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Evaluation of the sustainable development goals regional action plan from a Buddhist perspective in bird's head Papua

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Abstract

The SDGs Regional Action Plan, formulated from a Buddhist perspective, was implemented in three prevalent Buddhist temples in the Papua Bird's Head region: Buddha Prabha Vihara in Manokwari Regency, West Papua Province; Buddha Sorong Vihara in Sorong City; and Buddha Sasana Vihara in Sorong Regency, Southwest Papua Province. Therefore, it is imperative to evaluate the SDGs Regional Action Plan after six months, which is the focal point of this study. The Analytical Hierarchy Process (AHP) is employed to establish this study's weighting and total points for the SDGs Regional Action Plan Framework. The results are subsequently assessed against the total points to determine the percentage of performance achievement. The assessment of the Papua Bird's Head SDGs Regional Action Plan reveals a basic performance (Pratama) of 63.65% at the Buddha Sasana Vihara in Sorong Regency, Southwest Papua Province, a moderate fulfillment (Madya) of 78.98% at the Buddha Sorong Vihara in Sorong City, Southwest Papua Province, and a moderate successful completion (Madya) of 75.45% at the Buddha Prabha Vihara in Manokwari Regency, West Papua Province.

Keywords: Regional Action Plan; SDGs; AHP; Assessment; Pratama; Madya

1. Introduction

The difficulties encountered in implementing the SDGs in Papua Bird's Head are exacerbated by various factors that inhibit economic progress and social development. Disparities in development across regions are caused by differences in regional typology (e.g., coastal, lowland, and highland), initial regional income levels, population dynamics, and infrastructure development status [1,2,3,4]. According to Presidential Regulation Number 63 of 2020, numerous locations are classed as underdeveloped zones, including Wondama Bay, Bintuni Bay, South Sorong, Sorong, Tambrauw, Maybrat, South Manokwari, and the Arfak Mountains Regencies.

Efforts to achieve the SDGs in the Papua Bird's Head include the implementation of Special Regional Regulation Number 10 of 2019 regarding sustainable development. In 2019, its most significant achievement was achieving the highest ranking in Indonesia's environmental quality index with a score of 83.96 points [5,6]. In contrast, the Papua Bird's Head sustainable development index was positioned 27th with 81.62 points, the human development index was rated 32nd with 64.70 points, and the democracy index was placed 33rd with 57.62 points [7,8,9]. Supplementary actions to accelerate development in the Papua Brid's Head include Presidential Instruction Number 9 of 2020, which focuses on the expedited advancement of welfare as a strategic approach to achieving sustainable development in the region; the implementation of Special Autonomy through Law Number 21 of 2021; and the recent demarcation of provincial

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boundaries into West Papua Province and Southwest Papua, according to Law Number 29 of 2022, intended to improve government control and fair growth [10,11].

Active participation from diverse stakeholders is extensively anticipated to enhance the sustainable development index in Papua Bird's Head [12,13]. The Buddhist Community Development at the Ministry of Religious Affairs of West Papua Province, in collaboration with Buddhist leaders and communities in West Papua and Southwest Papua Provinces, has formulated the SDGs Regional Action Plan by establishing nine criteria: food governance (SDG 2), social governance (SDG 3), water governance (SDG 6), energy governance (SDG 7), economic governance (SDG 8), waste governance (SDG 12), environmental governance (SDG 15), institutional governance (SDG 16), and eco dharma (SDG 16) [14,15,16]. Furthermore, each criterion is further upon in its respective implementations based on the results of the FGD done by the Vihara key leadership.

The SDGs Regional Action Plan, established from the Buddhist perspective, was executed in three significant Buddhist Temples located in Papua Bird's Head region: the Buddha Prabha Vihara in Manokwari Regency, West Papua Province; the Buddha Sorong Vihara in Sorong City and the Buddha Sasana Vihara in Sorong Regency, Southwest Papua Province. Consequently, it is essential to assess the SDGs Regional Action Plan after six months, which is the primary subject of this study. Additionally, the evaluation results are appraised and evaluated by the Ministry of Religion in the Papua Bird's Head region.

