessment tools and consultations with members of the Protected Area Management Board (PAMB) and protected area staff.

Ultimately, this initiative aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 15 (Life on Land), which emphasize inclusive participation, social equity, and the sustainable management of terrestrial ecosystems.

The general objective of this study is to assess the gender responsiveness of the SIPLAS management. Specifically, it aims to:

- Determine the role and responsibility of the men and women in the management, conservation, and use of resources in SIPLAS;
- Examine the degree of gender involvement in the PA management, such as planning, decision-making, implementation, and monitoring.
- Analyze gender-associated problems and challenges involved in equal participation of both men and women in the management of SIPLAS; and
- Evaluate management structures, programs, and policies on the gender-responsiveness of the management in the area of protection.

This study encourages gender sensitive participation and attempts to suggest action plans that can be incorporated into the conservation and management initiatives. The performance of the management of the PA can be greatly enhanced by guaranteeing gender equity and promoting inclusive programs. The findings of this study will be a good reference in the implementation of future projects, management planning, and the creation of inclusive and equitable workplaces. In addition, the research would aid organizations like the Protected Area Management Office (PAMO) in eradicating discrimination and harassment based on gender and fostering a sensitive and responsive culture in the organization.

METHODS

The SIPLAS is located in the province of Surigao del Norte, Philippines (Figure 1).

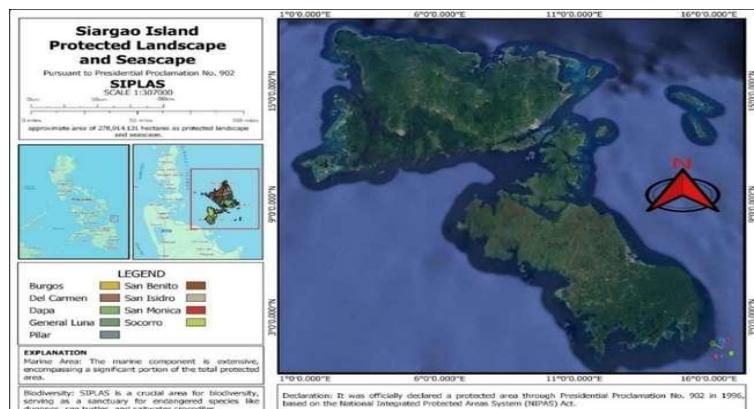


Figure 1. Location Map of the study area



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The researchers used the quantitative type of research, particularly a survey method using a structured questionnaire, to collect the primary data for the study. It assesses how much PA personnel are engaged, their traditional roles, and their awareness related to protected area management. There were 10 SIPLAS PA staff respondents identified for the study.

To obtain the needed data, the survey questionnaire was divided into five parts. Part I gathers the socio-demographic characteristic of the respondents, which included civil status, age, gender educational attainment; Part II was focused on the gender assessment tool; Part III assessed the role of men and women in the management of the PA; Part IV tackles the issues and concerns in relation to gender parity in the management of PA; and Part V pertains to the strategies being proposed/implemented in the management of the PA.

The researchers used simple frequency distribution, percentage, and mean in order to interpret the answers of the respondents. The study used the criteria and scoring interpretation formulated by Upara and Chusanachoti (2023) when examining the ratings of external assessors since constant and equal intervals were used to reduce bias. In particular, 0.74 and 0.75 values were used as interval values, as in Table 1. The data collected was presented in frequency, tables, graphs, and percentages using descriptive statistical tools.

Table 1. Score interpretation for the rating scale, as adopted from Upara and Chusanachoti (2023)

Mean	Interval	Interpretation
1.0 – 1.75	0.74	Gender incipient
1.76 - 2.50	0.74	Becoming gender aware
2.51 – 3.25	0.74	Gender aware
3.26 – 4.00	0.75	Gender Transformative

