



Assistance in Building Data-Based Villages for Local Economic Development in the Ifale Traditional Village, Jayapura Regency

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ABSTRAK

Accurate, up-to-date, and usable village data are essential for responsive development planning. Ifale Indigenous Village in Sentani District, Jayapura Regency, has economic potential rooted in Lake Sentani, fisheries, microenterprises, nature- and culture-based tourism, and indigenous knowledge. However, these resources had not been integrated into an operational village database. This community service program assisted the village government and community in developing a participatory database and using it for local economic development. Participatory Community Assistance was implemented from 3 March to 28 May 2026 through needs analysis, instrument development and facilitator capacity building, participatory data collection and mapping, validation and digitization, and a data-use planning forum. The program involved 38 participants, including 12 local data facilitators, and covered 126 households. The database documented 487 residents, 41 microenterprises, 28 fishing/fish-processing units, five tourism assets, and nine cultural assets. Data completeness reached 92%, while cross-validation reached 88%. The mean score across five facilitator competencies increased from 47.0 to 81.6, a gain of 34.6 points, and 83% of facilitators could independently update the database. The resulting database, business directory, potential map, and planning forum shifted data from administrative records into a collective decision-making instrument for enterprise development, fisheries value addition, Lake Sentani tourism, and cultural preservation. Sustainability was supported by a local data team, updating procedures, and periodic community validation

INTRODUCTION

Effective village development depends on the ability of the government and communities to transform data into information that can be used to identify problems, target groups, potential, and funding priorities. Village data cannot simply be understood as a collection of population figures. Data must encompass the socio-economic conditions of households, livelihoods, vulnerable groups, business actors, natural resources, infrastructure, institutions, tourism, and cultural assets. When such information is scattered, not updated, or not verified with the community, development decisions tend to rely on estimates. This aligns with the World Bank's (2021) emphasis that the development value of new data emerges when its quality, use, governance, and protection are simultaneously developed.

The legal framework for villages in Indonesia places information systems as part of development governance. Law Number 6 of 2014 grants villages the right to access information through a village information system developed by the local government. This regulation is reinforced by Law Number 3 of 2024, which includes affirmations regarding the management of village information systems by village governments and public access to such information (Republic of Indonesia, 2014, 2024). Thus, village data has administrative, deliberative, and strategic functions: supporting services, enabling participation, and serving as the basis for developing development plans and community empowerment.

However, database development does not automatically result in data-driven development. Key challenges lie in the capacity of the apparatus, the suitability of variables, the quality of data collection, the consistency of updates, community ownership, and the ability to translate findings into programs. Systems developed solely by external parties risk stalling after the project is completed. A participatory approach is necessary because it connects technical knowledge with community knowledge and positions affected groups as partners in the process to generate action or change (Cornwall & Jewkes, 1995; Vaughn & Jacquez, 2020).

The Ifale Traditional Village, also known as Ifale/Ajau in statistical publications, is located in Sentani District, Jayapura Regency. The community's life is ecologically, socially, and economically interconnected with Lake Sentani. District-level statistics provide an overview of government and facilities, but do not replace the need for detailed data on households, businesses, livelihoods, service access, tourism potential, and cultural assets updated by village (Jayapura Regency Central Statistics Agency, 2021). The gap between aggregate data and the need for micro-decision-making is the entry point for this community service activity.

Ifale Village's location in the Lake Sentani area creates economic opportunities through fishing, lake product processing, culinary delights, water transportation, crafts, homestays, guiding, and cultural experiences. Community-based tourism can provide economic benefits when communities have real control, capacity, and opportunity in the decision-making process (Scheyvens, 1999; Stone & Stone, 2011). However, this potential cannot be pursued equitably if the village government does not know who the actors are,

where they are located, what products and capacities they have, what obstacles they face, and which groups are excluded from access.

The context of indigenous communities also demands caution. Cultural data collection must not reduce indigenous knowledge to a commodity or disclose restricted information. Validation by indigenous stakeholders, approval of data categories, and access arrangements are part of ethical data governance. Therefore, this activity does not position communities as objects of data collection, but rather as owners of knowledge and controllers of the use of local information.