2. Material and methods

2.1. Study area

Based on the Ministry of Religion's data [17], the Buddhist demographic in Indonesia in 2023 was 2,016,564, along with 9,402 viharas. In West Papua, the Buddhist community comprised 2,697 individuals [18], with 12 Buddhist Temples allocated as follows: Manokwari (4), Bintuni (1), Fakfak (1), Sorong Regency (2), and Sorong City (4).

The SDGGs Regional Action Plan investigation locations comprise the Buddha Prabha Vihara in Manokwari Regency, West Papua Province; and the Buddha Sorong Vihara in Sorong City and Buddha Sasana Vihara in Sorong Regency, Southwest Papua Province (Figure 1). The analysis focused on the three main temples due to their characteristics that typified eco-vihara. The physical evaluation findings revealed that the Buddhist temples possessed solid construction, efficient energy usage, vegetable gardens, and trees, categorizing them as eco-vihara. Some additional temples were omitted from the research as they did not meet the eco-vihara requirements; all were adjacent to other properties within the business centre, and a few remained in ongoing development.

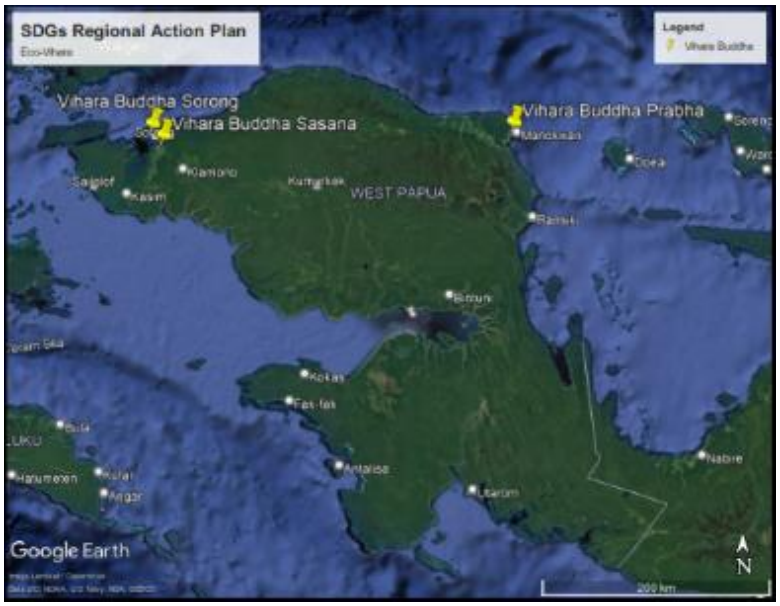

Figure 1 Research location of the SDGs Regional Action Plan in Papua Bird' Head

2.2. Method of data analysis

2.2.1. Respondents

The assessing investigation sample of the SDGs Regional Action Plan, foundational in the Buddhist perspective, was executed at three temples: Buddha Prabha Temple in Manokwari Regency, Buddha Sorong Temple in Sorong City, and Buddha Sasana Temple in Sorong Regency, owing to their eco-vihara attributes. The respondent's determination was executed using the Slovin formula (Eq.1) and was chosen based on the criteria of being an active administrator and leader [19,20].

$$n = \frac{N}{1+N.e^2} \text{ ..... Eq. 1}$$

where:
The required sample size is n, the total population count is N, and the permissible margin of uncertainty is e.

