

B.1 PROPOSAL FORMAT/TEMPLATE FOR EXTENSION PROJECT

PART I

PROJECT SUMMARY

A. Title:	PROMOTING BIOFERTILIZER TECHNOLOGIES FOR SUSTAINABLE CROP PRODUCTION AND FARM DIVERSIFICATION IN ZAMBOANGA DEL SUR
B. Implementer:	School of Agriculture, Forestry and Environmental Sciences (SAFES)
C. Project Team	Nelmie P. Ponio, Ph.D. Agronomy/Crop Science - Project Leader Zandra A. Quirante Crop Science- Extension Team Member Liezal M. Caranto , Agriculturist/Crop Science - Extension Team Member
D. Target Group	The primary beneficiaries are smallholder farmers, coconut farmers, crop growers, farmer organizations, and rural households in selected communities of Zamboanga del Sur. Agricultural technicians, barangay officials, agriculture students, youth, and other interested community members will also be encouraged to participate.
E. Cooperating Agencies	Potential cooperating agencies include UPLB BIOTECH, the Department of Agriculture (DA), Philippine Coconut Authority (PCA), Provincial and Municipal Agriculture Offices, Local Government Units, farmer organizations, and other public or private agricultural institutions.
F. Timeframe	January–December 2027 (12 months) Phase 1
G. Financial Requirement	₱150,000.00
H. Impact Statement	The project aims to strengthen farmers' capacity to use biofertilizer technologies to support sustainable crop production and farm diversification. Through field demonstrations, hands-on training, and technical assistance, farmers will gain practical knowledge on appropriate biofertilizer selection, application, crop management, and evaluation of production benefits. The project will initially demonstrate the technology using suitable crops, including soybean and other locally adapted crops, depending on community needs and farm conditions. The project is expected to promote more efficient use of farm resources, improve crop productivity, reduce unnecessary dependence on external agricultural inputs, and encourage diversification of existing farming systems. In the longer term, the project can contribute to improved farm income, soil health, climate-resilient agriculture, and sustainable agricultural development in Zamboanga del Sur.
I. Summary	The project will establish biofertilizer-based crop production demonstration areas in selected farming communities in Zamboanga del Sur. It will combine demonstration farming, hands-on training, farmer-to-farmer learning, technical assistance, and follow-up monitoring. Initial demonstration crops will be selected based on research results, local production conditions, farmer needs, and available biofertilizer technologies.

	The project will evaluate farmers' knowledge, technology acceptance, production performance, and interest in adoption. Results will be documented and used to develop practical production guides and IEC materials. Successful technologies may subsequently be expanded to additional crops, communities, and farmer
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PART II

PROJECT DETAILS

A. Background and Justification.

Farmers in Zamboanga del Sur face increasing production costs, particularly for fertilizers and other agricultural inputs. At the same time, many farming areas have opportunities to diversify by integrating suitable crops into existing production systems. These conditions create a need for practical technologies that can improve crop productivity while promoting more efficient and sustainable use of farm resources.

Biofertilizers offer an important opportunity because they utilize beneficial microorganisms that can support nutrient availability, biological nitrogen fixation, nutrient uptake, and overall soil biological activity. However, the availability of biofertilizer products alone does not ensure adoption. Farmers need practical knowledge on proper product selection, application, compatibility with crops, timing, field management, and evaluation of actual farm benefits.

JHCSC has research and extension capacity in agronomy, crop science, soil and nutrient management, and diversified farming systems. Research activities involving soybean and UPLB BIOTECH biofertilizer technologies provide an initial technical basis for translating biofertilizer technologies into farmer-oriented extension activities. The proposed extension project will therefore bridge the gap between research results and farmer application.

The project will establish demonstration areas where farmers can directly observe biofertilizer-based crop production. Training activities will emphasize hands-on learning rather than lectures alone. Farmers will be taught how to prepare and apply biofertilizers, manage crops, monitor plant responses, record production data, and assess production costs and returns.