Several digital-based community service programs still prioritize training as their core activity and measure success primarily through increased participant knowledge. This model is important, but insufficient to produce a system that can be used after the program is completed. This community service program offers a novel approach in the form of operational support from upstream to downstream: data needs are agreed upon, instruments are developed collaboratively, local cadres conduct data collection, findings are validated through customary forums and village governments, the data is digitized, and then used to select priority economic programs. The primary output is not a training certificate, but rather a database with a manager, update rules, and utilization pathways.

The community service activities aim to: (1) increase the capacity of the village government and local cadres in collecting, validating, managing, and updating data; (2) produce a socio-economic, business, tourism, and cultural database of Ifale Village; (3) map the potential and problems of the local economy in a participatory manner; and (4) assist in the use of data in the preparation of development programs, empowerment of MSMEs, development of Lake Sentani tourism, and cultural preservation. The program is expected to strengthen the independence of data governance while building a direct relationship between local evidence and development decisions.

IMPLEMENTATION AND METHODS

Locations and Activity Partners

The activity was carried out in the Ifale Traditional Village, Sentani District, Jayapura Regency, Papua. The main partners were the village government and the indigenous community. Engagement was designed to include village officials, village deliberation elements, ondoafi (traditional leaders), regional leaders, women, youth, fishermen, fishery product processors, MSMEs, and tourism and cultural potential managers. This composition was necessary so that the database represented not only government administration but also the knowledge and interests of community groups.

The activity lasted for 10 weeks, from March 3 to May 28, 2026. A total of 38 people were involved, consisting of village officials, youth, and representatives of business groups. Twelve participants were designated as data cadres. Data collection covered 126 households and local economic activities. Institutional partners included the Ifale Village Government, Village-Owned Enterprises (BUMKam), and the Jayapura Regency Community and Village Empowerment Office.

Implementation Method

The activity method is Participatory Community Assistance, a mentoring approach that combines participatory learning, learning by doing, asset mapping, coaching, community validation, and problem-solving. This design adapts the principles of participatory rural appraisal, which positions residents as analysts of their own realities, as well as action-oriented participatory learning (Chambers, 1994; Pretty, 1995). The approach was chosen so that the transfer of skills occurs simultaneously with the production of directly usable outputs. The mentoring was implemented in five stages.

Table 1. Stages of Implementation of Data-Based Village Assistance

Stage	Main activities	External
1	Observation, initial interviews, FGD, document inventory, and data needs analysis	Map of problems and data needs
2	Preparation of variables, forms, data codes, access ethics, and training of cadres	Instruments and data cadres
3	Data collection on households, business units, economic, tourism and cultural potential; participatory mapping	Initial dataset and asset map
4	Cleaning, duplication checking, village/customary forum validation, and digitalization	Verified database
5	Simple analysis, profile preparation, priority program determination, SOP updates, and management handover	Data products and follow-up plans

Source: Processed by The Community Service Team, 2026

Table 1 shows the continuity of the process from problem identification to handover of results. Each stage produces intermediate outputs that serve as prerequisites for the next stage. This structure ensures that the database is not built overnight by an external team, but rather through a process of learning, data collection, verification, analysis, and institutional strengthening with partners.

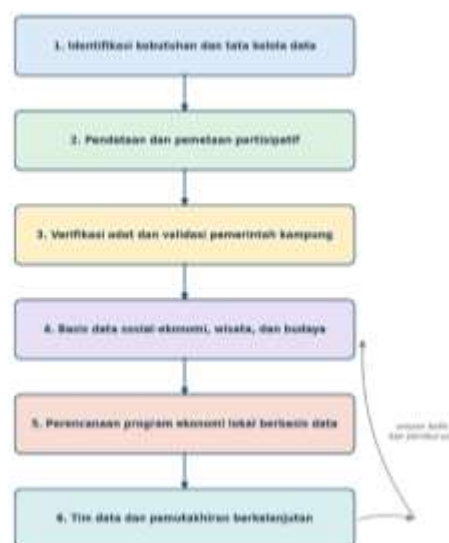


Figure 1. Stages of Data-Based Village Assistance

Source: Processed by the community service team, 2026

Figure 1 emphasizes the cyclical nature of the mentoring model. The data team and update mechanism provide feedback to the database and needs identification process in the final phase. Thus, village data is treated as a continuously updated system, not a one-off product that loses relevance after the activity ends.