RESULT AND DISCUSSION

Results revealed that 70% of the interviewees are female, 20% are male, and 10% are nonbinary, which is robust female involvement in the management of the SIPLAS (Figure 2). The female pre-eminence implies the active participation of women in community-based conservation, administration, and livelihood-based programs, which are in line with the results of women being core stakeholders in environmental stewardship and resource management in the Philippines (Agarwal, 2018; Bandiola, 2021). In the study of Cortado (2024), his results found that women now represent a growing proportion of forestry graduates from a state university in the Philippines, with 63.93% of graduates being female, suggesting that forestry and environmental professions in the Philippines are becoming more gender-diverse and inclusive over time. This trend reflects the increasing participation of women in sectors traditionally dominated by men, including conservation and natural resource management. Raj et al. (2017) further stated that women's empowerment is centered on a way of change that modifies the placement of those in a lesser position due to their gender to allow autonomy and self-determination and has been recognized as an essential part of the effort to promote development and as a goal. With an increasing interest in monitoring progress, how to quantify women's empowerment has received a good deal of attention from international organizations and scholars, and quantitative measures have become increasingly common in the global development arena (Gram et al., 2017).



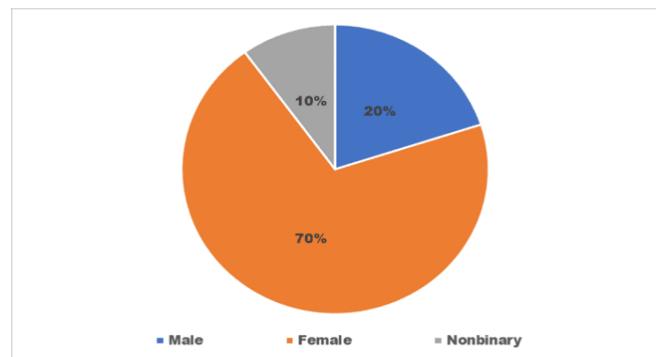


Figure 2. Gender distribution of the respondents Siargao Island Protected Landscape and Seascape

Male respondents (20%) are also still important, predominantly in field-based and enforcement, which is a traditional division of labor, but also, increasingly, women are getting into technical jobs (Rocheleau et al., 2016). In the meantime, the 10% nonbinary percentage illustrates the trend of increasing awareness of gender diversity in conservation efforts, which is in line with the global and national policies of inclusivity (UNDP, 2022; PCW, 2019).

The gender profile is also an indication of gender-responsive, inclusive governance in SIPLAS, as reflected in the Magna Carta of Women (RA 9710) and the DENR's gender mainstreaming efforts. However, to be genuinely gender egalitarian, it is important to be not just involved but also equally accessible to the leadership and decision-making spheres (Lau et al., 2021). Women and men reported attending Marine Protected Area (MPA) meetings, but women were less likely to describe active participation in MPA management, such as decision-making. This research adds to the larger body of work that considers gender and inequality to critically examine issues of power and exclusion in community-based resource management (Kleiber et al., 2018).

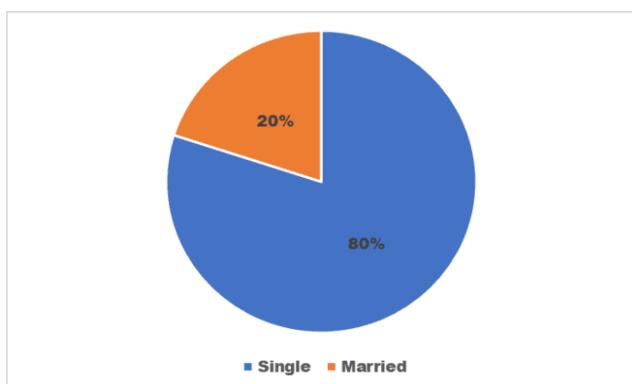


Figure 3. Civil Status of Siargao Island Protected Landscape and Seascape Personnel

In terms of gender equality in the SIPLAS, the findings indicate that most of the participants are single, and only 20% of them are married (Figure 3). The Philippine Institute of Development Studies (PIDS, 2020) argues that civil status may also affect workforce participation, as single people may have more time and mobility to do some work in the field or community compared to those not obligated to the family. It may imply that marriage and family life can restrict one from participating fully in activities that involve traveling, long working days, or relocation to remote places. The knowledge of these dynamics is significant in planning the development of gender- and family-sensitive workplace policies to provide equal opportunities to both single and married



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employees. The Philippine Statistics Authority (PSA, 2022) further predicts that civil status and family duties affect labor participation, in which single persons and young workers tend to participate in full-time working or field-based jobs because of fewer domestic obligations. It brings to the fore the necessity to integrate human resource practices that consider the various life circumstances of conservation staff.

