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Challenges in agricultural extension: Views of the Ministry of Agriculture, Fisheries, and Agrarian Reform (MAFAR) municipal officers in Basilan Province, Philippines

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ABSTRACT

The Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), located in southwestern Mindanao, comprises five provinces, Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi, and Basilan, relies heavily on agriculture and fisheries as primary sources of livelihood under the Ministry of Agriculture, Fisheries, and Agrarian Reform (MAFAR). However, limited research has examined the specific operational challenges faced by agricultural extension officers in BARMM, particularly in Basilan Province. This study aimed to identify and analyze the challenges encountered by OIC-MAFAR Municipal Officers (OIC-MMOs) to provide contextual insights for improving agricultural extension practices in the region. Using a qualitative phenomenological design, semi-structured interviews were conducted with all twelve OIC-MMOs in Basilan, while data were analyzed using thematic analysis. The study revealed five major challenges: (1) workers' misaligned experience and educational qualification; (2) an undermanned workforce; (3) unresolved conflict with local government units; (4) insufficient salary and logistic support; and (5) lack of facilities and shortage of farm and fishery inputs. These findings emphasize systemic gaps in human resource planning, institutional coordination, and operational support that hinder effective extension delivery. The research contributes to the understanding of field-level realities within BARMM's post-conflict governance structure and underline the need for targeted policy interventions. Strengthening staff training, guaranteeing adequate manpower, improving logistical and financial support, and promoting transparent coordination with local governments are significant for a more efficient and responsive agricultural extension services in municipalities led by OIC-MMOs.

Keywords: capacity building, institutional coordination, local government relations, Mindanao, rural governance

INTRODUCTION

The Bangsamoro Autonomous Region in Muslim Mindanao (BARMM) is located in the

southwestern part of Mindanao and comprises five provinces, namely: Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi, and Basilan (ILO 2023). Agriculture and fisheries are the primary sources of livelihood in the



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region (World Bank Group 2024). To support rural development, the Ministry of Agriculture, Fisheries, and Agrarian Reform (MAFAR) was established, which merges the former Department of Agriculture and Fisheries (DAF) and the Department of Agrarian Reform (DAR) under the now-defunct Autonomous Region in Muslim Mindanao (ARMM). This institutional restructuring resulted in the creation of the MAFAR Municipal Officer (MMO) position, that combines the roles previously held by the Municipal Agricultural Officer (MAO) and the Municipal Agrarian Reform Officer (MARO).

While this move aimed to streamline local extension services, it also intensified the workload at the municipal level, as one officer is now expected to implement programs across agriculture, fisheries, and agrarian reform. Due to a shortage of qualified applicants for technical positions, MAFAR's regional office designated Agrarian Reform Program Technologists (ARPTs), originally support-level staff, as Officers-in-Charge (OICs) of municipal offices in Basilan. Without adequate staff support, these OIC-MMOs carried out field operations singlehandedly during the early phase of implementation. This situation emphasizes a huge gap between institutional design and actual field capacity, which this study seeks to examine.

Previous literature has identified several challenges in the field of agricultural extension. Key issues in providing extension services include: the absence of a well-developed plan for the agricultural development of the town; a lack of a system for sourcing, archiving, and sharing technology; insufficient support services (particularly low-cost credit); inadequate extension services; and a lack of effective strategies and facilities (Saz 2007). Major challenges also encompass input shortages, low formal market participation, land degradation, limited access to financial resources, a lack of skills, and restricted access to extension services (Mapiye et al. 2021). These problems, although identified in various global contexts, consistently point to a fragmented and under-resourced agricultural extension system. While context-specific, the recurring challenges suggest systemic flaws that transcend national boundaries and thus warrant comparative inquiry.

Under the ministry-based extension model, services are typically free, allowing farmers to visit extension offices at any time for information and advice. However, this approach has consistently faced criticism for its poor performance and the absence of a two-way information flow between extension staff and farmers (Mapiye et al. 2021). General issues with centrally managed and highly bureaucratic extension agencies involve a lack of client accountability, weak linkages to knowledge generation, limited resources for training and operations, and a top-down approach to technology transfer (Azadi and Filson 2009). These

limitations suggest that traditional top-down models of extension are outdated and no longer meet the adaptive needs of farmers. However, few studies have explored these criticisms through the direct perspectives of municipal officers, especially in fragile and conflict-affected regions like Basilan in the Philippines.

