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PROVINCE OF LAGUNA
CALAUAN

OFFICE OF THE SANGGUNIANG BAYAN

EXCERPTS FROM THE MINUTES OF THE TWENTY-FOURTH (24th) REGULAR SESSION OF THE 12th SANGGUNIANG BAYAN OF CALAUAN, LAGUNA HELD ON DECEMBER 9, 2025 AT SANGGUNIANG BAYAN SESSION HALL CALAUAN, LAGUNA.

HON. JOSELITO M. MANALO	PRESENT:	HON. VICE MAYOR ALLAN JUN V. SANCHEZ	PRESIDING OFFICER
HON. HOMER JEFFRILLE E. HILARIO		HON. ALLAN ANTONIO V. SANCHEZ II	SB MEMBER
HON. MARIA SUSANA Q. LARONA		HON. JOEWEL M. GONZALES	SB MEMBER
HON. DANTE C. ESCAREZ		HON. JUNE JOSEPH F. BRION	SB MEMBER
HON. KENNETH B. KRAFT		HON. DANTE C. ESCAREZ	SB MEMBER
HON. MAC JEFFERSON T. ROXAS		HON. HOMER JEFFRILLE E. HILARIO	SB MEMBER
HON. JOAN PAMELA M. BABATID		HON. JOSELITO M. MANALO	SB MEMBER
HON. OLYMPIO S. AMANTE		HON. KENNETH B. KRAFT	SB MEMBER
		HON. MAC JEFFERSON T. ROXAS	SB MEMBER
		HON. JOAN PAMELA M. BABATID	EX-OFFICIO MEMBER (LnB PRESIDENT)
		HON. OLYMPIO S. AMANTE	EX-OFFICIO MEMBER (SK PAMBAYANG PEDERASYON PRES.)

ABSENT: NONE

MUNICIPAL ORDINANCE NO. 09-12-2025Sponsored by the Joint Committee on Zoning, Housing, Land Utilization and Urban Development
and Committee on Agriculture, Fisheries, Aquatic Resources and Environmental Protection

AN ORDINANCE INSTITUTIONALIZING ENVIRONMENTAL, SOCIAL, AND GOVERNANCE MANAGEMENT SYSTEM (ESGMS) OF THE MUNICIPALITY OF CALAUAN, LAGUNA, WITH FOCUS ON HYDROLOGICAL, GEOLOGICAL, BIODIVERSITY AND SOCIAL FRAMEWORKS FOR COMPREHENSIVE ENVIRONMENTAL AND SPATIAL CAPACITY PLANNING AND CREATING THE MUNICIPAL TECHNICAL WORKING GROUP FOR ITS FORMULATION, IMPLEMENTATION, MONITORING AND FOR OTHER PURPOSES.

WHEREAS, Section 16 of Republic Act No. 7160, otherwise known as the *Local Government Code of 1991*, provides that every local government unit shall ensure and support the preservation and enrichment of culture, promote health and safety, enhance the right of the people to a balanced ecology, and preserve the comfort and convenience of its inhabitants;

WHEREAS, the Municipality of Calauan, Laguna, is endowed with rich natural resources and diverse physical characteristics, including watersheds, aquifers, slopes, and forest areas that significantly influence the municipality's hydrological, geological, and environmental systems;

WHEREAS, the Municipality faces increasing challenges related to flooding, soil erosion, ground movement, domestic water demand and environmental variations that

necessitate a more data-driven science-based, spatially guided, and informed approaches to planning and natural resources management;

WHEREAS, integrating ESGMS to Spatial Hydrological, Spatial Geological, and Biodiversity and Social Systems through the use of advance and modern data gathering, system modelling and related technologies will enhance evidence-based local planning, disaster preparedness, and sustainable development in the Municipality of Calauan;

WHEREAS, there is a need to establish a comprehensive Environment and Spatial Management Framework and a corresponding Municipal Technical Working Group (TWG) to coordinate, analyze, monitor and maintain spatial datasets and ensure their integration into local development and land use planning;

NOW THEREFORE, upon motion of **HON. JOEWEL M. GONZALES**, duly seconded and unanimously approved by all Members of the Sangguniang Bayan:

BE IT ORDAINED by the Sangguniang Bayan of the Municipality of Calauan, Laguna, in session assembled, that:

SECTION 1. TITLE.