Database Instruments and Structure

Data collection instruments are compiled in both print and digital formats with unique identifiers to prevent duplication. The database structure is limited to information relevant to service delivery and planning. Sensitive personal data is separated from aggregated data for publication. Cultural information is recorded with the consent of customary stakeholders, classified as open, restricted, or unpublished access.

Table 2. Structure and Utilization of the Ifale Village Database

Domain	Example of variables	Utilization
Population and social	Household composition, education, occupation, vulnerable groups	Basic services and social protection
Household economics	Livelihood, skills, commodities, business barriers	Empowerment program
MSMEs	Product, capacity, legality, market, support needs	Directory and business development
Fisheries and lakes	Actors, tools, results, processing, seasons, obstacles	Lake-based value chains
Tour	Attraction, access, facilities, actors, service readiness	Community-based tour packages
Culture	Tradition, actors, cultural space, status of access to information	Conservation based on customary agreement
Infrastructure	Pier, water, sanitation, electricity, internet, economic facilities	Development priorities

Source: Processed by the Community Service Team, 2026

Table 2 shows that each data domain has a specific intended use. Population data supports social services and protection, while economic, fisheries, tourism, cultural, and infrastructure data are used to select appropriate interventions. This structure prevents redundant information collection and ensures that each variable directly relates to the village's decision-making needs.

Monitoring and Evaluation

The evaluation went beyond measuring participants' knowledge. Four layers of evaluation were used: manager capacity, database quality, participation, and utilization. Capacity was measured through pre- and post-tests, as well as practical observations. Database quality was assessed based on completeness, consistency, duplication, source traceability, and the proportion of data that passed validation. Participation was assessed based on group

representation and involvement in validation. Utilization was assessed based on products endorsed or used in planning forums.

Table 3. Indicators of Success of the Mentoring Program

Indicator	Measure of success
Presence and involvement	Cadres participate in briefings, practice, data collection, validation, and utilization forums.
Management capacity	Final scores increased and $\geq 80\%$ were able to update data independently
Completeness of database	$\geq 90\%$ of mandatory variables must be filled in the recorded targets
Validity	Duplicate/inconsistent data will be followed up; results will be validated by the village forum
Operational products	Database, profiles, business directory and potential maps are available
Utilization	At least three priority programs were formulated based on data findings.
Sustainability	Data team, person in charge, schedule, and SOP for updates are determined.

Source: Processed by the Community Service Team, 2026

As summarized in Table 3, program success is assessed across four dimensions: participation, manager capacity, data quality, and utilization. This framework expands the evaluation beyond mere participant attendance or satisfaction. A program is deemed meaningful if cadres are capable of managing data, data quality meets established thresholds, products are available, and results are effectively incorporated into the planning process.

RESULTS AND DISCUSSION

Initial Conditions of Partners

The initial phase revealed that the information needed by the Ifale Village government was not yet integrated into a single system. Administrative data, household data, business information, and local potential records differed in completeness and format. Information on economic and cultural potential was largely confined to the knowledge of officials, traditional leaders, and residents, making it difficult to use to compare needs across groups or develop measurable programs. This situation suggests that the primary problem is not a lack of local knowledge, but rather the lack of mechanisms to collect, validate, protect, and translate it into decisions.

Initial observations and a focus group discussion (FGD) on March 5, 2026, found that the available documents primarily consisted of population registers and social assistance lists. Most were last updated in 2022 and had not been digitally integrated. The village had only one active data operator, one laptop with limited capacity, and an unstable internet connection. The forum agreed on four main issues: the lack of an integrated data system, limited manager capacity, undocumented economic data on MSMEs, fisheries, and tourism, and limited digital resources.



Figure 2. Initial Observation and FGD on Data Needs, March 5, 2026
Source: Community Service Team Documentation, 2026

Figure 2 shows the needs identification process, conducted through dialogue with officials and the community. The FGD provided a platform to compare administrative documents with residents' experiences, ensuring that the selected issues were not solely based on the community service team's assessment. This stage resulted in agreement on variable priorities, facility constraints, and the need for data cadre formation.

