INSTITUTIONALIZATION OF CLIMATE RESILIENT AGRICULTURE

GENDER ACTION PLAN FOR CLIMATE RESILIENT AGRICULTURE IN THE PHILIPPINES

2024

INSTITUTIONALIZATION OF CLIMATE RESILIENT AGRICULTURE

GENDER ACTION PLAN FOR CLIMATE RESILIENT AGRICULTURE IN THE PHILIPPINES

2024

Prepared by TRTA Consultant under

TA-10009 PHI: Accelerating Climate Resilience in Agriculture, Natural Resources, and the Environment - 01 TA Consulting Firm (55268-002)

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS

A&F	-	Agriculture and fisheries
AFE	-	Agriculture and Fisheries Extension
AMIA	-	Adaptation and Mitigation Initiative in Agriculture
AMIA CREATE	-	Adaptation and Mitigation Initiative in Agriculture-Climate Resilient Agri-Fishery Technology-Based Enterprise
ATI	-	Agricultural Training Institute
CIS	-	Climate Information System
CRA	-	Climate resilient agriculture
CRAO	-	Climate Resilient Agriculture Office
CRVA	-	Climate Risk and Vulnerability Assessment
CSO	-	Civil society organization
DA	-	Department of Agriculture
FAO	-	Food and Agriculture Organization of the United Nations
FGD	-	Focus Groups Discussion
GA	-	Gender Action
GAD	-	Gender and Development
GDFS	-	Gender and Development Focal System
GM	-	Gender mainstreaming
LGAP	-	Localized Gender Action Plan
MEL	-	Monitoring, Evaluation and Learning
NAFMIP	-	National Agriculture and Fisheries Modernization and Industrialization Plan
NGO	-	Non-government organization
PDP	-	Philippine Development Plan
PFSI	-	Philippine Food Security Index
PIP	-	Provincial Commodity Investment Plan
PCRVA	-	Participatory Climate Risk and Vulnerability Assessment
SDG	-	Sustainable Development Goal
SUC	-	State universities and colleges
RFO	-	Regional Field Office
UPLBFI	-	University of the Philippines Los Banos, Foundation Inc.
VC	-	Value chain
WG	-	Working Group

EXECUTIVE SUMMARY

In the Philippines, women farmers are recognized to not only play critical roles in household caring, food and nutrition security but also in agricultural production, community, and environmental protection. However, gaps remain in their access to and control of agricultural assets, inputs and services, which consequently limit their participation to value chain development with their limited agency and generally impeding gendered social norms, and policies and governance. They also face distinctive risks and vulnerabilities with changing economies and climate. Despite of this, women farmers have become integral parts in emerging good climate resilient agriculture technologies and practices in the country. Gender equality and women empowerment are crucial towards transformative and sustainable climate resilient agriculture (CRA).

The Adaptation and Mitigation Initiative in Agriculture (AMIA) Program is the flagship program of the Department of Agriculture (DA) through the Climate Resilient Agriculture Office (CRAO) that aims to build farming and fishing communities by ensuring that their livelihoods and enterprises are resilient to economic and climate shocks. The program offers twofold interventions: first are the local-specific CRA technologies and practices; the second is an integrated support to farmers and fisherfolk in building resilient livelihoods, enterprises, and communities through the establishment of AMIA-based villages and AMIA Climate Resilient Agri-Fishery Technology-Based Enterprises (AMIA CREATE). The composition of these villages varies from farmer associations to cooperatives, enterprises, irrigator associations, women-based organizations, farmer federations and others. Various interventions are provided to these villages to increase their incomes and productivity of farming and fishing livelihoods amidst climate change.

To facilitate this, the AMIA Agricultural Development Pathway has been developed. This Pathway presents the transition of AMIA villages from Phase 1 to Phase 2 where farmers and fisherfolk organize, test and practice CRA technologies. The goal is to transition these into Phases 3 and 4 where clustered or federated AMIA village are engaged in multiple income sources through farm/fish-based enterprises. With this framework, a total of 181 AMIA villages have been established across the country as of 2023 where about 27% are in Phase 1 (48), 55% in Phase 2 (100), 15% in Phase 3 (28) and 3% in Phase 4 (5). Many of those villages in Phase 1 are in Region III (Central Luzon), Phase 2 in Regions V (Bicol) and VI (Western Visayas) while those in Phases 3 and 4 in Region IV-A (CALABARZON).

In 2022-2023, DA-CRAO engaged the University of the Philippines Foundation, Inc. (UPLBFI) to assist in mainstreaming gender in CRA. The first project was on “Integrating Gender Considerations into the Development of Projects for Vulnerable Sectors in Selected AMIA Villages in the Bicol Region”. The AMIA villages involved were (i) Joroan, Tiwi, Albay, (ii) Alayao, Capalonga, Camarines Norte, (iii) Cagbunga, Pamplona, Camarines Sur, (iv) Biong, Gigmoto, Catanduanes, (v) Alas, Mandaon, Masbate, and (vi) San Isidro, Prieto Diaz, Sorsogon. The project has two level: (i) developing tailored-fitted and gender-sensitive interventions for women and men farmers and/or fisherfolk, and (ii) providing capacity-building activities for both AMIA extension staff and beneficiaries. These were achieved through (i) sex-disaggregated baseline data collection, (ii) gender analysis/capacity assessment, (iii) gender-responsive projects development, and (iv) capacity-building.

The second project entitled “Strengthening Selected AMIA Villages through Mentorship Program, and Establishment and Implementation of Gender-Sensitive Projects (Regions VI, VII, VIII and CAR) was implemented particularly in (i) Banga, Aklan, (ii) Sibunag, Guimaras, and (iii) Ponteverde, Negros Occidental in Region VI. Some of the salient features in this second project were: (i) it reviewed and improved the process of establishing new AMIA villages with gender lens, including testing the gender based participatory climate risk and vulnerability assessment data collection tool; (ii) the objectives were to development tailor-fitted interventions for women and men farmers-fisherfolk and other vulnerable groups in these regions, share best practices of Region VI to other regions (Regions VII , VIII and CAR) through leadership coaching and mentoring in building climate-resilient following AMIA’s standards and processes, and conduct capacity-building of AMIA Regional Coordinators, extension staff and beneficiaries in these regions; and (iii) project highlights include the process documentation, training needs assessment, and monitoring and evaluation instrument, among others.

These experiences provide important lessons that DA-CRAO can build on as it continues to improve gender mainstreaming on CRA and in AMIA villages. These projects started to touch on other vulnerable sectors other than women; this provides an opportunity to go beyond gender and integrate Gender Equality and Social Inclusion (GESI) as a framework in CRA. Some of the lessons learned include:

- **Sex-disaggregated survey data on gender assessment** enables understanding on the similarities and differences between women and farmers in socio-demographic and economic profile. It also presents the statistics to see the variation by adaptation strategies by gender to further help in identifying interventions that are targeted, needs and gender based. Depending on the number of members per organization, the number of respondents may be expanded and close the gaps in terms of number between women and men respondents. It would also be good to discuss the sampling technique in the methodology to guide in the analysis (the extent of data coverage/representation). Data can also be further used in GESI analysis with basic variables from the same datasets such as age (to better understand youth), location (farmers in remote areas), ethnicity (indigenous and non-indigenous farmers), land ownership (as it influences long-term investments on farm) and others to generate important information on other vulnerable groups in the farming sector.
- The **use of the Kobo-Collect app in the survey is commendable** to simplify the process of data collection, management, processing and presentation. It also enables data sharing. CRAO may consider decentralizing the access of datasets; however, a mechanism has to be put in place considering the Data Privacy Act of 2012 with regards to disclosing respondents’ personal information or perceptions.
- The addition of the **checklist in the Gender-Responsive Project Development activity in Region VI** is important as another layer to ensure the gender responsiveness of the prioritized interventions.
- **The Gender Analysis provides qualitative information** about gender roles, access to and control of resources, and others, which are important in designing extension and interventions. The GESI framework can be integrated with this analysis to uncover barriers that prevent, not only the women farmers but also other vulnerable groups in A&F sector, such as the youth, elderly, indigenous peoples, landless and many others,

from full access them from full access and participation to CRA related activities, and consequently find ways to overcome these.

- **The generated gender action plans on CRA in these villages reflect the importance of considering gender differences in A&F sector.**

There are opportunities to enhance gender mainstreaming on CRA at CRAO, such as the additions of: (i) gendered (inclusive) value chain development, (ii) gendered organizational assessment, (iii) gendered value chain analysis (vertical and horizontal links), (iv) genderizing the AMIA Agricultural Development Pathway, and (v) integrating gender-disaggregated baseline data with CRVA, climate information system and other decision-support tools to inform the localized gender action plans, among others. In the process of encouraging the participation and engagement of women and other vulnerable groups, such as youth, indigenous farmers, etc., the aim it to collaborate and work with them in each aspect of the decision including the development of alternatives and the identification of preferred solutions (Phase 3) and empower them by enabling them to make the final decisions for themselves and their AMIA villages (Phase 4).

With this background, this proposed gender action plan for CRA and AMIA villages is aimed towards **gender economic and social empowerment in AMIA villages and climate resilient agriculture and fishery sector strengthened**. For the immediate first two years (April 2024-March 2026), there are two expected outputs on localized gender responsive action plans and gendered CRVA.

To achieve the Expected Output 1: localized gender responsive action plans in AMIA villages in Phases 3 (50% of 28) and 4 (100% of 5) and 15% of AMIA villages in Phases 1 and 2 operationalized and accessible in CRAO website, the recommended steps are:

- **Action Area 1: Establishment of Regional Gender and Development Focal System** committees for Phases 3 and 4, including the local Gender Working Groups in AMIA villages and the implementation of a comprehensive capacity building program for them to implement Actions Areas 2, 3 and 4.
- **Action Area 2: Implementation of localized gender assessment at different levels.** At the household level, activities will include gender-disaggregated survey and Gender Analysis, GESI and VC analysis. These will be integrated in CRVA, CIS and other decision support tools of CRAO to inform Action Areas 3 and 4. At the farmer association level, GESI-based organizational assessment will be conducted. At the community – AMIA level, these household and organizational assessments will be combined into AMIA village gendered baseline assessment reports.
- **Action Area 3: Development of localized gender responsive action plans.** Participatory planning workshops will be carried out to develop localized gender responsive action plans. The gendered baseline assessment reports and gendered CRVA, CIA and other tools will be used in the planning process to identify site-specific, and context based CRA interventions with gender and VC perspectives.
- **Action Area 4: Replication and upscale preparation and implementation of gender responsive action plans in AMIA Phases 1 and 2** as performed in AMIA Phases 3 and 4.

To achieve the Expected Output 2: Gendered data in CRAO's CRVAs integrated, the recommended action area is:

- **Action Area 1: Strengthen CRAO's GESI in CRA and AMIA villages.** This will include creating a GESI database (local gender assessments from Action Area 2), capacity building to integrate local gender assessment data in CRVA, CIS, DSS and others to inform local gender planning process (Action Area 3 and 4), creating database of gender sensitive CRA technologies, practices and crops, adapting and implementing gendered AMIA Agricultural Development Pathways, appointing more Gender Focal Points, and implementing a comprehensive CRA training with GESI and VC lenses to implement local gender assessments and localized gender action planning.

In Years 3 to 4 (March 2026 to April 2028), the actions areas for Output 1 will be more on (i) facilitating localized gender action planning to assist the remaining Phases 1, 2 and 3 AMIA villages develop their gender responsive action plans and (ii) rolling out the guidelines developed in integrating local gender assessments in CRAO's CRVA, CIS and other DSS tools to inform the gender action planning and other decision-making processes at AMIA villages and others. For Output 2, the databases established will be continuously updated while capacity building will also be continuously provided to CRAO staff and its local counterparts to be effective in extending extension support to AMIA villages. In addition, during this period, **Action Area 2 on Enabling environment on GESI and VC-development in CRA and DA.** This will include (i) enacting supportive policies, such as clustering of AMI villages to achieve economies of scale and further VC adding activities, etc. and (ii) implementing infrastructure such as irrigation facilities, training and demonstration farms, access to internet and mobile facilitated information, etc.

While CRAO will lead the implementation of these, the support of DA's top management and its bureaus (e.g., BSWM), institutes (e.g., ATI), offices (e.g. GAD, GESI) and its regional and LGU counterparts will be critical in terms of budget, human and technical resources. Similarly, the commitment of AMIA villages and local stakeholders, including NGOs, SUCs and private companies will be crucial in operationalizing their gender responsive action plans.

Ultimately, this action plan proposes mainstreaming gender and inclusive value chain in the effort of improving the integration of agricultural development and climate responsiveness, which are key preludes to achieving food security, poverty reduction and broader development goals amidst increasing food demand and changing climate.

1 INTRODUCTION

The long-term strategic development outcomes for the Philippines by 2040 are rooted towards building *Matatag* (strongly rooted)*, Maginhawa* (comfortable), and *Panatag* (secure) *na Buhay* (*Ambisyon Natin* 2040) (National Economic and Development Authority, 2023). To achieve this, the societal outcome as articulated in the **Philippine Development Plan (PDP)** for 2023-2028 is "to lay the foundation for inclusive growth, a highly-trust and resilient society, and globally competitive knowledge economy". At the agriculture sector level, the achievement of the PDP's outcome is anchored on the implementation of the Department of Agriculture's (DA) **National Agriculture and Fisheries Modernization and Industrialization Plan** (NAFMIP) for 2021-2030. It envisages the transformation of the agriculture sector into modern climate-resilient agro-based value chains (value chains) whose ultimate outcome is "a food-and-nutrition-secure, resilient Philippines with empowered and prosperous farmers and fisherfolk."

The Philippine Food Security Index (PFSI), a composite of four indices (affordability, availability, quality and safety, and sustainability and adaptation), serves as a barometer of how the country (and its agriculture sector) fared in terms of achieving food-and-nutrition security relative to the performance of other economies worldwide. In 2022, the PFSI ranked 67th out of 113 countries surveyed, which is below the global average of the Global Food Security Index[1]. Broken down by its four sub-indices, the country performed best in the availability sub-index because of the steady consumer price in 2022, low proportion of the population under the poverty line, and the relative ease of agriculture trade and a good food safety net program. This good performance rating in the availability sub-index was threatened however, in late 2022 to 2023 as regional and global food prices especially rice skyrocketed, largely due to the confluence of external factors, mainly the adverse climate change impacts, the prevailing COVID-19 pandemic, and the geopolitical Ukraine conflict. The weakest sub-index of the PFSI was the sustainability and adaptation category. Contributory factors for its lackluster performance were the exposure and threats to marine biodiversity, risks to the agriculture water supply and worsening land deterioration, low political commitment to adaptation, and weak governance in disaster risk management. The availability sub-index is the second weakest among the PFSI indicators, and this was due to the disruptions in the regional and global food logistics during the COVID-19 pandemic brought about by widespread work stoppages on the various nodes of the food supply chains. The PFSI likewise recorded lackluster scores on food quality and safety sub-index, which was reflected in the low dietary diversity especially among low-income Filipino food consumers who prefer relatively low-priced starchy foods, as well as the acute lack in micronutrient availability. These hampered the tackling of the structural problems on nutrient deficiency, resulting in sustained high stunting and wasting indicators.

There are **two strategic approaches that are embedded in the NAFMIP's outcome** statement that if implemented in tandem, can reverse the sector's poor performance in achieving the ultimate goal of food-and-nutrition security. These are gender empowerment and equality, and the

[1] https://impact.economist.com/sustainability/project/food-security-index/reports/Economist_Impact_GFSI_2022_Philippines_country_report_Sep_2022.pdf

development of climate resilient ago-based food and nonfood VCs. The Philippine government is committed to strengthening its efforts in achieving the Sustainable Development Goals (SDGs)[2] of sustainable development and leaving no one behind. Sustainable development requires that present agricultural development and response to climate change should never be at the expense of future generations, particularly women and other vulnerable sectors in the society. SDG 5 is about gender equality – a huge goal that positions gender in agricultural development among others as a key endeavor and priority for investment. In 2024, the DA stressed the importance of "a gender-inclusive and sustainable agriculture and fisheries sector (as pivotal in ensuring) empowered farmers and fisherfolk." As will be noted below, ample evidence illustrates the positive correlation of gender economic empowerment and social inclusiveness with the economic and sustainable growth of the agriculture sector.

To further deepen the gender perspective in the DA's programs, activities, and projects, two policy measures were introduced in 2023. The first dealt on the reconstitution of the DA's gender and development (GAD) focal point system for the central office, regional field offices, bureaus and attached agencies[3]. The second detailed the guidelines on gender mainstreaming (GM) strategies for the agriculture and fisheries extension (AFE) system[4]. The purpose of the first gender policy action is to ensure that there are specific management teams assigned in the DA's central and regional offices as well as in the bureaus and attached agencies who will be responsible for mainstreaming gender and development from planning to implementation as well as in budgeting and monitoring and evaluation. The purpose of the second Administrative Order is to integrate and operationalize "gender perspective into all aspects/stages of a program/project cycle so as to institutionalize gender equality and women's empowerment as integral aspects of the operation and culture of each AFE stakeholder." This policy action specified the key principles on GM, the GM strategies, the monitoring and evaluation of these strategies, and the communication plan.

Another strategic component of NAFMIP in the proposed sector's transformation into an agro-industry is the development of efficient climate-resilient agro-based food and nonfood VCs. There are triple wins on the promotion of climate-resilient agro-based VCs: productivity-enhancing, income-generating, and employment-inducing. Not only are higher productivity, and improved incomes and job creation achieved at the farm production systems but that these positive outcomes compound resulting from the upgrading of the nodal chain functions and products through the vertical coordination of farm-fishery/livestock production with their upstream (inputs), midstream (processing and storage), and downstream (marketing and logistics) nodes. Additionally, horizontal coordination or the organization of actors and stakeholders into collective action improves their bargaining leverage and leadership at the different value chain nodes and contribute significantly to sustaining these outcomes.

A myriad of targeted interventions is provided by the DA to facilitate value chain development. These include the construction of marketing and logistics facilities (warehouses, postharvest and

---

[2] Particularly SDG 5 Gender equality, SDG 13 Climate action, SDG 14, Life below water, and SDG 15 Life on land.

[3] https://www.da.gov.ph/wp-content/uploads/2024/01/ao09_s2023.pdf

[4] https://www.da.gov.ph/wp-content/uploads/2024/01/ao09_s2023.pdf).

processing facilities, fish landing and trading centers), and farm-to-market roads; credit programs and financial grants; local and international promotion and strengthening of regional and global market access; meat establishment improvement programs and processing facilities; farm and fisheries clustering and consolidation; standards and development; capacity building interventions; and innovations through research and development.