The population of Buddhists in Papua Bird's Head, totalling 957 individuals, was calculated with a 5% margin of error, resulting in a sample size of 282 individuals [21]. The sample is distributed among each vihara, with 16% of Buddha Sorong in Sorong City yielding a sample of 45 individuals, 14% of Buddha Prabha in Manokwari Regency resulting in 36 individuals, and 11% of Buddha Sasana in Sorong Regency producing 30 individuals. The computations are as follows:

$$= \frac{957}{1 + (957x(0.05)^2)}$$

$$= \frac{957}{3.39}$$

$$= 282\ people$$

2.2.2. SDGs Regional Action Plan Framework Using Analytical Hierarchy Process (AHP)

The three primary ideas in problem resolution within AHP are decomposition, comparative judgment, and logical consistency. The AHP technique generally comprises the following stages [22,23,24]:

- Decomposition of problems: problem decomposition is a process in which a defined goal is methodically articulated into a structured framework that comprises several systems, facilitating the rational attainment of the goal. A comprehensive objective is dissected into its fundamental components.
- Evaluation/weighting for element comparison: upon completing the deconstruction process and appropriately structuring the hierarchy, each hierarchy's pairwise comparison assessment (weighting) is conducted according to its relative significance.
- Preparation of matrix and consistency assessment: after the weighting or questioning process is completed, the subsequent step is constructing a paired matrix to equalize the significance weight of each element within its corresponding hierarchy.
- Establishing priorities within each hierarchy: pairwise comparisons must be conducted for each criterion and option. The comparative values are subsequently analyzed to provide the ranking of all possibilities. Qualitative and quantitative factors can be evaluated based on established assessments to provide weights and priorities. Weights or priorities are determined through matrix manipulation or by resolving mathematical equations.
- Synthesis of priorities: it is derived from the product of local priorities and the priorities of the pertinent upper-level criteria, which are then aggregated to each element influenced by those criteria. The outcome is a synthesis, referred to as global priorities, which can subsequently be employed to assign local priority weights to items at the lowest hierarchical level based on their criteria.
- Decision-making and determination: decision-making is a process wherein optimal alternatives are chosen based on established criteria

2.2.3. Evaluation of the SDGs Regional Action Plan

The formula for evaluating the SDGs Regional Action Plan in Papua Bird's Head Papua is as follows (Eq.2):

$$EA = \frac{AR}{TP}x100\% \text{ ..... Eq. 2}$$

where:

EA is Evaluation of Achievement, AR is Achievement Results, TP is Total Point.

Additionally, the proportion of assessment accomplishments utilized to compute the Eco Vihara Index is presented in Table 1 [25].

Table 1 Eco Vihara Index

Percentage	Assessment
0 – 44.9%	Unsuccessful in passing Eco-Vihara
45 – 64.9%	Basic level (Pratama) of Eco-Vihara
65 – 79.9%	Middle level (Madya) of Eco-Vihara
80 – 100%	High level (Utama) of Eco Vihara

3. Results and discussion

3.1. Respondents

The responders selected according to the Slovin formula, representing the most significant groups, were the Buddha Sorong Vihara in Sorong City with 44 individuals, the Buddha Prabha Vihara in Manokwari Regency with 36 individuals, and the Buddha Sasana Vihara in Sorong Regency with 30 individuals. The allocation of Buddhist representatives originated from the Vihara administrators, comprising the Monks Association of the East Indonesia Regional Secretariat, the Council, Buddhist Women, the Young Buddhist Generation, Buddhist Children, Vihara Managers, Religious and Educational Foundations, including those from provincial, regency, and city administrations. The distribution of these administrators is illustrated in Figure 2.