Data Cadre Mentoring and Strengthening Process

The mentoring session began with a shared understanding of the data's purpose. Participants were not immediately asked to fill out the form but first discussed what decisions the data would support. This process resulted in an agreement that the database should address service needs, identify vulnerable households, map economic actors, develop lake-based businesses, prepare for tourism, and protect cultural assets. Variables with no clear function were eliminated to ensure the instrument remained practical.

Data cadres practiced conducting interviews, completing instruments, coding, checking for completeness, and explaining consent for data use. Simulations used cases closely related to village life so errors could be corrected before field data collection. Differences in digital skills were addressed through a division of roles: interviewer, recorder, checker, and operator. This approach ensured that mentoring did not rely solely on a single individual.

Twelve cadres participated in 10 weeks of mentoring. The evaluation used five indicators consistent with the activity instruments and graphs. Scores for understanding data concepts increased from 52 to 85; instrument use from 48 to 82; data input and processing from 45 to 80; simple analysis from 40 to 78; and data utilization for planning from 50 to 83. The average score increased from 47.0 to 81.6, or 34.6 points. After mentoring, 83% of cadres were able to update data without intensive mentoring.

Table 4. Changes in Data Cadre Competencies Before and After Mentoring

Competency indicators	Pre-test	Post-test	Ascension
Understanding the concept of village data	52	85	33
Use of data collection instruments	48	82	34
Data input and processing	45	80	35
Simple analysis of economic data	40	78	38
Utilization of data for planning	50	83	33
Average	47.0	81.6	34.6

Source: Results of Pre-test and Post-test Processing of Community Service Activities, 2026

Table 4 shows improvements across all measured competencies. The largest increase occurred in simple economic data analysis skills, with a 38-point increase. Instrument use increased by 34 points, and data input and processing increased by 35 points. The average score increased by 34.6 points, from 47.0 to 81.6. This pattern indicates that mentoring not only improved conceptual understanding but also the technical skills necessary to maintain database sustainability.



Figure 3. Provision of Data Collection Instruments, March 12, 2026

Source: Community Service Team Documentation, 2026

Figure 3 shows the instrument briefing before the cadres began data collection. The explanation focused on the meaning of each variable, how to ask questions, assign codes, check completeness, and ethical use of information. This briefing was essential to establish a common understanding among cadres and reduce variations in recording that could compromise data consistency.



Figure 4. Field Data Collection Practice, March 20–30, 2026
Source: Community Service Team Documentation, 2026

Figure 4 shows the application of learning by doing through direct interviews with households. In this practice, cadres not only fill out forms but also explain the purpose of the data collection, check answers, and understand the respondents' socio-economic context. Field assistance allows for prompt correction of errors while building community trust in the use of the data.

Village Database Formation and Validation

Data collection was conducted through household visits, interviews with business owners, focus group discussions, and asset mapping. Each entry was checked for blank columns, inconsistent formats, and potential duplication. Findings were then presented to a validation forum involving village government and indigenous community representatives. Community validation is crucial because technical accuracy does not always guarantee social conformity, particularly for local identity, asset status, location, and cultural information.

The data collection documented 126 households with 487 people, 41 MSMEs, 28 fishing/ fishery product processing units, five tourist locations (beaches/lakes), culture, and ecotourism, and nine cultural assets (traditions, crafts, and traditional sites). The audit showed that 92% of the mandatory variables were filled in. A total of 88% of the data passed validation through cross-checking by cadres and village officials. The difference between completeness and validation indicates that some entries still require further confirmation, so the data is not treated as a static, final product.

Table 5. Results of Socio-Economic Data Collection and Potential of Ifale Traditional Villages

Data collection indicators	Results	Unit/description
Household	126	Head of family
Resident	487	Soul
MSMEs	41	Business unit
Fishermen/fishery product processors	28	Business unit
Tourism assets	5	Beach/lake locations, culture, and ecotourism
Cultural assets	9	Traditions, crafts and traditional sites
Completeness of data	92%	Proportion of mandatory variables to be filled in
Data validation	88%	Cross-verification of cadres and village officials

Source: Database of Data Collection and Validation Results for Ifale Village, 2026

Table 5 shows that data collection extends beyond population information to encompass economic actors and assets. The composition of 41 MSMEs and 28 fishing/processing units confirms the dominance of household and fisheries sectors. Five tourism assets and nine cultural assets demonstrate potential for economic diversification. At the same time, 92% completeness and 88% validation indicate the database is robust enough for initial analysis, although some entries still require periodic confirmation.