In India, public extension faces several major challenges, including the burden of non-extension duties, a shortage of qualified public extension professionals, and the reluctance of these professionals to work in remote areas. Furthermore, the focus of public agricultural extension delivery varies depending on state priorities, frequently leading to neglect. The private extension sector in India also encounters numerous issues. A significant concern is that most of India's agricultural extension service providers lack specific standards or quality certification, resulting in unaccountability for any incorrect advice given to farmers, which can lead to losses (Nedumaran and Ravi 2019).

Meanwhile, Malawi's agricultural extension system has faced criticism for failing to significantly contribute to agricultural development and not meeting the needs of smallholder farmers (Magomero and Park 2014). In Ghana, challenges faced by rural farmers, such as limited access to credit, markets, and adequate extension contacts, have been identified. Among these, inadequate extension services are seen as a major barrier to the growth of the agricultural sector and the broader development of rural communities (Danso-Abeam et al. 2018). Despite the diversity of these cases, a common methodological limitation in many of these studies is the focus on either macro-policy analysis or farmer-level surveys. Very few employ qualitative methods such as FGDs with local agricultural officers, those directly responsible for operationalizing extension programs. This creates a gap in understanding how policy is translated into practice on the ground, particularly in vulnerable regions. In many developing countries, governance issues are a critical weakness in public agricultural extension systems. "Governance failures" obstruct the effective performance of public services, including problems like corruption, political misuse, paternalistic approaches, and patronage (Bitzer et al. 2016).

Extension programs have evolved over the years to meet farmers' changing needs and the markets in which they operate. Consequently, a "one-size-fits-all" approach is not recommended for effective service delivery and outcomes due to varying farmer needs influenced by their geographical location, social, and economic structures (Maulu et al. 2021). This reinforces the need to explore localized and contextualized delivery models that reflect specific community constraints and dynamics, as is the case in Basilan province. The Philippines give a specific opportunity to investigate how post-conflict

governance restructuring, through agencies like MAFAR, impacts extension delivery.

Shifting to more effective strategies may be beneficial; these could include training staff in skills for knowledge capture, encoding, sharing, organizing communities of practice, and applying knowledge. Establishing a knowledge repository in the agriculture office is also advisable; knowledge useful for specific farmer groups should be shared with others for trial adoption. Furthermore, staff field visits need to be more systematic and organized. Procuring additional or new computers, with at least one having an internet connection, is essential. The national government, through institutions like the Bureau of Agricultural Research (BAR), Agricultural Training Institute (ATI), and state colleges and universities (SCUs), should assist in linking Local Government Units (LGUs) to information databases and training (Saz 2007).

Diversification is another solution. For many farmers in Ethiopia, integrating crops and livestock is vital for diversifying outputs and due to cultural values. Therefore, aligning agricultural extension services with farmers' demands, knowledge, experiences, and values may enhance the acceptability of the service. As a "public good," agricultural extension should provide inclusive benefits to impoverished and disadvantaged groups, especially in rural areas, to actively promote agricultural transformation in the country (Leta et al. 2017).

The specific formal research-extension linkage mechanisms in various countries include apex management with research, extension, and training within the same institution, matrix management (i.e. research and extension as semi-autonomous bodies under the same ministry), coordinating committees/meetings, communication units or liaison departments, the use of a task force, staff exchanges, and cooperation between university research programs and extension organizations (Agbamu 2000). To improve this situation, it is important to understand why researchers and extension workers operate in their current manner. It is worth considering what incentives they might have to change their behavior, especially if the system of promotions and other rewards remains unchanged. Identifying instances where researchers and extension agents have paid serious attention to the problems of resource-poor farmers and analyzing why this happened is also beneficial (Van Den Ban 1993).

It is suggested that there is a need for the extension system to be reformed to become more cost-effective, smallholder farmer-centered, and pluralistic. The revitalized extension system should incorporate contemporary applications of ICTs in extension processes, emphasize the participation of resource-constrained smallholder farmers, focus on rural women's empowerment, and involve both farmers and extension agents in adaptive research (Mapiye et al.

2021). In sum, although the global literature on agricultural extension points to common constraints such as bureaucracy, poor accountability, lack of innovation, and inadequate support systems, there remains a dearth of grounded empirical studies that explore these issues from the perspective of field-level extension workers in conflict-affected, autonomous regions such as BARMM.

