

ABSTRACT

USM-CA Ugnayan sa mga Magsasakang Moro at Katutubo (Sustaining Community Led Enterprise Project-SCALE of ISLAMIC RELIEF WORLDWIDE)

Project Leader:

Dr. Josephine R. Migalbin¹

Members:

Dr. Geoffray R. Atok²

Dr. Arndniel A. Baladjay²

Dr. Jurhamid C. Imlan²

Dr. Baser L. Mamalac²

Dr. Samsudin S. Panday²

Dr. Tamie C. Solpot²

Prof. Jaloloden B. Marohom³

¹CA-USM Dean, ²CA Faculty, ³CBEDEM Faculty
University of Southern Mindanao, Kabacan, Cotabato

Abstract. The College of Agriculture (CA) with its extension arm has a goal of supporting marginalized farmer-sector by providing technical advisories in agriculture. A collaboration between the CA-USM and the NGO Islamic Relief Worldwide (IRW) was conceptualized to fulfill common goal. This project aims to support local farmers in four barangays of Datu Saudi Ampatuan, and Datu Odin Sinsuat, Maguindanao by giving technical trainings on crop and animal production systems to Maguindanaon and T'duray farmer-leaders. Prior to interventions, Rapid Rural Appraisal (RRA) was conducted by the IRW using structured questionnaire and data validation through focus group discussion (FGD). Major commodities cultivated in the area are rice, corn, and vegetables. Major constraints identified includes the occurrence of pests and diseases, lack of knowledge on crop management practices, resulting to low productivity. Some farmers also engaged in goat, chicken, and duck production with disease problems identified as the main constraint and the lack of technical know-how on animal management practices. To address those challenges, 40 farmer-leaders were trained on crop and animal production and management in USM. It was followed by an on-site training involving actual demonstrations on vermiculture and organic concoction making. With these trained farmer leaders, peer to peer training was also conducted to empower neighbor farmers in the locality. Capacitation of women's group on livelihood project such as dishwashing liquid, fabric conditioner, and powder detergent soap making was also done. Beneficiaries were also trained for product branding, design, and marketing strategies for the existing local enterprise in the service area. Moreover, an establishment of an on-site demo farms was done showcasing vegetable, rice, corn, and animal production serving as model farms in the locality.

Keywords: agriculture, collaboration, extension services, Maguindanao, training of trainors

**USM-CA UGNAYAN SA MGA MAGSASAKANG
MORO AT KATUTUBO
(Sustaining Community Led Enterprise Project-SCALE)
(USM- ISLAMIC RELIEF WORLDWIDE)**

JOSEPHINE R. MIGALBIN, PHD
Project Team Leader

MEMBERS

DR. TAMIE C. SOLPOT
DR. BASER L. MAMALAC
DR. GEOFFRAY R. ATOK
DR. ARDNIEL A. BALADJAY
DR. JURHAMID C. IMLAN
DR. SAMSUDIN S. PANDAY
PROF. JALOLODEN B. MAROHOM

Funded by:

ISLAMIC RELIEF WORLDWIDE (IRW)

TERMINAL REPORT

UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Cotabato





UNIVERSITY OF SOUTHERN MINDANAO
Kabacan, Philippines



NARRATIVE REPORT

A. BASIC INFORMATION	
1. Title	“USM-CA Ugnayan sa mga Magsasakang Moro at Katutubo” (Sustaining Community Led Enterprise Project (SCALE))
2. Project Leader Study Leader (Indicate College/Unit)	Project leader: Dr. Josephine R. Migalbin Members: Dr. Tamie C. Solpot Dr. Baser L. Mamalac Dr. Geoffray R. Atok, Dr. Arndiel A. Baladjay, Dr. Jurhamid C. Imlan Dr. Samsudin S. Panday Prof. Jaloloden B. Marohom College of Agriculture, University of Southern Mindanao
Email Address	✓ tcsolpot@usm.edu.ph ✓ ca@usm.edu.ph
Contact Number	09361150661
3. Lead Unit/College	College of Agriculture (CA)
Collaborating Unit/College	College of Business, Development, Economics and Management (CBEDEM)
4. Category	<input type="checkbox"/> Program <input checked="" type="checkbox"/> Project <input type="checkbox"/> Study
5. Classification	<input type="checkbox"/> Research <input type="checkbox"/> Development
	<input type="checkbox"/> Basic <input type="checkbox"/> Pilot Testing <input type="checkbox"/> Applied <input type="checkbox"/> Prototype Development <input type="checkbox"/> Tech. Promotion/Commercialization
6. Thematic Area	<input type="checkbox"/> Crops <input type="checkbox"/> Information & Communication <input type="checkbox"/> Animals <input type="checkbox"/> Technology Commercialization <input type="checkbox"/> Biotechnology <input type="checkbox"/> Applied & Natural Sciences <input type="checkbox"/> Engineering & Technology <input type="checkbox"/> Arts, Education & Philosophy <input type="checkbox"/> Social Sciences <input type="checkbox"/> Health Care & Proper Nutrition
7. Project Duration	September 2020-August 2021
8. Project Location	University of Southern Mindanao, Datu Saudi Ampatuan, Maguindanao (DSA), Datu Odin Sinsuat, Maguindanao (DOS)
9. Total Budget Requested (Php)	PhP 150,000.00 (IRW Funded)

B. TECHNICAL DESCRIPTION**1. Rationale / Significance**

Agriculture is one of the essential industries in Mindanao especially in rural communities in the countryside. It consists of crop production, poultry, and livestock farming. Its output sustains the local demand and considers to be essential commodities within the country. Extension services plays a crucial role in boosting agricultural productivity, increasing food security, improving rural livelihoods, and promoting agriculture as an engine of pro-poor economic growth. This provides a critical and technical support service for rural communities to formulate solutions to the pressing challenges facing the agriculture.

Maguindanao is a province located in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), wherein agriculture is the most important economic sector as it constitutes about 67% of the region's economy. Its vast lowland and upland are mostly utilized for agriculture. While there are small and medium scale enterprises in commercial farming, majority of agriculture crops and livestock producers are small farmers who make meager income from farming rice and corn and a few high value crops. Yet it cannot be denied that the Bangsamoro region is well-endowed with natural resources that make it a haven for agriculture (JICA, 2016).