Results further show that 100% of the involved respondents are college graduates; thus, a very educated group is involved in the running of SIPLAS. Such standardization of education implies that the majority of respondents have the academic and technical qualifications to be involved in environmental governance, planning, and community-based resources management. It represents the qualifications or employment criteria of various jobs in a Protected Area (PA). Some positions, such as Protected Area Technical staff, Park Ranger, and Protected Area Superintendent, normally require a college graduate with a degree in forestry, agroforestry, environmental science, and other related fields. This type of education is in line with the demands of the positions in the management offices of the protected areas, units of local governments, and environmental organizations (DENR, 2020). It has been proven that education helps to increase participation, engagement, and facilitates leadership in conservation programs because it creates better awareness of the sustainability problem and policy practices (UNESCO, 2021; Agrawal and Gibson, 2019).

Furthermore, institutional and educational support systems are key to ensuring equitable participation and employability in forestry-related fields (Cortado, 2024). However, ideally, all must care for the environment, regardless of education (Bedural, 2018). Cortado (2024) highlighted that continuous curriculum and institutional reforms are vital for ensuring that both men and women are equipped for leadership and technical roles in environmental governance (Cortado, 2024).

Gender Responsiveness of the PAs' PAMP and Accomplishment Report. This section shows the evaluation of the gender-responsiveness in six dimensions of the Protected Area Management Program (PAMP) in SIPLAS. The highest mean scores were obtained with respect to Gender Roles and Power Relations (6.3) and Gendered Uses and Values of PAMP (6.3), indicating that both the roles that men and women play in management activities are well incorporated in management activities. It implies that employees appreciate fair participation and collective response towards conservation and community services.

Meanwhile, Gendered Knowledge, Interests, and Priorities (6.0) scored a slightly lower yet considerably high score, which indicated that both men's and women's ecological knowledge and worldviews are considered in the process of planning and implementation. Nevertheless, the comparatively lower average score of Gender-Responsiveness in Management Design (5.7) and Gender-Inclusiveness in Management Design (5.3) indicates that institutional approaches to the incorporation of gender equality at policy-level and structure-level still require enhancement. Equally, Gender-Responsiveness of the Accomplishment Report (5.3) indicates that sex-disaggregated data/gender indicators are currently not being institutionalized in the reporting procedures. While gender responsiveness is evident in the management plans, operational practices, particularly in the equitable distribution of roles, require further improvement (Gutierrez et al., 2025).

These findings suggest that the gender mainstreaming in SIPLAS is moderately good, but is developing with more advancement in social participation and awareness than in documentation and institutionalization. Gender-equitable management, which is stressed by Agarwal (2018) and Lau et al. (2021), increases decision-making, transparency, and long-term sustainability in conservation. More gender-sensitive reporting and policy frameworks can also bring SIPLAS in line with the Magna Carta of Women (RA 9710) and UNDP (2022) Gender Equality Strategy. Based on

the study of Gutierrez et al. (2025), the authors recommend the formulation of a policy that addresses gender-based role segregation and promotes equal opportunities for all genders to contribute meaningfully to protected area management.