Given the recurring problems in agricultural extension systems identified in various countries, this study focuses on the everyday work of municipal agricultural officers in Basilan under the MAFAR. It examines the specific problems they encounter in relation to governance, resource distribution, and service implementation. The study also identifies current practices used to address these challenges and considers the effects of autonomous governance arrangements on the delivery of extension services in the Bangsamoro region.

Agricultural extension is integral in rural development considering that it facilitates the transfer of knowledge, technologies, and practices from research institutions to farmers. As Anderson and Feder (2007) emphasize, much of agricultural extension carries a public-good character that justifies substantial public investment, especially in developing countries. However, they also stated that the delivery of extension services has been hindered by persistent challenges like administrative and design failures, weak accountability, limited interaction with research systems, fiscal unsustainability, and insufficient political commitment.

The success of extension efforts is closely tied to its policy environment, and difficulties in impact attribution usually weaken domestic political support while encouraging donor dependence. Various models have been implemented over the years (e.g. training and visit programs, decentralized systems, fee-for-service, and farmer field schools), but each presents its own set of trade-offs (Anderson and Feder 2007). These complexities are pronounced in fragile or underserved regions like Basilan, where institutional limitations and resource constraints challenge the responsiveness and reach of agricultural extension systems. Understanding these contextual challenges is essentially important for designing responsive, efficient, and inclusive extension systems.

METHODS

Research Design and Locale of the Study

This study employed a qualitative phenomenological design to explore the lived experiences and perceptions of OIC-MAFAR Municipal Officers (OIC-MMOs) regarding the challenges of delivering agricultural extension services in Basilan Province. Phenomenology is

appropriate for this research as it aims to understand the way individuals make sense of their everyday experiences within a specific social and institutional context (Moustakas 1994). Basilan is one of the five island provinces of the BARMM, characterized by agricultural livelihoods, geographic isolation, and periodic conflict. The province comprises 11 municipalities and one city, making it a strategic site for examining the on-the-ground realities of decentralized agricultural governance under the MAFAR.

Participants and Sampling

The study focused on all 12 OIC-MMOs in Basilan, who serve as the sole MAFAR municipal representatives in their respective localities. A total population sampling strategy was used, as all qualified individuals holding the position were included. Inclusion criteria consisted of active service as an OIC-MMO in Basilan and involvement in field-level agricultural extension activities during the study period. All invited participants agreed to take part in the study.

The ages of the OIC-MMOs range from the mid-twenties to the late thirties, with only two of them beyond their forties. The youngest among them is 25 years old, and the oldest is 45. This age bracket is relatively young for the field of extension, especially compared to LGU-devolved agricultural extension workers, most of whom are nearing retirement age. The OIC-MMOs are notably young and energetic for their age range. In terms of gender, out of the 12 OIC-MMOs, only four are male, with the remaining eight being female.

Regarding marital status, 10 of the 12 OIC-MMOs are married, while two remain single. Most have dependents: one has as many as 10 dependents, and only one has none. Several have between six to eight dependents, a challenging number to support on a salary grade-10, or PhP25,586 (approximately US\$430), which is the pay level for OIC-MMOs. This is particularly true considering that most of them live modestly, as evidenced by their reliance on motorcycles as their primary means of transportation.

Data Collection

Data were collected through online semi-structured interviews conducted via Zoom from 30 October to 20 November 2022, each lasting 60 to 90 min. The interview guide was designed to elicit participants' lived experiences, perceptions, and challenges related to their roles as extension officers. Questions were drawn from similar phenomenological studies on agricultural officers (e.g. Ashraf and Hassan 2021) and pilot-tested for clarity. Interviews were conducted by the lead author, a licensed agriculturist and familiar with the regional context. All sessions were audio-recorded with participant consent and

transcribed verbatim by a trained assistant. Transcripts in Filipino or local dialects were translated into English and reviewed by the research team for accuracy and consistency.

Data Analysis

Data were analyzed using thematic analysis and was conducted inductively and aimed to capture the essence of the OIC-MMOs' shared experiences. Coding was led by the main author, with other researchers reviewing a sample of transcripts to enhance intercoder consistency. An audit trail and memo-writing ensured analytical rigor. Data saturation was observed by the 10th interview, with no new themes emerging in the final two interviews.

Researcher Reflexivity

One of the authors, a Chief Agriculturist in the area of study, had a better understanding on the research setting, which facilitated rapport and contextual understanding. To address potential bias, data interpretation was done collaboratively with team members external to MAFAR, and reflexive journaling was maintained throughout the research process to monitor subjectivity.

