

Municipality of Buug Adopts Sea Level Rise Adaptation Plan Through DOST-Funded Research

The municipality of Buug, Zamboanga Sibugay, has taken a significant step toward climate resilience with the adoption of its Sea Level Rise Adaptation Plan 2021–2026, a product of a research initiative funded by the Department of Science and Technology (DOST) through the Provincial Science and Technology Center (PSTC)–Zamboanga Sibugay based in Ipil.

The study, titled *“Vulnerability of Coastal Communities from Sea Level Rise in Buug, Dumanquillas Bay, Philippines,”* was spearheaded by the **Mindanao State University–Buug Campus** through **Dr. Bryan L. Bitantos**, faculty of the College of Forestry and Environmental Studies (CFES) and Research Project Leader. The research assessed the risks faced by Buug’s four coastal barangays—San Jose, Bawang, Pamintayan, and Pulog—in light of projected sea level rise and associated climate impacts. One of its primary objectives was to formulate a comprehensive adaptation plan that would serve as a guide for the municipal local government in addressing the threats of inundation, erosion, and displacement of vulnerable communities.

After rigorous scientific assessment and stakeholder consultations, the resulting Sea Level Rise Adaptation Plan outlined priority actions in coastal protection, community preparedness, sustainable resource management, and policy integration. The Plan aims to strengthen the municipality’s ability to safeguard lives, livelihoods, and ecosystems within Dumanquillas Bay, which plays a vital role in local fisheries and food security.

Recognizing its importance, the Buug Local Disaster Risk Reduction and Management Council (LDRRMC) endorsed the Plan to the Sangguniang Bayan (SB). Through SB Resolution No. 207-2021, the local government officially adopted the Plan, institutionalizing it as part of Buug’s governance framework for disaster risk reduction and climate change adaptation.

Benefits and Impacts of the Sea Level Rise Adaptation Plan

1. **Protection of Coastal Livelihoods**
Safeguards fishing and aquaculture sectors against flooding and saltwater intrusion, ensuring sustainable income sources and food security.
2. **Resilient Infrastructure and Settlements**
Reinforces zoning and land-use policies to protect houses, schools, and public facilities from sea level rise hazards, reducing damage to lives and investments.
3. **Ecosystem Conservation**
Promotes mangrove rehabilitation, seagrass protection, and coral reef conservation as natural defenses against sea level rise while supporting biodiversity.
4. **Disaster Preparedness and Community Safety**
Establishes early warning systems, evacuation plans, and awareness campaigns to strengthen community readiness and minimize risks.

5. Policy Integration and Governance

Ensures climate change adaptation is mainstreamed into Buug's development and budgeting processes, guaranteeing long-term sustainability.

Contribution to the Sustainable Development Goals (SDGs)

The adoption of the Sea Level Rise Adaptation Plan contributes to several United Nations Sustainable Development Goals:

- **SDG 11 – Sustainable Cities and Communities:** By making coastal barangays safer and more resilient to sea level rise, the plan supports sustainable urban and rural settlements.
- **SDG 13 – Climate Action:** The plan demonstrates proactive local action on climate change adaptation, directly addressing the impacts of global warming.
- **SDG 14 – Life Below Water:** Protecting mangroves, seagrass beds, and coral reefs strengthens marine ecosystems essential for fisheries and coastal defense.
- **SDG 15 – Life on Land:** Ecosystem-based adaptation ensures sustainable land and coastal resource management.
- **SDG 1 – No Poverty & SDG 2 – Zero Hunger:** By protecting livelihoods and food production systems in fishing communities, the plan reduces vulnerability to poverty and hunger.

Through this initiative, MSU-Buug, led by Dr. Bitantos, has shown how academic research can be transformed into concrete local government policy, aligning community resilience with global sustainability goals. Buug has positioned itself as a pioneer in local climate governance within Zamboanga Sibugay—demonstrating that science-based planning and collaboration are essential in addressing the challenges of climate change.



Republic of the Philippines
Region IX
PROVINCE OF ZAMBOANGA SIBUGAY
Municipality of Buug
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OFFICE OF THE SANGGUNIANG BAYAN

Excerpt FROM THE MINUTES OF THE 28th REGULAR SESSION OF THE SANGGUNIANG BAYAN NG BUUG ZAMBOANGA SIBUGAY HELD AT THE MUNICIPAL SESSION HALL, BUUG, ZAMBOANGA SIBUGAY ON AUGUST 9, 2021 AT 10:00 IN THE MORNING.