Table 6. Operational Outputs of Data-Based Village Assistance

Product	Main content	Status
Village database	Household, socio-economic, business, infrastructure, tourism and cultural data	Compiled; completeness 92%, validation 88%
Village profile	Summary of indicators and narrative of village conditions	Composed
Business directory	Actors, products, capacities, markets and needs	Composed of: 41 MSMEs and 28 fisheries units
Potential map	Location of economic assets, tourism, facilities and access issues	Compiled through participatory mapping
List of priority programs	Problems, data evidence, targets, activities, and responsible persons	Formulated in the village forum
SOP update	Schedule, change flow, verification, backup, and access rights	Operational draft agreed

Source: Results of service activities in Ifale Village, 2026

Table 6 clarifies that the program produces a complementary set of outputs. The database serves as the primary resource, the village profile provides a

summary, the business directory facilitates the development of economic actors, and the potential map demonstrates the dimensions of location. The priority list and draft SOPs link information products to institutional actions and sustainability.

Utilizing Data for Local Economic Development

The analysis session went beyond presenting numbers. The team and community linked each finding to action options. Business unit data was used to categorize legal requirements, production, packaging, marketing, and financing. Fisheries data was used to identify opportunities for added value through processing and marketing. Tourism and cultural data were used to assess the readiness of attractions, access, services, actors, and the limits of customary information that could be promoted. In this way, program priorities had trackable targets and rationales.

Table 7. Translating Data Findings into Local Economic Development Plans

Data-driven findings	Implications	Follow-up plan
There are 41 MSMEs; value chain and market data are not yet detailed.	Capacity gap and market access	Legal assistance, packaging, catalogs and marketing
There are 28 fisheries units; distribution is not yet organized.	The added value of lake products is not yet optimal	Processing, cold chain, quality standards and market networks
Five tourism assets have not been integrated as a package	Limited service and promotion readiness	Tour packages, guides, homestays and community-based promotions
Nine cultural assets identified	Documentation and access arrangements need to be strengthened	Intergenerational class and consent-based cultural archives
Youth involved as data cadres	Digital capacity can be directed to the economy	Digital promotion team and business catalog updates

Source: Results of Analysis and Data Utilization Forum of Ifale Village, 2026

Table 7 shows the mechanism for data use in planning. The number of actors and assets does not directly translate into uniform assistance, but rather is first interpreted as a matter of capacity, value chain, service readiness, and cultural governance. The result is more targeted follow-up: the legality and marketing of MSMEs, fisheries processing and cold chains, community-based tourism packages, cultural archives subject to customary approval, and youth involvement in digital promotion.

Program Achievements

Program achievements are assessed by comparing initial and post-mentoring conditions in terms of cadre capacity, data quality, operational products, and

utilization of results. This comparison is necessary so that success is not solely determined by the implementation of activities, but also by verifiable changes.

Table 8. Achievements of the Data-Based Village Assistance Program

Indicator	Initial conditions	Final condition	Achievements
Ability to use instruments	48	82	Up 34 points
Data input and processing capabilities	45	80	Up 35 points
Completeness of target data	Data is scattered/ not up to date	92%	Target $\geq 90\%$ achieved
Data that passed validation	There is no mechanism yet	88%	Cross validation in progress
Cadre independence	One active operator	83% independent cadres	Dependence decreases
Available data products	Not yet integrated	Databases, directories, and maps	Operational products available
Data utilization	Not yet documented	Village Forum May 25, 2026	Economic priorities are formulated

Source: Results of Evaluation and Documentation of Community Service Activities, 2026

Table 8 shows that the program's targets were achieved at three levels. First, technical capacity increased, reflected in increased instrument and data processing skills, and 83% of cadres became independent. Second, the system generated data with 92% completeness and 88% validation, exceeding the minimum completeness target of 90%. Third, the product did not stop at storage; it was brought to the Village Forum on May 25, 2026, to formulate economic priorities. Thus, the program's main achievement is the establishment of a complete chain between cadres, data, information products, and development decisions.