RESULTS

The findings presented below are organized into main themes and sub-themes derived from the participants' narratives. Each theme summarizes participants' shared experiences, challenges, or perceptions, supported by verbatim excerpts. In presenting the results, the most salient statements from the participants were included to support each identified theme. These statements were carefully selected based on their clarity, representativeness, and relevance to the theme being discussed. While numerous excerpts were gathered during the analysis, powerful verbatim quotes were prioritized that best encapsulated the collective sentiments of participants. This approach ensures thematic coherence while maintaining readability and focus on the discussion.

Challenges Encountered in Agricultural Extension

Workers' qualification. Among the OIC-MMOs, only one graduated with a bachelor's degree in agriculture, which is closely related to the tasks of an MMO. Others hold degrees in various fields such as medical courses, education, political sciences, and other areas. According to the qualification standard for a MAFAR Municipal Officer, the most suitable candidates for the position should have agricultural-related qualifications. In fact, the position requires Republic Act 1080 eligibility, meaning an applicant must be a licensed agriculturist under the Philippine Regulation Commission to be qualified.

Regarding their work experience, only one of them had two years of experience in an agriculture-related job and two previously worked in DAR. This indicates that only three OIC-MMOs have relevant work experience, while the rest have backgrounds in diverse fields other than agriculture, fisheries, and agrarian reform. The MAFAR Basilan Provincial Office attempted to address this issue. Over the span of two years, most of them had attended more than 10 training courses designed to enhance their capacities as OIC-MMOs. Through these trainings, they had gained a bit more knowledge and confidence in delivering MAFAR services in their respective municipalities. Only one OIC-MMO is a licensed agriculturist, who is overwhelmed handling the programs of MAFAR's four divisions. Given that the officer's background is solely in agriculture, additional training in the other three divisions was requested. Several OIC-MMOs had to conduct self-research to respond to inquiries from their farmer-beneficiaries. One OIC-MAFAR Municipal Officer mentioned during the interview:

"Kalagihan kami subey magmahirin ene magtuun teed duk kami meh MMO hin, kalagihan kami tau magtanem meh tinanem, peggeh dumain kami tartantu agriculturist. Subey tahati kami bang sumiyang duk kuingge pagtanem sin meh tartantu gantah tinanemin." (We need training that suits us as MMOs; we need to know how to plant crops, because we are not agriculturists. We need to understand when and how to plant specific crops.)

For more than a year, the MMOs worked alone in their respective municipalities, tackling the challenging tasks of program implementation and Registry System for Basic Sectors in Agriculture (RSBSA) registration of farmers and fisherfolk. It was only last year that a fieldworker for fisheries was hired for each municipality, and in October 2022, twelve fieldworkers for agriculture were recruited to support the OIC-MMOs. A problem with these newly hired fieldworkers is their lack of background in agriculture and fisheries, both in education and experience.

Another issue was that some fieldworkers sometimes act independently of their OIC-MMOs, submitting reports to higher officials in the provincial office without the OIC-MMOs' knowledge or conducting operations without notifying them. This occurred because the Division Chiefs in the Provincial Office were the ones signing the daily time records (DTR). The OIC-MMOs had commented that it would be advantageous if the hired fieldworkers had relevant backgrounds and experience and were locals in the municipality, as this could expedite beneficiary identification and program implementation.

Workforce capacity. The main responsibility of the OIC-MMOs is to identify target beneficiaries for all MAFAR programs and projects. These beneficiaries should be considered marginalized farmers and fisherfolk registered in the RSBSA with the assistance of the OIC-MMOs. During the annual planning period, the names of these beneficiaries must be submitted to the regional office along with the proposed projects for the following year. These submitted names are expected to be the recipients of the projects, but the OIC-MMOs have faced several challenges in identifying beneficiaries and registering them in the RSBSA. Additionally, some farmers have had issues with previous extension officers before BARM, who collected their data and promised government agricultural support that never materialized.

The OIC-MMOs struggled to register farmers due to a lack of support staff. Registering fisherfolk is simpler than farmers because geo-tagging farm locations is time-consuming, whereas this is not required for fisherfolk. It is alarming to think that only one extension worker, the OIC-MMO, handles all these tasks in each municipality.