This Ordinance shall be known as the **“Comprehensive Environmental and Spatial Capacity Planning Ordinance of 2025” or CESPO 2025**.

SECTION 2. DECLARATION OF POLICY.

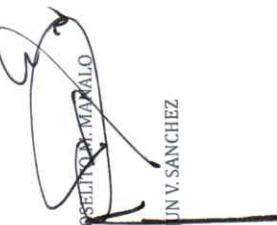
It is hereby declared the policy of the Municipality of Calauan to institutionalize a management framework for spatial and environmental planning anchored to a scientific, and data-driven approach with high stakeholder engagement, monitoring, evaluation, accountability and learning (MEAL) in managing its land, water, air and ecological resources. This also aims to incorporate the outcomes in all local planning processes (CLUP, LCCAP, FLUP/BDI, LDRRMP) towards commitment of promoting sustainable development, mitigating environmental risks, ensuring livable municipality, strengthening climate and disaster resilience and safeguarding natural and social capital with special focus on groundwater sources.

SECTION 3. OBJECTIVES

This ordinance aims:

1. To establish a Spatial and Environmental Capacity Assessment for hydrological, geological, and biodiversity resources through:

- a. Conducting a land use and land cover assessment of flood-prone zone and hydrologically, geologically and biodiversity sensitive areas within the Calauan Sub-basin System.
- b. Evaluating existing land and water management systems and practices affecting the run-off excess and infiltrated water, and provide recommendations of the best practices to mitigate past, current and potential risks (e.g. flooding and soil erosion, ground water contaminations)


HON. JOSE LITO A. MATALO


HON. ALLAN JUN V. SANCHEZ

c. Formulate, approve and implement infrastructure design (Grey-Green-Blue System) in Land Use Management System for mitigation of direct and indirect negative impacts of hazards to flood prone and vulnerable areas, and for climate resilience projects and programs.


HON. HOMER D. HILARIO

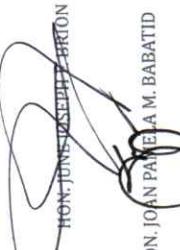

MARIETEUSA Q. LARONA

2. To safeguard Calauan sub-basin System, both Mabacan and Prinza Watersheds, and the community's welfare, by formulating policy instruments such as Land Use Management System + Environmental, Social and Governance Management System (ESGMS) and integrating into the municipality's existing mandated planning instruments (e.g., CLUP, CDRA, Zoning Ordinance, LCCAP).


HON. DANTE E. ESCAREZ


HON. OLYMIO A. AMANTE

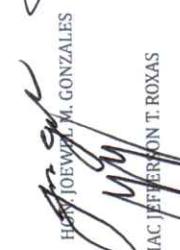
3. To institutionalize data collection, mapping, and analysis using modern and updated applications, continually develop geospatial, hydro-meteorological data sets and strengthen inter-office and inter-agency coordination system to apply science-based policy making and to link research, policy and practice.


HON. JUNIE M. BABATID


HON. JOAN PAREJA A. M. BABATID

4. To establish an Ad Hoc Council/Technical Working Group (TWG) tasked with conducting a baseline study and scenario development and developing the instrument entitled 'Land Use Management System + ESGMS for Hydro-Geological and Eco-Social Policy'. This will ultimately be integrated into the 'Calauan Sub-basin/Watershed Integrated Management Plan.'