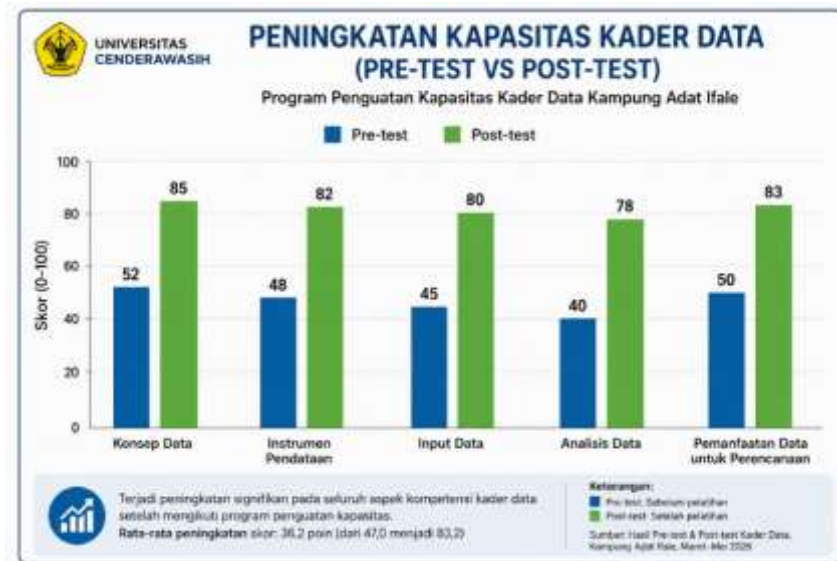


Figure 5. Comparison of Pre-test and Post-test Results of Data Cadres
Source: Results of Community Service Activity Evaluation, 2026

The visualization in Figure 5 shows that all post-mentoring scores ranged from 78 to 85, compared to initial scores of 40 to 52. The gap between initial and final scores indicates consistent change, not a concentrated improvement in a single indicator. However, analytical and data utilization skills remain areas with relatively lower final scores and require further strengthening.



Figure 6. Village Data Utilization Forum, May 25, 2026
Source: Community Service Team Documentation, 2026

Figure 6 demonstrates the shift in mentoring from data production to data utilization. In this forum, data collection results are presented, reviewed, and linked to economic program needs. The involvement of village government officials, cadres, and community representatives strengthens the legitimacy of selected priorities and ensures that operators do not solely understand the results.



Figure 7. Map of the Economic Potential of Ifale Village, Results of Participatory Mapping

Figure 7 shows spatial patterns grouped into three zones: coastal/lakes as fishing areas, core settlements as MSME and distribution hubs, and land/customary forest areas as natural and cultural tourism areas. This map helps village governments tailor interventions to the location, access, and connectivity between potential areas. Because it was compiled through a participatory approach, the map also serves as a means of validating community spatial knowledge.

DISCUSSION

The results of the activity indicate that data-based village mentoring needs to be understood as a change in governance, not simply the digitization of documents. The program's primary value lies in the process that connects needs identification, data production, community validation, analysis, and decision-making. Within a participatory research framework, the involvement of affected parties allows local knowledge to be incorporated into a systematic process that leads to action (Vaughn & Jacquez, 2020). In the Ifale context, this principle is evident when officials, traditional leaders, and community groups participate in determining variables, verifying findings, and limiting access to cultural information. These findings also emphasize that participation needs to be accompanied by real capacity, rules, and decision-making space; the mere existence of a forum does not automatically lead to empowerment (Mansuri & Rao, 2013).

This approach mitigates two common risks. First, the database is too complex to be updated by the village. Second, data is collected but lacks a path to use. Simplifying variables based on decision needs makes the system more operational, while program formulation through a findings-implications-follow-up matrix links evidence to planning. Therefore, success is measured not solely by the number of entries, but by the partners' ability to maintain data quality and utilize it.

Connecting with the local economy is a practical contribution of the program. Data allows village governments to differentiate between business needs and avoid blanket assistance. Businesses requiring legal status are not treated the same as those ready to expand their markets. Similarly, fisheries potential is not simply recorded as a livelihood but is interpreted as a value chain encompassing production, processing, storage, transportation, and marketing. Participatory maps add a locational dimension to community knowledge; more broadly, communities act as producers of local geographic information relevant to decisions (Goodchild, 2007). This logic reinforces the function of data as a basis for empowerment, not just reporting.