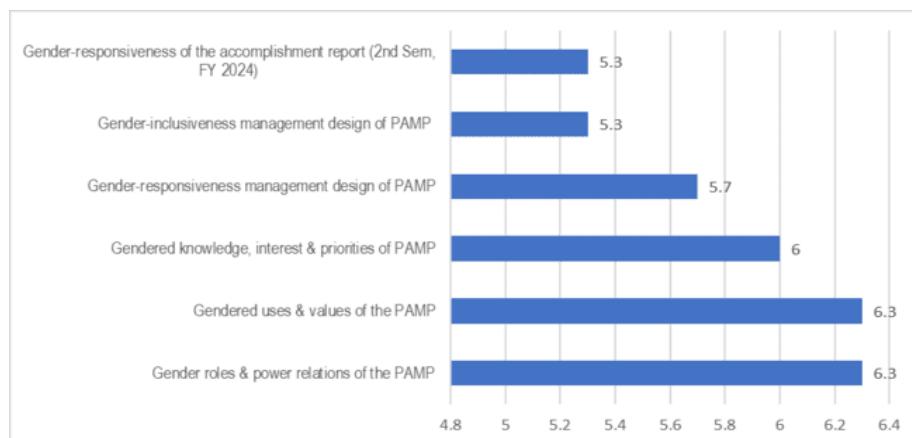


Figure 4. Gender responsiveness of the 2nd Semester Accomplishment Report (FY 2024) and the Protected Area Management Plan (FY 2025) of the Siargao Island Protected Landscape and Seascapes

Various Roles of Men and Women in the Management of Protected Areas. Table 2 presents the distribution of men and women across different management positions within the SIPLAS. The data reveal that women hold the majority of the roles, with four women serving as PA Technical Staff, three as Protected Area Superintendents, and no women designated as Park Rangers or Ecosystems Management Specialists. Meanwhile, men are represented as two Park Rangers and one Superintendent, indicating a gender imbalance in specific functional areas.

This pattern suggests that women are increasingly taking on leadership and administrative positions in protected area management, reflecting the growing success of gender mainstreaming efforts within environmental institutions in the Philippines. Women's strong presence in technical and supervisory positions aligns with findings by Agarwal (2018) and Lau et al. (2021), who emphasized that women's inclusion in decision-making processes enhances the effectiveness, equity, and sustainability of conservation initiatives. Their participation often leads to greater collaboration with communities, improved compliance with environmental laws, and a more inclusive management culture.

Conversely, men's predominance in field-based roles such as Park Rangers aligns with traditional gender divisions of labor, where physically demanding or enforcement-oriented work is typically male-dominated (Rochefeuille et al., 2016). These roles often involve patrolling, surveillance, and direct engagement in law enforcement activities, which require extensive field mobility and physical endurance. However, this also highlights an opportunity to train and encourage women to take part in such positions, ensuring a balanced approach to both administrative and field operations.

Table 2. Roles of Men and Women in Siargao Island Protected Landscape and Seascapes

Position/Designation in the Protected Area	Men	Women
PA Technical Staff		4
Park Ranger	2	



Gender-related issues of both men and women in the management of the Protected Area.

The results indicate that women feel that a high degree of gender equality is present in the management of the PA, whereas men are moderate, which demonstrates high levels of satisfaction, but at the same time, points out some areas to enhance. The majority of women respondents were in strong agreement that they enjoy equal rights and opportunities with men, especially in the areas of supervision and the field. The PA management has been able to develop a working environment that gives women the opportunity to assume leadership roles and undertake duties that are traditionally dominated by men. Male respondents, although they were also positive, rated these aspects lower, which suggests that there can be both slight barriers and unbalanced practices.

Table 3. List of gender-related issues in the management of Siargao Island Protected Landscape and Seascapes

Issues	Siargao Island Protected Landscape and Seascapes Percentage				
	5	4	3	2	1
1. The women have equal rights as men in terms of supervising the Protected Area.	90	0	10	0	0
2. The women were being assigned to field activities.	80	10	10	0	0
3. Women and men are allowed to lead a certain team on PA Management.	90	10	0	0	0
4. The PA Management is inclusive and open to hiring individuals from diverse backgrounds, including those who identify as members of the LGBTQIA+.	100	0	0	0	0
5. There is no gender-based bullying in the Protected Area.	90	10	0	0	0
6. There is equal participation of men and women.	100	0	0	0	0
7. There is enough support to promote Gender Development and Management of the Protected Area	90	10	0	0	0
8. The PA management has equal recognition for men and women, both staff and visitors.	100	0	0	0	0
9. The office/PA has enough funds that can be used to empower men/women.	40	40	20	0	0
10. The facilities of the PA are gender-friendly (such as the Comfort Room and the Office area)	80	20	0	0	0

Legend: 5-Highly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Highly

It has been found that the Siargao Islands Protected Landscape and Seascapes (SIPLAS), in most aspects, encourages gender equality and inclusiveness in the management system. The findings indicate that the majority of the respondents are aware that SIPLAS is a fair working environment where both men and women have equal chances in terms of leadership, participation and recognition. As an example, approximately 90% to 100% of the respondents strongly agreed that women had equal rights in supervising the protected areas and management practices were inclusive, which is a positive gender climate.