In 2021, contract service employees were hired for the fisheries division, one per municipality, to assist OIC-MMOs in fisheries program operations. In 2022, another batch of contract employees was hired for RSBSA support in the agriculture division. Before this, OIC-MMOs endured over a year of solitary effort in their respective municipalities. An OIC-MMO recalled during the interview,

"Geo-Tagging ngin yene tamanan huletek ne hinang talabey ku. Nyah bulan-bulan gantah subey ubus ku, sah peggeh asal mustahil manamal taubus dendang-dendangan." (Geo-tagging is the most laborious task I have undertaken. I have monthly targets, but they are almost impossible to accomplish alone.)

Currently, each municipality has three MAFAR employees, which, compared to the original staff plan of six employees per municipality, means that these municipalities are still considered undermanned.

Coordination with other institutions. Aside from the understaffing issue, MMOs were facing challenges with local government officials. Some previous mayors manipulated the list of validated beneficiaries. Although MMOs provided agri-fishery inputs to local executives for ceremonial distribution along with a list of approved and validated target beneficiaries during the planning phase, these mayors decided to select a new set of beneficiaries. They chose individuals who voted for them during the election period, and those farmers and fisherfolk who

did not vote for the mayor, even if they were on the list of target beneficiaries, had their names removed.

Another problem occurred at the barangay level, where some barangay captains were reluctant to sign the RSBSA form. For the RSBSA form to be validated, it requires the barangay captain's signature before submission to the regional office for data encoding. An OIC-MMO stated:

"Daran ne talabey ku paatag si aku yene meh aahin ganah tarapat de bng gey pili hap saddi barangay kapitan matapit-tapit si siyehin, peggeh barangay kapitan den gey bayah milmahan katas RSBSA den." (I have experienced instances where beneficiaries were forced to go to neighboring barangays because their barangay captain would not sign RSBSA registration forms.)

Similar to the mayors, some barangay captains tend to favor beneficiaries who voted for them. This highly politicized environment complicates the OIC-MMOs' task of selecting appropriate beneficiaries for various ministry projects. There are many qualified marginalized beneficiaries but were not considered because they are not politically aligned with the barangay captain. This issue significantly impedes rural poverty reduction interventions. Often, the beneficiaries selected by barangay captains do not belong to the poorer groups in the community.

Undoubtedly, some OIC-MMOs received substantial support from their local governments, particularly from the office of the municipal agriculturist. Several municipal agriculturists, lacking substantial budgets or support from their local government units, rely heavily on the inputs distributed by MAFAR through the OIC-MMOs. These municipal agriculturists and their technicians assist the MMOs in identifying target beneficiaries, conducting site validation, distributing inputs, undertaking farm visitations, and other activities.

However, not all municipal LGUs are supportive of OIC-MMOs. In some towns, OIC-MMOs encountered issues with their mayors, especially during the transition from one administration to another following elections. Newly appointed mayors often failed to recognize the municipal agriculturists installed by the previous administration, instead appointing an acting municipal agriculturist. This situation can cause delays in MAFAR program implementation at the municipal level and may lead to changes in the target and validated beneficiaries. In municipalities with inactive municipal agriculturists, OIC-MMOs sometimes sought assistance at the barangay level through the barangay secretary and the barangay committee on agriculture.

In the fisheries division, one of the most challenging problems faced by OIC-MMOs was political backing of illegal activities. In the province of Basilan, there had been reports of ongoing illegal fishing. Large fishing boats were prohibited from operating in municipal waters, which were reserved for local small fishermen, to protect their livelihoods. However, some mayors permitted these boats to fish in their waters in exchange for under-the-table payments. The OIC-MMOs, afraid to report such fraudulent activities to higher authorities, find themselves in a difficult position. One of their mandates under the fisheries division is to reduce illegal fishing activities through reporting, but this becomes complicated when such illegal activities are supported by politicians.

Logistical support. A few OIC-MMOs interviewed expressed their passion for their work, citing the satisfaction of helping people through the distribution of agri-fishery inputs. However, most OIC-MMOs feel overburdened by their responsibilities. They frequently compare their situation to the defunct ARMM, where the Municipal Agrarian Reform Officer (MARO) and the Municipal Agricultural Officer (MAO) were separate roles, each with a salary grade 20, or PhP62,867 (approximately US\$1,055) and a monthly Representation and Travel Allowance (RATA).