However, the irony is that Maguindanao is among the top ten poorest provinces in the nation with considerably high poverty incidence. The province dubbed as "MagandaNOW" by the provincial government although has rebounded in the past years and moved up slightly, poverty incidence remained as the top concern and needs alleviation. In 2018, the poverty incidence recorded to 40.6 and this means that a family of five must have an annual per capita poverty threshold of Php 25, 368.00 to meet both the basic and non-feed needs (<http://saad.da.gov.ph/>). Majority of agriculture crops and livestock producers are small farmers who make meager income from farming of rice and corn and a few high value crops.

Recently, a benchmark survey was conducted by the Islamic Relief Worldwide (IRW), farmers were generally lack the appropriate technical knowledge on crop and animal production technologies, which resulted in very low productivity and income. Other production constraints were occurrence of pests and diseases of animals and crops, natural calamities like drought and flooding, and lack of capital.

The College of Agriculture as a college with its extension arm has a goal of supporting and reaching out marginalized farmer-sectors (Bangsamoro and IP communities) in the countryside to help them maximize full potential on farm production by providing technical advisories in farming. A collaboration of USM and IRW was conceptualized to fulfill common goal. Therefore, this project would collaborate with the Islamic Relief Worldwide (IRW) in the delivery of extension services related to animal and crop production and management in four barangays of the Datu Saudi Ampatuan and Datu Odin Sinsuat, Maguindanao.

General Objectives

To support local communities of the two barangays of Datu Saudi Ampatuan, Maguindanao by giving technical expertise through trainings on crop and animal management and production systems to selected individuals/farmer leaders.

Specific Objectives

- i. To enhance farmer's knowledge and skills by giving them training in the management and production systems of their respective crops, poultry and livestock.

- ii. To sharpen the farmer's ability to make critical and informed decisions that render their farming profitable and sustainable.
- iii. To trained farmer-leaders in crop and animal management and production practices enabling them to teach other farmers also in their respective crop specialty.

2. Methodology

MOA signing (USM and Islamic Relief Worldwide)

In this project, the Islamic Relief Worldwide (IRW) will provide the funding. Meanwhile, the USM through its extension arm will provide the technical expertise to the farmers. Upon implementation of the project, Memorandum of Agreement (MOA) will be forged between the Islamic Relief and the USM wherein roles and responsibilities of the involved parties will be stipulated.

LGU and BLGU Coordination

Project coordination with partners will be conducted at the start of the implementation to pre – arrange and lay down roles and responsibilities between the IRPH and the USM proponents, to the Municipal, down to Barangay level sites. Communication letter will be sent prior to the conduct of the study to inform concerned agencies. Pre-implementation meeting and pre-planning with the project implementers and partner agencies will be done for tagging of responsibilities and for easy facilitation of different activities during the conduct of the survey.

Baseline Data Validation Through Focus Group Discussion (FGD) and Actual Site Visitation

Prior to the actual interventions through extension will be done in the targeted area namely the barangays of Datu Saudi Ampatuan (Eliau and Madia), and Datu Odin Sinsuat (Kurintem and Badak), a rapid rural appraisal or needs-based evaluation will be done regarding current farming practices and challenges encountered by the community. The first rural appraisal will be done through a survey using a structured questionnaire. This will be followed by actual field visitation of the USM experts where a focus group discussion (FGD) among stakeholders within the locality will be done. After such, an analysis of the data will be done to determine the needed technical help of the community regarding farming engagements.

Feedback the results of the analysis to the community

The community will be informed properly regarding the results of the analysis of the rapid rural appraisal and will be presented to them one by one for the purpose of validation.

Conduct of training of trainers of the technical aspects based on the results of the data analysis.

Appropriate training will be done to the targeted clientele based on the results of the rapid rural appraisal. Selected farmers in the community (4 barangays) with good standing and endorsed by the local officials will be trained on crop and animal production and management. Ten farmer-leaders will be selected for each barangay of Eliau, Madia, Kurintem, and Badak.

These farmers will serve as direct training beneficiaries from USM who eventually will also trained other farmers in their community with the assistance of the Islamic Relief.

On site-training to farmers and establishment of demo-farms

Demonstration farm will be established in the respective adopted barangays with the assistance of the Islamic Relief and the USM experts. This techno demo farm will serve as an actual learning site within the community.

Sustainability Scheme

From site preparation to planting and management of crops on the techno demo farm established, the beneficiaries will be supervised to ensure proper execution of farming activities. The area will be visited to monitor the progress and growth performance and production of planted crops, as well as in poultry and livestock production. From time to time, the residents will be provided with technical assistance to update their knowledge and skills in the implementation of the project.

3. Accomplishment

The project was initiated with a series of coordination meeting held at the College of Agriculture by the USM experts composed of crop protection, crop and animal science faculty members led by the CA Dean Dr. Josephine R. Migalbin, together with the team from the Islamic Relief Worldwide (IRW) between August-October 2021. Islamic Relief is a faith-inspired humanitarian aid and development agency working to save and transform the lives of some of the world's most vulnerable people.

During coordination meetings, representative from IRW presented the background of their organization and they laid down their intention to be in partnership with the University of Southern Mindanao (USM), particularly in the College of Agriculture. The IRW adopted four (4) barangays of the municipalities of Datu Saudi Ampatuan and the Datu Odin Sinsuat, Maguindanao. The IRW's current project in the aforementioned areas aimed to support local household and farmer-communities in crop and animal production and management including the upliftment of local and native enterprises by helping them market their local farm produce. The IRW presented the initial planned of activities subject for refinement and modifications after validation on the results rapid rural appraisal (RRA) through FGD and actual site visitation.

Signing of "Kabacan Accord" and the Memorandum of Understanding (MOU)

The "Kabacan Accord" was formulated as an initial agreement in the forging of partnership between the USM-College of Agriculture and the Islamic Relief Worldwide. This was signed by the University President and the USM experts, together with the IRW representatives led by IRW program manager Christopher Estallo. Moreover, Memorandum Of Understanding (MOU) between the USM and IRW was signed upon project commencement.