In developing Lake Sentani tourism, databases help shift focus from destination promotion to community preparedness. Community-based tourism requires local control, distributed benefits, and community decision-making capacity (Scheyvens, 1999; Stone & Stone, 2011). A directory of stakeholders, attraction maps, access conditions, facilities, guide skills, homestay readiness, and cultural products can be used to develop realistic packages. Data also helps identify who has the potential to benefit and who is at risk of being marginalized.

The cultural aspect emphasizes that data transparency is not absolute. Administrative data can be aggregated for the public good, but indigenous knowledge requires consent, authorization, and access classification. Supporting indigenous validation ensures that digitization does not diminish community control over their knowledge. This principle is crucial because culture-based economic development must strengthen identity and intergenerational transmission, not simply transform culture into an object of consumption.

From an institutional perspective, establishing a data team and assigning roles are essential for sustainability. Reliance on a single operator increases the risk of system failure when personnel change. A team that includes collectors, reviewers, operators, responsible persons, and customary liaisons makes the process more resilient to change. Scheduled updates and backups also ensure the database remains up-to-date, while regular validation allows for community corrections.

This program has limitations that need to be communicated openly. Data collection in lakeside communities is affected by access, residents' time, network quality, and variations in digital literacy. Income and cultural data are also sensitive, so not all information is suitable for disclosure. Furthermore, economic change cannot be claimed solely based on the completion of the database; impacts on income, businesses, and tourism require continued monitoring. Therefore, program outputs should be treated as initial decision-making infrastructure that

needs to be linked with support from regional agencies, universities, and market partners.

Sustainability of the Community Service Program

The program's sustainability is built through four mechanisms. First, the village government establishes a data team and a person in charge through a decree or minutes. Second, standard operating procedures (SOPs) regulate the addition, modification, verification, backup, aggregate publication, and protection of sensitive data. Third, updates are conducted periodically and when significant events occur, such as changes in household members, business formation, facility changes, or the emergence of new economic assets. Fourth, the results of the updates are discussed in a village forum to reconnect the data with priorities and budgets.

Universities can continue to provide ongoing support through data quality audits, developing simple analytical skills, and mentoring selected economic programs. The Jayapura Regency Government can support interoperability and development, without eliminating village ownership and control. For tourism and cultural purposes, collaborations should be subject to the consent of indigenous communities and the principle of equitable benefit sharing.

CONCLUSION AND RECOMMENDATION

Conclusion

Data-driven mentoring to build Ifale Village successfully strengthened local capacity and created information infrastructure that can be used for economic planning. The average score for five cadre competencies increased from 47.0 to 81.6, a 34.6-point increase, and 83% of the 12 cadres were able to update data independently. Data collection covered 126 households with 487 people, 41 MSMEs, 28 fishing/fishery product processing units, five tourism assets, and nine cultural assets. Data completeness reached 92%, and cross-validation was 88%. These results demonstrate that practice-based mentoring goes beyond simply transferring knowledge: it also develops managers, procedures, data products, and user forums.

Databases, business directories, and potential maps have been used in village forums to formulate directions for strengthening MSMEs, increasing the added value of fisheries, developing Lake Sentani tourism, and preserving cultural heritage. The program's strength lies in community ownership of the process, the cadres' ability to maintain quality, and the connection between findings and actions. However, the impact on income, business growth, tourism visits, and cultural sustainability cannot be concluded at the end of the program; these indicators need to be monitored after the economic program is implemented.

Recommendations

1. The Ifale Village Government needs to establish a data team, update the schedule, distribution of access rights, and backup through a decision or minutes.
2. The database needs to be used in village meetings and program preparation, not just stored as a reporting document.

3. Further economic programs should be prioritized based on evidence regarding actor readiness, barriers, target groups, and market opportunities.
4. Cultural data and indigenous knowledge must be managed based on the consent of indigenous stakeholders, access classification, and benefit-sharing principles.
5. Universities and the Jayapura Regency Government need to provide further assistance for data audits, strengthening MSMEs, developing tourism packages, and evaluating economic impacts.

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