In contrast, OIC-MMOs are at a salary grade 10 level and do not receive RATA. The actual plantilla position of OIC-MMOs is Agrarian Reform Program Technologist (SG-10), the only permanent MAFAR employees at the municipal level, that is why they are designated as OIC-MMOs. Additionally, one OIC-MMO is a contract-service, non-permanent employee, facing issues like delayed salaries, a common problem for contract workers. Imagine the operational challenges faced by an OIC-MMO with delayed pay. One OIC-MMO even hired a geo-tagger and paid the wages out of her own pocket to meet the monthly target for RSBSA farmer registrations. Another mentioned:

"Asal kahunitan ku teed bilang OIC-MMO, yene tabettad ku hap munisipal si puluh, yene piye hadja puluh sakup ne. Palintas ku amban dambuwah puluh pi si dambuwah puluh asal jari-jari ne gastukun, duk kamuwe ilih gastukun ineddoh weh ku amban gadji-gadji ku." (It is very challenging for me as an OIC-MMO, being assigned to an island municipality composed of several islands. Hopping from one island to another is quite costly, and I have been using a substantial amount of my personal salary for this.)

Since OIC-MMOs were not permitted to receive RATA or Maintenance and Other Operating

Expenses (MOOE), the provincial office decided to provide them with fuel to support their municipal-level operations. However, the amount of fuel provided was barely sufficient for their needs and often did not last even a week. Although the provincial office has an adequate fuel supply, the OIC-MMOs are advocating for a more strategic fuel distribution and are requesting an increase in their monthly fuel allotment.

Most OIC-MMOs do not have offices in their assigned municipalities. Some store their agri-fishery inputs in the houses of trusted farmers, which then serve as their temporary offices. Without tables, chairs, or office supplies, many OIC-MMOs have opted to report to the provincial office instead. This situation makes them less effective, as being in their respective municipalities would allow for easier communication with farmers.

In addition to poor working conditions, all OIC-MMOs report that the agri-fishery inputs received from the region are insufficient. They lack enough input for walk-in clients, particularly goats and chickens, which were very limited in number. Furthermore, there are municipalities where the peace and order situation are not conducive to extension work, with insurgencies and killings being rampant. For those in island municipalities, weather conditions usually pose significant challenges to regular operations. Typhoons and huge waves are common obstacles when traveling from the mainland to the islands.

Suggestions from the OIC-MMOs

All the OIC-MMOs requested additional training to enhance their capacity as MAFAR heads in their respective municipalities. They need 'training-of-trainers'-type sessions covering all areas of their responsibility, such as agriculture, fisheries, and agrarian reform. As only one of them is an agriculturist, eleven out of twelve have requested crop production training, and all have requested training in fisheries technologies and agrarian reform methodologies. Two OIC-MMOs have requested a supervisory development course to advance their careers.

Besides training, the OIC-MMOs suggest they should have authority in identifying beneficiaries, as they conduct validations at the grassroots level. They argue that higher-ups should limit their influence in selecting beneficiaries, as OIC-MMOs, spending most of their time in the field, are better positioned to know which farmers are more deserving of support. Given the limited number of agri-fishery inputs, they believe that the most marginalized farmers should be prioritized, and only OIC-MMOs truly know who these farmers are.

Considering their workload is disproportionate to their salaries, and receiving RATA is not an option, most OIC-MMOs are requesting MOOE (Maintenance and Other Operating Expenses)

at the municipal level. This budget allocation would cover logistical support such as fuel expenses and office supplies. Officer-In-Charge MAFAR Municipal Officers in island municipalities are requesting a monthly MOOE of PHP 10,000 (or approximately USD 170) while others suggest PHP 5,000 (or approximately USD 85) monthly. Some are also advocating for monthly incentives and a communication allowance.

DISCUSSION

Workers' Qualification

The majority of OIC-MMOs are not expert on their field assigned because their educational backgrounds are unrelated. Agricultural extension effectiveness is often limited by insufficient technical expertise among personnel, especially when they lack formal education in agriculture or fisheries (Makapela 2015). They usually resort to conducting personal research or watching online videos to enhance their knowledge, but this self-research approach is inadequate. Braun et al. (2006) suggest that while digital learning resources provide supplementary information, they are not a substitute for structured field training and hands-on experience in agricultural extension. Farmers frequently have many questions that OIC-MMOs are unable to answer. The lack of technical competency in extension officers has been shown to reduce farmers' trust in advisory services and hinder the adoption of modern agricultural techniques (Suresh et al. 2024). To minimize this issue, MAFAR should develop a comprehensive training program tailored to the needs of OIC-MMOs. Exposure to all the banner programs of each division is crucial, and relevant topics should be covered in depth.