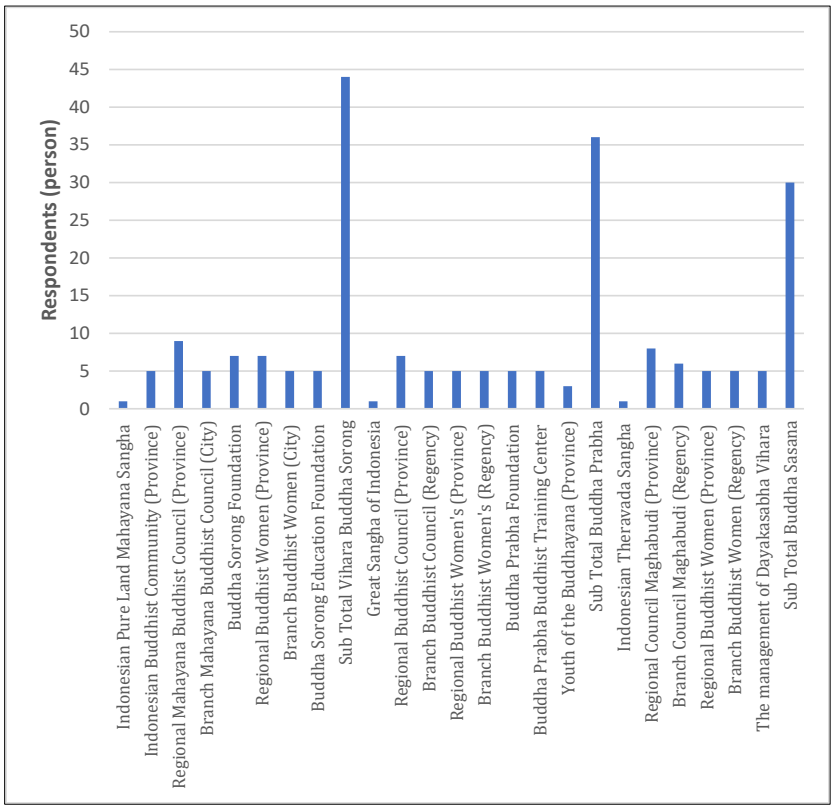

Figure 2 Distribution of participants according to Buddhist management at the research site

The Buddhist administrators in the three research areas are aged between 21 and 64, categorizing them as a productive workforce [26]. Regarding educational attainment at the Buddha Prabha Vihara, there was 1 person with a Doctorate, 5 people with Master's degrees, and 10 people with Bachelor's degrees, while the remainder possessed qualifications at the high school and junior high school levels. Educational data from the Buddha Sorong Vihara revealed 5 people possessing Bachelor's degrees, while the others held qualifications at the high school and junior high school levels. Education records at the Buddha Sasana Vihara revealed 3 Bachelor's degrees, while the remainder comprised individuals with high school, junior high school, elementary school education, or no formal education. Consequently, it influences the execution of the SDGs Regional Action Plan in applying Eco Vihara at each vihara. Monthly income ranges from IDR 2,500,000 for farmers to IDR 20,000,000 for business people.

3.2. Papua Bird's Head SDGs Regional Action Plan Framework

The total point criteria for the SDGs Regional Action Plan based on priority value in Papua Bird's Head derived from a Buddhist perspective are presented in Table 2, which comprises 9 criteria based on the Analytical Hierarchy Process (AHP) results.

Table 2 Criteria's total point for the SDGs Regional Action Plan

SDGs Regional Action Plan	Total Point
Eco Dharma	21.43
Economic Governance	16.67
Social Governance	14.29
Environmental Governance	11.90
Institutional Governance	11.90
Food Governance	9.52
Waste Governance	7.14
Water Governance	4.76
Energy Governance	2.38
Total	100.00

The results indicate that Eco Dharma is the most critical component of the Buddhist guidelines for implementing the SDGs Regional Action Plan. This is because all of the criteria presented are already present in the Tripitaka Book, which serves as the fundamental foundation of Buddhism [27,28,29]. This is followed by economic governance, designed to enhance the well-being of Buddhists and impacts social governance in the subsequent criteria [30,31,32]. Concerning the management of the Vihara spatial layout and the management of its administrators, the subsequent critical component is environmental and institutional governance [33,34]. The subsequent criteria are managing food, refuse, water, and efficient and renewable energy, which the three example viharas have partially efficiently managed [35,36].