One key flagship program of the DA that promotes climate resilient agriculture (CRA) and improves the risk governance and management of the farmers and fisherfolk is the adaptation and mitigation initiative in agriculture program (AMIA). The program offers twofold interventions: first are the local-specific CRA technologies and practices; the second is an integrated support to farmers and fisherfolk in building resilient livelihoods, enterprises, and communities through the establishment of AMIA-based villages and AMIA Climate Resilient Agri-Fishery Technology-Based Enterprises (AMIA CREATE). The latter transforms AMIA villages into market-oriented enterprises while scaling up efforts to ensure resilience of agri-fishery communities. The amalgam of market-oriented enterprises in AMIA villages can progress to climate-resilient VCs that form networks linking domestic rural and urban markets and the global markets. In the long-term, the proliferation of climate resilient and VC oriented AMIA networks can become one of the assured climate-resilient and sustainable agro-industrialization trajectories for the Philippine agriculture sector.

To ensure an inclusive agro-industrialization pathway, **the proposal of this action plan is to integrate and mainstream gender empowerment and social inclusion with the development of AMIA villages and AMIA CREATE**. To elaborate on this proposal, the discussion of this paper is as follows: the next section looks at gender, agriculture and climate situation in the country; this is followed by an elaboration of the AMIA program and the transformation trajectories. The framework integrating gender empowerment and social inclusion with climate resilient value chain AMIA villages and AMIA CREATE is then discussed. Applying the framework, two gender case studies in AMIA villages are first presented, to extract the good lessons learned from these studies and the potentials for replication and up-scaling gender mainstreaming to other AMIA village. These shall serve as guideposts for a gendered climate-resilient value chain AMIA villages. The last section proposes Gendered Climate Resilient and VC-Oriented AMIA villages and AMIA CREATE.

2 GENDER, AGRICULTURE AND CLIMATE CHANGE: THE PHILIPPINE SITUATION

2.1 Gender and Agriculture

Simply defined, gender refers to the characteristics of women and men that are socially constructed. This includes norms, identities, expressions, behaviors, and roles associated with being a woman or man. Gender influences how they view themselves and relate to each other – how they act and interact. It also affects the distribution of power and resources in society, as well as how they are recognized or rewarded. As it is a social construct, gender varies from one society to another and changes over time.

There are four gender dimensions as these relate to VCs: women's agency, access to and control over resources, gendered social norms, and policies and governance (Pyburn et. al., 2023). Women's agency is the ability to define one's goals and act upon them. Access to and control over key resources and inputs for agriculture VCs, mainly land, labor, credit, information, extension, training, and technology. Gendered social norms are collective beliefs of what are appropriate and acceptable behavior for women and men in a cultural group or part of society. Policies and governance deal with decision-making and changing power relations at the household level and nature and extent of participation in VC activities or community groups or organizations.

Gender equality and women empowerment are crucial towards sustainable and resilient agrifood systems that are transformational in nature (Food and Agriculture Organization [FAO], 2023). Transformational change entails doing things differently, which requires a complete change in a system to bring huge improvements. This message is a key follow up to FAO's earlier study (2012), which emphasized the need to close the existing gaps in accessing agricultural assets, inputs, and services because of its negative impact not only to women but also for agriculture and the broader economy and society. This is because women's access to land, water, financial capital, and knowledge remains limited in many countries, such as the Philippines. These limits and lowers their productive agricultural capacity and incomes and hinders their effective management of natural resources.

In the Philippines, it is recognized that women not only play critical roles in household caring, food and nutrition security but also make essential contributions to agricultural production, community, and environmental protection (Javier et al., 2010). Although women are not counted in the official statistics, women's role in vegetable farming and pesticide use is crucial causing them occupational health issues (Lu, 2010). With men out-migrating for better income, women take responsibility on productive farming work (Tatlonghari & Paris, 2014; Lukasiewicz, 2011).

A growing body of empirical evidence also shows that understanding and mainstreaming gender differentials in agriculture have long-term and high impacts in agricultural development programs and projects (Mishra et al., 2017; Javier et al., 2010; Lu, 2010). Such understanding and efforts to mainstream gender in agriculture are keys in upholding the principles of gender equality and social inclusion (GESI). Local experiences also reveal that effective mitigation and adaptation to the impacts of climate change uphold these principles (Chandra et al., 2017; Tatlonghari & Paris,

2014). GESI are fundamental tenets of an enabling environment for VC development and CRA (ADB, 2020).

However, despite the recognized significant contributions of women in the agriculture sector, gender inequality persists in the country's agriculture sector:

- There is a big wedge between women and men who are employed in the sector: in 2019, 7.46 million are males, while there were just 2.24 million female workers (Philippine Statistics Authority, 2022). These labor force figures do not record the unpaid household and caring work of women, the retailing and marketing for domestic and informal markets particularly near farm centers, and the work in planting, weeding, and harvesting as well as post-production activities in threshing and processing.
- There is a wage differential with men's earnings being more than the women's take-home pay.
- Women are disadvantaged with regard ownership and control of productive land assets and capital due to property rights and inheritance laws. Land is a key resource in farming and ownership comes with decision-making in cultivation. In 2015, in the survey of distribution of agricultural landholders in 14 Asian countries, including the Philippines, about 89% were men and only a fraction (10.9%) were women (Dela O Campos et al. 2015; FAO, 2018). This shows differences in women and men's land ownership. Differences can also be observed in access to livelihood assets, gender roles, and soil perception that could have implications in the adoption of conservation agriculture (Park et al., 2014).
- Differences are likewise manifested in their access to and use of agricultural inputs, improved and gender-appropriate technologies, market and credit access, and human capital among others (Mishra et al., 2017). These contribute to significant gender gaps in farm productivity and earnings.
- Because of social norms and differing access to important resources, men and women have different capacities to mitigate risk and respond to disturbances. These responses include absorptive, adaptive, and transformative capacities.
- Women's participation in agriculture training has been limited; there is also lack in registration in the Registry System for Basic Services in Agriculture, and they have inadequate representation in farmers' and marketing groups, thus limiting their ability to capture the gains from commercialization.
- Women are over-represented in micro and small agriculture trading and marketing activities which generate lower sales and profits.
- Studies have shown that adoption of agricultural technologies are not developed with women's preferences and their constraints are properly considered.
- Women are concentrated in activities where entry barriers and returns are low, while men tend to be over-represented in value chain nodes with high entry costs and high returns.

- Women have limited mobility and thus are restricted to activities proximate to their homes. Often, women because of lack of mobility combine productive work with their domestic household work.

Several studies acknowledge that addressing the specific constraints faced by women farmers can enhance agricultural productivity and improve development outcomes. women were found to have higher values of rice production, have higher seed and labor costs and gains lower net profit, but are most likely to adopt improved seed varieties (Mishra et al., 2017). This strengthens the need for transformational change towards gender equality that can lead to agricultural productivity gains where women's increased access to and use of resources can facilitate higher economic growth and a better quality of life.

2.2 Gender-based Climate Vulnerabilities and Impacts

There is an integral connection between gender and climate, and gender relations are an integral part of social transformations that relate to climate change (Pearse, 2016). As such, recognizing gender vulnerabilities and impacts is vital. Moreover, gendered impacts of climate-related disasters and hazards are site-and-context-specific and are often influenced by normative expectations about their roles in society. In Nueva Ecija, the gendered vulnerabilities to extreme flooding events are influenced by the traditional roles in reproductive and productive dimensions, as well as in women's lack of access to resources and assets (Tatlonghari & Paris, 2014).

Women farmers also face distinctive risks related to climate-induced resource scarcity. For example, water and fuelwood are basic needs in farming households. Unfortunately, these are among the most climate-affected resources with the greatest impact and consequential effect to the most vulnerable members of the community as they need to walk long distances and carry heavy loads for these resources (Yadav & Lal, 2018). Scarcity of these means more labor and time in collecting water and fuel wood in further sources and entails physical strain and risks with distance. These vulnerabilities and risks to climate change are worsened by poverty, especially in conflict-stricken parts of the country like in Mindanao (Chandra et al., 2017).

Women and men farmers' response to the impact of climate change differs, which is based on their traditional roles and gender relations (Tatlonghari & Paris, 2014). Although women, elderly, and children suffer more during and after climate-induced disasters (e.g. flooding and drought), they need to endure such vulnerabilities as they serve as caretakers of those affected by disasters despite themselves being affected already (Rahman, 2013). This substantially increases their emotional, material, and physical stresses. Similarly, apart from physical, social, economic and political advantages, men, in general, have plenty of time available to cope with climate-related vulnerabilities as they do not have regular reproductive responsibilities compared to women (Damptey & Essel, 2012). These situations proved the resilience of women and other vulnerable groups of the society that needs collective actions to help them confront the impact of climate extremes.

In recent years, CRA emerged as a strategy to enhance the resilience of farmers with changing environments (Rai et al., 2018). CRA technologies and practices are low-emission technologies that aim to improve food production while enhancing resilience. It follows several practices, such as cultivating drought-tolerant varieties, organic farming, diversifying crops, soil and water conservation measures, integrating trees on farms and others (Srivastav et al., 2021).

In the Philippines, women farmers are integral parts of these practices in agriculture, yet their roles in agricultural production systems and the complex gender relations that shape access to resources, and economic opportunities have received minimal attention. For example, although coffee farming in the Philippines is dominated by men, women participate in harvesting cherries (75%), drying (67%), and selling (60%) (Deluna 2023).

The ways women respond to these show that actual adaptations exist, which are varied and specific to their sites and socioeconomic and cultural contexts. Experiences show that while gendered impacts of climate change include normative disruptions to personal and economic life that led to new forms of gender inequality, it also poses possibilities for resilience (Crease et al., 2018) and social change (Tatlonghari & Paris, 2014). Thus, strengthening climate resilient agriculture is critical to enhance gender equality and reduce the impacts of climate change.

Some of these gender responsive CRA practices are discussed below:

- Experiences in Asia, Africa, and Latin America reveal the importance of co-production of knowledge through the climate-smart village approach where the use of participatory methods enable farming communities, scientists, policymakers, and other stakeholders engage in **research for development** to test or develop technologies, policy and institutional options to better deal with the impacts of climate change (Agarwal, et al. 2018). **Understanding on women and men's perceptions on agriculture** can help make interventions more gender responsive. For example, while profitability was the main consideration for adopting agroforestry systems in Bukidnon where crop-based farms was perceived as more beneficial by both men and women, fruit trees are preferred by men, while plantation crops and timber trees for women farmers (Ureta et al. 2016). This shows the importance of research that is gender-based to understand the intersectionality of gender, agriculture and climate change, which consequently helps in providing more gender-responsive interventions.
- **Changing women's roles requires also changing the roles of men** to avoid multiple burdens to the former. In Nueva Ecija, rice farmers are exposed to climate hazards (e.g. flooding) and have limited access to assets and resources. These have changed not only women's source of livelihood but also the husbands and wives gender roles and relations where women spend more time doing non-farm work while men assume household and childcare responsibilities (Tatlonghari & Paris, 2014).
- Involving women and other vulnerable groups in planning and decision-making process helps in **identifying and introducing gender sensitive CRA practices.** In the Philippines, gender-sensitive practices that promote climate smart agriculture was implemented in Benguet (e.g. crop-livestock integration, greenhouses, nurseries, etc.) and Quezon (coconut-based agroforestry with small live-stock, integrated fruit-trees, and understory crops). These practices empower women and encourage their active participation in various farming activities and promote gender equalities between husband-and-wife farmers (Rosimo et al., 2021).
- **Developing VCs with a gender lens** is important in promoting women's participation and empowerment in VC. This is shown in the study of Malapit et al. (2020) where most women and men disempowered in the abaca, coconut, seaweed and swine

values VCs in Albay, Sorsogon, Leyte, Southern Leyte, and Bohol. Some sources of disempowerment across and some nodes along VCs are respect within household and attitudes about gender-based violence, the control of use of income and autonomy in income-related decision and excessive workload and lack of group membership. On the other hand, women empowerment is associated in access to community programs while it is access to extension services and education for men. Although gender gap is relatively small, this study shows the importance of gendered value chain analysis and development to measure, compare and identify areas of disempowerment of women and men in specific VCs. Understanding this will help address these disempowering areas.

In the process, these experiences showed that approaches to integrating GESI in CRA must consider inequalities, site-specific biophysical, environmental, and economic conditions, socio-cultural contexts, and norms.

To assist agriculture and fisheries (A&F) communities adapt to changing climate while ensuring resilient and sustainable agricultural livelihoods, DA launched the AMIA in 20125. It is the Department's flagship program in climate change through an integrated and multi-stakeholder approach in promoting climate resilient agri-fisheries. It is a participatory action research with farmers and fisherfolk towards building climate-resilient livelihoods and communities.

AMIA envisions farming communities to become resilient to the increasing negative impact of climate change. To achieve this, Climate Resilient Agriculture Office (CRAO) sets up the AMIA villages to serve as model communities where technological and institutional innovations are introduced for them to access relevant support services, such as climate information services, access to credit and insurance, computer-aided decision-making technology, training on climate change adaptation and disaster risk reduction practices, and market linkages.

[5] As a National Program on Climate Change in Agriculture, making agri-fisheries communities climate resilient is crucial in achieving SDGs 1, 2, 5, 8, 10, 12, 13, 14 and 15 in the Philippines.

3 ADAPTATION AND MITIGATION INITIATIVE IN AGRICULTURE PROGRAM

3.1 AMIA Villages, Public-Initiated Intervention Measures, and Strategic Objectives

Establishment of AMIA villages. AMIA villages are organized from among site-specific A&F areas that face similar climate change risk and vulnerability attributes. These villages comprise of households and communities that cultivate a contiguous agricultural land area (about 100 hectares) or are fishery community sites or raise livestock. An AMIA village model and the selection criteria are illustrated in Figure 1.

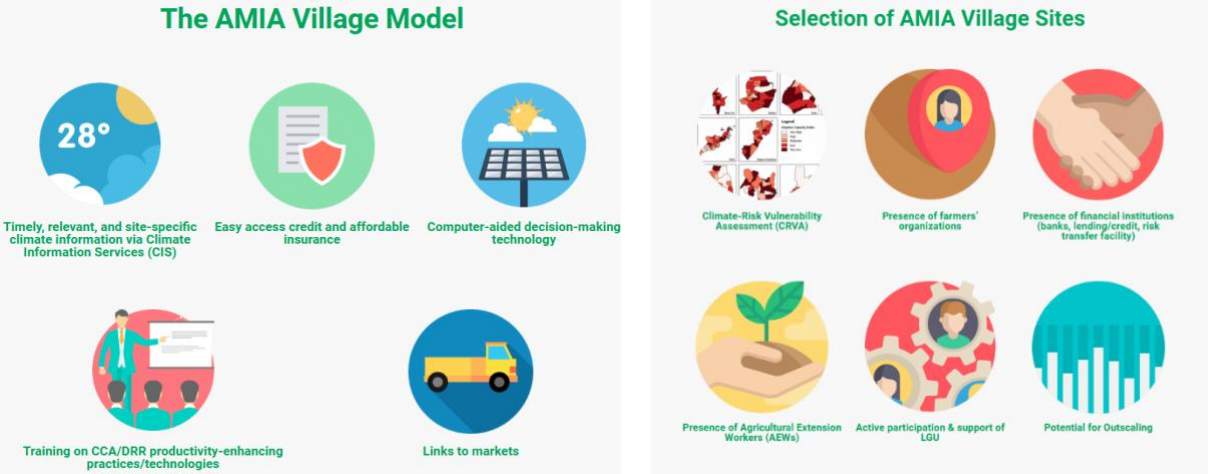


Figure 1. AMIA Village Model and Site Selection Criteria

Farmers, fisherfolk, and livestock producers in each AMIA village identify the nature and type of climate risks and select as a group common adaptation strategy that will increase productivity and incomes especially among the poverty-stricken farmers/fisherfolk who are the most vulnerable to climate change. A package of tailor-fitted interventions suited to their climate realities and the perceived needs of their production systems is provided; these include science-based information and tools, CRA technologies and practices, and together with other DA offices, a myriad of targeted assistance such as seeds, fertilizers, machinery, and credit.

The integrated and tailored extension and support services that are provided include the following aspects:

- Community-level climate-resilient agri-fisheries technologies;
- Climate Information Services (CIS);
- Computer-aided decision-making technologies;
- Links to market;

- Training on climate change adaptation and disaster risk reduction productivity enhancing practices and technology; and
- Easy access to credit and affordable insurance.

Important measures in enabling greater empowerment of the farmers through the establishment and building of the AMIA villages are considered:

- Enabling farmers to identify and understand their vulnerability to climate change through Participatory Climate Risk and Vulnerability Assessments (PCRVA);
- Providing guidance in the use of climate- and weather-informed farm and fishing advisories to identify that to plant, when to plant, and what cultural management practices to adopt including the application of 10-day weather-based farm/fishing advisories to guide their day-to-day farming activities; seasonal climate based farm-fishing advisories as a guide to six month planning periods for farming/fishing; and special weather farm/fishing advisories as a guide to avoid damage during typhoons as well as recover after typhoons;
- Testing and adopting CRA practices, technologies, and tools that address their climate risks to produce that they sell and not just sell what they produce; and
- Identification of support services that are needed and partner with the DA offices, local government units (LGUs), civil society organizations (CSOs) and non-government organizations (NGOs) to practice CRA.

A pivotal intervention of the AMIA program through CRAO is the promotion of science-based decision-support tools in identifying climate risks and vulnerabilities of the local-specific sites. These tools include:

- National, Color-coded Agricultural Guide Maps that comprise an overlay of 29 maps from different source agencies to serve as tool and investment guide for various sectors particularly agriculture and features the natural suitability of 20 economically important crops which are key to food security and eight major and climate change-induced hazards that largely affect the A&F sector.[6]
- Climate Risk Vulnerability Assessment (CRVA) Maps that provide a tool that analyzes three main factors namely, exposure to hazards (exposure to significant climate variation), sensitivity (climate suitability of crops), and adaptive capacity that also support DA resilience-building initiatives for better and longer-term geographic targeting.
- Typhoon Risk Information that shows the monthly typhoon incidence in each province and provides a useful guide for adjusting planting calendars to ensure that production losses and damage losses are minimized. The patterns indicate that most super typhoons occur in the 3rd and 4th quarters of the year which is a critical period for the harvesting of crops.