SECTION 4. DEFINITION OF TERMS


HON. MAC JEFFERSON T. ROXAS


HON. JOE VAL M. GONZALES

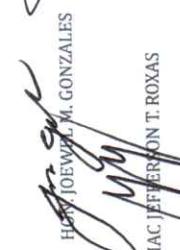
Calauan Sub-basin System – The geographical catchment areas (e.g. Mabacan and Prinza Watershed System) in Calauan of which rainwater drains towards river system to a common hydrological outlet from a higher level of land flows to water body's channels and tributaries to Laguna Lake basin.


HON. KENNETH B. KRAFT


HON. ALLAN JUN V. SANCHEZ II

Groundwater - water that exists underground in saturated zones beneath the land surface. (USGS).

Ground Water Vulnerability Assessment – a methodological framework to determine the likelihood of contaminants to reach a groundwater system from the ground surface to the aquifer.


HON. MAC JEFFERSON T. ROXAS


HON. JOE VAL M. GONZALES

Environmental Carrying Capacity (ECC) - defined as a concept and tool for sustainable development of human settlements; a threshold level of anthropogenic pressure which the environment is able to balance and withstand without irreversible changes and serious degradation" ('Swiader, 2018).


HON. ALLAN JUN V. SANCHEZ II


HON. KENNETH B. KRAFT

Environmental, Social, and Governance Monitoring System (ESGMS) – a monitoring system, that encompasses all stages of land use developments (design, implementation, commissioning, turn-over and operational), used to measure the impacts of development on Environment, its Social Responsibilities and its Governance Practices.

Flood Infrastructures – are either grey, green and blue system or a combination of either two or more systems that provides the optimum system in lessening, slowing or mitigating excess run-off water from the upper level to the draining outlets.

a. Hard/Grey Infrastructure – refers to the traditional built infrastructure system that supports flood control mitigation developments (e.g. concreted culverts/RCPs, concreted walls, concreted canals)

b. Green Infrastructure – refers to network of natural areas and open spaces that are intentionally structured and managed to preserve ecosystem values while providing benefits in mitigating flood water/excess run-off water.

c. Blue Infrastructure -refers to natural structures that manage water resources and helps regulate excess flood water as interim depository. (e.g. Wetland)

Flood Prone Areas – identified as portion of the following Barangays: Hanggan, Bangyas, San Isidro, Masiit that are within the 0-3 meters elevation and/or has experience flooding during extreme rainfall events, and/or has been identified as a low-lying or flood water catchments.

Geospatial Database – a centralize digital repository of maps, geospatial layers, temporal records, models and analytics as tool reference for policy and decision making.

High-Risk Zones – Areas identified as vulnerable to flooding or erosion based on elevation, slope, drainage, and land cover characteristics.

Land Use Management System – The policies, practices, instruments, and land use activities that govern how land is utilized and developed within the watershed.

Nature-based Solutions - actions aimed at protecting, conserving, restoring, and sustainably managing natural or modified terrestrial, freshwater, coastal, and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits" - 5th United Nations Environment Assembly

Rainfall Extremes – Intense rainfall events that exceed normal thresholds and significantly contribute to flooding, measured by return periods (e.g., 2-, 5-, 10-, 25-, 50-year events).

Spatial Capacity Assessment – The process of analyzing the physical and environmental characteristics of land, particularly flood-prone areas, using GIS, remote sensing, and spatial modeling tools.

Technical Working Group (TWG) – a body that shall be responsible in conducting the comprehensive study for the above subject Ordinance entitled "Environmental and Social Management Framework for Hydrological, Geological, and Biodiversity Spatial Planning Ordinance of the Municipality of Calauan, Laguna."