The project will initially use selected crops, such as soybean and other crops identified based on local farming conditions, allowing the extension program to remain flexible and responsive to community needs. Successful practices can subsequently be adapted to other crops and farming systems in Zamboanga del Sur.

A.1 Alignment to Global, National and Institutional Frameworks

A.1.1 S.D.G.

The project contributes to:

- SDG 1 – No Poverty: supports additional income opportunities through diversified crop production;
- SDG 2 – Zero Hunger: promotes productive and sustainable agricultural production;
- SDG 8 – Decent Work and Economic Growth: supports agricultural livelihood and enterprise opportunities;
- SDG 12 – Responsible Consumption and Production: promotes efficient and responsible use of agricultural inputs;
- SDG 13 – Climate Action: supports climate-resilient and resource-efficient farming systems; and
- SDG 15 – Life on Land: promotes soil health, biodiversity, and sustainable land management.

A.1.2 A.C.H.I.E.V.E.

The project supports A.C.H.I.E.V.E. through:

- Advanced and Accessible Lifelong Learning – practical training and continuous learning opportunities for farmers;
- Harmonized SDG-Based Research and Innovation – translating research-based biofertilizer technologies into community applications;
- Integrated Real-Time Data and Analytics – monitoring crop performance, farmer participation, and technology adoption;
- Effective and Efficient Public Service – providing accessible agricultural technologies and technical assistance.

A.1.3 R.E.S.I.L.I.E.N.T.

The project contributes to:

- Research-driven, SDG-based, and industry-responsive education through research-based extension;
- Empowered Communities and Effective Public Service through farmer training and technical assistance;
- Learning Excellence anchored in Quality Assurance, accreditation, and Partnerships through collaboration with agricultural agencies and partner institutions;
- Enhanced research culture with global relevance and innovation impact through research-to-extension translation;
- Nurtured Professional Excellence and Workforce Development through faculty, student, farmer, and technician engagement; and
- Technology Integration and Infrastructure Development through digital IEC materials and data-based monitoring.

A.1.4 T.A.B.A.N.G.E.

The project directly supports:

- Technology and Literacy Initiatives – agricultural technology training and IEC development;
- Agriculture and Aquatic Resources Management – sustainable crop production and farm diversification;
- Barangay Empowerment and Good Governance – community-based agricultural extension;
- Adopt a Community – sustained engagement with selected communities;
- Gender Development and Income Generation – inclusive livelihood and farm enterprise opportunities; and
- Environmental Resource Conservation and Disaster Risk Reduction – sustainable nutrient management and diversified farming.

B. Specific Objectives.

The project aims to:

1. promote appropriate biofertilizer technologies for sustainable crop production among farmers;
2. demonstrate biofertilizer application in selected crops and farming systems;
3. improve farmers' knowledge and practical skills in biofertilizer selection, application, and crop management;
4. promote farm diversification through the integration of suitable crops into existing farming systems;
5. demonstrate the potential production and economic benefits of biofertilizer-based crop production;
6. develop practical IEC materials and production guides on biofertilizer use;
7. establish farmer learning and demonstration sites that can serve as continuing extension platforms; and

8. document farmer adoption, technology acceptance, and initial outcomes for future scaling.

C. Logical Framework.

A structured planning tool that organizes a project’s objectives, activities, and results into a clear matrix, showing how actions lead to measurable outcomes and long-term impact. Outline the set of activities and their corresponding outcomes, showing how they fulfill one or more of the project’s objectives. Include the overall structure and project plan if applicable.