Moreover, the sub-total value of the indicator of each criteria is assessed using the Hierarchy Process Analysis, referencing green buildings from the business sector, government, and Tripitaka [25,37,38]. The priority values of each indication for every criterion are presented in Tables 3-11.

Table 3 Indicator's total point for eco dharma governance

Eco Dharma	Priority Values	Total Point
Don't harm the environment	0.27	5.84
Harmony	0.24	5.19
Don't harm plants and water	0.21	4.55
Without greed	0.15	3.25

Consume food	0.09	1.95
Seeds and avoid damage	0.03	0.65
Sub Total		21.43

Table 4 Indicator's total point for economic governance

Economic Governance	**Priority Values**	**Total Point**
Circular economy	0.269	4.49
Sustainable utilization	0.231	3.85
Green/blue economy	0.192	3.21
Economic principle	0.154	2.56
Life style	0.115	1.92
Livelihood	0.038	0.64
Sub Total		16.67

Table 5 Indicator's total point for social governance

Social Governance	**Priority Values**	**Total Point**
Non-formal education	0.304	4.35
Education	0.217	3.11
Health program	0.174	2.48
Social program	0.130	1.86
Green environment	0.130	1.86
Community activities	0.043	0.62
Sub Total		14.29

Table 6 Indicator's total point for environmental governance

Environmental Governance	**Priority Values**	**Total Point**
Monitoring	0.200	2.38
Aesthetically	0.178	2.12
Education	0.156	1.85
Ecological functions	0.133	1.59
Environmentally friendly	0.111	1.32
Regulation of hazardous material usage	0.089	1.06
Reduction of deforestation & degradation	0.067	0.79
Mitigation of GHGs	0.044	0.53
Green Open Space	0.022	0.26
Sub Total		**11.90**

Table 7 Indicator's total point for institution governance

Institutional Governance	Priority Values	Total Point
Eco teaching	0.318	3.79
Eco management	0.227	2.71
Awareness	0.182	2.16
Efficiency	0.136	1.62
Engagement	0.091	1.08
Collaboration	0.045	0.54
Sub Total		11.90

Table 8 Indicator's total point for food governance

Food Governance	Priority Values	Total Point
Monitoring	0.384	3.66
Food security	0.274	2.61
Waste reduction	0.177	1.69
Vegetable & fruit	0.110	1.04
Local food	0.055	0.52
Sub Total		9.52

Table 9 Indicator's total point for waste governance

Waste Governance	Priority Values	Total Point
Reuse	0.350	2.50
Reduce	0.250	1.79
Campaigns	0.200	1.43
Recycle	0.150	1.07
Treatment	0.050	0.36
Sub Total		7.14

Table 10 Indicator's total point for water governance

Water Governance	Priority Values	Total Point
Monitoring	0.389	1.85
Rainwater collecting	0.278	1.32
Equipment	0.167	0.79
Education	0.111	0.53
Efficiency	0.056	0.26
Sub Total		4.76

Table 11 Indicator's total point for energy governance

Energy Governance	Priority Values	Total Point
Monitoring	0.300	0.71
Ventilation	0.214	0.51
Natural lighting	0.181	0.43
Education	0.147	0.35
Renew energy	0.115	0.27
Efficiency	0.043	0.10
Sub Total		2.38

3.3. Evaluation of Papua Bird's Head SDGs Regional Action Plan

The outcomes of evaluating the SDGs Regional Action Plan throughout the three monasteries, utilizing a Framework developed with a weighted Analysis Hierarchy Process and representative respondents, are presented in Table 12.