SECTION 5. MANDATE TO CONDUCT COMPREHENSIVE ANALYSIS FOR FLOOD RISK ASSESSMENT

The Municipal Planning and Development Office (MPDO) and Municipal Disaster Risk Reduction and Management Office (MDRRMO) shall lead the conduct of comprehensive analysis for flood risk assessment. This is in coordination with) Municipal Environment and Natural Resources Office (MENRO), Municipal Engineering Office (MEO), Municipal Agriculture Office (MAO), a geologist and an ESG Specialist to conduct land use and land cover analysis and assessment for flood prone, hydro-geologically and ecological sensitive areas within the Calauan Watershed. This shall utilize available technologies (e.g., LiDAR, drone surveys, rainfall-runoff modeling) from academic or research institutions, such as UPLB or PAGASA. Consultants shall also be engaged for technical assistance and data gathering. This shall include, but not be limited to:

HON. JOSEPH C. MATALE

HON. ALLAN V. SANCHEZ

HON. HOMER JEFFERILLE E. MARIO

HON. ALLAN V. SANCHEZ

HON. MARIA TERESA Q. LARONA

HON. FRANCIE C. ESCAREZ

HON. OLYMPIA MANTANE

HON. JULIA F. BRION

HON. JOAN PAMELA M. BABATID

HON. JOEWEI M. GONZALES

HON. MAC JEFFERSON T. ROXAS

HON. ALLAN V. SANCHEZ II

HON. BENNETT B. KRAFT

- a. Localized validation of the digital elevation and slope analysis of the Calauan Sub-basin system.
- b. 30-yr historical and 30 forecast trends of land cover and land use change with in depth attention to environmental and social dimensions of population and urbanization influences.
- c. Modeling Calauan sub-basin hydro-geological system, Prinza and Mabacan Watershed for characterization map of the hydrological flow and scenario development planning
- d. To establish a data base of all existing infrastructures, map and analyze vulnerability and threats to produce localized flood vulnerability and risk map/zones

The output of this section shall be a localized Hydrogeological Flood Vulnerability Map of Calauan Sub-basin System that shall be an important instrument for foresight planning of the MPDC and DRRMO as well as a program for Municipal Agriculture Office to integrate hazards in improving agricultural production and development planning.

SECTION 6. MANDATE TO CONDUCT DOMESTIC WATER ASSESSMENT FOR CONSERVATION, PROTECTION AND MANAGEMENT.

The MPDC, MENRO and MHO shall undertake due diligence of water sources through '**Domestic Water Vulnerability Assessment**' to identify areas and sources for protection, management and conservation as well as exposed' to anthropogenic activities and natural events that may contribute to compromised water quality and quantity. They shall provide scientific guidance for planning, safety, and protection of public health. The specific activities include, but not limited to the following:

- a. Facilitate community coordination and surveys and access to inspection wells and water sampling for data collection;
- b. Conduct viability assessment of Calauan Water Resources.
- c. Identify and assess vulnerability of aquifers and other domestic water sources to various form of risks and threats.
- d. To formulate, establish and institutionalize regulatory and monitoring framework for groundwater protection.
- e. Promote public awareness and community participation in groundwater protection.
- f. Integrate groundwater management into municipal planning, zoning, and development permits.

The expected output shall be formulation of 'Calauan Domestic Water Sustainability Plan' and shall be integrated to the mother plan or framework of this ordinance deliverables.



SECTION 7. MANDATE TO CONDUCT METEOROLOGICAL STUDY FOR PRE-DISASTER PREPAREDNESS PLAN

The MDRRMO, MENRO and MPDO, in partnership with DOST- PAGASA and other relevant agencies, shall:

- a. Collect and analyze hydrometeorological data and geospatial, to generate, simulate or model a localized past, present and future rainfall dynamics of the Municipality of Calauan.
- b. Generate spatial and temporal events (e.g. Peak, Volume, Intensity, etc) that shall be essential input to increase the safety level of the community against weather related risks
- c. Generate map of flood inundation according to various rainfall events (zones based on extreme rainfall events or return period)

These data shall be the science-based inputs for the municipality's infrastructure design standards and disaster preparedness policy and guidelines.