Baseline Data Validation Through Focus Group Discussion (FGD)

Needs assessment through rapid rural appraisal using structured questionnaire was previously done by the IRW in the service areas identified. The baseline data generated was used in the designed of guide questions for Focus Group Discussion (FGD) which will be done to validate the data generated. Focus group discussions (FDG) were undertaken to consult the community and conduct rapid

appraisal in the municipalities of Datu Saudi Ampatuan and Datu Odin Sinsuat, Maguindanao to identify the major crop commodity of local farmers, identify farming systems and practices of the local farmers, to identify production constraints that the farmers encountered, and to identify other community-based livelihood activities in the area. The community leaders and farmer leaders were identified to participate in the consultation and focus group discussion. The FGD was administered and facilitated by the IRW counterpart. Four focus group discussion (FGD) were conducted in four targeted barangays such as the Elian and Madia (Datu Saudi Ampatuan); and Kurintem and Badak (Datu Odin Sinsuat), Maguindanao, with 15 individual participants in each barangay. Guide questions were used during FGD (Appendix 1). Farmer-leaders, barangay officials, women's group representative, local cooperative members, and youth organizations were identified to participate the said FGD.

Key Findings during FGD

In barangay **Kurintem, DOS, Maguindanao**, the main crops cultivated are rice and corn. Farmers generally do not own their land but mostly are tenants and cultivates an average area of one hectare per farmer. In corn farming, corn field were majority rain fed and farmers practiced zero tillage with an application of herbicide to kill weeds prior to and during planting. Seeds planted were mostly "sige-sige" which refers to a corn hybrid (Round-up Ready) wherein the seeds can be used again during successive planting seasons. Although, planting of sige-sige is inadvisable, local farmers tend to use the "sige-sige" due to their lack of financial capacity to acquire the highly expensive hybrid seeds. This also attributed to quantity of harvest. For rice farming, there are farmers who utilized tillage machineries and some still practicing the old way of carabao drawn implements. They are practicing direct seeding of palay seeds and rarely apply fertilizer and pesticides only when needed.

The lack of proper knowledge on the production processes of corn and rice, prevailing pests and diseases, and lack of capital were considered as production constraints. This lack of knowledge on appropriate rice and corn production technologies resulted in low income among farmers. Other farming systems activities includes an intercrop of coconut with mango, coffee, and lanzones which were considered minor crops cultivated in the area. Vegetable gardening was considered as an additional alternative farming practice. Therefore, training on the rice and corn production practices is recommended together with vegetable gardening as alternative source of income among local folks in the area. Coconut and fruit crops production can also be given but of less priority due to small number of farmers planting such crops. On the other hand, local farmers do animal raising such as poultry (native chicken, duck), and livestock (goat and cow). Problems encountered includes diseases and low market price. Therefore, a training on poultry and livestock production is also recommended to increase animal raiser's income.

Recommended appropriate trainings shall be given;

1. Training in rice and corn production
 - From land preparation to harvesting
 - Timing in fertilizer application
 - Pests and diseases control
2. Training on poultry and livestock
 - Diseases and management of poultry and livestock)
 - Raising important poultry and livestock

3. Training on vegetable production and management

- Organic vegetable farming
- Organic pest management

In **Badak, Datu Odin Sinsuat, Maguindanao** main crop cultivated is corn and coconut. In corn areas, alternative crops were mungbean and peanut as alternate crops in the practice of intercropping and crop rotation. In moro communities, the head of the family usually do the farming activities, while in Indigenous People (T'duray) community, both men and women do farming. The IP community in the highland areas still practice the "*bayanihan*" system while in plain areas practicing payed labor. For land cultivation, majority uses cow and carabao drawn farm implements. Bigger farm areas are ancestral domain and located from mountainous and hilly portion of the barangay. In the plain area, farms are owned by well-known families and farmers serve as tenant in the area except for few coconut farmers. Most farm areas are rain fed and they prepare their field areas when climatic condition favors, as one participant said that "ang pag-aararo ay kadalasang ginagawa kapag umulan at sapat ang lambot ng lupa saka sila magtatanim". This is true in the highland areas since the type of soil is rocky and hard. For corn production, the seeds they are planted were majority "sige-sige" while few planted hybrid or certified seeds. The farmers are practicing the use of herbicide to control weeds in corn areas as sige-sige is considered to be a Round-up Ready corn. In highlands, they apply fertilizer in corn once in every cropping. This may also contributed to low yield. In terms of pest, rodents and ants are considered to be the main constraints. These ants usually attacked on newly planted seeds thereby unsuccessful germination will happen, while rodents are common during the reproductive stage of corn which consumes the corn grains in standing crops and contributed losses substantially in their harvested commodity. In the IP community, farmers still practicing tribal ritual before planting, before harvesting and during pest attack. Average yield of corn per hectare in plain farm areas ranges from 80-150 sacks, while for those who practice organic or less inorganic farm inputs only averages 30-40 sacks of corn harvested per hectare. According to the local farmers, they do not receive any technical training yet from the government in corn farming.

In coconut farming, production constraints encountered were the occurrence of pests such as cocolisap (in the previous) and the rhinoceros beetle. They only apply pesticides and fertilizer when needed. Harvested coconut are sold as copra through traders at a very low price. In terms of production, it is estimated that for every hectare of coconut, they can harvest more or less 15 sacks of copra. According to the coconut farmers, during the pandemic, the price of farm transportation increased to 50% and the price dropped substantially. Another alternative farm activity in the area is backyard gardening in which most of the housewife are doing such task. Some farmers are also habal2x driver. In terms of animal production, farmers at the same time are raising native chicken, goat, duck and cow. Occurrence of diseases among livestock and poultry are considered as constraints in the production process.