Workforce Capacity

The central issue for the OIC-MMOs is the lack of support staff. Managing farmers' registration, geo-tagging, distributing inputs, and other extension activities is overwhelming for just one to three employees at the municipal level. This aligns with Davis et al. (2010) stating that insufficient agricultural extension personnel hinder effective service delivery, especially in decentralized agricultural systems. Although the two additional contract fieldworkers relatively eased the workload, the staffing level is still considered inadequate. According to Binswanger-Mkhize and Zhou (2012), a well-staffed extension service greatly improves agricultural productivity and technology adoption among farmers, which emphasizes the necessity of sufficient personnel in MAFAR offices. The MAFAR Municipal Office, covering agriculture, fisheries, and agrarian reform at the municipal level, requires a sufficient number of

extension workers to achieve the expected output. The plantilla positions remain vacant due to a lack of qualified applicants. This situation mirrors national and global trends where agricultural extension services struggle to attract and retain qualified personnel, usually due to low salaries and limited career incentives (Swanson 2008). However, MAFAR's top management could potentially resolve this by hiring more qualified and experienced contract fieldworkers per municipality. Considering there are six plantilla positions in a municipality, including the MMO, hiring five additional fieldworkers to support the OIC-MMO would be beneficial.

The MAFAR-Basilan Provincial Office hired two contract fieldworkers per municipality to assist the OIC-MMOs, one specializing in fisheries and the other in agriculture. Regrettably, these fieldworkers lack experience in both fields and do not possess degrees in any related or allied courses in agriculture and fisheries. With eleven out of twelve OIC-MMOs not holding degrees in agriculture and fisheries, the effectiveness of the extension service would be greatly enhanced if the hired fieldworkers had knowledge in agri-fishery technologies. Extension agents with formal agricultural education and continuous training play a large role in increasing farmers' adoption of new technologies and improving farm productivity (Arowosegbe et al. 2024). Additionally, employing local individuals as fieldworkers in their respective municipalities could significantly improve operations. Localized hiring strategies have been found to strengthen agricultural extension efforts by leveraging local knowledge and promoting stronger engagement between extension workers and farmers (Ferris et al. 2014). For successful field operations at the municipal level, MAFAR-Basilan Provincial Office should rigorously hire qualified fieldworkers and select applicants best suited for the role. Furthermore, fieldworkers should be directly supervised by OIC-MMOs, with their Daily Time Records (DTRs) signed by the OIC-MMOs rather than the Division Chiefs in the provincial office. This change could prevent the trespassing issues experienced by OIC-MMOs.

Coordination with Other Institutions

Another major challenge for OIC-MMOs is the influence of Municipal and Barangay Officials in their areas of responsibility, which significantly impacts the selection of target and validated beneficiaries. This issue is well-documented in agricultural and social protection programs, where political interference can distort the intended distribution of resources and services, frequently favoring non-marginalized groups (Norman 2017). To navigate this situation, OIC-MMOs usually feel compelled to accommodate these officials' requests to include their chosen beneficiaries, who are often not marginalized farmers and fisherfolk. Political

patronage in rural development programs can reduce effectiveness, limiting support to genuinely disadvantaged communities and reinforcing systemic inequalities (Brinkerhoff and Goldsmith 2002). This concession is made to facilitate their work within municipal and barangay areas, addressing a social issue that is difficult to resolve. A pragmatic approach for OIC-MMOs is to allocate a portion of the beneficiary quota to mayors and barangay captains. While such compromises may guarantee smoother program implementation, research suggests that stronger institutional safeguards, such as independent oversight and transparency measures, mitigate undue political influence in agricultural extension and development initiatives (Brinkerhoff 2001). Ideally, excluding local officials from the selection and distribution of beneficiaries would be more effective, but this may not always be feasible.

Logistical Support

Apart from this, most OIC-MMOs do not have offices in their areas of responsibility. When agri-fishery inputs are delivered, they commonly store them in the homes of trusted farmers. This is consistent with Odongo et al. (2023) that presents the importance of physical infrastructure in agricultural extension services, where the absence of formal offices leads to inefficiencies in service delivery and weak farmer-extension linkages. This lack of formal office space reduces the OIC-MMOs' effectiveness, as farmers are unsure where to go for consultations. Accessible and well-equipped extension offices boost farmers' participation in agricultural programs and improve knowledge transfer (Sahoo et al. 2024). MAFAR should prioritize establishing municipal stations or offices for OIC-MMOs, as these would serve as vital centers for the extension system at the municipal level. One approach to address this issue is to allocate a budget for renting office space for OIC-MMOs. The budget should also cover necessary office equipment, such as tables, chairs, computers, and other office supplies.