Overall, the findings indicate that there are no evident gender-related issues in the SIPLAS. Most of the respondents disagreed or were left neutral that there was a form of discrimination, unequal treatment, or harassment encountered, which indicated that SIPLAS has an inclusive and



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respectful working environment with equal chances for both men and women to contribute to the functions of management and conservation activities.

However, some of the respondents raised issues, which included the insufficient awareness of some male workers about Republic Act 9710 or the Magna Carta of Women, and the issue of inactive involvement of men in relation to Information, Education, and Communication (IEC) efforts. These problems emphasize the necessity to enhance the training of gender sensitivity and promote wider participation of men in gender-related activities. As Lau et al. (2021) state, to have true gender equity in environmental management, both men and women should be actively involved in the processes of conservation and decision-making, and ensure that both are active and contributing members of the process. The lesser the degree of participation in forest conservation activities, the lesser the likelihood of success in the conservation efforts (Origenes et al., 2024).

Furthermore, both genders reached the agreement that the PA management is non-discriminatory and welcoming to diversity, including the representatives of the LGBTQIA+ community, which represents alignment with the country-level trends of mainstreaming gender in environmental management (Philippine Commission on Women, 2021). Nonetheless, certain areas are less agreed upon by both sexes, especially funding and facilities. According to the respondents, although gender initiatives are in place, there is still a need to further financial and institutional investment to maintain training and empowerment efforts, as well as gender-friendly structures like office spaces and comfort rooms.

The mainly positive gender climate of SIPLAS confirms the current literature on the significance of inclusive and collaborative management to enhance the participation and sustainability rates (Agarwal, 2018; Clabots, 2013). To continue, ensuring gender-responsiveness will entail sustainable institutional support, ongoing training of gender laws and policies, and actual adherence to collective responsibility and inclusivity in the governance of the protected areas.

The results indicate that men and women in SIPLAS also have equal gender-related challenges and that more gender-focused and gender-balanced management approaches are necessary. Indeed, the most frequent issue noted by seven respondents is the weakness of awareness regarding the Republic Act 9710 or the Magna Carta of Women, which manifested the gap in gender education and the necessity to work more on sensitization and legal awareness (Agarwal, 2018).

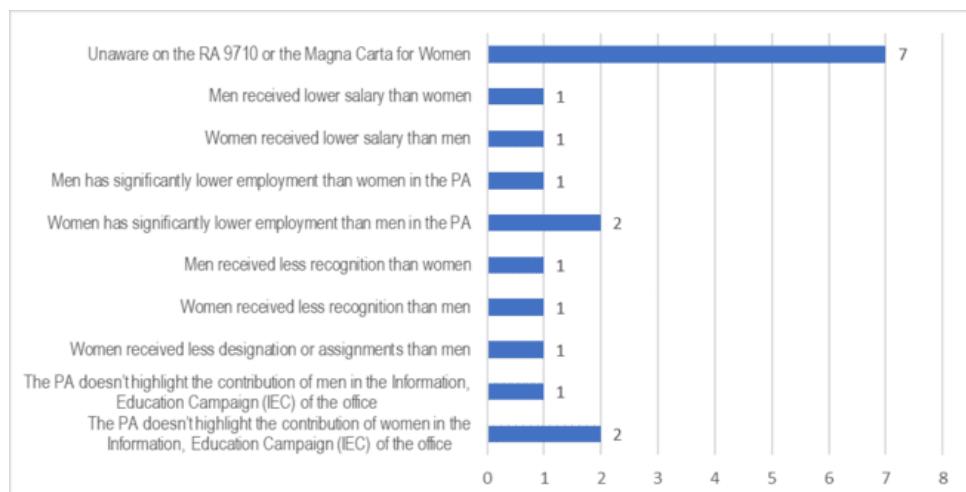


Figure 5. Gender-related issues in Siargao Island Protected Landscape and Seascapes