Recommended appropriate trainings shall be given;

1. Training in rice and corn production

- From land preparation to harvesting
- Intercropping or crop rotation system of corn, mongo, and peanut
- Timing in fertilizer application
- Pests and diseases control

2. Training on poultry and livestock

- Diseases and management of poultry and livestock)
- Raising important poultry and livestock

3. Training on vegetable production and management

- Organic vegetable farming
- Organic pest management

In **Eliau and Madia, DSA, Maguindanao** both barangays considered rice farming in non-irrigated systems as their main farming activity. Most of the farmer owned their area and they used farm machineries during land cultivation (bao-bao, tractor, rotor, kuliglig) and start planting of rice when rain comes since mostly are rainfed. Majority used sabog method during planting with few are practicing manual planting. Common rice variety planted are R160 and RC18 acquired from traders including the fertilizer and pesticides. At some point, some farmers received rice seeds from the Department of Agriculture (DA). They also received training from the government on rice farming but are inappropriate in the area since their farm are non-irrigated and the trainings being provided are for irrigated rice farming. Types of fertilizers they are using are Urea, Ammonium Sulfate, and they usually apply fertilizer three times in every cropping or only when needed. One of the production constraints they encountered is the occurrence of constant pests such as rice black bug, rice tungro disease, rodents, snails, birds (maya), and the rice leaf folder. For insect pest, they are using insecticides to mitigate the infestations with the use of Gold (anti-black bug), 24D, Magnum 5EC, and others. However, aside from pests and diseases, the perennial problem in the area is the constant flooding which contributed largely to crop losses since Eliau and Madia situated in low lying elevations. Generally, the average yield of rice farmers is only 30-50 sacks per hectare which is substantially low. Rice farmers in the area demands for irrigation and flood control mitigations.

Minor crops were coconut, mungbean, banana (cardava), and corn. They are also planting “sige-sige” corn variety and are applying fertilizer in 2-3 times per cropping. They do animal raising such as poultry (itik, native chicken, and ducks) and livestock (goat, and cow). They experienced problems such as diseases in both poultry and livestock.

Trainings for rice production in a non-irrigated set-up as well as on the production of poultry and livestock is recommended addressing the pressing constraints they experienced. The farmers in the area also demands for irrigation and flood control mitigations to alleviate the problem. They also demands for appropriate farming techniques and skills to improve their practice both in crop and animal production practices.

Recommended appropriate trainings shall be given;

1. Training on rice production (non-irrigated systems)
 - From land preparation to harvesting
 - Timing in fertilizer application
 - Pests and diseases control
2. Training on poultry and livestock
 - Diseases and management of poultry and livestock production
 - Raising important poultry and livestock
3. Training on vegetable production and management
 - Organic vegetable farming
 - Organic pest management

CONCLUSIONS

The discussions revealed a general agreement by the communities that the lack of knowledge on appropriate production technologies of major crops such as rice and corn resulted in low income among farmers. Other farming systems activities included cultivation of fruit crops in an intercrop manner such as coconut with mango, coffee, and lanzones which were considered minor crops in the area. Vegetable gardening was considered as an additional alternative farming practice. On the other hand, local farmers do animal raising such as poultry (native chicken, duck), and livestock (goat and cow). Problems encountered included lack of capital, low market price of their harvested commodities, flooding, drought, and the occurrence of pest and diseases. Training on rice and corn production practices is recommended together with poultry and livestock production, and vegetable gardening as alternative source of income among local folks in the area.

LGU and BLGU Coordination and Site Visitation of USM Experts

Badak and Kurintem (Datu Odin Sinsuat, Maguindanao)

To ensure smooth conduct of the project, proper coordination with the Local Government Unit (LGU) in the municipal level, and at the barangay level was done. The USM experts together with the IRW personnel conducted a courtesy call to the municipal and barangay officials of the Datu Saudi Ampatuan and the Datu Odin Sinsuat, Maguindanao last November 04, 2020 for a site visit. During the courtesy call and visit, USM and the IRW presented and discussed to the officials the interventions to be done in their respective barangays involving local household and farmer communities particularly on the objectives and expectations of the project implementation.

Technical experts led by the USM-College of Agriculture Dean Dr. Migalbin are composed of plant (Drs. Tamie C. Solpot and Baser L. Mamalac) and animal specialists (Drs. Josephine R. Migalbin, Geoffray R. Atok, and Jurhamid C. Imlan). This was done to further confirm the data gathered through benchmark survey and focus group discussion. The barangay officials and other stakeholders present during the meeting were given the feedback on the results and recommendations made based on the analysis of benchmark survey and focus group discussion. They were basically on the general agreement with the results of the analysis and made sure of their cooperation for future interventions to be made by the Islamic Relief with the collaborations of USM experts to help farmers regarding farm management and practices.

On the site, further interview with the barangay officials and other stakeholders in the field was made. In barangay Badak, it was found out that many farmers are involved in corn (in the highlands), and some coconut farmers in the plain. Coconut trees were basically healthy since the area is located in the coastal area (seaside). It is the best location for coconut trees since salt is readily available in the soil which will serve as fertilizer. A vast farm area in Badak is a potential area for agricultural production. They can engage in many farm activities both for crop and animal production and the barangay officials express their interest to learn on farming management and production practices in the future.

In Barangay Kurintem, DOS, barangay officials shared their thoughts on the farming practices they are engaged with at the present. The technical experts of USM learned several farm engagement in the locality. One large-scale goat production farm is present in the area and it was visited together with the barangay officials and they were able to see the potential of doing such farm business in their locality. Rice farm were also visited and the occurrence of pest and diseases were noted. One farm was heavily infested with the rice leaf folder and it

seems that measures to control the disease was not implemented right away. This may result to the increase of pest density and may open way for infestation in nearby rice field of the same growth stage. Farmers were initially advised to spray insecticide on infested field. Barangay officials in Kurintem were also optimistic that the collaboration of Islamic Relief and USM would help them realize the importance of farming and would bring to increase their knowledge in farm practices to increase productivity.

The officials of the two barangays of Datu Saudi Ampatuan (Elian and Madia) were also gathered and interviewed at the date in Cotabato City. USM experts presented to them the results on the analysis of the benchmark data and focus group discussion conducted previously. They also agreed on the results of the analysis and express their interest to learn particularly on rice farming which is considered as the major farm enterprise they are engaged with. They also want to increase their knowledge on other farm enterprise such as livestock and poultry production as well as the production of high valued vegetables in a resilient way. The area is constantly confronted with flooding as well as the occurrence of pest and diseases of both crops and animal commodities.