Particular	Indicators	Means of Verification	Assumptions
Goal: Sustainable and diversified crop production through appropriate biofertilizer technologies	Improved farmer knowledge and increased interest in biofertilizer-based production	Project reports, monitoring records	Farmers remain interested in sustainable production
Purpose: Farmers acquire knowledge and skills in biofertilizer use	At least 250 farmers trained	Attendance sheets, pre/post-tests	Farmers participate actively
Outputs: Demonstration farms established	At least 2 demonstration sites established	Photos, field records	Suitable sites are available
Farmer training conducted	At least 2 major training/field learning activities	Training reports	Participants attend scheduled activities
IEC materials developed	At least 1 production guide and supporting IEC materials	Copies of IEC materials	Technical information is available
Technical assistance provided	At least 3 follow-up monitoring visits	Monitoring reports	Farmers cooperate during monitoring
Outcomes: Improved farmer knowledge	At least 70% of participants improve post-training scores	Pre/post-test results	Participants actively engage
Increased adoption interest	At least 60% express willingness to use biofertilizer technologies	Evaluation forms/interviews	Products remain accessible
Initial farmer adoption	At least 10 farmer-cooperators establish or plan biofertilizer-based crop production	Follow-up records	Farmers have suitable production areas
Activities:			

D. Methodology.

The project will use a Demonstration–Training–Practice–Monitoring–Adoption approach. Farmers will first be oriented on the benefits and appropriate use of biofertilizer technologies. Demonstration plots will then be established using selected crops and recommended biofertilizer practices. Farmers will participate in actual field activities and receive technical assistance throughout the production cycle.

Activity	Description	Target Participants	Timeframe	Responsible	Expected Output
Community/site identification	Identify suitable communities and demonstration areas	Farmers/LGU	Jan–Feb	Project Team	Selected sites
Baseline assessment	Determine farmer practices, needs, and knowledge	Farmers	Feb	Project Team	Baseline data
Technology orientation	Introduce biofertilizer technologies and sustainable crop production	Farmers/LGUs	Feb–Mar	Project Team/Partners	Participants oriented
Demonstration farm establishment	Establish selected crops using recommended biofertilizer practices	Farmer-cooperators	Mar–Apr	Project Team	Demonstration plots
Hands-on training	Demonstrate inoculation/application, planting, crop management, and monitoring	Farmers	Apr–May	Project Team	Trained farmers
Field monitoring	Monitor crop growth, biofertilizer application, pests, and production practices	Farmer-cooperators	Apr–Jul	Project Team	Monitoring records
Farmer field learning activity	Conduct practical field-based learning and problem-solving	Farmers	May–Jun	Project Team	Improved practical skills
Harvest and postharvest training	Demonstrate proper harvesting and postharvest handling	Farmers	Jun–Aug	Project Team	Improved postharvest skills
Economic assessment	Demonstrate simple computation of production costs and returns	Farmers	Aug	Project Team	Farm economic records
IEC development	Prepare production guides, posters, and digital materials	Farmers/LGUs	Aug–Sep	Project Team	IEC materials
Follow-up technical assistance	Monitor farmer application and adoption	Farmer-cooperators	Sep–Nov	Project Team/LGU	Adoption records
Evaluation	Assess knowledge gain, satisfaction, adoption interest, and initial outcomes	Participants	Nov	Project Team	Evaluation results
Dissemination	Share project results with communities and partner institutions	Stakeholders	Dec	Project Team	Extension report

E. Line-Item Budget.

Budget Item	Particular Item	Estimated Cost (₱)	Total (₱)
1. Operating Cost			55,000
1.1 Supplies	Biofertilizers, seeds/planting materials, plot materials, farm supplies, training materials	45,000	
1.4 Others	Demonstration plot establishment and maintenance	10,000	
2. Travel Costs and Food Expenses			75,000
2.1 Fare	Local transportation for field visits and extension activities	15,000	
2.2 Food Expense	Meals/snacks during training and field activities	55,000	
2.3 Others	Local transportation and field-related expenses	5,000	

3. Miscellaneous			20,000
	Other necessary extension and contingency expenses	20,000	
TOTAL BUDGET			₱150,000

PART III

DOCUMENTARY ATTACHMENTS

- A. Copy of the action research output used as the basis for the extension program
- B. Comprehensive assessment report and related paraphernalia (e.g., survey questionnaire)
- C. Consent forms from target beneficiaries
- D. Location map of the project site
- E. Sample copy of the Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA) with partners and sponsors, if applicable
- F. Other relevant documents