The other problems are the unequal opportunities of employment, underestimating contributions, and the lack of involvement of both sexes in IEC activities in terms of visibility and participation. The narrowing down of such gaps in participation as observed by Lau et al. (2021) is essential in order to realize actual gender equality and efficient resource management. Dissimilarities in salaries and recognition also demand clear employment and compensation systems that are based on merit and reflectively reward both the efforts of men and women.

SIPLAS has already been on the right track of gender equity, but there is still a need to work on policy awareness, equal opportunity, and inclusive engagement. Intensifying gender sensitivity training and achieving a balanced participation will support the Magna Carta of Women (RA 9710) and UN SDGs 5 (Gender Equality) and 15 (Life on Land) in strengthening the concept of fairness, inclusivity, and shared responsibility in conservation by SIPLAS.

Programs/activities and initiatives undertaken by PAMO to foster a gender-responsive management and office environment. The SIPLAS and the PAMO have various programs and activities that help to ensure equality and inclusivity in their operations regarding gender. Some of these include the yearly celebration of the National Women's Month, gathering gender-disaggregated data, environmental education, and capacity-building exercises that involve both men and women. These are initiatives that PAMO is making to institutionalize gender mainstreaming in line with the Magna Carta of Women (Republic Act 9710) and its Gender and Development (GAD) Plan.

The celebration of Women's Month can be used as one of the main avenues of appreciating the role of women in conservation and leadership in the protected areas. It increases gender rights awareness, empowers women, and strengthens their roles in governing the environment. The set of sex-disaggregated data will help the office to determine gender participation more precisely and define the current discrepancies in job opportunities, leadership, and training (UNDP, 2022).

Also, PAMO prevents unequal distribution of gender in environmental and capacity-building activities like habitat evaluation, environmental training, and workshops. Such activities not only enhance the technical competence, but also create gender collaboration towards conservation objectives. According to Lau et al. (2021), the gender-balanced involvement in environmental programs results in greater inclusivity of the decision-making process and the increased social legitimacy of the conservation process. In like manner, Agarwal (2018) highlighted that when men's and women's views are involved in managing resources, sustainability, and collective responsibility is enhanced.

These gender-responsive efforts help PAMO develop a culture of diversity, equal opportunity, and shared leadership in the workplace. The concept of integrating gender awareness into programs and policies fits the framework of the United Nations Development Program (UNDP, 2022), which states that gender equality is one of the pillars of effective and sustainable environmental governance. All in all, these efforts reflect the desire of PAMO to ensure equity, inclusiveness, and empowerment at all levels of management and community participation.

CONCLUSION

This study revealed that the Siargao Islands Protected Landscape and Seascapes (SIPLAS) demonstrates an encouraging level of inclusivity and gender responsiveness. Women are strongly represented in administration, technical, and managerial functions, while men remain predominant in enforcement and field operations. Although issues of gender discrimination or prejudice are minimal, continued efforts are necessary to enhance awareness of Republic Act 9710 (Magna Carta of Women) and to encourage greater male participation in community-based and advocacy

programs. Overall, the evaluation indicated a moderate to high level of gender responsiveness, reflected in the implementation of initiatives such as the celebration of National Women's Month, the collection of gender-disaggregated data, and the conduct of gender-inclusive environmental training programs. These actions align with both national and international frameworks on gender equality, showcasing PAMO's commitment to promoting equity and inclusivity in protected area management. However, sustaining these gains requires stronger institutional support, continuous gender sensitivity training, and balanced representation across all functional areas. Achieving these would ensure that SIPLAS not only complies with gender mainstreaming mandates but also serves as a model of transformative and gender-equitable conservation governance that advances the principles of sustainable development and social justice.

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