[6] Available as an on-line version: https://amia.da.gov.ph/

- CIS though which the DA-Regional Field Office (RFOs) provide weather information and corresponding advisories including climate resilient approaches to assist farmers and fisherfolk in better decision making during extreme weather events. The CIS Decision Support Tool helps farmers to decide when to plant, harvest and use the most appropriate CRA practice to build resilience and improve their livelihoods.

The juxtaposition of these decision-support tools to the country's geographical regions embedded climate change factors in determining the appropriate A&F production and processing sub-systems. These are shown in Figure 2.

Figure 2. Distribution of agricultural production systems for regions

The strategic objectives of the AMIA program are to:

- Increase adaptive capacity and productivity potential of agricultural and fisheries livelihoods by modifying commodity combinations to better meet weather issues and natural resources endowments.
- Redefine the Strategic Agricultural Fisheries Development Zones including climate change vulnerabilities as part of mapping variables.
- Redefine the Agricultural Development Planning Framework as the basis for agricultural planning by including key factors/variables associated with climate change.
- Develop a new framework and plan for the provision of a "new" government agricultural service towards the accelerated development of climate smart agriculture and fisheries industries.

3.2 Toward Climate Resilient, Inclusive and Sustainably Income-Inducive Agro-Industrialization Trajectory

While the AMIA approach introduces a participatory, localized, climate-based and targeted provision and adoption of a package of public extension services, it also envisages a mutually

reinforcing development of the AMIA villages from mere subsistence production systems to a cluster of market-oriented and commercially viable AMIA CREATE.

Phases of AMIA Development. The AMIA Program envisages a four-phased agriculture development of the AMIA villages (Figure 3). The first phase is about the establishment of new AMIA villages and the identification and set up of the tailor-fit package of climate information and extension services. Agriculture households in these villages are loosely organized and are dependent on agri-based production as their main source of income.

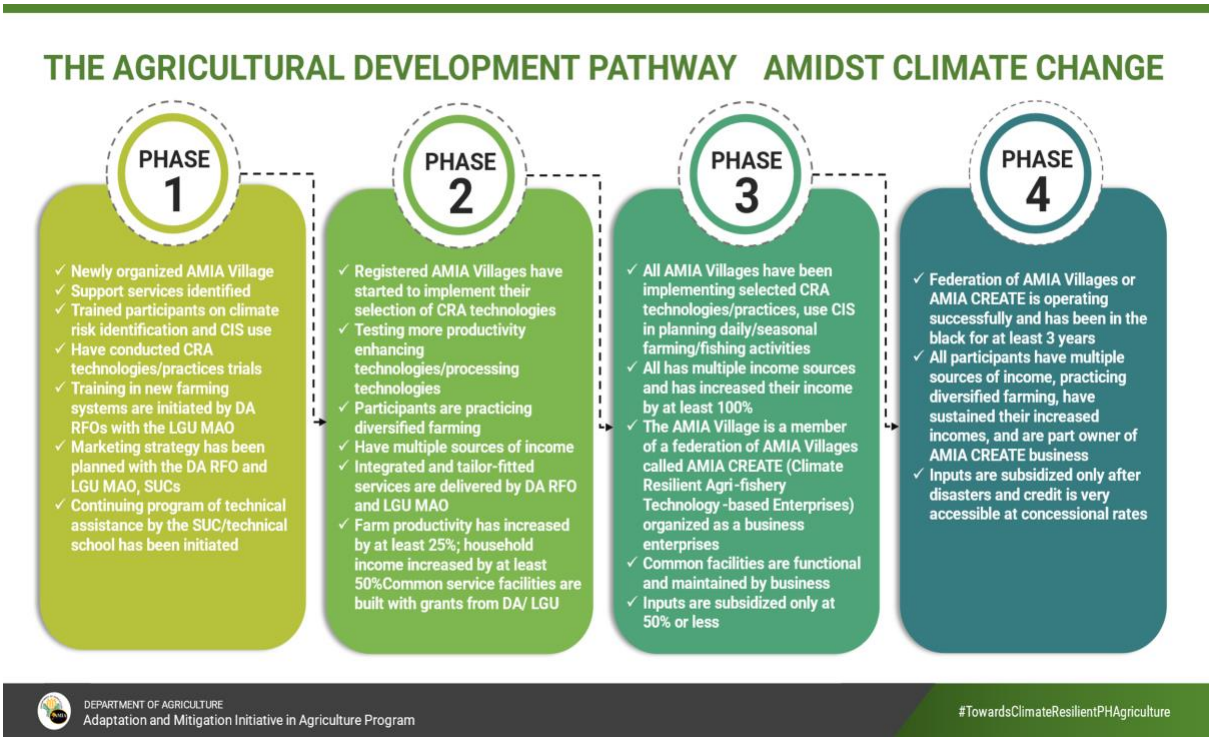


Figure 3. The Agricultural Development of the AMIA Villages amidst Climate Change

At the second phase, the agriculture producers register as organized groups like farmers' associations, and taking advantage of the climate information knowledge, CRA technologies and practices and other targeted and tailor-fitted services suitable for the locality, the agriculture producers shift to diversified farming systems. Improved production and productivity ensue, resulting in higher incomes for the households.

In the third phase of AMIA development, the AMIA villages have multiple income sources, upgrading their take home by a hundredfold. The AMIA villages become members of the federation of AMIA villages with access to AMIA CREATE hub/s that have common facilities for upstream (e.g., input provision) and/or midstream value chain nodal activities (e.g., processing, marketing/trading wholesale or retailing). These will enable the membered AMIA villages with access to the AMIA CREATE hub/s to become actively integrated with their respective food and nonfood agri-based value chains. About 50% of their input and other public extension services are, however, still subsidized.

The fourth phase is the apex of agriculture development of the AMIA villages where these villages are federated with flourishing and profitably sustainable AMIA CREATE.

The actions that are needed to facilitate movement up the ladder of the AMIA transformation ladder comprise the following:

- The CRAO, in cooperation with the respective RFOs, conduct an assessment of the existing AMIA villages and identify the initial areas as proof of concept for the menu of climate resilient crops, livestock, aquaculture and fisheries for production and expansion.
- Each RFO will adjust their current budgets to support the implementation of the AMIA CREATE networks.
- The AMIA CREATE proof-of-concept shall include farm clustering/consolidation and professional management/business service provider to support the enterprise development approach that will be introduced.
- To ensure the transformation of AMIA villages, CRAO in collaboration with Agribusiness and Marketing Assistance Service and Agricultural Credit Policy Council, Philippine Crop Insurance Corporation, the DA Banner Programs and all other programs will continue to strengthen their engagement with business service providers and professional managers to provide communities with integrated and support services.
- The RFOs will also strengthen their partnerships with the LGUs to integrate the AMIA CREATE network in the LGU Climate Change Action Plans.

To date, there are about 181 AMIA villages in 59 provinces and 127 municipalities/cities across the entire country[7]. The most number of AMIA villages are found in Region VI (Western Visayas); a far second in terms of distribution is Region-IVB (MIMAROPA) with the rest of the regions have a more even distribution (Figure 4). Based on the AMIA Agricultural Development Pathways (Figure 3), many of the established AMIA villages are in Phase 2 with a total of 100, followed by those in Phase 2 with 48, and then in Phase 3 with 28. Only a few at 5 have reached Phase 4. Table 1 presents some information of the AMIA villages under Phase 4: Sustained AMIA CREATE, including the CRA practices and interventions.

[7] https://amia.da.gov.ph/index.php/amia-villages-2/

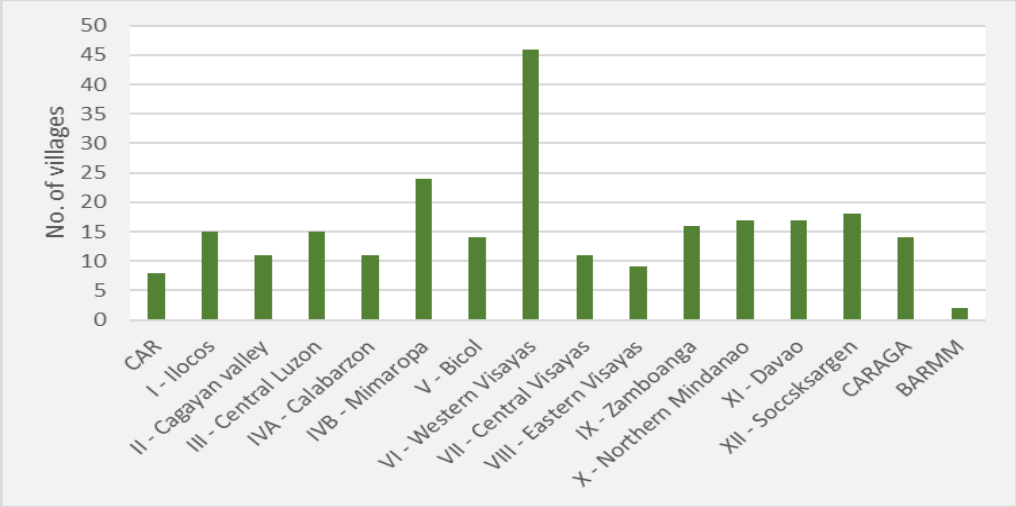


Figure 4. Distribution of AMIA villages by region

Table 1. Profile of the AMIA villages in Phase 4: Sustained AMIA CREATE (2023)

Region	AMIA Village Site	Major Commodity/ Product	Climate-Related Risks	CRA Practices/ Interventions
II (Cagayan Valley)	Brgy. Santa Victoria, Ilagan City, Isabela	Corn, rice, cassava	Drought, flood, Typhoon, and soil erosion	AMIA Climate Information and Learning Center; agricultural machineries (4-wheel drive tractor, riding-type direct rice seeder); nursery for fruit trees, forest tree seedling production, and Citrus Foundation Groove; crop diversification/ integrated farming (communal garden, mushroom production, swine production, and chicken layer production); soil analysis; provision of hybrid rice seeds; training on Organic Agriculture Production NC II funded by TESDA R02

II (Cagayan Valley)	Brgy. Lucban, Benito Soliven, Isabela	Rice, corn	Drought, flood, and tropical cyclone	Agricultural machineries (combine harvester, 4-wheel drive tractor, riding-type direct rice seeder); AMIA Climate Information and Learning Center; solar-powered irrigation system; alternate wetting and drying in rice; provision of hybrid rice seeds; soil analysis; greenhouse for vegetable seedling production, vermicomposting facility, brown rice mill, watershed development for Lucban SWIP, crop diversification/integrated farming (SWIP-based tilapia production, mushroom production, gulayan sa bakuran, dragon fruit production
IV-A (CALABARZON)	Brgy. Gapas, Guinayangan, Quezon	Coconut, Native Chicken and eggs, Vegetables	Typhoon, Landslide, Soil Erosion, Flood, Drought	• Coconut (Intercropping and crop diversification) • Coconut+vegetables (eggplant, squash, hot pepper) • Coconut+blackpepper production, CIS
IV-A (CALABARZON)	Brgy. Magsaysay, Guinayangan, Quezon	Coconut, Native Chicken and eggs, Vegetables	Typhoon, Landslide, Soil Erosion, Flood, Drought	• Coconut (Intercropping and crop diversification) • Coconut+vegetables (eggplant, squash, hot pepper) • Coconut+blackpepper production, CIS
IV-A (CALABARZON)	Brgy. Himbubulo, Guinayangan, Quezon	Coconut, Native Chicken and eggs, Vegetables	Typhoon, Landslide, Soil Erosion, Flood, Drought	• Coconut (Intercropping and crop diversification) • Coconut+vegetables (eggplant, squash, hot pepper) • Coconut+blackpepper production, CIS

For each AMIA village there are various parameters identified that characterize their situation in respect of climate related risks, CRA practices/interventions and the major commodities/products.

- **Climate related risks:** The most frequently noted climate related risks concern were exposure to drought and dry spell (142), flooding (120) and typhoons (102). Other climate-related hazards are erosion (94) and landslides (90). The severity of these risks is not clearly quantified but there is certainly anecdotal evidence of an increase in the severity of flash flooding and the adverse impact that this has on standing crops. Secondary factors of increased risk of landslides and soil erosion as well as storm surge are also noted that result from the increased intensity of storms. The increased frequency of drought is stressed as well as the increased unpredictability of rainfall that impact directly on the

timing of planting and risk of crop failure. There are some instances of earthquakes being included although this is not a climate related risk.

- **CRA practices/interventions:** There are an enormous range of options or strategies identified that include not only measures to introduce climate resilience into existing production practices, but also a very large number of new initiatives some of which appear to have a strong element of transformational change in production with, in many cases, an expressed need for technical assistance and further training to enable the shift to new commodities. There has been a noticeable increase in farm diversification (all or 181 villages), supplemented with the use of CIS (173 villages), and a rising number of organic agriculture practices (114). Other common CRA practices are the use stress tolerant varieties and water management technologies. The range of options varies greatly between AMIA villages suggesting that more technical assistance may be needed in some cases to enable farmers to gain a better understanding of CRA approaches that could be relevant to their own situation.
- **Major commodities/products:** For each municipality/city there is also an indication of the major commodities that and/or products that should be the focus on the expansion of production within the AMIA villages. The commodities that have been identified do not always include the other commodities that have been identified for CRA practices/interventions but tend to relate only to the main commodities that are currently being produced. Nevertheless, there is a very wide range of commodities included (23 in total) but rice and corn continue to predominate (Figure 5). This is of some concern since it shows little change away from the existing structure of the Philippines agriculture sector, that has not changed over the past 50 years, wherein the 74% of the arable land is used to produce the three primary commodities of rice, corn and coconuts, that in turn continue to receive the majority of the government support.

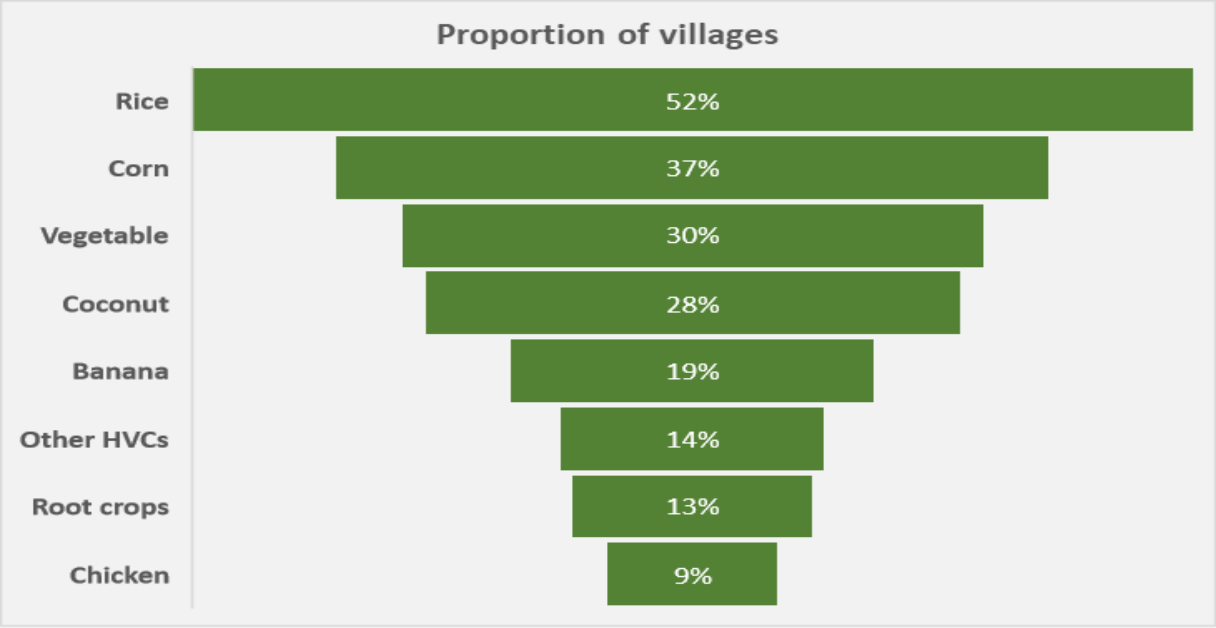


Figure 5. Distribution of main commodities for all AMIA villages[8]

The transition to Phase 3 in the AMIA village model is premised on the achievement of specific achievements in respect of (i) the adoption of CSA practices and use of CIS in planning daily/seasonal farming and fishing activities; (ii) farmers have multiple income sources and their income has increased 100%; (iii) the village(s) are a part of the AMIA CREATE network and is organized as a business enterprise; (iv) common facilities are functional and maintained by business; and (v) inputs are subsided only at 50% or less. The final Phase 4 is reached when (i) the AMIA CREATE network of villages has been profitable for at least 3 years; (ii) all farmers have multiple sources of income, practice diversified farming; (iii) all farmers have increased their incomes and are part owners of the AMIA CREATE business; and (iv) inputs are only subsidized after disasters and credit is easily accessible at concessional interest rates.

AMIA and VC approach for an agro-industrialization trajectory. The pathway of agriculture development of the AMIAs and the AMIA CREATE networks can be further enhanced by applying the value chain approach (Figure 6). Two modes of value chains are taken: the vertical and horizontal modalities of coordination or integration. The latter considers the upgrade into upstream (inputs provision and logistics), midstream (processing in terms of upgrade of processes and/or product; from simple to more complex processing), logistics support for marketing (wholesale and retail), and downstream nodes (market outlets: rural and urban, domestic and foreign).

Horizontal coordination is the modality of organizing the actors involved in the chain, whether these are the farmers/fisherfolk groups, or processors, or input suppliers, or those who do the marketing and logistics side. In this case, the focus is on the agriculture producers in AMIA villages who can organize as cooperatives or register into partnerships or corporations. In turn, the service hubs can also be formally registered, providing the services and contracting arrangements for bulk purchase of inputs or other vital materials in production and processing. The hubs can also "shorten" the VCs by ensuring the processing or logistics works, thus removing the intermediaries.

At Phase 4, AMIAs and AMIA hub centers are organized as networks of registered federations with substantial bargaining leverage. The AMIA villages in turn are organized into networks of food or nonfood agri-based VCs operating like industries. The trajectory is one from simple agriculture development to climate-resilient, inclusive, and growth-based agro-industrial. This new network of AMIA CREATE enterprises and federations with operating hubs will expand and change the agriculture sector's landscape into modern and climate resilient agri-based VCs that are linked to industries and service rural and urban markets.

