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Abstract

ASEAN Member States (AMS) have ratified the 2015 Paris Agreement and most have submitted their enhanced Nationally Determined Contributions (NDCs) recorded as of 2023. This study aims to find the extent of subnational regulation and policies on climate and NDCs in support of AMS' climate pledges. The study concludes that based on the NDCs submitted to the UNFCCC, the roles of subnational governments have been well recognized by AMS. However, examining the case studies of Indonesia and The Philippines, subnational level climate and NDCs policies and regulations are not representing the level of ambition of NDCs present on a national level. This study further identifies the root causes of the problem in relation to NDCs and climate change policies and regulation at the local level. The policies and regulation are: (i) introduced superficially; (ii) slowly trickle down from national to subnational level; (iii) project oriented; (iv) do not hold climate as a priority issue (except when paired with disaster risk reduction); and (v) show a lack of understanding and awareness of climate change impact at the local level. Hence, as the climate change issue is not being prioritized, they are unable to formulate comprehensive arrangements at the subnational level.

(199 words)

Key words: ASEAN Member States (AMS), Nationally Determined Contributions (NDCs), Paris Agreement, national, subnational, regulations, policies.

1. Background

2. Results

We discovered that most of AMS have mentioned the role and significance of subnational government in their NDC submissions. Despite this being commendable, it is important to observe whether there are subnational level regulations and policies focused on NDCs. This study examines practices in two ASEAN countries; Indonesia and The Philippines. These countries are taken as examples due to their unique yet comparable characteristics. Both countries have comparable government systems (Indonesia adheres to regional autonomy and The Philippines is a federalist country), and are medium to large countries.³³ Furthermore, Indonesia is a significant emitter and The Philippines has the highest GHG reduction target amongst all AMS.^{12,34} Furthermore, the assessment is conducted based on subnational policies and regulations existing in both countries which supports the implementation of NDC.

2.1 Indonesia

Indonesia has submitted its enhanced NDC with a reduction pledge of 31.89% on its own effort up to 43.20% with international support ([UNFCCC Nationally Determined Contribution Registry, Indonesia, 23 September 2022](#)). Supporting the implementation of NDCs, Indonesia has established 9 key strategies at the national level.³⁷ To execute these strategies, the Government has promulgated arrays of regulations. Despite the staggering number of regulations at the national level, it is important to acknowledge that the subnational level is the avenue where the measures will actually be carried out. The following points will further elaborate on how subnational regulations currently contribute to climate action in Indonesia.

2.1.1 The extent of Subnational Regulation in Supporting NDC

The country's acknowledgement of a subnational government in combating climate change can be traced back as far as 2011. This is denoted by Presidential Regulation No. 61/2011 on the National Action Plan on GHG emissions reduction and the Guideline for Implementing Local Action Plan for Greenhouse Gas Emission Reduction developed by Indonesian National Development Planning Agency. Both instruments mandated Provinces to create Regional GHG Reduction Action Plan by 2014.^{37, 48}

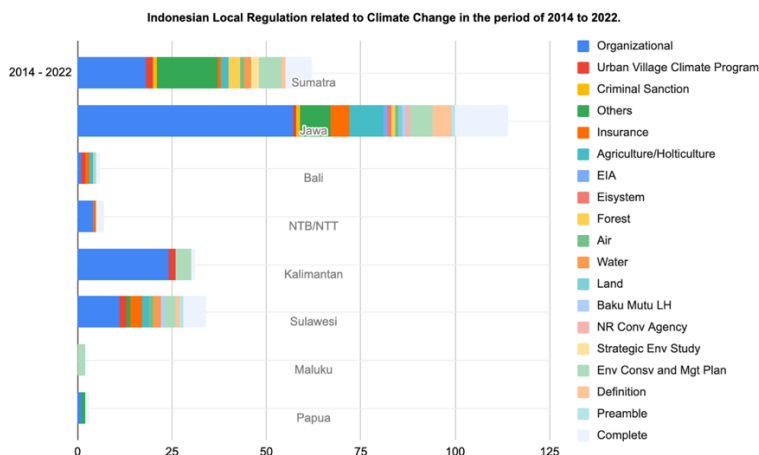


Fig. 1 | Indonesian Local Regulation related to Climate Change in the period of 2014 to 2022.

The figure above displays a number of regulations being observed. For clarity, the scope of regulations here is not limited to those containing explicit mention of climate change *per se*, but also covers regulations containing subjects related to climate change. This includes disaster management, pest control, agricultural crops, and management of environmental offices. Indonesia's subnational government covers over 548 Municipalities located across the country. The number of recorded instruments over the course of 2014 to 2022 consists of 191 policies and regulations. Most of these regulations (a total of 128 regulations) are promulgated in prominent provinces around the western and central parts of Indonesia – in Sumatra, Java, and Bali. Meanwhile, only 63 regulations and policies are found in Eastern Indonesia.