SECTION 8. MANDATE TO CONDUCT BIODIVERSITY AUDIT

The TWG shall conduct a biodiversity audit of the Calauan Watershed System and formulate a flora and fauna catalogue that shall be the baseline information of the Municipality of Calauan and shall be a reference for monitoring species population and dynamics.

SECTION 9. DUE DILIGENCE FOR EXISTING LAND USE VALIDATION AND LOCALIZATION OF LAND USE MANAGEMENT INSTRUMENTS

The MPDC and the Zoning Officer shall undertake a due diligence revisit of the land use practices, zoning compliance, and on-going and future land development with negative environmental and social impacts (low to high) to the Calauan Sub-basin System to assess its conformance to the Calauan Physical characteristics and dynamics with focus on non-compliance and zoning inconsistencies.

The output shall be a Land Use Safeguard Mechanism Framework to support and localize existing land use management instruments, policy and guidelines.

SECTION 10. FORMULATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE MANAGEMENT SYSTEM (ESGMS) AND LAND USE MANAGEMENT SYSTEM WITH FOCUS ON HYDROLOGICAL, GEOLOGICAL, BIODIVERSITY AND SOCIAL FRAMEWORKS

The technical working Group shall formulate guidelines for Environmental, Social and Governance Management System with focus on Hydrological, Geological and Biodiversity and Social Frameworks that shall be the auditing instrument for institutionalizing the frameworks to local government process.

SECTION 11. CREATION OF TECHNICAL WORKING GROUP

The Local Chief Executive shall create a technical working group and shall be represented by members from various department/specialty to formulate instrument 'Land Use Management System + ESGMS Policy' that shall be ultimately integrated to 'Calauan Sub-basin Integrated Management Plan'

- **Chairperson:** Municipal Planning and Development Coordinator (MPDC)
- **Co-Chairperson:** Municipal Environment and Natural Resources Officer (MENRO)
- **Vice-Chairpersons:** Municipal Engineer and Municipal Health Office
- **Members:**
 - Municipal Agriculturist
 - Municipal Disaster Risk Reduction and Management Officer (MDRRMO)
 - Municipal Assessor
 - Representative from the Sangguniang Bayan Committee on Environment or Infrastructure
 - President, Liga ng mga Barangay
 - Representatives from DENR-MGB, PAGASA, NAMRIA, or DPWH (as technical resource agencies)
 - Representatives from local academic institutions or civil society organizations

The Municipal Mayor may designate additional members as deemed necessary.
The functions and responsibilities of the TWG shall be:

- a. Facilitate all necessary data gathering, coordination and conduct of study specified in the provisions of this ordinance under Section 5. Comprehensive Assessment for Flood risk Analysis, Section 6. Domestic Water Assessment for Conservation, Protection and Management, Section 7. Meteorological Study for Pre-disaster Plan and Section 8. Biodiversity Audit, Section 9. Due Diligence for Existing Land Uses and Validation and Localization of Land use Management Instruments, and Section 10. Formulation of ESGMS Manual.
- b. Manage Spatial and Environmental Knowledge Management Database System that captures, stores and reports data for sharing to all relevant departments.
- c. Collaboratively draft all the technical materials, plans and policies, and instruments and to be submitted to the Sangguniang Bayan for review and approval.
- d. Institutionalize this ordinance through mainstreaming, operationalization, localization and adopting to existing instruments, local ordinances, policies and other means of integration for effective and comprehensive planning through ESGMS mechanism.
- e. Perform such other functions as may be assigned by the Municipal Mayor or the Sangguniang Bayan.

SECTION 12. INTEGRATION INTO LOCAL PLANS AND POLICIES

The results of the comprehensive study shall be integrated into the following LGU instruments and shall be established to store spatial and technical data accessible to all departments.:

- a. Comprehensive Land Use Plan (CLUP) and Zoning Ordinance;
- b. Local Climate Change Action Plan (LCCAP);
- c. Comprehensive Development Plan (CDP);
- d. Local Disaster Risk Reduction and Management Plan (LDRRMP).
- e. Public Safety Continuity Plan (PSCP)
- f. Others.