PICTORIALS



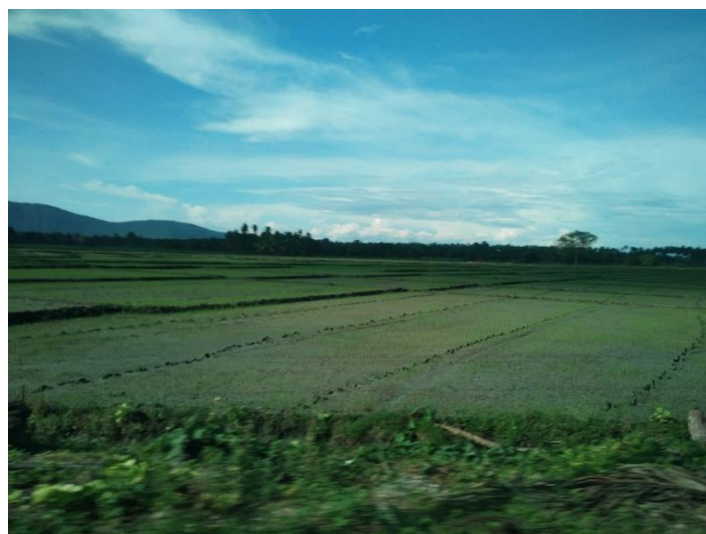
Courtesy call and coordination meeting of USM experts with the barangay officials and stakeholders in Barangay Badak, Datu Odin Sinsuat Maguindanao (November 04, 2020)



Coconut field in Barangay Badak, Datu Odin Sinsuat, Maguindanao
(Potential field to be planted with crops as intercrop to maximize farm productivity)



Courtesy call and coordination meeting of USM experts with the barangay officials and other stakeholders in Brgy. Kurintem, Datu Odin Sinsuat, Maguindanao (November 04, 2020)



Site visit in rice field of farmers in Brgy. Kurintem, Datu Odin Sinsuat, Maguindanao.



Rice field in Barangay Kurintem, Datu Odin Sinsuat, Maguindanao heavily infested with rice leaf folder (*Cnaphalocrocis medinalis*).



Rice plant showing the rice leaf folder damage



Site visitation and interview with the goat farm owner in Brgy. Kurintem, Datu Odin Sinsuat, Maguindanao (November 04, 2020)



Goat farm that were visited by USM experts in Brgy. Kurintem, Datu Odin Sinsuat, Maguindanao



Courtesy call and coordination meeting of USM experts with the Barangays officials and other stakeholders in Brgy. Elian and Madia, Datu Saudi Ampatuan, Maguindanao held in Cotabato City

Conduct of Training of Trainers (TOT) in USM

Based on the analysis on needs assessment activities conducted in the four barangays of Datu Saudi Ampatuan, Maguindanao (Brgy. Madia and Elian), and Datu Odin Sinsuat, Maguindanao (Brgy. Badak, Kurintem), gaps and needs related to farming and local enterprise were identified objectively as mentioned above. These were the basis in the formulation and design of the training conducted in the area to capacitate the local community. Training was designed intended for farmer-leaders in four barangay's and these were conducted in USM, Kabacan, Cotabato who are also qualified to teach and train others in the future. A total of forty farmer-leaders participated in the training with 10 representative farmer-leaders for each barangay. The training was conducted last November 16-18, 2020 for Datu Saudi Ampatuan participants, while training for Datu Odin Sinsuat Maguindanao was done last November 19-21, 2021. The training was facilitated by the IRW with USM experts as the resource speakers in different topics in crop and animal management production practices. Actual field observation and tours was also done in USM, so that participants will have an actual observation on the actual farm operations in USM in goat, poultry, rice, corn, and vegetable production areas. The training program are as follows;

CROP AND ANIMAL MANAGEMENT AND PRODUCTION: TRAINING OF TRAINORS DATU SAUDI AMPATUAN (NOVEMBER 16-18, 2020)

8th Avenue, Kabacan, Cotabato**DATU SAUDI AMPATUAN, MAGUINDANAO****DAY 1 (November 16, 2020) Monday**

	TIME	ACTIVITY	INCHARGE
AM Opening program and Farm Planning	7:30-8:00	Registration	Secretariat
	8:00-9:00	Opening Program	Islamic Relief
	9:00-10:00	Pre-Test	USM
	10:00-12:00	Farm Planning/Financial Mngt.	Dr. Migalbin/Prof. Marohom

(Lunch Break)

PM Vegetable Production and Management	1:00-3:00	Site Preparation, Planting, Maintenance	Dr. Baladjay
	3:00-5:00	Pest Management (Weed, Insect, and Diseases)	Dr. Solpot

Day 2 (November 17, 2020) Tuesday

AM Rice Production and Management	8:00-10:00	Land Preparation, Planting, Maintenance	Dr. Mamalac
	10:00-12:00	Pest Management (Weed, Insect, and Diseases)	Dr. Panday

(Lunch Break)

PM Goat Production	1:00-3:00	Goat Production and Management	Dr. Migalbin
	3:00-5:00	Goat Production and Management (Con't)	Dr. Atok

Day 3 (November 18, 2020) Wednesday

AM (Field Tour and Poultry)	8:00-10:00	Field Tour	USM Group
	10:00-12:00	Poultry Production	Dr. Imlan

(Lunch Break)

PM (Poultry Con't and Closing)	1:00-2:30	Poultry Production (Con't)	Dr. Imlan
	2:30-3:30	Post-Test/Evaluation	USM Group
	3:30-4:00	Closing Program	Islamic Relief

HOME SWEET HOME

CROP AND ANIMAL MANAGEMENT AND PRODUCTION: TRAINING OF TRAINORS

DATU ODIN SINSUAT (NOVEMBER 19-20, 2020)

8th Avenue, Kabacan, Cotabato**DATU ODIN SINSUAT, MAGUINDANAO****DAY 1 (November 19, 2020) Thursday**

	TIME	ACTIVITY	INCHARGE
AM Opening program and Farm Planning	7:30-8:00	Registration	Secretariat
	8:00-9:00	Opening Program	Islamic Relief
	9:00-10:00	Pre-Test	USM
	10:00-12:00	Farm Planning/Financial Mngt.	Dr. Migalbin/ Prof. Marohom

(Lunch Break)