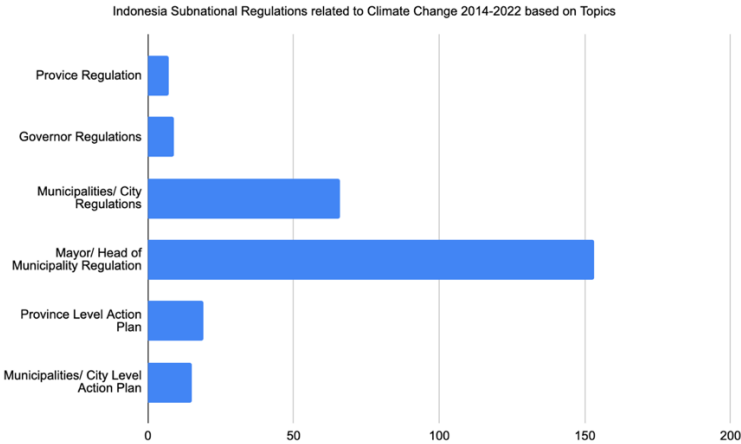


Fig. 2 | Numbers of Regulations based on Indonesian Subnational Government Levels

The 191 subnational regulations recorded above cover those in the province and local level (municipalities/cities). Enactment of government regulations require approval from the local parliament, while local level leaders’ regulations do not (e.g. Governor Regulations, Head of district/Mayor Regulations).³⁶ Formulation of government level regulation is more lengthy and complicated compared to municipality/city level regulations. Head of Municipality or city governments may utilize this characteristic to create regulations containing specific climate change provisions. However, climate regulations enacted by local level leaders tend to have a shorter span due to changes of regulations in each election cycle. Implementation of prior local climate regulations tends to be discontinued in the changing of leadership.

2.1.2 Gaps and Disjoint between National and Subnational Regulations

Based on the findings, there has been a considerable gap between national and subnational regulations. According to Law 23/2014, local governments in municipalities and cities are given greater responsibilities to manage their day-to-day operations – including environmental related matters.³⁵ Unfortunately, the extensive authority given is not followed up by equipping them with the capacity to make most of it.¹⁰ During the period of observation, awareness of climate change at the provincial level is more comprehensive, taking note they are being coordinated directly with the national government through the National Planning Agency.⁹ That is not the case for governments at the local level. Climate activities have not been introduced as more than a project-based subject, which has caused them to lack the bigger picture awareness of climate change as a serious issue.

It is undeniable that local governments experience direct adversities including irregular rain patterns, prolonged drought, and typhoons. However, due to lack of understanding, they are still unable to identify such occurrences as impacts of climate change. Thus, they are still relying on existing instruments such as farmer protection or disaster risk reduction to cope with it.³² To illustrate, the municipality of Wajo in South Sulawesi experiences heavy rainfall patterns, and is therefore a flood prone area ([AHA Centre, Flood Affected South Sulawesi Province](#)). Despite the occurrence being scientifically acknowledged as an impact of climate change, no climate regulations were recorded. The district relies on their existing farmer protection regulation in the event where floods occur.⁴¹

Some subnational governments had already developed their regulations on climate change for local regulations, such as climate village programs (*Proklim*) which can be seen in several municipalities in Aceh, Sulawesi and Kalimantan.^{42,43,47} These climate village regulations indeed have been supported by specific guidelines and clear budget allocation directly formulated by the Ministry of Environment since 2012.³⁸ Thus, regulations made at the local level have contained specific provisions on climate change measures. Meanwhile, in other regions, it is rather difficult to find specific local regulations mentioning climate change as the term is only attached in definition sections.^{44,45,46} Hence, mere mentions of climate change in local regulations are not able to raise the public awareness on the pressing nature of the issue itself.

Presently, Indonesia has already established comprehensive strategies at the national level. Although, translating them to application in local strategies would still be considered a difficult path. Arrangements at the national level provide wide room for local governments to interpret and tailor measures that best suit them. However, knowing that there has been an awareness gap and little sense of urgency, the chances of them creating suitable measures are unlikely. Concrete example of functioning subnational units can only be seen in prominent cities and districts which had already promulgated specific programs on climate change and GHG Reduction, with a rigid listing budgetary consequence.³⁹

2.2 The Philippines

The Philippines being a Party to the Paris Agreement has made two submissions to the UNFCCC. In their recent submission, The Philippines pledges to reduce 75% GHG emission. The pledge contains 2.71% unconditional and 72.29% conditional commitments ([UNFCCC Nationally Determined Contribution Registry, Philippines, 15 April 2021](#)). In Implementing the pledges, Philippines proceeds on using the existing framework including National Framework Strategy on Climate Change 2010 – 2028, National Climate Change Action Plan 2011 – 2028, Climate agenda enshrined in The Philippines Development Plan 2017 -2022 and 2023 - 2028.^{5,14}