Table 12 Total points of Papua Bird's Head SDGs Regional Action Plan

SDGs Regional Action Plan	Total Point	Assessment		
		Buddha Prabha	Buddha Prabha	Buddha Sorong
Eco Dharma				
Don't harm the environment	5.84	5.10	5.15	5.05
Harmony	5.19	5.01	5.05	5.00
Don't harm plants and water	4.55	4.50	4.51	4.45
Without greed	3.25	3.05	3.03	3.01
Consume food	1.95	1.87	1.90	1.83
Seeds and avoid damage	0.65	0.54	0.59	0.48
Sub Total	21.43	20.07	20.23	19.82
Economic governance				
Circular economy	4.49	1.36	1.76	1.24
Sustainable utilization	3.85	2.23	2.95	2.06
Green/blue economy	3.21	1.88	2.12	1.62
Economic principle	2.56	2.11	2.29	2.01
Life style	1.92	1.15	1.28	1.09
Livelihood	0.64	0.37	0.41	0.35
Sub Total	16.67	9.10	10.81	8.37
Social governance				
Non-formal education	4.35	4.13	4.27	3.82
Education	3.11	2.95	3.01	2.74
Health program	2.48	2.07	2.15	2.01
Social program	1.86	1.74	1.62	1.53

SDGs Regional Action Plan	**Total Point**	**Assessment**		
		Buddha Prabha	Buddha Prabha	Buddha Sorong
Green environment	1.86	1.71	1.70	1.36
Community activities	0.62	0.56	0.54	0.50
Sub Total	14.29	13.16	13.29	11.96
Environmental governance				
Monitoring	2.38	2.10	2.01	0.71
Aesthetically	2.12	1.88	1.90	1.17
Education	1.85	1.42	1.49	0.80
Ecological functions	1.59	1.28	1.25	0.51
Environmentally friendly	1.32	1.05	1.08	0.65
Regulation of hazardous material usage	1.06	0.74	0.76	0.41
Reduction of deforestation & degradation	0.79	0.69	0.70	0.48
Mitigation of GHGs	0.53	0.35	0.39	0.21
Green Open Space	0.26	0.20	0.21	0.10
Sub Total	11.90	9.71	9.79	5.04
Institutional governance				
Eco teaching	3.79	2.21	2.52	1.93
Eco management	2.71	2.32	2.33	2.05
Awareness	2.16	1.39	1.48	1.17
Efficiency	1.62	1.26	1.22	1.18
Engagement	1.08	0.87	0.85	0.84
Collaboration	0.54	0.41	0.42	0.38
Sub Total	11.90	8.46	8.82	7.55
Food governance				
Monitoring	3.66	2.15	2.27	2.02
Food security	2.61	2.27	2.30	2.04
Waste reduction	1.69	1.14	1.22	1.06
Vegetable & fruit	1.04	1.01	0.65	0.63
Local food	0.52	0.31	0.28	0.24
Sub Total	9.52	6.88	6.72	5.99
Waste governance				
Reuse	2.50	1.21	1.56	0.67
Reduce	1.79	1.25	1.42	0.36
Campaigns	1.43	1.15	1.31	0.12
Recycle	1.07	0.63	0.84	0.54
Treatment	0.36	0.28	0.30	0.22

SDGs Regional Action Plan	Total Point	Assessment		
		Buddha Prabha	Buddha Prabha	Buddha Sorong
Sub Total	7.14	4.52	5.43	1.91
Water governance				
Monitoring	1.85	1.12	1.13	1.01
Rainwater collecting	1.32	0.55	0.61	0.52
Equipment	0.79	0.16	0.18	0.12
Education	0.53	0.17	0.21	0.11
Efficiency	0.26	0.08	0.09	0.05
Sub Total	4.76	2.08	2.22	1.81
Energy governance				
Monitoring	0.71	0.33	0.41	0.21
Ventilation	0.51	0.36	0.37	0.35
Natural lighting	0.43	0.29	0.28	0.22
Education	0.35	0.31	0.33	0.28
Renew energy	0.27	0.10	0.19	0.08
Efficiency	0.10	0.08	0.09	0.06
Sub Total	2.38	1.47	1.67	1.20
Total	100.00	75.45	78.98	63.65