This agro-industrialization envisages different levels of public intervention: from CRAO, its service of providing climate information, tools, and foresight will continue ensuring updated climate tools and science-based information. Provision and adoption of other extension services can be done with public and private collaborations. Lastly, policies will continually be needed to ensure enduring development of agro-industrialization trajectory.

[8] Multiple commodities have been identified for some AMIA villages.

Table 2. AMIAs and the Agro-Industrialization trajectory

Nature of value chain/ government measures	Phase 1	Phase 2	Phase 3	Phase 4
Horizontal integration/ coordination	Loose organization	Registered to farmers' groups, or coops	Registered as federation → Service Hubs	Registered as federation networks → Large service Hubs
Vertical integration/ coordination	Primary production, small-sized; diversified incomes	Primary production; diversified farms→ Processing (simple)→ Warehouses/ storage→	Inputs→ Primary production: F2CF; consolidation→ Processing →upgrade including Product development Logistics/storage→ upgrade process (just-in-time, digital)→ Marketing/market centers (local, foreign)	Agro-industries (link of agriculture & industries; rural & urban markets)
Government measures	CRAO on climate information services; impact assessments; foresight studies Others on extension support	CRAO on climate information services; impact assessments; foresight studies Others on extension support (75% subsidy)	CRAO on climate information services; impact assessments; foresight studies Others on extension support (50% subsidy	CRAO on climate information services; impact assessments; foresight studies Minimal support
Policy measures	• Participatory guarantee system • Amendments on coop law • Geographic indicator			

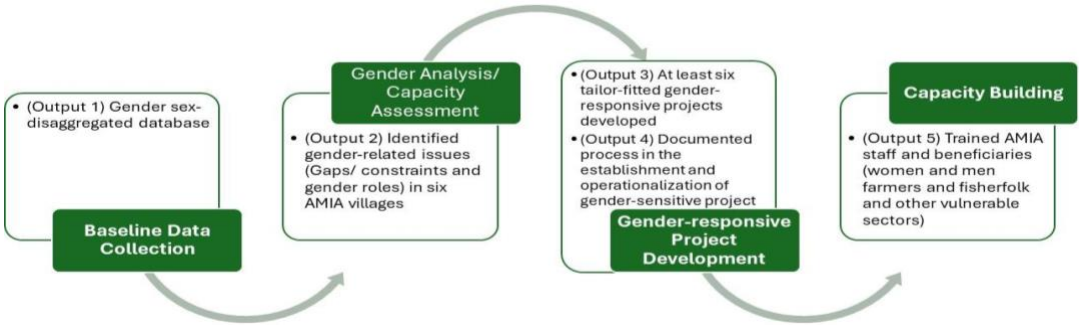
4 TOWARD A GENDERED AMIA FRAMEWORK

4.1 A. Case Study: Gender Mainstreaming in AMIA villages in Regions V and VI

CRAO is committed to not only establishing climate resilient livelihoods and communities in the country but also in addressing gender gaps and social exclusion of some vulnerable groups within AMIA villages. This is line with AMIA's objective to facilitate at least 50 villages and help them implement pilot projects that enhance the adaptive capacity of women to changing economies and climate. This case study is mainly referred from the experience of CRAO and the University of the Philippines Los Baños Foundations, Inc. (UPLBFI) on two gender mainstreaming projects[9] at AMIA villages in Regions V (Bicol Region) and VI (Western Visayas) (UPLBFI, 2023a; and UPLBFI, 2023b).

The first project is aimed to integrate gender considerations in the development of projects of selected AMIA villages in six AMIA villages in Region V including (i) Joroan, Tiwi, Albay (2) Alayao, Capalonga, Camarines Norte, (iii) Cagbunga, Pamplona, Camarines Sur, (iv) Biong, Gigmoto, Catanduanes, (v) Alas, Mandaon, Masbate, and (vi) San Isidro, Prieto Diaz, Sorsogon. The project has two level: (i) developing tailor-fitted and gender-sensitive interventions for women and men farmers and/or fisherfolk and (ii) providing capacity-building activities for both AMIA extension staff and beneficiaries (women and men farmers and/or fisherfolk).

Gender is mainstreamed in its four-step process starting from (i) Baseline Data Collection through a survey for a sex-disaggregated database. This was followed by a (ii) Gender Analysis using the Harvard Analytical Framework as adapted by agriculture (ADB, 2002) (Annex 1) and Capacity Assessment and then (iii) Gender-Responsive Project Development through a series of focus group discussions (FGDs). Finally, the implementation of (iv) Capacity-Building activities with both the AMIA extensionists and the women and men farmers of the selected villages. See Figure 6 below for the methodological framework.



[9] (i) Integrating Gender Considerations into the Development of Projects for Vulnerable Sectors in Selected AMIA Villages in the Bicol Region and (ii) Strengthening selected AMIA Villages through Mentorship Program, and Establishment and Implementation of Gender-Sensitive Projects.

Figure 6. Project's methodological framework

A quantitative baseline survey was conducted to profile the AMIA beneficiaries. A total of 241 farmers participated in the survey where about 57% were women; although within villages, the number varies and between gender while sampling was also not discussed. For example, in Tiwi, Albay, the average age of women farmers is 41, which is higher than men farmers at 27. Both genders mostly finished high school. Men owned an average land area of 3.5 hectares, which is lower with women at 2.21 hectares. Farm to house is more distant with women at 2.58 kilometers (km) as compared to men at 1.45 km. More women owned the farms they cultivated than men. Monthly income is the same for both genders that is <PHP10,000 while income per cropping is slightly higher with women at PHP15,000 while it is PHP14,500 for men.

When it comes to perceptions on climate change, both genders in Tiwi, Albay have the same thoughts when it comes major climate-related problems such as flooding, high crop losses, low crop production, and occurrence of pest and disease. Some of their adaptation practices include following early warning system, use of flood/drought tolerant seeds, availing of crop insurance, backyard gardening, use of organic fertilizer, and use of alternative feeds for animals. The most beneficial support they received from the Program is financial and material support like seeds and fertilizer. The same information is gathered from the other five AMIA villages. Although not quantified, this information is important in understanding their context in relation to their perception regarding climate change.

Following this survey, around six FGDs were organized in the studied villages, where about 62% of the participants were women. In the Gender Analysis, it is recognized that women remain focused in delivering reproductive roles, which are unpaid and often less valued. However, they also perform key roles in productive roles (e.g., marketing); hence are performing multiple roles than men. With time allocation, women spend an average of 12 hours doing reproductive work as opposed to men with three hours; while men spend an average of 11 hours on productive activities as compared to women with five hours. This information is relevant on how to strategize the delivery of extension services for improved access and participation in training, seminars, and the likes.

With Access and Control Profile, it was found out that decision on land use remain with men, which on the part of women becomes a barrier for them to access income-generating activities as farming is the only main source of income in the sites. With this, farm-based value adding activities is essential as it can provide opportunity for women to earn income. There were no household issues raised when it comes to women discrimination, gender-based violence, or women's participation and leadership. With regards to farming-related issues, they generally identified lack of equipment, high cost of farm inputs, and the need for additional livelihood sources. There were differences between gender by AMIA village. For example, in Prieto Diaz, Sorsogon, women identified proper handling of budget and savings, lack of capital and knowledge to start a business, and lack of tools and equipment in processing boneless bangus as their concerns; for men, it is the need for more training about intercropping, lack of equipment, and selling of harvested crops. Recognizing these differential perceptions on farming concerns is important in identifying needs-based interventions.

Finally, the discussion in Influencing Factors Profile provided a more in-depth understanding of the problems and issues by drawing upon their experiences, feelings, attitudes, beliefs, and

reactions that cannot be captured in the baseline survey. They also helped in determining the appropriate interventions that will be developed in the targeted areas.

They then identified appropriate training events that can be organized on the project sites identified during the Gender-Responsive Project Development activity. For example, in Gigmoto, Catanduanes, training on meat processing was identified. This aligns with the livestock (native pigs and poultry) provided to them. This training on processing meat into food products can help them earn additional income.

The GAPs of women and men farmers were based on the (i) gender issues they face, (ii) their proposed CRA and project activities and programs, and (iii) gender indicators and targets. In implementing their GAPs, various Capacity Building activities were organized with AMIA beneficiaries. These training activities were aimed to provide them with additional knowledge and skills on utilizing available resources for supplementary income. Alternative incomes are necessary to help them sustain their daily basic needs, especially their vulnerability to changing climate. These activities were related to product development towards AMIA CREATE goal. While the sustainability of these interventions needs to be ensured and scaled up for wider reach, the landscape and social transformations, especially how women manage climate risks while pursuing their farming livelihood, should be documented to get lessons from.

Similarly, training for RFO extensionists were facilitated to discuss various gender-related concepts, understand the nexus pf gender, agriculture, and climate change, and capacitate them on how to integrate gender considerations in planning of climate change projects and activities. The training program involved three modules: (i) introduction to Gender and Climate Change, (2) How to conduct Gender Analysis, and (3) Mainstreaming Gender into Planning. This capacity development is fundamental for these extensionists to do the same process on their own and not rely on external support.

Learning from this experience in Region V, the second project provided opportunities to review and improve the process of establishing new AMIA villages with gender lens, including testing the gender based PCRVA data collection tool. The objectives were to (i) develop tailor-fitted interventions for women and men farmers-fisherfolk and other vulnerable groups in these regions, (ii) share best practices of Region VI to other regions (VII, VIII and CAR) through leadership coaching and mentoring in building climate-resilient following AMIA's standards and processes; and (iii) conduct capacity-building of AMIA Regional Coordinators, extension staff and beneficiaries in these regions. With these intentions, prominent in this project were the process documentations, training needs assessment, and M&E instrument, among others.

As stated in Objective 2, three AMIA villages were involved from Region VI, namely (i) Banga, Aklan, (2) Sibunag, Guimaras, and (3) Pontevedra, Negros Occidental. The sex-disaggregated gender assessment basically followed Figure 6 using the improved version of PCRVA data collection tool. As part of improving the Gender-Responsive Project Development activity, they subjected the identified gender-sensitive interventions into a checklist, which includes indicators that will further ensure that gender considerations are integrated into the building blocks of climate change response through adaptation, mitigation, financing mechanism and technological development. The higher the number, the more the intervention is gender responsive. Another emphasis in this project is the monitoring and mentoring, followed by training events to capacitate coordinators and staff and involved in AMIA program, particularly on proposal and enterprise

development cost-benefit analysis. As a result, one unit of mobile vehicle and women-friendly mini-rotary tiller were distributed to the three pilot sites as gender-sensitive projects that could uplift farmers, especially women, and empower them to improve their livelihood and income.

4.2 Lessons Learned from AMIA Program and other Gender Mainstreaming in CRA

The AMIA study provided many important lessons that can be deduced in both the findings and methods for replication and scaling. Some of these are:

- **The sex-disaggregated survey data on gender assessment** enables understanding on the similarities and differences between women and farmers within and amongst AMIA villages in terms of socio-demographic and economic characteristics. Understanding these characteristics is critical for RFO extensionists as this influences their decisions and practices on farming and collective behavior. For the climate related information, it is suggested to also present the statistics to see the variation by adaptation strategies by gender. These statistics can help in identifying interventions that are targeted, needs and gender based. Depending on the number of members per organization, this can also be improved by expanding the number of respondents and closing the gaps in terms of number between women and men respondents, as some differences were quite big such that generalization can be challenging. In line with this, sampling methods can also be discussed in the methodology.
- **The gender assessments provided basic but important determinants on the ways farmers behave, act and respond to climate change. To be inclusive, these basic variables from the same datasets can be further analyzed such as based on age (to better understand youth), location (farmers in remote areas), ethnicity (indigenous and non-indigenous farmers), land ownership (as it influences long-term investments on farm) and others to generate important information on other vulnerable groups in the farming sector.** For example, this can help in understanding the barriers of youth or farmers in remote areas or indigenous farmers and others from accessing CIS or participating in training. Such understanding could also result in designing and implementing more inclusive interventions in AMIA villages.
- **It is commendable that the Kobo-Collect app was used** in the survey to simplify the process of data collection, management, processing and presentation. It also enables data sharing. As such, it would be good to decentralize the access of the datasets, especially with the RFO extensionists to maximize the use of the data. They should be capacitated to process and analyze these for work use. However, a mechanism has to be put in place considering the Data Privacy Act of 2012 with regards to disclosing respondents' personal information or perceptions. The addition of the checklist in the case study is also important in the prioritization of interventions based on being gender responsive. This is critical considering the government's limited resources.
- The addition of the **checklist in the Gender-Responsive Project Development activity in Region VI i**s also important as another layer to ensure the gender responsiveness of the prioritized interventions.
- **The Gender Analysis provides qualitative, more crystallized information** about gender roles, access to and control of resources, and others. Considering this in extension

and intervention, design and implementation can contribute to the AMIA transformation. The GESI framework can be mixed with this analysis to uncover barriers that prevent, not only the women farmers but also other vulnerable groups in A&F sector, such as the youth, elderly, indigenous peoples, landless and many others, from full access them from full access and participation to CRA related activities, and consequently find ways to overcome these. Annex 2 presents some of the key topics that can be discussed related to this.

- **The generated GAPs in these villages reflect the importance of considering gender differences in A&F sector.** The gender-responsive projects, which were identified by the beneficiaries themselves (Region VI), reflect the importance of understanding the differences in the characteristics, perceptions, and needs among other women and men members in organizations.
- The g**ender action planning relied on the gender assessment, Gender Analysis and Gender-Responsive Project Development activities, and followed a participatory process.** However, there was no integration of these local assessments (based on perceptions) with CRAO's rich CIS, PCRVAs, and other innovations (based on science) nor the use of these to inform GA planning. Such integration could have developed science-based information for more proactive planning and decision-making on interventions. Moreover, there was also no value chain analysis done based on priority commodities, as well as environmental assessment to know the status of natural resources (land, water, biodiversity) that they depend on for their farming livelihoods.
- Providing gender-sensitive support services and technologies are empowering, such as the projects provided to the three AMIA villages in Region VI. **Effective and adaptive M&E** systems **will ensure that intended and unintended effects are recorded to improve future interventions.** Ensuring feedback mechanism is important to learn from lessons and be adaptive to changes during implementation.

Meanwhile, the gender action planning relied on the gender assessment, Gender Analysis and Gender-Responsive Project Development activities. There was no integration of these local assessments (based on perceptions) with CRAO's rich CIS, CRVAs, and other innovations (based on science) nor the use of these to inform GA planning. Such integration could have developed science-based information for more proactive planning and decision-making on interventions. Moreover, there was also no value chain analysis done based on priority commodities, as well as environmental assessment to know the status of natural resources (land, water, biodiversity) that they depend on for their farming livelihoods.

Based on AMIA's experiences and others within the country and beyond, there are emerging elements to integrating GESI in CRA that are worth considering in developing the GAP for CRA and AMIA. These are:

- **Improving access to and control of resources is a basic requirement to women empowerment.** Among others, such access to and control of resources enables them to make meaningful decisions. This can only be possible with institutional structures that recognize women and gendered social norms.
- **Climate-resilient technologies and practices that increase the adaptive capacity of women, youth and other vulnerable social groups** is important. These have to be

accessible, feasible, easy to use, and inexpensive. To be gender-responsive, these have to reduce women's work loads and support their livelihood activities by increasing agricultural production and income.

- Instead of a dole-out system, **incentives followed by rewards-based approaches to projects can be beneficial to women and other vulnerable groups.** This encourages co-investment and co-management from them and with other local stakeholders, which ensures their stake; hence will motivate them to give their best for the success and sustainability of the projects.
- Farming livelihood alone may not provide women sufficient income for their households' needs. **Initiating value adding activities from existing commodities will increase their income while diversifying livelihood activities will ensure income inflow considering economic and climate change uncertainties.**
- In the advent of digital transformation, the **access to and use of decision-support systems and digital technologies** for tools and information, CIS, early warning signs, and other uses is important for women, youth and other vulnerable social groups. This includes **utilizing social media platforms** like Facebook, Tiktok, and others to encourage and empower them more and help cultivate empathy and support around gender and CRA.
- **To achieve scale for CRA, organizing and capacitating women, youth and other vulnerable social groups,** is crucial for knowledge and skills development, linking and networking, and initiating collective actions.
- With Senate Bill 782 "Poverty Reduction through Social Entrepreneurship" that acknowledges and supports social enterprise for their roles in poverty reduction, **CRA-based women enterprises** are at the forefront of fostering social businesses that are environment-friendly and economically profitable.

4.3 Engendering the AMIA Agricultural Development Pathways: A proposal

To genderize the AMIA Agricultural Development Pathways, this action plan proposes integrating gender dimensions under each phase. Through GESI, interventions channeled through AMIA can positively affect the associations involved, and consequently their households. Effective delivery of AFE services and facilitation work in these villages can raise the level of women empowerment and make the program transformative for them.

To do this, the indicators under each of the four pathways (Figure 3) were deconstructed to identify the development outcomes (Table 2). This brings us to six development outcomes: (1) organizational development and governance, (2) capacitation development, (3) farm development, (4) CRA technologies and practices, (5) livelihoods and social enterprise, and (6) government and other stakeholder interventions. As discussed, Phase 1 is the initiation stage where government intervention is at the highest. In Phase 3, the village has organized business enterprise, which they are able to sustain in Phase 4. Apparently, there are no indicators related to gender. Hence, the proposition.

A development outcome on GESI is proposed to deliberately engage women and other vulnerable groups in AMIA village and contribute to their empowerment (Table 2). A ladderized approach can be adopted where interventions will ensure the (1) economic empowerment of women in

Phases 3 and 4, and (2) social inclusion for organizational strengthening. Focusing on these can raise the level of women empowerment phase after phase. To wit,

- In Phase 0, there is no established AMIA village yet; such that farmers do their farming activities on their own. At this stage, farmers are not organized with limited collectives. They receive extension services from RFO extensionists and respond to them individually. With the effects and risks of changing economies and climate to their farming livelihood, they will be interested in the AMIA program.
- In Phase 1, it is assumed that the organized AMIA village is generally gender blind[10] or in some aspects of the organization or their activities may be gender blind. To increase women participation, at least 10% of the beneficiaries will be women farmers, or youth and other vulnerable sub-farming groups. Women members will be consulted in all the initiatives and CRA trials in this stage.
- In Phase 2, it is presumed that the AMIA village has acknowledged the ideal phase of gender per AMIA pathways. The organization has become gender sensitive[11] acknowledging gender differences and the associated issues and concerns in the design and implementation of interventions. The intention here is to increase women's involvement in testing and practicing CRA technologies. This can be manifested with at least 20% of the beneficiaries being women.
- In Phase 3, the AMIA has become gender responsive[12] with increased collaboration of women with the AMIA village being organized as a business enterprise. The goal is to increase women collaboration in the enterprise by at least 30%. Dialogues will be organized to provide them opportunities in collaborating in the business enterprise with their advice sought in the process. An example of this is micro-financing to support their farm-based business enterprises.
- Finally in Phase 4, the program has made transformative[13] changes in gender with empowered women in the AMIA villages. More than 30% of the beneficiaries are women and they are empowered. Such that women's self-confidence increased, enabling them to make meaningful decisions for the organization. This can be attributed to activities deliberately organized to address their concerns while reflexive dialogues were sustained. For example, they have strong organizations (social inclusion) that enable them to manage their own farm-based business enterprises (economic empowerment).