PM Vegetable Production and Management	1:00-3:00	Site Preparation, Planting, Maintenance	Dr. Baladjay
	3:00-5:00	Pest Management (Weed, Insect, and Diseases)	Dr. Solpot

Day 2 (November 20, 2020) Friday			
AM Corn Production and Management	8:00-10:00	Land Preparation, Planting, Maintenance	Dr. Mamalac
	10:00-12:00	Pest Management (Weed, Insect, and Diseases)	Dr. Panday
(Lunch Break)			
PM Goat Production	1:00-3:00	Goat Production and Management	Dr. Migalbin
	3:00-5:00	Goat Production and Management (Con't)	Dr. Atok
Day 3 (November 21, 2020) Saturday			
AM (Field Tour and Poultry)	8:00-10:00	Field Tour	USM Group
	10:00-12:00	Poultry Production	Dr. Imlan
(Lunch Break)			
PM (Poultry Con't and Closing)	1:00-2:30	Poultry Production (Con't)	Dr. Imlan
	2:30-3:30	Post-Test/Evaluation	USM Group
	3:30-4:00	Closing Program	Islamic Relief
HOME SWEET HOME			

On Site Training of Trainers (TOT)

Another set of training was conducted in the four barangays of Datu Saudi Ampatuan, and Datu Odin Sinsuat, Maguindanao. The training was conducted on site and was participated by the same participants who attended the TOT in USM, Kabacan, Cotabato. This was a follow through on the conducted trainings that focuses on the actual hands-on activities on vermiculture and development of organic-based concoctions, actual field visits and advisories on corn and rice production, as well as the poultry and goat production. The training program in four barangays were as follows;

DATU SAUDI AMPATUAN, MAGUINDANAO

March 06, 2021

Barangay	Time	Activity	Personnel Involve
ELIAN, DSA, MAGUINDANAO	9:00-11:00 AM	Vermicomposting	Josephine R. Migalbin
	11:00-12:00 NN	Organic Bio Fert/Biopesticide Concoctions	Tamie C. Solpot
	12:00-1:00 PM	Break	
	1:00-4:00 PM	Poultry and Livestock Production	Geoffray R. Atok/ Josephine R. Migalbin
MADIA, DSA, MAGUINDANAO	9:00-12:00 AM	Poultry and Livestock production	Jurhamid C. Imlan
	12:00-1:00 PM	Break	
	1:00-3:00 PM	Vermicomposting	Baser L. Mamalac Josephine R. Migalbin
	3:00-4:00 PM	Organic Bio Fert/Biopesticide Concoctions	Baser L. Mamalac Tamie C. Solpot

DATU ODIN SINSUAT MAGUINDANAO**March 20, 2021**

Barangay	Time	Activity	Personnel Involve
BADAK, DATU ODIN SINSUAT, MAGUINDAN AO	9:00-11:00 AM	Vermicomposting	Jurhamid C. Imlan
	11:00-12:00 NN	Organic Bio Fert/Biopesticide Concoctions	Baser L. Mamalac
	12:00-1:00 PM	Break	
	1:00-4:00 PM	Poultry and Livestock Production	Geoffray R. Atok
KURINTEM, DATU SAUDI AMPATUAN, MAGUINDAN AO	9:00-12:00 AM	Poultry and Livestock production	Josephine R. Migalbin
	12:00-1:00 PM	Break	
	1:00-3:00 PM	Vermicomposting	Ardniel A. Baladjay
	3:00-4:00 PM	Organic Bio Fert/Biopesticide Concoctions	Tamie C. Solpot

Peer to Peer Training Conducted

Peer to peer training was also conducted in the four barangays which was participated by additional local household and farmers in the community. This was done to empower neighbor farmers in the locality. The trained farmers (TOT participants in previously conducted trainings) in each barangay served as the resource persons in this training. Topics include the establishment of vermiculture and development of different organic concoctions which they can use in their community and backyard vegetable production in the locality.

Technical Advisories in Social Media Platform

In times of crisis like covid-19 pandemic with many restrictions such as the limited face-to-face meeting, delivery of direct technical advisories to farmers is hampered. However, with the use of the social media platform, the process was made easy and possible. Through the Facebook, inquiries of farmers to the USM experts related on farming were taken into consideration. The farmer can directly inquire to experts on farming related problems, and these were addressed right away.

Other Trainings and Capacity Building Conducted to Local Households**Training on Dishwashing liquid, Fabric Conditioner, and Powder Detergent Soap Making, Duck Raising and Egg Production**

To augment the income through income generating project of the local partner cooperatives beneficiaries in the service area, training on dishwashing liquid, fabric conditioner, and powder detergent soap making was done with the resource person invited from University of Southern Mindanao. There were 21 individuals mostly are women who participated the training from the four barangays of Datu Odin Sinsuat and Datu Saudi Ampatuan, Maguindanao. Moreover, training on ducks raising and egg production was conducted last Aug 6-7, 2021 in USM. This is also to help the local

communities to have an additional source of income especially in a flood laden areas of Datu Saudi Ampatuan, Maguindanao.

Training on Developing Product Brand, Designing, and Marketing Strategies

This training was conducted to capacitate the beneficiaries from the four barangays of Datu Odin Sinsuat and Datu Saudi Ampatuan, Maguindanao in terms of developing product brand, designing, and marketing strategies. This is in line with the livelihood activities the beneficiaries engaged with currently. Proper training and capacitation should be done to educate them in business aspect. The training was conducted in Elai Resort, Kidapawan City with Prof. Jalalodin Marohom of the USM as the resource speaker. This was attended with 23 participants from the said four barangays.

Establishment of Demonstration farms

Demonstration farms for corn and rice production was established in four Barangays Badak and Kurintem (Corn), and Elian and Madia (Rice) of Datu Odin Sinsuat and Datu Saudi Ampatuan, Maguindanao respectively. For the corn, the USM OPV variety 10 was used for planting since their production is intended for food consumption (corn coffee and corn grits). For rice, certified registered seed was also used as per recommended by the experts in USM. Constant advisory services were provided to the farmers with the corn experts in USM led by Dr. Baser L. Mamalac of the Agronomy Division from the selection of seeds, planting to harvesting practices.