SECTION 13. FUNDING

The operational and maintenance expenses shall be integrated to the allocations of the respective departments focusing on the specific tasks e.g. MHO, and GAD for water quality analysis incorporating gender-responsive assessment tools, MPDC for geospatial activities, MENRO for biodiversity audit, MDRRMO for ESGMS, MEO for Land Use Management Systems (LUMS), and others. The General Fund shall be the supplementary source to support other essential operations for implementation of the provisions of this Ordinance. Subsequent funding shall be included in the annual investment plan. External funding may be sought from national agencies or development partners.

SECTION 14. MONITORING, COMPLETION AND REVIEW

- a. The TWG shall submit a terminal report to the Sangguniang Bayan on Land Use Management System + Environmental, Social and Governance Management System to include Programs and Policy Recommendations
- b. The Municipal Development Council shall review and endorse findings for integration into development planning and planning instruments.
- c. The Environmental and Spatial Council shall be created as part of the recommendation to manage overarching issues of environmental, social and governance safeguards.

SECTION 15. SEPARABILITY CLAUSE

If any provision of this Ordinance is declared unconstitutional or invalid, other provisions not affected thereby shall remain in full force and effect.

SECTION 16. REPEALING CLAUSE

All ordinances, resolutions, or provisions inconsistent with this Ordinance are hereby repealed or modified accordingly.

SECTION 17. EFFECTIVITY

This Ordinance shall take effect fifteen (15) days after publication in a newspaper of general circulation or posting in three (3) conspicuous places within the Municipality of Calauan.

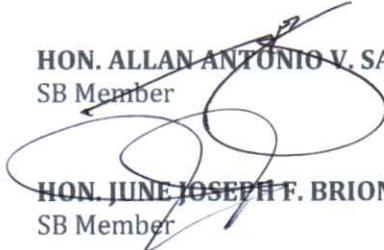
ENACTED: DECEMBER 9,2025

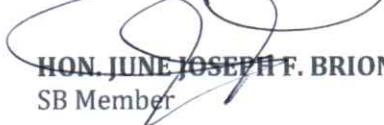
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I HEREBY CERTIFY the correctness of the foregoing ordinance duly enacted by the Sangguniang Bayan.


MARIA JESUSA Q. LARONA
Secretary to the Sangguniang Bayan

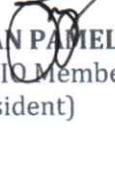
Concurred:


HON. ALLAN ANTONIO V. SANCHEZ II
SB Member


HON. JUNE JOSEPH F. BRION
SB Member


HON. HOMER JEFFRILLE E. HILARIO
SB Member

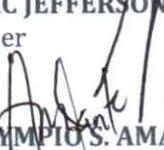

HON. KENNETH B. KRAFT
SB Member

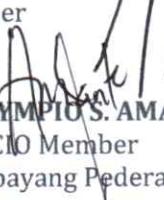

HON. JOAN PAMELA M. BABATID
EX-OFFICIO Member
(LnB President)


HON. JOEWEL M. GONZALES
SB Member


HON. DANTE C. ESCAREZ
SB Member


HON. JOSELITO M. MANALO
SB Member


HON. MAC JEFFERSON T. ROXAS
SB Member


HON. OLYMPIO S. AMANTE
EX-OFFICIO Member
(SK Pambahay Pederasyon President)

**ATTESTED AND CERTIFIED
TO BE DULY ADOPTED:**


HON. ALLAN JUN V. SANCHEZ
Municipal Vice Mayor
Sanggunian Presiding Officer

APPROVED:


HON. ROSELLER G. CARATIHAN
Municipal Mayor
Date Approved: 