With the assistance of RFO extensionists, AMIA villages will prepare annual status reports. This will assist in determining where they are based on the Gendered AMIA Agricultural Development Pathways (Figure 2). This report will not only include the status of their CRA practices or interventions and business enterprises but also their activities based on the gender development indicators in their localized GESI plans for CRA (Annex 3). Implementing the MEL system is critical as it will provide insights, learnings and gaps (e.g., what worked and didn't work) and

[10] Gender differences is not taken into account in farming activities
[11] Acknowledging existing gender differences, issues and concerns. and consider these in the design and implementation of plans, programs and projects
[12] Addressing the strategic issues and needs of women and other vulnerable groups, as well as valuing their perspectives and experiences
[13] Removes structural barriers to women and vulnerable groups by empowering them

recommendations that are critical information for RFO extensionists and AMIA. This will further inform their localized GESI plans for CRA in the following year.

Table 3. Proposed integration of gender dimensions in the AMIA's Agricultural Development Pathways

Gender development indicators	**AMIA Agricultural Development Pathways**			
	1 (Initiation & CRA Trials)	***2 (Testing & Practicing CRA Technologies)***	***3 (AMIA CREATE)***	***4 (Sustained AMIA CREATE)***
Organizational development and governance	• Newly organized • Support services identified	• Registered AMIA • Common service facilities are granted by DA/LGU	• Common facilities are functional and maintained by enterprise	• Cluster/Federation of AMIA Villages or sole AMIA Village is operating successfully and has been in the black for at least 3 years
Gender and social inclusion (and engagement for empowerment)	Gender blind → Increased women participation • At least 10% of women farmers, youth and other vulnerable sub-farming groups consulted	Gender sensitive → Increased women involvement • At least 20% of women farmers were involved • Gender differences in perceptions, experiences, and practices recognized • Gender differences are incorporated in the design of interventions or activities	Gender responsive → Increased collaboration with women • At least 30% of women farmers collaborated • Organized dialogues that provide opportunities for reflection • Advices and innovations sought from women farmers for interventions	Gender transformative → empowered women in AMIA Villages • More than 30% of women farmers are empowered • Built women's agency and strengthened self-efficacy • Implemented specific activities to

				address women concerns • Sustained reflexive dialogues
Capacitation development	• Continuing program of technical assistance by the SUC/technical school has been initiated.	• Integrated and tailored fitted services are delivered by DA RFO and LGU-MAO	• 100% of participating households are above the poverty threshold	
Farm development	• Training in new farming systems are initiated by DA RFOs with the LGU MAO	• Testing more productivity enhancing technologies/processing technologies • Participants are practicing diversified farming • Farm productivity has increased by at least 25% households	-	• are practicing diversified farming,
CRA technologies and practices	• Trained participants on climate risk identification and CIS use • Have conducted CRA technologies/practices trial	• Villages have started to implement their selection of CRA technologies	• All AMIA Villages have been implementing CRA technologies/practices, use CIS in planning daily/seasonal farming/fishing activities	-

Livelihoods/Social enterprise	• Marketing strategy has been planned with the DA RFO and LGU MAO, SUCs	• Have multiple sources of income • Household income increased by at least 50% • 50% of participating households are above the poverty threshold	• All has multiple income sources and has increased their income by at least 100% (household and organization levels) • The AMIA Village is a member of a cluster/federation of AMIA CREATE (Climate Resilient Agri-fishery Technology-based Enterprises) organized as a business enterprise	• All participants have multiple sources of income, have sustained their increased incomes, and • are part owners of AMIA CREATE • 100% of participating households are above the poverty threshold sustained
Government interventions	-	-	• DA assistance only at 50% or less	• Inputs are subsidized only after disasters, and credit is very accessible at concessional rates

5 RECOMMENDED ACTIONS AND NEXT STEPS

The recommended gender responsive action plan for CRA and AMIA villages will address the gender gaps discussed in the preceding sections and incorporate economic and social empowerment lenses into the relevant activities with reference to the policy, technological and institutional changes developed for scaling up agribusiness value chains for AMIA projects (Sub-output 1.1.6). The expected outcome is ***gender economic and social empowerment in AMIA villages and climate resilient agriculture and fishery sector strengthened***. By using the GESI framework in CRA, the approach will focus not only women farmers but also other vulnerable groups in A&F sector, such as the youth, indigenous farmers, and others. Also in this context, economic empowerment will refer to profitable women-managed agriculture-based business enterprises in Phases 3 and 4 while social empowerment will allude to organizational strengthening in AMIA villages.

Several principles will underpin the successful mainstreaming of gender and inclusive VC development in the design, implementation and monitoring of CRA and AMIA program, projects and activities. Among these are the following:

- Evidence-based. Robust data will be important to inform and make gender-sensitive decisions and gender-responsive actions that are evidence- and science-based.
- Participatory. This approach to gender and GESI mainstreaming will acknowledge the differential experiences, capacities and perceptions, needs and priorities of women and men farmers and other vulnerable groups. Acknowledging this will ensure their parity or balanced participation where collaboration will be important elements.
- Inclusive. To reflect GESI, this plan will uphold the use of gender-inclusive or gender-neutral language so as not to discriminate any social gender or gender identity nor perpetuate gender stereotypes.
- Empowerment. This principle will refer to the economic empowerment of farmers of any gender, including other vulnerable groups. While this plan is directed to women farmers due to existing gender gaps, as mentioned in previous sections, it will also include other vulnerable groups. As such, economic strategies and measures will be geared towards gender balance, especially at all levels of decision-making, planning implementation, and monitoring.
- Transformative. The goal is to reshape gender dynamics within AMIA villages by redistributing resources and responsibilities between women and men farmers, and other vulnerable groups. This will be reflected in the collective design of interventions, in setting these up, and operations.

While there are good practices from the Philippines and other developing countries, this gender action plan will build on the experiences of AMIA program, particularly the gender mainstreaming projects in Regions V and VI (UPLB 2023a; UPLB 2023b). Among others, these practices will require deliberate efforts and dedicated resources, as well as knowledge and skills development, paradigm shifts, and behavioral changes in the process.

To develop gender action plans in AMIA villages in Phases 3 (50% of 28) and 4 (100% of 5) and 15% in Phases 1 and 2 (22 of 148) and make these plans operational and accessible in CRAO website by Q1 2026, the following four action areas are recommended (Table 4).

Action Area 1: Establishment of Regional Gender and Development Focal System (GDFS) committees for Phases 3 and 4. Based on the recommendations of CRAO and GESI, these committees will issue the guidelines for the operationalization of localized gender action plans for CRA alongside the creation of GDFS at regional and local levels. Gender Working Groups (GWGs) will be created in AMIA villages. A comprehensive capacitation training will be developed and implemented in a participatory fashion by CRAO, GESI and ATI for regional GDFS, GWGs and others to collect, manage and analyze data for AMIA villages gendered baseline report writing, particularly (i) gender assessments at household, organizational and community levels and (ii) localized gender responsive action planning. This will be conducted strategically to save time and resources as well as appreciate the connection of these activities.

Action Area 2. Implementation of localized gender assessment. This will prioritize Phases 3 and 4 during Year 1 considering that they are already in their advanced stage of AMIA development; integrating GESI data, gender analysis and localized gender action plans in their policies, and activities will be beneficial to the organization and its members. The expected outputs are gendered baseline reports that are evidence- and science-based in CRA, which will help enhance the overall quality and relevance of the AMIA program. This Action will be carried out in three levels: (i) household, (ii) organizational, and (iii) community.

At household level, gender-disaggregated baseline surveys will be conducted. To do this, existing data collection tools developed and implemented with UPLBFI will be revisited by CRAO, GESI and GDFS at RFOs to ensure that they will capture and quantify sex disaggregated socio-demographic and economic profile of beneficiaries, their needs, as well as the climate change-related problems, their adaptation measures, and suggested interventions to arrest the problems. These tools will be translated to local dialects where AMIA villages are for GDFS and RFO extensionists to easily facilitate the interviews. Information that will be generated from this survey will be important to better understand the organizational context based on the profile and perceptions of members, which consequently will contribute to developing more empowering and inclusive interventions and innovations.

Training events will be organized by CRAO, GESI, Agricultural Training Institute (ATI) with support from the GDFS and the RFO extensionists on how to use the household survey tool, especially that this tool will be converted into Kobo-Collect app[14]. This app will be used to easily collect, manage, analyze, and present the data for use during the report writing of the GESI assessment.

Once local capacities are capacitated, a comprehensive gender-disaggregated data collection using Kobo-Collect will be implemented in the context of GESI, inclusive value chain, and climate change. In the analysis, aside from looking at the datasets by gender, the same can also be done by ethnicity, age, income, and others if time and resources will allow to reflect these equally

[14] https://www.kobotoolbox.org/

important social dimensions. Implementation will be in selected AMIA villages according to their current phases and locations.

Localized decision support tools like maps, data sets in tabular or graphical forms are important to make better plans and decisions for the organizations. As such, the local GESI assessment will be integrated with CRAO's CIS to generate (i) actual hazards due to climate change and (2) actual losses for instructive information among others. If possible, local assessments will also be fed in CRAO's computer-aided decision-making technology, climate vulnerability assessments and other climate risk management tools in AMIA existing technological and institutional innovations to generate more localized information. This kind of information is crucial to identify and implement both proactive and preventive measures focusing on prevention and early interventions and reactive care focusing on addressing immediate issues. Finding a balance between these two measures will lead to more efficient and effective plans that will minimize farmers' losses, as measures prioritize both prevention and timely interventions.

Also at the household level, FGDs will be conducted to facilitate Gender Analysis and GESI analysis. Like the previous survey activity, the UPLFI on Gender Analysis following the Harvard Analytical Framework will be used (Annex 1). This be enhanced to include the following questions: (i) Based on the baseline data collected, what gender inequalities prevail and how are these manifested at household, community, and organizational level? (ii) Has an analysis or study/ies been undertaken to identify existing gender inequalities, including those induced or exacerbated by climate change? (iii) What gender gaps are shown by the surveys and qualitative research in terms of economic (division of labor, workload, and access and control of productive resources by women and men) and decision-making, governance, and leadership attributes (social inclusion)? (iv) Who and how do women and respond to induced or exacerbated natural hazards? What are the adaptation methods? and (v) Who, what, how, and why participate in value chain works (vertical and horizontal). In addition to Gender Analysis, adding the use of GESI framework will enable better understanding on the barriers experienced by women and other vulnerable groups, which will inform in identifying ways to address these (Annex 2).

GESI-based organizational assessments will be conducted through FGDs. As previous activities, data collection tools will be developed to systematically assess organizations with GESI, inclusive value chain, and climate change lenses. Data collection may be through FGD, SWOT analysis, interviews, and financial analysis among others. This assessment will essentially include (i) economics, particularly inclusive value chain assessment, (ii) social inclusion, which is the organizational assessment itself, and (iii) environmental aspects. For the organizational assessment, discussion may include (i) governance and leadership, (ii_ operations and management, (iii) human resource development, (iv) financial management, (v) business delivery, and (vi) external relations. In the process, gender balance will be observed where both genders will be represented.

The FGDs may include the association's (i) Board of Directors, (ii) Officers, and (iii) member in separate discussions to minimize issue on power relations. Where feasible, non-government organizations (NGOs) and state universities and colleges (SUCs) will be encouraged to participate in all these collections of gender information at different levels.

Implementation of these data collection activities will be sequential; such that the gender-disaggregated household survey will be conducted first, followed by the Gender, GESI and VC

analysis. Initial results will inform the data collection tools of GESI organizational assessment. It is important to note the site conditions and local contexts such that there will be variations in the tools on top of minimum general information requirement to assess organizational capacities. As a follow up activity to the gender-disaggregated survey and Gender, GESI and VC analysis, the GESI organizational assessment will follow the former's site selection and phasing of implementation. The GESI organizational assessment will particularly be important for those operating under Phases 3 and 4 of the AMIA phases, which to date have not included GESI analysis and action plans that will bolster the organizational structure in terms of enhancing their governance, achieving the productivity and efficacy of the organizations as these business organizations pursue value chain linkages vertically and horizontally.

The availability of two datasets: (1) GESI assessment (household/member level from survey and Gender. GESI and VC analysis) and (ii) GESI organizational assessment will enable ***the development of gender-based baseline assessment reports of farmer organizations in AMIA villages (Community level)***. This will be further enhanced by combining local assessments with CRAO's CRVA, CIS and others to generate a localized decision support system that will be useful in AMIA villages.

These baseline assessment reports of AMIA villages will serve as bases in future interventions and undertakings of organizations. Special attention will be directed to gender, inclusive value chain concerns, and adaptations at beneficiary and organizational levels to help them become resilient to economic and climate changes. This may include putting in place gender-sensitive policies and mechanisms as a foundation to creating an enabling environment for gender at AMIA level. Formal organizational structures will have to be established, which is one of the prerequisites toward more formal marketing arrangements (Phases 1 and 2). Such will also help them better implement their localized gender action plans and transition to more advanced AMIA CREATE (Phases 3 and 4). The motivation is for GM to be part of the AMIA scaling up indicators and an integral component of the AMIA CREATE networks.

Action Area 3: Development of localized gender responsive action plans. Localized gender action plans are important as they guide decisions on future development proposals while addressing current needs and opportunities in AMIA villages. As it will be GESI-based, it will include where interventions will take place and with whom. To do this, a capacity building program will be implemented by CRAO, the GDFS at regional levels, and the RFO extensionists with support from the GESI office to develop internal capacities and facilitate Participatory Gender Planning Workshops at AMIA villages. Depending on the resources, this may be done as one-time regional level training or more localized workshops at regional level. See Annex 3 for the proposed guidelines.

After the training, a local GWG will be created amongst the officials/members with about 6-10 core members. One of them will serve as the Gender Focal Point. As a group, they will be tasked to develop their localized gender responsive action plan in a participatory manner and based on evidence-based gender assessments; as such, they will be capacitated as part of the planning process. Capacitation may include seminars about gender sensitivity, GESI, inclusive value chains, climate change adaptation, as well as field visits in nearby successful women-and-youth-managed business enterprises for learnings and inspirations. This will develop the knowledge

base in areas on climate risks with gaps in GESI and inclusive value chains, which consequently enable them to be effective during the planning process.

Localized Participatory Gender Planning Workshops will be facilitated to develop gender responsive action plans at AMIA villages. With the GWGs, these plans will be contextualized based on their respective organizational, economic, cultural and political environments. The GESI-based baseline assessment reports will be used for evidence-based planning process. The plans will importantly include interventions on (i) CRA technologies, practices and crops (the gender sensitive CRA database will be useful), (ii) inclusive value chain development on priority commodities and agri-based products or inputs (building on local and international markets), (iii) capacity building and organizational development, (iv) financing and budget, and (v) MEL plan. After finalizing the plans, these will be presented to AMIA villages for approval and adoption. The City/Municipal Agriculture Office, SUCs and other local stakeholders may be invited in these planning workshops for inputs to make the plans comprehensive and inclusive. The planning workshops will be piloted in selected AMIA villages. From this pilot experience, the planning process will be improved for rolling out in other AMIA villages in the next three years. It is envisaged that these plans will serve as important inputs to the localized and Municipal Investment and the Provincial Investment Plans.

Considering limited fundings of AMIA villages, funding the implementation of gender action plans will be challenging. One route is of course to propose the implementation of the plans to their respective RDFS, which can access the DA budget that is earmarked for gender and development activities. The other is the inclusion of these plans for funding through the Municipal Investment and the Provincial Investment Plans. Localized fund generation activities can likewise be initiated. For instance, local forums will be organized inviting government and NGOs, private companies, CSOs, and others for any potential support. There will be different pathways to support the implementation of plans. Provision of support can be direct (funds) or indirect (in kind materials, technical assistance, etc.). They may also directly implement specific activities in plans that align to their own mandates and programs as part of their Corporate Social Responsibility. Climate financing will also be explored through payments for ecosystem services (e.g., land health and productivity), rewards or incentive-based approach to CRA interventions, access to crop insurance or credit, and others. The overall approach to the gender action plan implementation will be promoting co-investment where other local stakeholders will provide capital or support alongside the AMIA villages' own investments like their lands for CRA, time, knowledge and skills, and others.

A participatory gender responsive MEL system in every AMIA village will be established and implemented. This MEL plan is aimed to monitor and evaluate the implementation of GESI plans, and design feedback mechanism for learning and uptake of findings. This framework will provide the means to explore the gendered impact of AMIA program and its projects on the women and men behind the AMIA villages whose lives and farming livelihood are affected by it (Bowman and Sweetman, 2014). The learning part will be the use of findings to guide their efforts and resource use and mobilization, and decision-making. In the process of monitoring, participatory methods for data collection will be used to engage AMIA's Gender Working Group considering the limited number of RFO extensionists. Participating in implementing the MEL component of their plans will also be capacitation on the part of the Gender Working Group. Several evaluation methods will be used but will be inclined more on qualitative ones to capture the perceptions of beneficiaries

themselves and intricacies of organizations and collective actions with overlapping gender, inclusive value chains, and climate change impacts. Some of these methods are Most Significant Stories, Outcome Stories, and other similar ones.

Action Area 4. Replication and upscale preparation and implementation of gender responsive action plans in AMIA Phases 1 and 2 as performed in AMIA Phases 3 and 4. Where possible, the "big brother-small brother" approach will be employed to facilitate the development of gender action plans in AMIA Phases 1 and 2. Following the experience in Phases 3 and 4, data collection at household, organizational (farmer association) and community (AMIA villages) will be conducted incorporating gender and VC perspectives in CRVA, CIA and other DSS tools. These data collections will importantly include gender equities and analysis of organizational structures of AMIA villages. Development of gender responsive action plans will be participatorily, including the identification and prioritization of targeted interventions from DA. For new sites that intend to become AMIA village, the same process of organizational establishment and development of gender action plans will be done.