NAME	POSITION	PRESENT	ABSENT	LATE	OB
HON. JONAM R. LAGAS	Municipal Vice Mayor Presiding	√			
Hon. Marvin Jessie G. Gako	SB Member	√			
Hon. Abdul S. Dimasagka	SB Member	√			
Hon. Sonia B. Emorecha	SB Member	√			
Hon. Freida C. Curiba	SB Member	√			
Hon. Ceferino C. Puerto	SB Member	√			
Hon. Roger T. Lu, Jr.	SB Member	√			
Hon. Julio S. Alcantara	SB Member	√			
Hon. Francis A. Gumansing	SB Member		√		
Hon. Romeo L. Cerbo	Liga Ng Mga Barangay	√			
Hon. Jocelyn M. Chua	IP Representative	√			
Hon. Ferdinand Vladimir A. Pablo	SKF President		√		

RESOLUTION NO. 207-2021

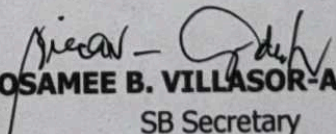
WHEREAS, there has been presented for consideration and favorable approval, MDC Reso No. DBL-013-2021, re: Resolution adopting the Buug Sea Level Adaptation Plan 2020-2026;

NOW, THEREFORE, on motion by Hon. Ceferino C. Puerto, jointly seconded, it was


RESOLVED, to approve, as this August Body hereby approved MDC Reso No. DBL-013-2021, re: Resolution adopting the Buug Sea Level Adaptation Plan 2020-2026;

RESOLVED, FINALLY, that a copy of this Resolution be furnished to **HONORABLE DIONESIA B. LAGAS**, Municipal Mayor, **MRS. GRACE YU JOVITA**, MPDC and other concerned offices, all of this municipality for their information and favorable action;


I HEREBY CERTIFY to the correctness of the foregoing Resolution.


ROSAMEE B. VILLASOR-APDUHAN
SB Secretary

ATTESTED:


HON. JONAM R. LAGAS
Municipal Vice-Mayor/Presiding

APPROVED:


HON. DIONESIA B. LAGAS
Municipal Mayor



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Municipality of Buug



OFFICE OF THE LDRRMC

BUUG LOCAL DISASTER RISK REDUCTION AND MANAGEMENT COUNCIL

EXERPTS FROM THE MINUTES OF THE LOCAL DISASTER RISK REDUCTION AND
MANAGEMENT COUNCIL MEETING HELD AT THE MAYOR'S CONFERENCE ROOM AROUND
10 O'CLOCK IN THE MORNING LAST JULY 08, 2021.

PRESENT:

HON. DIONESIA B. LAGAS	-	CHAIR
HON. JONAM R. LAGAS	-	MEMBER/PRESIDING
HON. CEFERINO PUERTO	-	CO-CHAIR
MR. MARLON GREGORIO	-	MEMBER
MR. HANIEL REMOTIGUE	-	MEMBER/rep
MS. MARIA NITA BENTIC	-	MEMBER
MR. NASSER MABOL	-	MEMBER
MS. MARY MAGDALYN R. BURGOS	-	MEMBER/rep
MS. MEMA MOLO	-	MEMBER
MR. JIMMY MOLO	-	MEMBER/CSO
MS. GRACE JOVITA	-	MEMBER
MR. ENSIGN UBA	-	MEMBER
MS. ROSAMEE B. APDUHAN	-	MEMBER
PNP COP	-	MEMBER/rep
BFP FIRE MARSHAL	-	MEMBER/rep
MS. ALICIA ALVARADO	-	MEMBER
MR. RENE T. HELAR (ZAMSURECO)	-	MEMBER
MR. ELSIE DAT-UGAN	-	SECRETARIAT

LDRRMC RESOLUTION NO. DBL 012- S2021

**“A RESOLUTION ADOPTING THE BUUG SEA LEVEL RISE ADAPTATION PLAN
2020-2026 AND FURTHER RECOMMENDING TO THE MDC AND SANGGUNIAN
BAYAN FOR ITS FAVORABLE ACTION AND ADOPTION”**

WHEREAS, R.A. No. 10121 Section 2(f) states that the State shall adopt and implement a coherent, comprehensive, integrated, efficient and responsive disaster risk reduction program incorporated in the development plan at various levels of government adhering to the principles of good government such as transparency and accountability, and it is the inherent functions of the Local Government Unit to design plans and provide framework for helping persons at risk to recover from impact of catastrophes;

WHEREAS, it is one of the inherent functions of the Local Government Unit to design plans and programs to maintain control over human induce emergencies and natural disasters and to provide a framework for helping persons at risk to recover from the impact of these catastrophes;



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WHEREAS, the BLDRRM Council saw it necessary to adopt the BUUG SEA LEVEL RISE ADAPTATION PLAN 2020-2026, and taking all necessary steps into reality upon the availability of funds and giving priority to the recommendations given in the Plan;

WHEREAS, the BLDRRM Council resolved to adopt the BUUG SEA LEVEL RISE ADAPTATION PLAN 2020-2026, and taking all necessary steps into reality upon the availability of funds and giving priority to the recommendations given in the Plan;

NOW, THEREFORE, on motion of Marlon I. Gregorio, unanimously seconded, it was


RESOLVED, to approve, as it is hereby approved adopt the BUUG SEA LEVEL RISE ADAPTATION PLAN 2020-2026, and taking all necessary steps into reality upon the availability of funds and giving priority to the recommendations given in the Plan;

RESOLVED, FINALLY, that a copy be submitted to the Office of the Municipal Development Council (MDC) and the Sangguniang Bayan for favorable action.

Done, in the Municipality of Buug, this 9th day of July, in the year of our Lord, 2021.

I HEREBY CERTIFY to the correctness of the foregoing Resolution.

Prepared by:


MR. MARLON GREGORIO
MGADH-I (LDRRMO)

Approved by:


HON. DIONESIA B. LAGAS
LDRRMC Chairperson