The evaluation of indicators from the nine criteria of the Regional Action Plan for SDGs in Papua Bird's Head demonstrates that eco dharma (SDG 16) is a priority for the three studied Buddhist Temples, with an implementation rate of 92-94% of the total points. This arises from using the Buddha's teachings as a framework for Buddhists to uphold environmental sustainability, as articulated in the Tripitaka [39,40]. The subsequent high implementation percentage pertains to the social governance criteria (SDG 3), ranging from 84% to 93%. The influence stems from the role of each Buddhist temple in providing social assistance to the local community, including blood donation, provision of essential goods, food, education, and training to enhance community capacity, as well as improving the quality of social care for their ill congregants, conducting visitation, and engaging in collective benevolent acts [41,42]. The execution of environmental governance (SDG 15) ranks next, with a proportion varying between 42% and 82%. The lowest percentage was seen at the Buddha Sasana Temple in Sorong Regency due to a deficiency of green open spaces and the incomplete execution of greenhouse gas emissions reduction from food and energy efficiency. Unlike the Sorong Buddha Temple and Buddha Prabha Temple, which have adopted Green Open Space through agroforestry and focused on minimizing greenhouse gas emissions from energy and food. This has also been adopted by numerous massive temples in Thailand and other Buddhist nations to preserve inner harmony and ensure a healthy, clean, and comfortable living environment [43,44,45].

The proportion of indicators classified in the medium category is observed in the institutional governance criteria (SDG 16) at 63-74%, food governance (SDG 2) at 63-72%, energy governance (SDG 7) at 50-70%, economic governance (SDG 8) at 50-64%, and waste governance (SDG 12) at 27-76%. The administration of these three Viharas has predominantly adhered to the criteria established by province and district/city organizations, with officials committed to Eco-Vihara's advancement to facilitate the SDGs Regional Action Plan in Papua Bird's Head. Numerous additional substantial religious institutions have established Eco-Mosque, Eco-Temple, and Eco-Church, with their implementation demonstrating notable advancement [46,47,48,49]. Implementing efficient and renewable energy has occurred in the Sorong and Prabha Buddha Viharas. Simultaneously, the Sasana Buddha Vihara is anticipating installing solar-powered street lights and the replacement of conventional light bulbs with energy-efficient alternatives. Energy efficiency significantly influences the execution of Eco-Vihara and similar initiatives [50,51]. Economic management is a subsequent priority for enhancing the welfare of Buddhists, which the three monasteries have substantially addressed through the provision of cake-making training for mothers, flower arrangements, and various skills to bolster the family-based economy [52,53]. Enhancements in waste management are necessary by installing trash bins at all significant locations, with

designated separation for organic, non-organic, and plastic garbage. Plastic usage is elevated in the three monasteries; thus, reduction, reuse, and recycling are the primary focuses for future initiatives to enhance the value of implementation [54,55].

The proportion of indicators necessitating substantial enhancement efforts pertains to the water governance criteria (SDG 6), with a value between 38% and 47%. The three monasteries have installed water-efficient sanitary fixtures; nevertheless, they have not adopted a rainwater collection system, water conservation labels, or monitoring and evaluating water-saving efficacy. This requires further refinement by examining instances of water-saving technology used in the Eco-Mosque [56,57].

3.4. Assessment of the Papua Bird's Head SDGs Regional Action Plan

Assessment of the Papua Bird's Head SDGs Regional Action Plan utilizing equation 2 reveals a basic level (Pratama) achievement of 63.65% at the Sasana Buddha Vihara in Sorong Regency, Southwest Papua Province, a middle level (Madya) achievement of 78.98% at the Sorong Buddha Vihara in Sorong City, Southwest Papua Province, and a middle level (Madya) achievement of 75.45% at the Buddha Prabha Vihara in Manokwari Regency, West Papua Province.