For expected output that is to integrate gender data in CRAO's CRVA, the following action areas are recommended.

Action Area 1: Strengthening CRAO's GESI role in CRA and AMIA villages. A GESI database will be developed at national and regional levels to collate the data collected from Action Area 2 in Output 1. Before that, CRAO played a critical role in revisiting and finalizing existing data collection tools of UPLBFI, which will be first used in AMIA Phases 3 and 4. It is important that these capture and quantify the gender-based socio-demographic and economic profile of members, their needs and adaptation strategies to climate change and risks. There will be opportunities to improve the data collection tools, such as on (i) qualitative questions, where needed, to generate better data, (ii) the gendered VC data related to economic and financial analysis on efficiency and efficacy of the vertical coordination links, and (iii) gendered data with climate information for better examination of effects and impacts of climate hazards by gender among others. As such, this database will enable the integration of local gender assessments in CRVA, CIS and other computer-aided decision-making technology and climate risk management tools in AMIA existing technological and institutional innovations. This readily available and accessible database can be used to provide recommendations for sector-wide development.

A guideline will be developed on how to do this integration, which methods will be pilot tested in at least two regions following the experience of UPLBFI in developing gender responsive action plans. Providing on time and localized science-based decision support system and associated tools (like visual representation of data sets, maps, etc.) is important for AMIA villages to make both proactive, preventive and reactive measures to changing economies and climate. As such, developing internal capacities to integrate GESI assessments with CIS and other computer-based decision-making approaches for AMIA villages to use will be crucial. Decision support tools should include abilities to predict future impacts to develop preventive strategies and minimize the effects of climate to women and other vulnerable groups, especially on their farming and other livelihood activities. These tools will be made available to Regional GDFS and AMIA villages for evidence and science-based Participatory Gender Action Planning process.

Another database will be created that will bring together gender responsive CRA technologies, practices and crops/fishery/livestock products that consider gender-differentiated needs and

constraints. This may include those as experienced in AMIA villages, other sites in the Philippines and in other countries will similar conditions and contexts. This may also include conservation agriculture that includes maintaining permanent soil cover, minimum soil disturbance or no tillage, and crop diversification. The intention is to improve soil organic matter; thereby increasing farm productivity and serve as a good mitigation project. The organic farming aspect of this faming system will be important for women's household function on food and nutrition. In this regard, collaboration between CRAO and the national Organic Agriculture program (NOAP) with support from the GESI will be actively strengthened. Similarly, 'women's crops' like banana, root crops (e.g., sweet potato, cassava), corn, and indigenous vegetables among others will be recommended. Composting and vermicomposting may also feed the women and youth's households and provide income while enhancing soils with organic matter. Another will be the drip irrigation to reduce women's and youth's manual watering of plants. Establishing rainwater harvesting may also ensure water supply for farms, which can be added with fingerlings for household's protein requirements. Likewise, agroforestry or integrating trees on farm with fruit trees, medicinal trees, fuelwood trees and other tree crops are also crucial to women's domestic roles. Due attention will be given on CRA technologies, practices and crops that are proven to benefit women in terms of increased production and income, improve their household functions in food security and nutrition, and reduce workloads and labor requirements among others. The latter is an important consideration for them to have extra time for alternative activities, especially for welfare gains. These are just a few examples of widely practiced CRA technologies that RFOs extensionists can build on and promote in AMIA villages.

It will be important to capture these gender responsive CRA technologies and practices in an integrated farming system. This can be exhibited by establishing demonstration gender responsive CRA farms within AMIA villages. These farms can serve as a model farm of various CRA technologies and practices suitable in the site, as well as a learning venue for farmers to train and learn. The same farms can also host facility for value adding or social enterprise activities for women. With support from the LGU, DTI, DA and/or DENR, these farms may develop into agri-eco-tourism sites that may provide additional incomes for the farmers, and in the process, further develop their capacities while scaling good practices on gender transformative CRA.

This gender responsive database of CRA technologies, practices and commodities/agri-based products will be intended for use by RFO extensionists but will also be open for access by other fields and development practitioners and the sector-wide GDFS, and their counterparts in bureaus, attached corporations, and banner programs. With a good stock of gendered knowledge products, it will work systematically to the local level to ensure that these are communicated and used in the development of innovative policies, projects and activities at AMIA villages. This database will enable them to provide options to farmers with site-and-context specific guidance and considerations. This will be continually updated with research updates to continuously assess the gender-responsiveness of these in different AMIA villages with changing economies and climate.

The proposed Gendered AMIA Development Pathways will be an attempt to build on community-based interventions towards inclusive value chains and gender-transformative climate resilient programs and projects in agriculture. As such, mainstreaming gender in CRA and AMIA villages requires that at the onset, from community or organizational profiling to needs assessment, the process should not only limit from identifying women and men, youth and other vulnerable social

groups' characteristics and conditions but also allow understanding their life's aspirations. Aligning interventions to aspirations is crucial in driving their interests and motivations in farming livelihood and other economic empowering activities like Phases 3 and 4.

1. As in other components of AMIA, mainstreaming gender in CRA and AMIA program will require sufficient time and focused efforts. As such, investment in human resources will be critical. As such, Gender Focal Points at CRAO to RFOs to provincial and municipal levels will be either hired and/or appointed to implement the aforementioned action areas. They will be trained about gender and GESI, which may include (i) awareness and sensitivity in line with GAD policy and other related policies and programs, and (ii) the use of various data collection tools needed for GESI assessments, baselining and conducting MEL in AMIA villages. To further build their capacities, staff development funds can be allocated for scholarship opportunities and the likes in gender-related degrees or training courses. With the availability of databases and robust decision-support system and tools and capacity development program, their performance on technical delivery, community organizing, resource mobilization, and others will be enhanced. Consequently, the enhanced capacities of the Gender Focal Points will be reflected in the improved performances of the AMIA villages.

On the part of AMIA villages, a comprehensive training module will be developed that is aimed to build awareness and understanding of gender-related approaches, concepts and practices in inclusive value chain and climate change adaptation. Other capacity building activities that may be pursued will include business plan development, social enterprises, adoption of inclusive business practices, support for marketing high-value crops, livelihood enhancement skill training, and the likes. The skills that they will gain from these are important not only in increasing farm productivity but also in creating opportunities to diversify livelihood activities and increase their income. Another training area that may be included will be on how to use digital technologies to help overcome the barriers of women when it comes to limited access to information and finance. This may include the GESI-based database, database on gender responsive CRA technologies, practices and crops, CIS, early warning system, and others, which can be made available in Facebook or Tiktok, which are becoming more accessible to farmers. All training materials will be gender-and-culture sensitive and will use local dialects.

Overall, the training program will be tailored to AMIA program with consideration on regional site conditions and local contexts, as well as their priority commodities/agri-based products. The target trainees will be the RFO extensionists and identified Gender Points at regional, provincial, and municipal levels. Like earlier training events conducted regarding GESI baseline assessment, this training can be implemented at the national level or regional/provincial levels depending on the availability of resources. The same trainees will lead the continuous awareness building and facilitation, providing extension services in AMIA villages.

Figure 7 presents the recommended action areas and how they link with each to achieve the expected outputs and outcome of this gender action plan for CRA. In Output 2, an additional **Action Area 2: Enabling environment for GESI-based CRA in DA and other government agencies** will be implemented beyond Year 2 (Table 5)**.** In this Action, CRAO, GESI and DA will assume greater roles in mainstreaming GESI in CRA. This will involve institutional reforms to provide an enabling environment to facilitate the transformation of AMIA villages into gender-

responsive, value-chain supportive, climate resilient and sustainable business enterprise entities. This will be directional in two ways: (1) policies and (ii) infrastructure. For policy development, future areas for research and potential use of the GESI applying the AMIA approach are: (i) farm and fishery areas for consolidation or clustering of AMIA villages to take advantage of economies of scale and further value chain adding; (ii) programs, activities and plans of bureaus, attached corporations and banner programs; (iii) participatory guarantee system to ensure quality control and further use of labelling and tracking; and (iv) amendments on policies for gender and development in cooperatives especially in the context of vertical and horizontal coordination; (v) development of peri urban areas for organic farming; and vi) adoption of law strengthening geographic indication that enable contiguous large agriculture areas to develop value chain networks for development of commodities and agri-products of which the country has comparative edge (e.g., abaca, seaweed, pili nuts, etc.).

Infrastructure development for CRA needs to consider GESI to harness the productivity and leadership skills of gender as well as foster nutrition and sustainable food and water security. Key infrastructure that would require GESI incorporation in the design, planning and implementation so as not to exacerbate gender gaps include irrigation facilities that consider vegetable and fruit gardening, location and selection of logistics and storage facilities, as well as farm-to-market roads, training and demonstration farms, early warning systems, access to internet and mobile facilitated information, and other digital equipment and innovations.

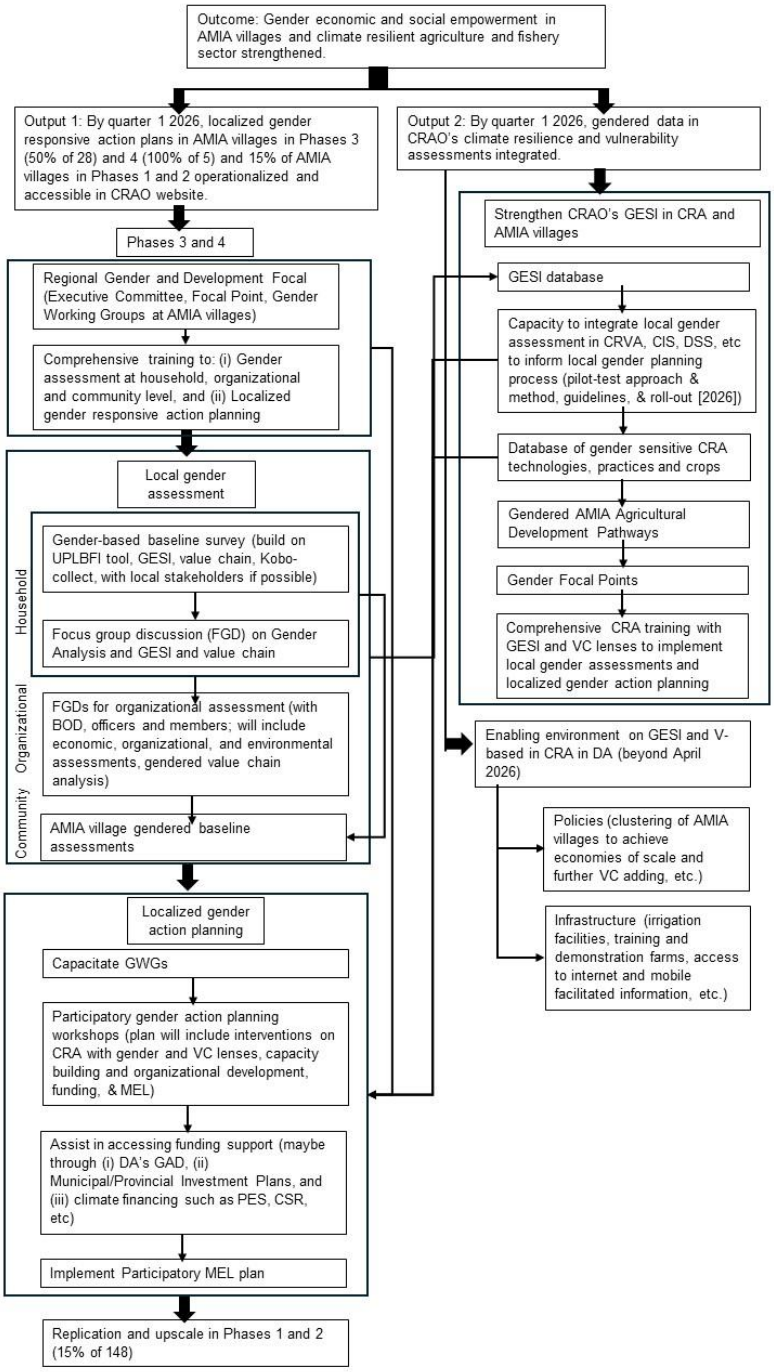


Figure 7. Flow and interconnections of action areas in the proposed gender responsive action plan for CRA and AMIA villages**.**

6 INDICATIVE GENDER ACTION PLAN FOR AMIA VILLAGES AND CLIMATE RESILIENT AGRICULTURE AND FISHERY SECTOR

Table 4. Proposed Gender Action Plan for CRA and AMIA villages (April 2024 – March 2026)

Outcome	Gender economic and social empowerment in AMIA villages and climate resilient agriculture and fishery sector strengthened.			
Outputs	1. By quarter 1 2026, localized gender responsive action plans in AMIA villages in Phases 3 (50% of 28) and 4 (100% of 5) and 15% of AMIA villages in Phases 1 and 2 operationalized and accessible in CRAO website. 2. By quarter 1 2026, gendered data in CRAO's climate resilience and vulnerability assessments integrated.			
Performance indicators:	1. Gender-based database system for gender analysis and gender responsive action plans in AMIA villages maintained and accessible in CRAO website. 2. At least 23% (41 of 181) of AMIA villages have developed their localized gender responsive action plans with GESI and value chain development lenses. 3. Integration of gender data and climate resilience and vulnerability assessments pilot tested in at least 2 regions. 4. Guidelines in the integration of gender data and climate resilience and vulnerability developed and approved by CRAO.			
Output 1: By quarter 1 2026, localized gender responsive action plans in AMIA villages in Phases 3 (50% of 28) and 4 (100% of 5) and 15% of AMIA villages in Phases 1 and 2 (22 of 148) operationalized and accessible in CRAO website.				
Action Area	**Proposed Activities**	**Target/Indicator**	**Responsibility**	**Time**

1. Regional Gender and Development Focal System (GDFS) committees for Phases 3 and 4 sites established	• Regional GDFS executive committee issues the guidelines[15] for the operationalization of GDFS at regional level • Establish Gender Working Groups (GWG) in regions with AMIA Phases 3 and 4 and 15% of AMIA in Phases 1 and 3 • Conduct a comprehensive capacitation training[16] on data collection, management, analysis, and baseline report writing for: (i) Gender assessment at household, organizational and community level, and (ii) Localized gender responsive action planning.	Guidelines are issued and disseminated; budget allocated At least 2 GWGs for the 4 AMIA CREATE established and trained At least 4 gender working groups for AMIAs in Phase 3 established and trained At least 8 gender working groups for AMIAs in Phases 1 and 2 established and trained	GDFS executive committees Regional GDFS, CRAO and GESI	May 2024 June-Aug 2024

[15] The guidelines will include survey modules, sampling methods, data collection, consolidation of data, and how to do descriptive and statistical analysis (as appropriate). Qualitative data collection methods will also be explored and used in (across levels: household, organizational, and community [AMIA village]), such as focus group discussions, stakeholder analysis, SWOT, mapping, etc.

[16] Capacitation training on the use of data collection tools for Action Areas 2 (Gender-disaggregated survey), 3 (Gender Analysis and GESI FGD) and 4 (Organizational Assessment) can be combined and implemented at the same time to save time and resources.

2.1 Conduct gender-disaggregated baseline surveys in Phases 3 and 4 AMIA villages	• Review the gender-disaggregated survey forms in pilot gender cases of UPLBFI. Do this survey including data pertaining to access, control of and opportunities for accessing productive resources; decision-making features by men and women; data that show gender responses to induced or exacerbated climate change; women and men, as well as youth and other vulnerable groups, etc. • Conduct a comprehensive gender-disaggregated data collection using Kobo-Collect app. • Integrate local gendered data with Climate Information System (CIS) to generate data and analysis on (i) actual hazards due to climate change and (ii) actual losses for instructive measures. • Integrate gender and value chain perspectives (vertical and horizontal links). • Where feasible, include non-government organizations (NGOs) and state universities and colleges (SUCs)-based in the AMIA sites especially in data collection.	Integrated GESI in the household survey tool Survey form translated in local dialects where AMIA villages are Completion of baseline surveys in Phases 3 (50% of 28) and 4 (100% of 5) Compilation, consolidation, descriptive and statistical analysis (as appropriate) completed At least 50% of the beneficiary-respondents in the survey are women. Incorporated gendered data in CRVA and CIS tools	Regional GDFS with support from GESI and CRAO	Q3, 2024

2.2 Conduct FGDs to facilitate Gender Analysis and GESI	Some questions to add in Gender Analysis: • Based on the baseline data collected (Action Area 2), what gender inequalities prevail and how are these manifested at household, community, and organizational level? • Has an analysis or study/ies been undertaken to identify existing gender inequalities, including those induced or exacerbated by climate change? • What gender gaps are shown by the surveys and qualitative research in terms of economic (division of labor, workload, and access and control of productive resources by women and men) and decision-making, governance, and leadership attributes (social inclusion)? • Who and how do women and respond to induced or exacerbated natural hazards? What are the adaptation methods? • Who, what, how, and why participate in value chain works (vertical and horizontal) Some of the questions to add for GESI analysis: • Who are stakeholders in AMIA village that have an interest in CRA, gender	Completion of FGDs in Phases 3 (50% of 28) and 4 (100% of 5) At least 50% of the participants are women in separate FGDs Transcription, compilation, consolidation, and thematic analysis of qualitative data completed Gender analysis and GESI reports completed	Regional GDFS with support from GESI and CRAO	Q3-4, 2024

	and value chain development? What are their influences and interests? • Are there any disadvantaged and/or marginalized groups within AMIA village? How are they disadvantaged and/or marginalized? What are their characteristics? • How are they affected by climate-related hazards? • What are the barriers[17] that prevent them from full access and participation to CRA? What are the ways[18] to overcome these barriers to equal participation?			
2.3 Conduct GESI-based organizational assessment through FGDs	• Organize FGDs for organizational assessment, which may include (i) Board of Directors, (ii) Officers, and (iii) members in separate discussions. • This assessment will include (i) economics, particularly inclusive value chain assessment, (ii) social inclusion, which is the organizational assessment, and (iii) environmental aspects of AMIA village.	Completed FGDs in Phases 3 (50% of 28) and 4 (100% of 5) At least 50% of the participants are women in separate FGDs	GESI, CRAO, Regional GDFS, and RFO gender focal point	Q3-4, 2024

[17] This may include their inability to avoid hazards, their tasks and roles that are influenced by inequality or high stress and needs for CRA

[18] For example, holding training events when women are not occupied with reproductive activities.