There are mainly four levels of Local Government Units (LGUs) in The Philippines consisting of 81 provinces, 145 cities, 1,489 municipalities, and 42,044 barangays ([Government of The Philippines, Local Government Unit](#)). The Philippines recognizes subnational governments as forefront actors in enacting sub-national climate action.⁵⁰ In Republic Act 7160 (1991 the Local Government Code) the Country devolved powers and authority to local governments and created Leagues of sub-national actors, namely the LGUs.⁴⁹

2.2.1 The extent of Subnational Policies and Regulation in Supporting NDC

LGUs' contribution to climate change measures has been recognized by The Philippines. LGUs are mandated to develop their own Local Climate Change Action Plan (LCCAP).⁵⁰ LCCAPs should follow and complement national policy, in particular the NCCAP. This includes integrating the 7 priorities of the NCCAP towards the subnational level.^{57,58,59,60} Following the creation of LCCAP, The Philippines have also created a tool called Climate Change Expenditure tagging to better incorporate LCCAP into each of the LGU's development plans.⁶⁵ There has been an increase of LCCAP in The Philippines over the course of five years. Observed by the end 2017, only 200 LCCAPs were discovered.⁸ As of the end 2022, there are already 1372 LCCAPs formulated by Local Government Units ([Government of The Philippines, Local Climate Action Plan](#)).

Besides drafting their LCCAPs, The Philippines mandated LGUs possess lawmaking capacities to address environmental issues.⁵⁰ Essentially, the authority to draft local regulation is assigned to local legislative bodies, namely the 'Sangguniang'.⁴⁹ There are Sangguniang for each type of units, respectively: *Sangguniang Panlalawigan* for the province level, *Sangguniang Panlungsod* for the city level, *Sangguniang Bayan* for the municipality level, and *Sangguniang Barangay* for Barangay level. Each of these legislative bodies issue two types of regulations namely ordinances and resolutions.⁴⁹

Digitalization is the main barrier of the authors in finding accessible subnational regulations mentioning 'climate change' in The Philippines. Several LGUs may already have promulgated their regulation, yet are they not publicly available. As of March 2023, only 23 regulations being able to be gathered via the internet. From the findings, similar to Indonesia, it is rare to find specific subnational regulation on climate change in The Philippines. The mention of climate change spreads across several topics of regulations such as agriculture, DRR, natural resources management, investment, and energy.

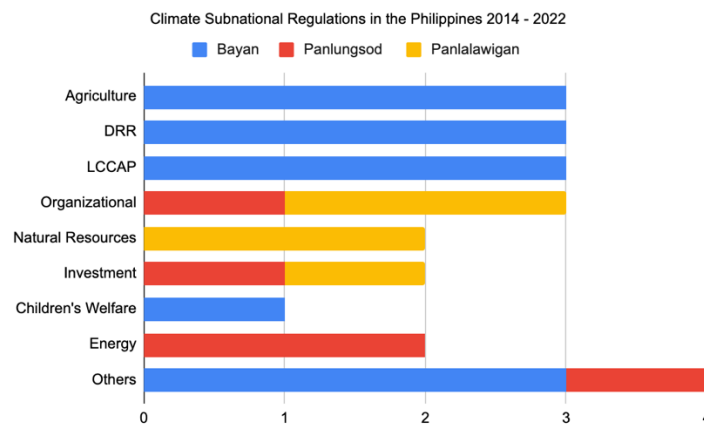


Fig. 3 | Climate Subnational Regulations in the Philippines 2014 -2022 (Available Online)

Since The Philippines are vulnerable to disasters, climate mentions are often found in DRR related regulations. But often climate change is only being mentioned in definitions or preamble. Several LGUs have mentioned of climate change in investment regulations that asserts climate-smart infrastructures being main priority of investment sectors and grant of fiscal incentives for climate

projects.^{52,54} Energy efficiency regulations has already been promulgated, which mentions reduction targets in the LGUs.^{53,55} There are also regulation categories that may be far-stretching, for example Children's Welfare regulations where it provides the inclusion of climate change education in schools to promote children's participation in climate agendas.⁵⁶

2.2.2 Implementation Gaps and Challenges between National and Subnational Level

In the Philippines, subnational NDCs are mostly catered by LCCAPs.⁷ Despite the staggering numbers of LCCAP being recorded in the nation, subnational government in the Philippines are still encountering impediments.²⁹ Challenges in the implementation can be observed both in a vertical and horizontal manner.⁸