Initiatives are undertaken to elevate the assessment rating from the basic level (Pratama) to the intermediate level (Madya) and from the middle level (Madya) to the high level (Utama). To expedite the enhancement of the rating, it is essential to assess the deficient indicators from each implementation across the three monasteries, specifically regarding the criteria of water governance (SDG 6), waste governance (SDG 12), economic governance (SDG 8), energy governance (SDG 7), food governance (SDG 2), and institutional governance (SDG 16).

The anticipated advancement of water governance (SDG 6) encompasses initiatives to enhance policies and regulations; investment in water treatment facilities, pipelines, and sanitary infrastructure in underprivileged regions; promotion of rainwater collection; and establishment of monitoring systems [58,59]. Essential indicators for enhancing waste governance (SDG 12) include strategies encapsulated in a waste management plan (3R), accountability for the product lifetime, innovation in circular economics, and educational campaigns focused on trash reduction and appropriate disposal methods [60,61]. Essential indicators for enhancing economic governance (SDG 8) include the following strategies: inclusive economic policies to support SMEs, startups, and social enterprises; job creation initiatives in sectors such as green energy, digital economy, and sustainable agriculture; the implementation of vocational training aligned with future labor market demands; and investment in infrastructure to attract capital and stimulate economic growth [62,63]. Essential indicators for enhancing energy governance (SDG 7) include incentivizing solar energy, promoting energy-efficient appliances and green construction standards, and fostering collaborations to broaden clean energy initiatives [64,65]. Essential indicators for enhancing food governance (SDG 2) include support for small-scale farmers, promoting agroecology and climate-resilient crops, developing efficient supply chains to minimize food loss and ensure equitable distribution, and implementing nutrition and mineral programs [66,67]. critical metrics to enhance institutional governance (SDG 16) through initiatives including the augmentation of capacity building for public officials and judicial entities; policy formulation via consultations, public forums, and digital platforms; Establish open data platforms to guarantee accountability in governance [68,69].

4. Conclusion

The Buddha Sorong Vihara in Sorong City, which is through to 44 individuals, the Buddha Prabha Vihara in Manokwari Regency, which is situated to 36 individuals, and the Buddha Sasana Vihara in Sorong Regency, which is location to 30 individuals, were the respondents selected according to the Slovin formula; these groups represent the most significant groups.

The evaluation results of the SDGs Regional Action Plan in Papua Bird's Head revealed that the eco dharma criterion (SDG 16) achieved the highest score, ranging from 92% to 94%; the social governance criteria (SDG 3) scored between 84% and 93%; and the environmental governance criteria (SDG 15) ranged from 42% to 82%. The percentage of indicators categorized as medium is noted in institutional governance criteria (SDG 16) at 63-74%, food governance (SDG 2) at 63-72%, energy governance (SDG 7) at 50-70%, economic governance (SDG 8) at 50-64%, and waste governance (SDG 12) at 27-76%. The percentage of indicators requiring significant improvement efforts related to the water governance criteria (SDG 6) is 38-47%.

The assessment of the Papua Bird's Head SDGs Regional Action Plan using equation 2 indicates a basic level (Pratama) performance of 63.65% at the Buddha Sasana Vihara in Sorong Regency, Southwest Papua Province, a middle level

(Madya) fulfillment of 78.98% at the Buddha Sorong Vihara in Sorong City, Southwest Papua Province, and a middle level (Madya) successful completion of 75.45% at the Buddha Prabha Vihara in Manokwari Regency, West Papua Province. To accelerate the improvement of the rating, it is imperative to evaluate the inadequate indicators from every scheme of action across the three viharas, particularly concerning the criteria of water governance (SDG 6), waste governance (SDG 12), economic governance (SDG 8), energy governance (SDG 7), food governance (SDG 2), and institutional governance (SDG 16).

Compliance with ethical standards

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Disclosure of Conflict of Interest

There is no conflict of interest.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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