	• For the organizational assessment, discussion may include (i) governance and leadership, (ii) operations and management, (iii) human resource development, (iv) financial management, (v) business delivery, and (vi) external relations. • Develop GESI-based organizational status report of farmer organizations in AMIA villages. • Combine the following to develop the AMIA village gendered baseline assessment report: (1) integrated gender-disaggregated survey and CIS, (2) Gender Analysis, GESI and value chain, and (3) organizational assessment.	Transcription, compilation, consolidation, and thematic analysis of qualitative data completed GESI-based organizational assessment reports completed Gendered baseline assessment report of AMIA village developed		
3. Develop localized gender responsive action plans[19]	Conduct a comprehensive capacity building to develop internal capacities and facilitate Participatory Gender Action Planning Workshops at AMIA village.	At least 50% of the trained Gender Action Planning facilitators are women	GESI, CRAO, ATI, and Regional GDFS Focal	Q3-4 2024
	Facilitate establishment of local GWGs in AMIA villages to be capacitated for them to effectively participate in the Participatory	A 10-member local GESI Working Group created in every AMIA village, at least	Regional GDFS Focal and Gender	

[19] The GESI plan should address specific issues affecting women and other vulnerable groups in AMIA village and identify development indicators and targets.

	Gender Action Planning Workshops. The working groups will be tasked to develop their respective gender action plans.	30% are women, are capacitated to develop the gender action plan	working groups in AMIA villages	
	Organize Participatory Gender Action Planning Workshops at AMIA villages to develop localized gender action plans. These plans will be contextualized based on the following: (i) integrated gender-disaggregated baseline survey results, (ii) gender analysis, GESI and value chain report, (iii) GESI-based organizational assessment report, and (iv) integrated local data (i, ii and iii) and CRAO's CIS and other decision support system tools) for evidence and science-based gender action planning process. The plans will include interventions on (i) CRA technologies, practices and crops (the gender sensitive CRA database will be useful), (ii) inclusive value chain development building on local and international markets, (iii) capacity building and organizational development, (iv) financing and budget, and (v) MEL plan. Local stakeholders such as the City/Municipal Agriculture Office, SUCs, private companies and others may be invited in the planning workshops.	Localized gender action plans developed and adopted for implementation at AMIA villages At least 30% of the planning participants are women	Regional GDFS Focal and Gender working groups in AMIA villages with LGU-C/MAO, SUCs, private companies and other local stakeholders	Q4 2024, Q1 2025

	Assist AMIA villages secure funding for the implementation of their gender action plans, which may include through: (i) access DA 5% budget on Gender and Development by submitting project proposals, (ii) integrated the gender action plans in Municipal/ Provincial Investment Plans, (iii) organize local forums to encourage local investments[20] from government and non-government organization, private companies and others through payments for ecosystems services, corporate social responsibility, and others. Support can be direct (funds) or indirect (in kind, technical, etc.), promoting co-investments with DA-CRAO.	Generated commitment to cover at least 40% of the estimated budget requirement of plan implementation.	Regional GDFS, Gender Focal Point, and GWGs in AMIA villages with LGU-C/MAO, SUCs, private companies and other local stakeholders	Q2 2025
	Establish and implement a participatory gender responsive MEL system to monitor and evaluate the implementation of gender action plans, and design feedback mechanism for learning. Data collection for monitoring will use participatory methods[21],	Functional MEL system for gender action plan implementation, involving at least 30% of women.	CRAO, Regional GDFS Focal and AMIA villages	Q1-2 2025

[20] The GESI plans will be integrated into the City or Municipal Commodity Investment Plans, and consequently in the Provincial Commodity Investment Plans.

[21] This may include qualitative methods like the Most Significant Changes, Outcome Stories, and others.

	engaging the AMIA beneficiaries as well as other stakeholders involved.	Regular monitoring and reporting mechanism in place		
4. Replication and upscale preparation and implementation of gender responsive action plans in AMIA Phases 1 and 2 as performed in AMIA Phases 3 and 4	• Conduct data collection for household, community, and organizational (AMIA) levels incorporating CIS with gender and value chain perspectives. • Analyze the gender equities at local sites. • Analyze the organizational structure for AMIA villages. • Develop participatory-based gender responsive action plans in AMIA villages Phases 1 & 2 including targeted interventions from DA. • For new sites that intend to become AMIA, the same process for development of gender responsive action plans will be done.	Where possible, “big brother-small brother” approach will be employed to facilitate the development of gender responsive action plans in AMIA Phases 1 and 2 Gender-generated data using quantitative and qualitative methods developed in 15% of 148 (22) existing AMIA villages in Phases 1 & 2 Gender assessments completed in 15% of 148 (22) of AMIA villages in Phases 1 & 2 Organizational assessment reports completed for in 15% of 148 (22) of AMIA villages in Phases 1 and 2 completed Gender responsive action plans in 15% of 148 (22) of	CRAO, GESI, Regional GDFS Focal	Q3 2024-Q1 2026

		AMIA villages in Phases 1 and 2 developed		
Output 2: By quarter 1 2026, gendered data in CRAO's climate resilience and vulnerability assessments integrated.				
1. Strengthening CRAO's GESI role in CRA and AMIA villages	• Establish and manage database system on GESI. • Revisit and finalize existing data collection tools[22] used in AMIA villages Phases 3 and 4. • Capture and quantify the gender-based socio-demographic and economic profile of beneficiaries, their needs, and adaptation strategies. • Improve the qualitative questions and data generated, where needed. • Improve on the gendered value chain data relating to the economic and financial analysis on efficiency and efficacy of the vertical coordination links developed. • Improve the gendered data with climate information for better examination of effects and impacts of climate hazards by gender data.	GESI data base system and management at regional levels in the Phases 3 and 4 AMIA CREATE sites Guidelines to roll-out gendered CRVA, CIS and other DSS tools developed and approved	CRAO, GESI, Regional GDFS	Q3, 2024-Q1, 2026

[22] This household survey is the data collection tool developed, used and updated by UPLBFI on their two gender mainstreaming projects in AMIA villages from 2022-2023.

	• Establish the database system and management of gender-differentiated data at regional levels. • Provide recommendations on development of GESI based database for sector-wide development. • Local gender assessments will be integrated in computer-aided decision-making technology, climate vulnerability assessments and other climate risk management tools in AMIA existing technological and institutional innovations. • Develop guidelines to roll-out gendered CRVA, CIS and other DSS tools			
	• Develop internal capacities to integrate local GESI baseline assessments with CIS for effective decision support system for AMIA villages. • Decision support tools should include abilities to predict future impacts to develop preventive strategies and minimize the effects of climate to women and other vulnerable groups, especially their farming and other livelihood activities. • These tools will be made available to Regional GDFS and AMIA villages for evidence and science-based	At least 23% of AMIA villages (41 of 181) have used the GESI sensitive decision support system	CRAO	Jun 2025

	Participatory Gender Action Planning process			
	Develop database of gender responsive CRA technologies, practices, and crops. This will be continuously updated, including quick responses to climate change like local food basket.	User-friendly database of gender sensitive CRA technologies, practices and crops established and functional At least 23% of AMIA villages (41 of 181) have used the database	BSWM and CRAO	Q1, 2025
	Genderize the AMIA Agricultural Development Pathways by adding gender indicators in the framework. These indicators will help Regional GDFS facilitate AMIA villages to be gender responsive in both organizations and operations.	Gendered AMIA Agricultural Development Pathways approved and used as guidelines in the establishment of new AMIA villages and as they transition to Phases 2, 3 and 4.	CRAO	Q2, 2025
	Identify GESI Focal Points from CRAO to RFOs to provincial and municipal levels. They will be trained about GESI, including (i) awareness and sensitivity in line with GAD policy and other related policies and programs, and (ii) the use of various data collection tools needed for GESI assessments, baselining and conducting MEL in AMIA villages.	At least 50% of the newly appointed GESI Focal Points are women. They are trained and familiar on the use different GESI data collection tools for various purposes.	GESI, CRAO and Regional GDFS Focal	Jun 2024

	Design and roll out a comprehensive GESI training program on inclusive value chain development and CRA that is tailored for each region and based on their priority commodities. The target trainees will be the Regional GDFS Executive Committees and identified Gender Points at regional, provincial, and municipal levels. The same trainees will lead the continuous awareness building about the resulting impacts in the nexus of GESI, inclusive value chain development and climate change in AMIA villages.	At least 50% of the GESI trained participants are women	GESI, ATI and RFO extensionists	Q3, 2024

Table 5. Proposed Gender Action Plan for CRA and AMIA villages (April 2026 and beyond [March 2028])

Outcome	*Gender economic and social empowerment in AMIA villages and climate resilient agriculture and fishery sector strengthened.*
Outputs	*3.1.1 By quarter 1 2028, localized gender responsive action plans in AMIA villages in Phases 3 (remaining 50% of 28) and remaining 85% of AMIA villages in Phases 1 and 2 operationalized and accessible in CRAO website.* *3.1.2 By quarter 1 2028, gendered data in CRAO's climate resilience and vulnerability assessments integrated and used.*
Performance indicators:	1. *Gender-based database system for gender analysis and gender responsive action plans in AMIA villages maintained and accessible in CRAO website.* 2. *100% of AMIA villages have developed their localized gender responsive action plans with GESI and value chain development lenses.*

	3. Integration of gender data and climate resilience and vulnerability assessments rolled out in other regions.			
Output 1: *By quarter 1 2028, localized gender responsive action plans in AMIA villages in Phases 3 (remaining 50% of 28) and remaining 85% of AMIA villages in Phases 1 and 2 operationalized and accessible in CRAO website.*				
Action Area	**Proposed Activities**	**Target/Indicator**	**Responsibility**	**Time**
1. Replication and implementation of gender responsive action plans in the remaining AMIA Phase 3	• Conduct data collection for household, community, and organizational (AMIA) levels incorporating CIS with gender and value chain perspectives. • Analyze the gender equities at local sites. • Analyze the organizational structure for AMIA villages. • Develop participatory-based gender responsive action plans in AMIA villages Phase 3 including targeted interventions from DA.	Gender-generated data using quantitative and qualitative methods developed in remaining 50% of 28 (14) existing AMIA villages in Phase 3 Gender assessments completed in remaining 50% of 28 (14) existing AMIA villages in Phase 3 Organizational assessment reports completed in remaining 50% of 28 (14) existing AMIA villages in Phase 3 Gender responsive action plans in remaining 50% of	CRAO, GESI, Regional GDFS Focal	Q2-4, 2026

		28 (14) existing AMIA villages in Phase 3		
2. Replication and upscale preparation and implementation of gender responsive action plans in AMIA Phases 1 and 2 as performed in AMIA Phases 3 and 4	• Conduct data collection for household, community, and organizational (AMIA) levels incorporating CIS with gender and value chain perspectives. • Analyze the gender equities at local sites. • Analyze the organizational structure for AMIA villages. • Develop participatory-based gender responsive action plans in AMIA villages Phases 1 & 2 including targeted interventions from DA. • For new sites that intend to become AMIA, the same process for development of gender responsive action plans will be done.	Where possible, "big brother-small brother" approach will be employed to facilitate the development of gender responsive action plans in AMIA Phases 1 and 2 Gender-generated data using quantitative and qualitative methods developed in remaining 85% of 148 (136) existing AMIA villages in Phases 1 & 2 Local gender assessments completed Organizational assessment reports completed Gender responsive action plans developed	CRAO, GESI, Regional GDFS Focal	Q3 2024-Q1 2028
Output 2: *By quarter 1 2028, gendered data in CRAO's climate resilience and vulnerability assessments integrated and used.*				
1. Strengthening CRAO's GESI role in	• Continue management and updating of GESI database system (national and regional levels).	GESI database system and management at national	CRAO, GESI, Regional GDFS	Q2, 2026 –

CRA and AMIA villages	• Continue integrating local gender assessments in computer-aided decision-making technology, climate vulnerability assessments and other climate risk management tools in AMIA's existing technological and institutional innovations. • These tools will be made available to Regional RDFS and AMIA villages for evidence and science-based Participatory Gender Action Planning process. • Continue to develop internal capacities to integrate local GESI baseline assessments with CIS for effective decision support system for AMIA villages.	and regional levels in AMIA villages AMIA villages have used the GESI sensitive decision support system		Q1, 2028
	Continue updating of database of gender responsive CRA technologies, practices, and crops.	User-friendly database of gender sensitive CRA technologies, practices and crops established, functional and used by AMIA villages	BSWM and CRAO	Q2, 2026 – Q1, 2028
2. Enabling environment for GESI-based CRA in DA and other government agencies	Develop policies and guidelines that will create an enabling environment for economic and social empowerment in AMIA villages. Future areas for research and potential use of the GESI applying the AMIA approach are: (i) clustering of AMIA	At least one GESI responsive policy guidelines on CRA developed and approved	GESI, CRAO, DA	Q2, 2026 – Q1, 2028

	villages to achieve economies of scale and further VC adding; (ii) PAPs of bureaus, attached corporations and banner programs; (iii) participatory guarantee system to ensure quality control and further use of labelling and tracking; (iv) amendments on policies for GAD in cooperatives especially in the context of vertical and horizontal coordination; (v) development of peri urban areas for organic farming; and vi) adoption of law to develop VC networks for development of agri-products commodities			
	Implement infrastructure that is supportive to economic and social empowerment in AMIA villages. This may include (i) irrigation facilities that consider vegetable and fruit gardening, (ii) location and selection of logistics and storage facilities, farm-to-market roads, (iv) training and demonstration farms, (v) early warning systems, and (vi) access to internet and mobile facilitated information, and other digital equipment and innovations.	At least one gender responsive infrastructure development project approved and implemented benefitting AMIA villages	GESI, CRAO, DA	Q2, 2026 – Q1, 2028

REFERENCES

Agarwal, P., A. Jarvis, B. Campbell, R. Zougmore, A. Khatri-Chhetri, S. Vermeulen. A.M. Loboguerrero, S. Sebastian, J. Kinyangi, O. Bonilla-Findji, M. Radeny, J. Recha, D. Martinez-Baron, J. Ramirez-Villegas, S. Huyer, and P. Thornton. 2018. The climart-village approach: Framework of an integrative strategy for scaling up adaptation options in agriculture. *Environment and Society.* 10.5751/ES-09844-230114

Asian Development Bank. 2020. Gender Equality and Social Inclusion Diagnostic of Selected Sectors in Nepal. http://dx.doi.org/10.22617/TCS200291-2

Bowman, Kimberly and Caroline Sweetman. 2014. Introduction to Gender, Monitoring, Evaluation and Learning. *Gender and Development,* 22 (2). https://doi.org/10.1080/13552074.2014.934525

Chandra, A., K.E. McNamara, P. Dargusch, A.M. Caspe, and D. Dalabajan. 2017. Gendered vulnerabilities of smallholder farmers to climate change in conflict-prone areas: A case study from Mindanao, Philippines. *Journal of Rural Studies*, 50, pp 15-59.

Crease, R., M. Parsons, and K. Fisher. 2018. "No climate justice without gender justice": Explorations of the intersections between gender and climate injustices in climate adaptation actions in the Philippines. In: Jafry T. (Ed), *Routledge Handbook of Climate Change.* Routledge, London, pp 359-388.

Department of Agriculture (DA). (2024). *DA-Gender and Development*. Department of Agriculture. Retrieved 25 January 2024 from https://www.da.gov.ph/da-gender-and-development/.

DA. 2024. AMIA Villages. DA-AMIA. https://amia.da.gov.ph/index.php/amia-villages/

Damptey P.T.M. and Essel A.K. 2012. Gender perspectives of climate change coping and adaptive strategies in Ghana. Accra, Ghana: ABANTU for Development. https://wedo.org/wp-content/uploads/ghanagenderesearch.pdf

De la O Campos, Warring N., Brunelli C., Doss C., and Kieran C. 2015. Gender and land statistics recent developments in FAO's gender amd land rights databse. Food and Agriculture Organization of the United Nations, Rome. https://www.fao.org/3/i4862e/i4862e.pdf

Deluna R.S. Jr. 2023. Role of decision-making dynamics and farm participation in succession: The case of Philippine coffee farming households. Asia Pacific Journal of Social and Behavioral Science, 21: 1-14. https://www.researchgate.net/publication/377081655_Role_of_Decision-Making_Dynamics_and_Farm_Participation_in_Succession_The_Case_of_Philippine_Coffee_Farming_Households

Dikitanan R., Grosjean G., Nowak A., Leyte J. 2017. Climate-resilience agriculture in the Philippines. CSA Country Profile for Asia Series. International Center for Tropical Agriculture (CIAT); Department of Agriculture - Adaptation and Mitigation Initiative in Agriculture, Government of the Philippines. Manila, Philippines. 24.p. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/CRA_Profile_Philippines.pdf

Food and Agriculture Organization (FAO) of the United Nations. 2012. The State of Food and Agriculture, Rome.: https://www.fao.org/3/i2050e/i2050e00.htm

FAO. 2018. The gender gap in landright. Food and Agriculture Organization of the United Nations, Rome.: https://www.fao.org/3/I8796EN/i8796en.pdf

FAO. 2023. The status of women in agrifood systems. FAO: Rome. Retrieved on 26 January 2024 from https://doi.org/10.4060/cc5343en.

Giles J., Macandog P.B., Sova C., Digal L., Balgos C., Loquias M., Orbeta M.L., Astronomo I.J.T., Palau L.K., Balanza J.G., Hildebrand J., and Grosjena G. 2019. Climate-resilient agriculture in the Philippines: Climate Risk Profile, Mindanao. International Center for Tropical Agriculture (CIAT); Department of Agriculture - Adaptation and Mitigation Initiative in Agriculture, Government of the Philippines; The Food and Agriculture Organization of the United Nations (FAO). Manila, Philippines. 32 p. https://cgspace.cgiar.org/server/api/core/bitstreams/ac16cccb-4a2b-4ac0-86cc-66b22f7d2756/content

Javier, MEC, GRD Armercin, DJS Martinez, EP Abasolo, and CD Piñon. 2010. Gender and Natural Resources Management: Implications for Rewarding Environmental Services in the Philippines. ICRAF-SEA, Bogor, Indonesia. Unpublished Report.