Future Activities and Plans

- Development module in organic vegetable, rice, corn, poultry and goat production in tagalog language.

4. References

Japan International Cooperation Agency (JICA). 2016. Comprehensive Capacity Development Project for the Bangsamoro Development Plan for the Bangsamoro Final Report Sector Report 1: Economy. <https://openjicareport.jica.go.jp/pdf/12253647.pdf>.

<http://saad.da.gov.ph/>

5. Problems Met and Recommended Actions

PROBLEMS MET	RECOMMENDED ACTIONS/ACTIONS TAKEN
Covid-19 Pandemic, Travel Restrictions	Some meetings were made through online/Standard protocols were followed during the conduct of activities in the service area.
Peace and Order Situation in the Service Area	Proper coordination with the proper authorities during the conduct of activities in the area.

6. Budget Utilization

Note: Budget and other financial matters related to the implementation of the project were charged to and were taken care of by the partner agency Islamic Relief Worldwide (IRW) as the

7. Attachments:

A. Pictorials

**"Training of Trainers" Conducted in USM, Kabacan, Cotabato
Crop and Animal Production and Management**



On-site Training of Trainers



**Peer-to Peer-Training Conducted
Madia, Datu Saudi Ampatuan and Kurintem, Datu Odin Sinsuat**





Training on Detergent Making and Product Branding, Design and Marketing



Duck Raising and Egg production Training in USM



Establishment of Demonstration Farm



Site Selection and Land Preparation



B. Workplan of activities of the project.

[illegible]

crop specialty.	ment module in vegetable production, rice and corn production, and poultry and goat production.	modules in crop and animal production											going
	- peer to peer training - Establishment of demo farm	Established on-site/demo farm showcasing vegetable, rice, corn and poultry and livestock production	USM,IRPH, MAFA R, LGU/B LGU										On-going
	Development of IEC materials (Best Practices)	Developed User-Friendly IEC	USM and IRPH										On-going

C. Appendices.

Appendix 1. Guide questions for the Focus Group Discussion (FGD)

FOCUS GROUP DISCUSSION GUIDE

Topic: (Be specific) Farming systems/practices and alternative livelihoods in selected local communities in Maguindanao to introduce appropriate technology to address poverty and alleviation of living status of the target beneficiaries in BARRM.

Participants: 15-25 people (Your participants should be the key informants since they have first knowledge about the community or the subject matter.)

Barangay officials

Farmer leaders

Coop members (womens)

Introduction (Standard)

- **Welcome** (Deliver a smooth and snappy introduction to make your participants comfortable)

Moderator: Magandang umaga sa ating lahat. Ako ay nagpapasalamat at pinaunlakan niyo ang aming imbitasyon na dumalo sa isang maliit na pagtitipong ito. Para naman tayo ay magkakilalang lahat, nais ko pong magpakilala. Ako po si _____ ng Unibersidad ng Katimugang Mindanao (University of Southern Mindanao), isang pamantasan ditto sa Mindanao at nanaliksik sa pagsasaka. Kasama ko po si _____ na tutulong sa akin para maayos na maitala ang inyong mga tugon sa mga katanungan.

Bago po tayo magsimula, nais ko pong sabihin na ang imbitasyon namin sa inyo na dumalo ay hindi sapilitan at kusang-loob niyo lamang. Kaya kami ay nagpapasalamat sa inyong positibong tugon. Kapag nais niyo pong itago ang inyong pagkakakilanlan, kayo po ay ituturing naming anonymous at gagalangin ang inyong kagustuhan. At bilang pagsisiguro sa inyo, ipinapangako namin na ang anumang impormasyon na inyong ibinahagi ay gagamitin lamang para sa purpose ng pagtitipong ito at hindi sa kung ano pa man. Kaya, inaanyayahan ang lahat na maging komportable at huwag mahiyang magsalita.

- **Overview of topic (State specific topic and its use or purpose.)**

Ang pagtitipong ito ay naglalayon na alamin ang inyong opinyon at saloobin tungkol sa inyong mga kasalukuyang ginagawa sa inyong mga sakahan, kasanayan at mga iba pang alternatibong kabuhayan sa inyong kumunidad. Ang resulta ng ating diskusyon ay gagamitin upang makapagbigay kami ng angkop na teknolohiya para sa sustenabling pagsasaka

Kayo po ay napili dahil naniniwala kami na mahalaga ang inyong opinyon sa mga usapin na ating tatalakayin at kayo rin ang mas higit na nakakaalam sa angkop sa tugon para sa mga mahahalagang katanungan.

Guidelines

Nais po naming ipabatid sa inyo na wala pong maling sagot, magkaiba-ibang pananaw lamang. Gagamit po tayo ng phone recorder upang ma-record ang ating mga pag-uusapan. Kaya inaanyayahan ang lahat na magsalita at magbigay ng opinyon. Maaari pong magsalita pagkatapos makapagsalita ang isa. Pakisabi na lamang po ng inyong pangalan para maayos nating maitala ang inyong tugon o kasagutan.

Hindi po kailangang sumang-ayon kayo sa opinyon ng iba, ngunit inaanyayahan ang lahat na galangin ang opinyon ng isa't isa at makinig ng may respeto sa kanilang opinyon.

At bilang panghuli, kung maaari po ay itabi natin an gating mga cellphone o ilagay sa silent mode. Kung hindi po maiiwasan na sagutin ang tawag, pwede pong sagutin ang telepono at agad pong bumalik para makasali ulit sa usapan.

Huwag po tayong mahiya na magsalita.

Q&A (Use open-ended questions if possible to allow further discussion)

Para sa ating unang tanong, anu-ano po ba ang inyong mga ginagawa bilang paghahanda sa inyong lupang sakahan? (This way, you can segue to the next question which is related to farming systems. Remember to be cautious of your words to not offend them.)

Sa nabanggit ninyong pamamaraan sa paghahanda ng inyong lupang sakahan, ano anong mga makinarya o hayopan ang inyong ginagamit?

(Further questions will depend on the participants' responses. But remember to avoid questions that can be answered with a "yes" or "no". As much as possible, ask them questions that will allow them to explain and share their opinions. Ask about their experiences so that

they can relate the topic to their own experience.)