Compounding this problem, OIC-MMOs often face budget shortfalls during their daily field operations, leading them to use a significant portion of their salary for regular activities. Just like international challenges in agricultural extension services, inadequate operational funding forces extension officers to cover work-related expenses out of pocket, ultimately reducing job satisfaction and program effectiveness (Davis et al. 2010). This situation is particularly challenging, considering they receive only the minimum salary of an ordinary employee despite working as heads of office at the municipal level. Research have shown that insufficient financial support for extension workers leads to lower motivation, decreased field presence, and limited farmer outreach (Ragasa et al. 2016). While MMOs

are at salary grade 20, which disqualifies them from receiving Representation and Travel Allowance (RATA), MAFAR should consider providing OIC-MMOs with Maintenance and Other Operating Expenses (MOOE), ranging from PHP 5,000 to PHP 10,000 (or approximately USD 85 to USD 170). Allocating dedicated funds for operational expenses has been found to significantly improve the effectiveness of extension programs by ensuring continuous field activities and minimizing financial burdens on personnel (Anderson and Feder 2007). This financial support would greatly facilitate the smooth implementation of programs at the municipal level.

This study provides insights into the operational challenges encountered by OIC-MMOs under the MAFAR in Basilan Province, BARMM. It traces the impact of institutional restructuring, logistical constraints, and political interference on the implementation of agricultural extension programs within fragile and decentralized governance contexts.

The findings indicate that the OIC-MMOs are burdened by mismatched qualifications, inadequate staffing, political interventions in beneficiary selection, lack of field offices, insufficient logistical support, and the absence of operational funding. These systemic issues hinder the delivery of effective extension services, particularly in conflict-prone areas. The paper identifies the dissonance between policy design and field realities, a concern that has remained largely unaddressed in previous extension literature, especially in post-conflict and autonomous regions.

Given these results, the following prioritized actions are recommended: 1) comprehensive, modular training programs for OIC-MMOs that cover agriculture, fisheries, and agrarian reform; 2) hiring of qualified and locally based contract fieldworkers to support the municipal offices, with clear lines of supervision under OIC-MMOs; 3) provision of MOOE at the municipal level to ensure continuous operations; 4) installation of basic office infrastructure in all municipalities to improve accessibility and visibility; 5) implementation of transparency mechanisms to safeguard beneficiary selection from political manipulation; and 6) development of supervisory and career advancement pathways for OIC-MMOs to boost retention and morale.

Future research could undertake mixed-method studies across other BARMM provinces to assess whether similar patterns persist in varied contexts. Comparative analyses can help identify scalable reforms and context-sensitive adjustments. Moreover, studies focusing on the perspectives of farmer-beneficiaries and LGU counterparts could give a fuller picture of the implementation landscape and help triangulate data from the extension workforce.

Empowering field-level officers through targeted support and structural reform remains central to advancing BARMM's macro-level goals of rural development and peacebuilding. Informed by the lived experiences of OIC-MMOs, this research lays the groundwork for reimagining the delivery of agricultural extension in post-conflict autonomous regions such as BARMM.

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GENERATIVE AI STATEMENT

The authors used OpenAI's ChatGPT (version GPT-4, July 2025) to assist in the revision and refinement of the manuscript. The tool was used primarily for editing the grammar and readability of the manuscript. All substantive content, analysis, and interpretations were developed by the authors. The final manuscript was reviewed and approved in its entirety by the authors to guarantee accuracy, originality, and scholarly integrity.

ETHICAL CONSIDERATIONS

Oral informed consent was obtained from all participants prior to the interviews. They were clearly informed about the study's purpose, their right to voluntary participation, the option to withdraw at any time, and the confidentiality of their responses. Given the localized and remote context of Basilan, where access to formal Institutional Review Boards (IRBs) is limited, this research did not undergo formal IRB review. However, the study strictly followed ethical protocols aligned with national guidelines for social research in the Philippines. Personal identifiers were excluded from transcripts and findings to ensure confidentiality and protect participants' anonymity.

DECLARATION OF COMPETING INTEREST

The authors declare no financial or commercial competing interests. The professional role of one of the authors is acknowledged as a potential source of contextual advantage, but it has been managed to ensure the study's integrity, impartiality, and adherence to ethical standards.

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