Lu, Jenky Leilanie. 2010. Gender Analysis of Women in the Philippine Agriculture and Their Occupational Issues. *Journal of International Women Studies,* 11 (4). https://vc.bridgew.edu/cgi/viewcontent.cgi?article=1199&context=jiws

Lukasiewics, Adam. 2011. Migration and Gender Identity in the Rural Philippines: Households with Farming Wives and Migrant Husbands. Critical Asian Studies, 43 (4) pp 577-593. https://doi.org/10.1080/14672715.2011.623523

Malapit, H., C. Ragasa, E.M. Martinez, D. Rubin., Greg Seymour and A. Quisumbing. 2020. Empowerment in agricultural value chains: Mixed methods evidence from the Philippines. *Journal of Rural Studies,* 76, pp. 240-253.

Mishra, A., A.R. Khanal, and M. Samarendu. 2017. Gender differentials in farming efficiency and profits: The case of rice production in the Philippines. *Land Use Policy,* 63, 461-469. https://doi.org/10.1016/j.landusepol.2017.01.033

NEDA. (2023). *AmBisyon Natin 2040.* NEDA. Retrieved 15 January 2024 from https://2040.neda.gov.ph/about-ambisyon-natin-2040/.

Parks, M.H., M.E. Christie, and I.B. Bagares. 2014. Gender and conservation agriculture: constraints and opportunities in the Philippines. *GeoJournal,* 80, pp 61-77.

Pearse, Rebecca. 2017. Gender and climate change. *WIREs Climate Change.* https://doi.org/10.1002/wcc.451

Philippine Statistics Authority. 2020. Agricultural Indicators System: Employment and ages in the Agriculture Sector. Philippines: PSA. https://psa.gov.ph/system/files/main-publication/AIS%2520Employment%2520and%2520Wages_signed%25201127%2520.pdf

Pyburn, Rhiannon, Vanya Slavchevska, and Froukje Kruijssen. 2023. Gender dynamics in agrifood value chains: Advances in research and practice over the last decade. *Global Food Security,* 39, 100721.

Quisumbing, A., R. Meinzen-Dick, T.L. Raney, A. Croppenstedt, J.A. Behrman and A. Peterman. 2014. Closing the Knowledge Gap on Gender in Agriculture. In: *Gender in Agriculture: Closing the Knowledge Gap.* Pp 3-27.

Rai, K.R., L.D. Bhatta, U. Acharya, and A.P. Bhatta. 2018. Assessing climate resilient for smallholders. *Environmental Development,* 27, pp 26-33. https://doi.org/10.1016/j.envdev.2018.06.002

Rahman Md. S. 2013. Climate change, disaster and gender vulnerability: A study on two divisions of Bangladesh, American Journal of Human Ecology, 2(2): 72-82. https://www.researchgate.net/publication/275745013_Climate_Change_Disaster_and_Gender_Vulnerability_A_Study_on_Two_Divisions_of_Bangladesh

Rosimo M., Gonsalves J., and Villavicencio F. 2021. Nurturing a gender-responsive approach to climate smart agriculture in Guinayangan, Quezon. CGIAR, CCAFS. Retrieved from https://cgspace.cgiar.org/bitstream/handle/10568/115800/CCAFS%20Info%20Note_Gender%20CSA.pdf?sequence=1&isAllowed=y

Srivastav, A.R., D. Rajni, M. Ranjan, S. Madhav and M. Sillanpaa. 2021. Climate-resilient strategies for sustainable management of water resources and agriculture. *Environmental Science and Pollution,* 28, pp. 41576-41595.

Tatlonghari, Gerlie and Thelma Paris. 2014. Gendered adaptations to climate change: A case study from the Philippines. In: *Research, Action and Policy: Addressing the Gendered Impacts of Climate Change.* 10.1007/978-94-007-5518-5_17

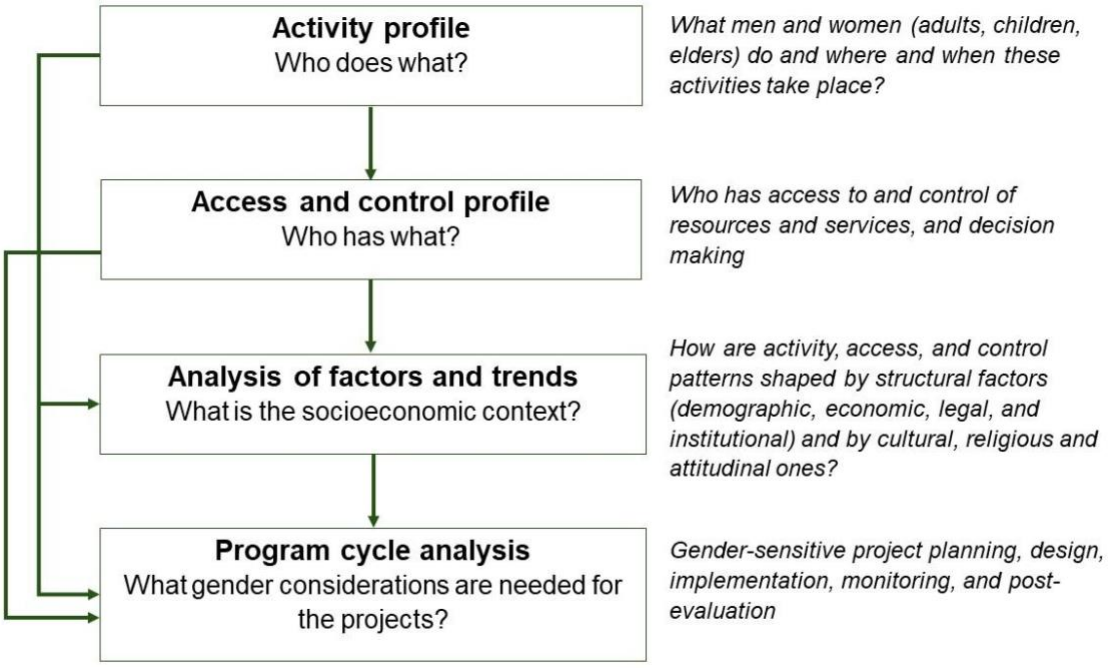
UPLBFI. 2023a. Final Report, Integrating Gender Considerations into the Development of Projects for Vulnerable Sectors in Selected AMIA Villages in the Bicol Region.

UPLBFI. 2023b. Final Report, Strengthening selected AMIA Villages through Mentorship Program, and Establishment and Implementation of Gender-Sensitive Projects.

Ureta J., Anit K., Habito C.M.D., Lasco R.D. 2016. Exploring gender preferences in farming system and tree species selection: Perspectives of smallholder farmers in Southern Philippines. Journal of Environmental Science and Management Special Issue, 1: 56-73. https://www.researchgate.net/publication/312943449_Exploring_Gender_Preferences_in_Farming_System_and_Tree_Species_Selection_Perspectives_of_Smallholder_Farmers_in_Southern_Philippines

Yadav S.S., and Lal R. 2018. Vulnerability of women to climate change in arid and semi-arid regions: The case of India and South Asia. 149: 4-17. https://www.sciencedirect.com/science/article/abs/pii/S0140196317301532

ANNEX 1: GENDER ANALYSIS FRAMEWORK FOR AGRICULTURE (ADB, 2002)



ANNEX 2: GESI ANALYSIS IN CRA AND IN AMIA VILLAGES

There are different ways to adapt GESI analysis as a framework to inform gender mainstreaming in development projects. Depending on the purpose, below is one way to adapt GESI in CRA and AMIA villages.

The objective would be to assess and understand existing rules, norms and power dynamics that might disadvantage certain groups in the association, specifically within the context of gender, value chain and climate change.

The analysis may include the following activities:

1. Conduct Stakeholders' Analysis that will identify different groups in AMIA village that have an interest in CRA within an influence and interest matrices.
2. Determine the vulnerable groups within the AMIA village and characterize them.
3. Analyze the ways in which they are affected by climate-related hazards. This may include their inability to avoid hazards, their tasks and roles that are influenced by inequality or high stress and needs for CRA.
4. Elicit barriers that prevent them from full access and participation to CRA and identify ways to overcome these barriers to equal participation. For example, holding training events when women are not occupied with reproductive activities.

The GESI analysis can be informed by the GESI Diagnostic Framework as implemented by ADB in Nepal (http://dx.doi.org/10.22617/TCS200291-2), but with necessary adaptation to the Philippine context.

ANNEX 3: PROPOSED GUIDELINES IN DEVELOPING A LOCALIZED GESI PLAN AT AMIA VILLAGES

Introduction

This guideline is intended for the extensionists at DA RFOs. These extensionists are involved in the implementation of the Adaptation and Mitigation Initiative in Agriculture (AMIA) program, which is DA's flagship program to combat the impacts of climate change. When used by an extensionist, this guideline can help an AMIA village prepare its gender responsive CRA action plan to better adapt their farming livelihood in and be resilient on the impacts of climate change with gender perspectives. This guide builds on the experience of the University of the Philippines Los Baños Foundation Inc. (UPLBFI) in integrating gender analysis and gender perspectives in the development of projects in Regions V (Bicol) and VI (Western Visayas).

Through a Localized Gender Action Plan (LGAP), the AMIA villages will be guided by a shared practical vision and a set of strategies and priorities of integrating gender in the development of CRA. The plan will guide them on how to balance the roles of women, men youth and other vulnerable groups in AMIA villages and optimize their inherent abilities in adapting their farming livelihood to climate change. As a result, the AMIA villages with the extensionists and other local stakeholders will be more effective in making their faming livelihood resilient to climate change.

Facilitating the planning process of the LGAP may consider the schedule of CRAO's call for project proposals, the Municipal Local Government Unit's annual budgeting cycle, and others. This will ensure the funding aspect of the plan for its implementation.

Depending on the strategy of the extensionist, the action planning process can be part of community organizing; such that the AMIA village is being organized from the beginning with gender lens. In case the AMIA village is already organized, the planning can still be facilitated. If the village already has an existing action plan, the gender action plan will be integrated and harmonized. With the assistance of the extensionist, this can also be mainstreamed in the Provincial Commodity Investment Plan (PCIP) for support, as appropriate.

Objectives

The LGAP aims to integrate gender in climate resilient agriculture (CRA) activities and implementation in AMIA villages. Specifically, it aims to:

1. Profile the women and men farmers of AMIA villages and their households, and describe their farming livelihoods and livelihood assets;
2. Discuss their farming livelihood needs;
3. Examine the impacts of climate-related shocks to their farming livelihood and coping strategies; and
4. Identify strategies, projects and activities that will address their needs and reduce the impacts of climate change in their farming while ensuring their livelihoods.

Developing and implementing this plan together with women and other vulnerable groups in AMIA villages will enable the farmers to better manage their resources, develop and adapt their farming

system to changing climate, and diversify economic activities for improved income and sustained livelihoods. In the process, they will be capacitated and provided with opportunities for greater involvement and collaboration towards CRA. Considering farmers' limited resources, this plan will enjoin the government, non-governmental organizations, private sector, and other local stakeholders on co-investment and co-management on gender responsive interventions in CRA.

Steps in formulating the gender action plan

The following steps are indicative; hence flexible. The extensionist can change the sequence and explore other activities to suit the site's specific biophysical and socio-economic conditions, cultural contexts, and norms.

Preparatory phase

1. *Facilitate a meeting with selected officials of an AMIA village together with concerned personnel from the barangay*[23] *and/or municipal/city level*[24]*.* This meeting or a series of meetings will provide opportunities to discuss the importance of integrating gender in CRA, raise their awareness and knowledge of this process. They may talk about current efforts related to this and the issues faced, as well as the future plans and how this plan may contribute. They may also share potential partners or stakeholders with gender related initiatives. Among others, it will also be important to discuss the needed support (e.g., manpower, financial, technical, etc.) to conduct the planning and make this a collaborative multi-stakeholder process. Developing a timeframe and schedule of activities will also be agreed upon.
2. *Create a Gender working group (WG) for the LGAP.* It is important that women are part of the working group. Concerned personnel from the barangay and/or municipal/city level, partner government agencies in the AMIA village (e.g., Department of Environment and Natural Resources-Community Environment and Natural Resources Office, Municipal Agrarian Reform Office, etc.) and other stakeholders (e.g., non-government organizations) may be invited to be part of the multi-stakeholder working group. However, it is important to keep the number of working group members at a minimum for easy management.
3. *Implement capacity building activities that will enhance the working group's planning capabilities.* For example, field trips can be organized to expose them to local good practices (e.g., technologies, practices, and crops; social and institutional innovations; policy development) on mainstreaming gender in CRA. Seminars about gender, agriculture and climate can be organized, as well as team-building exercises and training on participatory planning processes, and many others. Seminars may include topics related to gender sensitivity while training may include how to do gender analysis and others.

[23] For example, the Barangay Kagawad Committee Chair on Agriculture or the Barangay Agriculture and Fishery Council Chair

[24] For example, the Agricultural Technician assigned to the village

4. *Understand the gender dimension of the AMIA village by conducting community or organizational profiling and community needs assessment.* This part will be critical as this aims to understand the current socio-demographic, economic, cultural, and political situation of the AMIA village. This can be done by the following: (i) profiling, which will be the characterization of the farmer organization's members, including their households, farming systems and livelihood assets; (ii) gender analysis; (iii) participatory needs assessment; and (iv) impacts of climate-based disasters and hazards and their coping strategies (Figure 1). The coping mechanisms here refer to their climate adaptation strategies. This data is important to inform the (i) organization's gender responsive action plan; (ii) organizational assessment based on the AMIA Agricultural Development Pathways; (iii) the Provincial Commodity Investment Plan; and (iv) CRAO's gendered Climate Risk and Vulnerability Assessment.

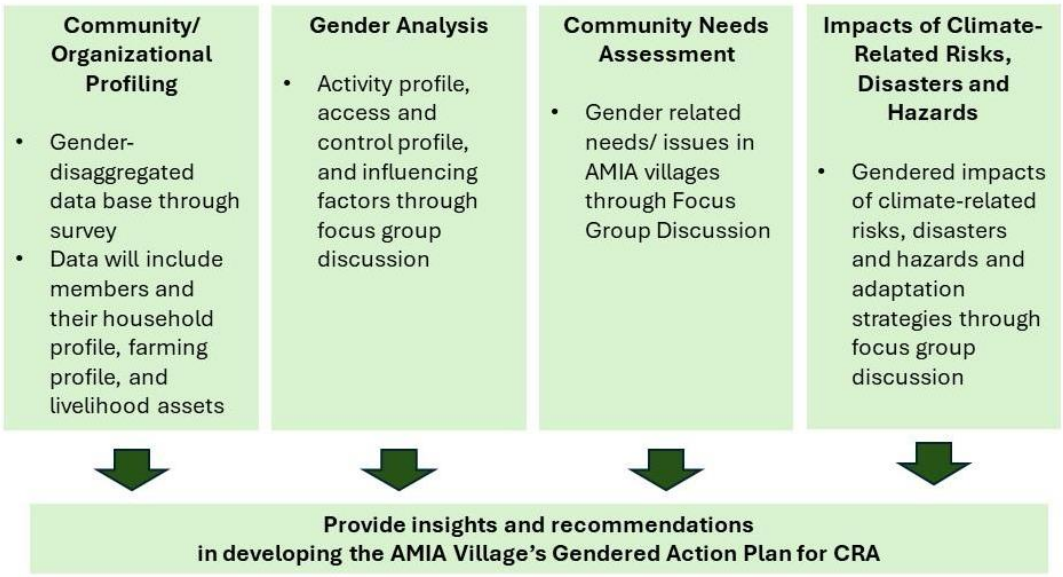


Figure 1. Important gender dimensions in AMIA villages that will inform the planning process for Gender Action Plan for CRA

In the process, sex-disaggregated data will be facilitated. Gender analysis, using the Harvard Analytical Framework, and gender perspectives will be employed. Participatory Rural Appraisal tools and methods will also be used to deepen understanding of women's situation in the village amidst changing climates. This may include participatory community mapping of resources, hazards, and others; problem tree analysis; strengths, weaknesses, opportunities and threats analysis; stakeholders' analysis; and others. The UPLBFI data collection tools (e.g., survey interview, focus group discussion) may be used.

In the community needs assessment, in case there are several needs that the participants will identify, these will be prioritized to make the plan realistic in terms of achievement.

Gender-related past and on-going interventions will be determined to know the interests of local agencies and stakeholders. Similarly, gender-related rules and policies will be listed and use these as basis, as appropriate, in forging partnerships with agencies and stakeholders. Overall, the primary data collected, and secondary information compiled can serve as the baseline of the AMIA village, which will be used as basis in the planning phase.

This part is where the proposed Action Area 1 on Research-based gender equality and social inclusion in CRA (Gender Action Plan for CRA) will be important. CRAO can develop data collection tools or use the available tools from UPLBFI that will be used in the planning process, and in return, they can use the data collected for their research work.

Planning phase

5. *Facilitate the gender action planning workshop.* Based on the understanding provided in Activity 4, this workshop will involve developing a practical vision for women and men farmers in the AMIA village, which will importantly consider their hopes and aspirations in the community. Based on the strategic gender needs previously identified (Activity 4), strategies and priorities will be set. This will be followed by developing action plans for implementation to achieve their vision.

   Facilitate the first writeshop to develop their gender action plan. They will put together their workshop outputs and write their plan in the local dialect. They will detail strategies, priorities and action plans so that implementers will understand how to operationalize the plan.

Authorization phase

6. *Validate the gender action plan with the AMIA village together with concerned personnel from the barangay and/or municipal/city level.* The working group will present their draft plan to validate, substantiate and endorse it for implementation and support. Once approved by the AMIA officials, the plan becomes an official agenda of the AMIA village or organization.

7. *Facilitate the second writeshop to integrate comments and suggestions in the final plan.* The comments and/or suggestions from the validation meeting will be integrated into the plan to finalize it.

Implementation phase

8. *Identify a focal point person who will oversee a local gender team within the AMIA village to implement the plan.* The focal point person and the local gender team will obtain support from partners and stakeholders through Memorandum of Agreements, as appropriate. Their interest and commitment to realize the plan is important.

9. *Implement activities in the plan through mentoring approach.* This is the role of the extensionist where capacitation will be critical, especially the women farmers to realize their own plan.

Monitoring, evaluation and learning phase

10. *Develop a monitoring, evaluation and learning system and make this part of the plan.* This is an integral part of the plan to ensure that its implementation is effective and on track. Simple M&E tools will be used so that women and others can take part in monitoring indicators, outputs and outcomes. Through adaptive management, learn from the findings by using these in re-strategizing to improve the implementation and ensure the successful implementation of the plan.