Ending the discussion

(Summarize the discussion—your questions and the participants' responses. This is to confirm their responses and allow them to correct or add some facts. Ask your final question if there's any.)

Closing the discussion

(Appreciate and thank your participants for sharing and participating in the discussion. This way, you make them feel that their opinions matter.)

Moderator: Sampu ng aking kasamahan sa USM at Islamic relief, kami ay taus-pusong nagpapasalamat sa inyong pagsali sa diskusyong ito. Marami kaming nakuhang impormasyon na sadyang nakakatulong para sa pag-develop ng teknolohiyang naaangkop para sa inyo.

Guide Questions for FGD

General Questions

- *Ano ang inyong pinakapangunahing tanim at hayop na sinasaka?*
- *Bukod sa nabanggit, ano pa ang iba ninyong sinasaka?*
- *Kayo ba ay nagtatanim para sa sariling kunsumo ng pamilya o binebenta sa merkado?*
- *Gaano kalaki ang lupa na inyong sinasaka?*
- *Sino ang nagmamay-ari ng lupang ito? Kayo ba ay nagrerenta lamang o sariling pag-aari?*
- *Paano mo ilarawan ang inyong sisasakang lupa?(patag/matarik/hilly)*
- *Ano ang inyong pangunahing aktibidad sa pagsasaka?*
- *Paano ninyo hinahanda ang inyong sakahan sa pagtatanim? Maaring ipaliwanag ang pagka-sunod sunod ng paghahanda sa lupa hanggang sa pagtatanim*
- *Gumagamit ba kayo ng makinarya sa pagsasaka o hayop lamang sa pagsasaka? Ano ano ito?*
- *Gumagamit pa ba ng araro o zero tillage?*
- *Saan kayo kumukuha nga binhing inyong tinatanim?*
- *Nagtatanim ba kayo ng garantisadong binhi/ Anong klaseng binhi ang inyong tinatanim? Hybrid, Open pollinated, Mais (sige-sige), etc.*
- *Anong cropping system ang inyong ginagawa sa sakahan? Monocropping/Multicropping/Intercropping*
- *Ano-anong crops tinatanim for intercropping at multicropping?*
- *Kelan kayo unang nag-aaplay ng pataba sa sakahan at paano?*
- *Ano-ano ang mga pangunahing problema sa lupa ang inyong nakikita? (mabato, hindi mataba, may soil erosion)*

Farm inputs

- *Ano ano ang mga pangunahing farm inputs (Pataba, Pestisidyo, at iba pa) ang inyong binibili at ginagamit?*

- *Gaano kayo kadalas nag-aaplay ng pataba at pestisidyo? Magbigay ng halimbawa at gaano kadalas?*
- *Ano-anong mga pataba at pestisidyo ang inyong ginagamit sa sakahan?*
- *Sino ang inyong supplier ng mga pataba at pestisidyo?*
- *Magkano ang presyohan ng mga farm inputs?*
- *Meron ba kayong natatanggap na ayuda mula sa gobyerno? (Tulong teknikal at tulong pinansyal)*
- *Ano ano ang mga bagong teknolohiya na inyong natutunan at saan galing o sinong nagturo?*

Crop Protection

- *Ano ang pangunahing peste at sakit ng pananim ang inyong nakikita sa inyong sakahan?*
- *Ano-ano ang inyong mga ginagawa upang masolusyunan ang mga naturang peste o sakit ng halaman/pananim?*
- *Ano pa ang ibang problema sa sakahan/bukirin ang inyong nakikita?*

Harvest and Post-Harvest Practices

- *Ano-anong mga makinarya ang inyong ginagamit sa pag-aani ng mga tanim? (machines, human labor).*
- *Gaano kadami ang inaani ninyo (ilang kaban o sako) kada ektarya ng lupang sinasaka?*
- *Saan binibenta ang mga inaning tanim?*
- *Ano-anong mga problema ang inyong nakikita patungkol sa pag-aani ng inyong mga tanim sa bukirin?*
- *Paano ang pagbibiyahe/pagtatransport ng mga inaning tanim?*
- *Maayos ba ng daanan galing sa bukirin papunta sa merkado?*

Labor Resources

- *Sa mga miyembro ng pamilya, sino sino ang mga nagtrabaho sa bukirin?*
- *Ano ang pangunahing gawain ng mag miyembro ng pamilya? Asawa, Anak,*
- *Kayo ba ay umuupa ng tao upang magtrabaho sa inyong sakahan? Or merong tinatatawag na bayanihan or exchange labor sa kumunidad?*

Financing

- *Saan kayo kumukuha ng pangtustus sa inyong pagsasaka?*
- *Meron bang mga nagpapautang sa inyo para sa pangangailangan sa sakahan? Ano ano ang mga terms sa pagpapautang?*
- *Kumukuha ba kayo ng insurance para sa mga tanim? Sino ang nagbibigay o saan kayo kumukuha?*

Alternative Livelihood

- *Meron ba kayong tinatanim sa inyong mga bakuran pandagdag sa inyong pangangailangan?*
- *Maliban sa pagsasaka, ano pa yong ibang pinagkukunan ninyo ng hanapbuhay?*
- *Ipaliwanag ang mga naturang alternative livelihoods na meron sa kumunidad.*

Animal Production

- *Ano-ano ang mga pangunahing hayop na alaga?*
- *Ano-ano ang mga pangunahing activities/gawain sa paghahayopan?*
- *Ano anong problema ang nakikita ninyo sa inyong paghahayopan?*
- *Ano-anong mga sakit ng hayop ang madalas ninyong na oobserbahan?*
- *Ano ano ang inyong ginagawa upang ma sulosyonan ang mag naturang sakit?*
- *Paano ang pagbebenta ng mga alagang hayop sa merkado?*
- *Magkano ang presyohan sa pagbebenta ng mga alagang hayop sa merkado?*

Closing Questions

- *Ano anong mga climatic problems/problema sa panahon o klima ang inyong naranasan sa mga nakaraang pagsasaka?*
- *Maari ba kayong magbigay ng hindi magandang karanasan sa pagsasaka na pwede ninyong maibahagi?*
- *Maari ba kayong magbigay ng maganda at positibong karanasan sa pagsasaka na pwede ninyong maibahagi?*