Vertically, there is a lack of an integrating instrument and supervision on the LCCAPs created by LGUs. The Philippines have been developing guidelines that are established to provide reference for LGUs to formulate their LCCAPs.^{62,63,64,65} However, it would be difficult for LGUs to formulate comprehensive plans should there be no mechanism to build adequate knowledge and institutional capacity to further operate their LCCAPs.²⁰ As a result, LGUs have been cutting and pasting plans contained in the NCCAP without tailoring them in a more relevant context¹. Copying and pasting of LCCAP means there are exclusion of public participation, which is required by the Republic of Philippines' Constitution.² The Climate Change Commission (CCC) which supposedly acts as a supervisory agency that has coordinating mechanism to LGUs does not have any budgetary capacities to liaise them in carrying out their LCCAPs.⁵⁰ Meanwhile, budgetary authority is still being held by The Department of Internal and Local Government (DILG) – which is not a government entity in charge primarily on climate change.⁵⁰ Both authorities are lacking of a clear assignment of their competence to supervise. The fragmented supervision and budget sources have also caused LCCAPs a shorter span, thus not sustainable.³ Additionally, *Sanggunians* been passing specific laws on the LCCAP, which mainly used to fulfil requirements as checkmarks for municipalities' climate finance from the People's Survival Funds (PSF).⁵¹

The vertical gap results in horizontal problems at the subnational levels. Lack of structural benchmark affects Mayoral leaderships to pay less attention to climate change issues.⁴ Hence, horizontal coordination between LGUs in the subnational level is difficult to be identified except for project-based terms.⁸ Moreover, as there are no specific climate change officers in the LGU levels, LCCAP formulation is commonly assigned to by Disaster Risk Reduction (DRR) officers.¹⁹ Although DRR officers are equipped with the awareness and climate change knowledge, overlapping competence would not be adequate to address climate change as a multi-sectoral problem.⁶

3. Discussion

In analyzing the situation at hand, this study utilizes the so-called 'What's the problem presented to be?' an approach introduced by Carol Bacchi. The approach facilitates critical examination of policies through the study of problematization.¹⁷ She introduced 6 sets of questions to identify the

¹ Ramoz, G. Interview. Conducted by Linda Y Sulistiawati. July 18 2023

² Ramoz, G. Interview. Conducted by Linda Y Sulistiawati. July 18 2023

³ Anonymous, Researcher. Interview. Conducted by Linda Y Sulistiawati. March 7 2023.

⁴ Anonymous, Researcher. Interview. Conducted by Linda Y Sulistiawati. March 7 2023.

indicators of problem *a quo* including (1) the problem itself, (2) presupposition for representation of the problem, (3) problem's origin, (4) policy silences, (5) effect produced by the representations of the problem, and (6) unproblematic issues.¹ These questions may be applied individually, hence are not cumulative.

This study focuses the discussion on the first question which is 'what is the problem itself?'. This study discovers that the underlying problems here are not NDCs and Climate Change *per se*. Instead, the problem lies with how these issues are being represented at the subnational level. In both countries, NDCs and climate change are:

- (1) **Introduced superficially.** In Indonesia, the content of climate regulations only mentions climate change in the definitions and/or in perils in terms of environmental management and planning. There has been no in-depth substantive provision on climate change identified in the regulations. Meanwhile in The Philippines, most LCCAPs were found to be 'cut and pasting' from the NCCAP without best suiting them towards the local context.
- (2) **Slowly trickled down from national to sub-national.** In Indonesia, there has been a considerable difference of perception on climate change issues between the prominent cities (for example, Jakarta, Bandung) and other local regions. This notes that the matter of climate change is regarded as a pressing issue at the national level, but not properly transferred to the local level. Similarly, in The Philippines, there is no concrete guidance or supervision from the national level that affirms the urgency for LCCAP implementation by the LGUs.
- (3) **Project oriented.** In both countries, we discovered that subnational regulations only exist because of some project being conducted. In Indonesia, the regional strategic and/or action plans were enacted due to strategies to address the issue of GHG reduction and climate change. All of the provinces in Indonesia have already established the GHG reduction action plan in 2014. In The Philippines, LCCAP is viewed as an indicator to receive project budgeting from the national government.
- (4) **Climate Change is not a priority issue.** Climate Change is not considered an urgent matter, and hence, regulations related to climate change lack a budget. Climate change is a priority only when it is paired with disaster risk reduction. Heavier concentration is also shifted onto prominent districts and cities, such as Java in Indonesia or big cities like Manila and Cebu in The Philippines which have already promulgated specific programs and projects on NDCs implementation and GHG Reduction, with a rigid listing budgetary consequence.
- (5) **There is a lack of understanding and awareness of climate change at the local level.** Both countries' local governments have not acquired sufficient understanding and awareness of climate change. Indeed, they directly experience the impacts of climate change such as drought, intense monsoons, and typhoons. However, there is a lack of comprehension of linking scientific understanding of climate change with local practicality of agricultural practices or more over their daily life.

Conclusively, based on this research, climate change and NDC issues have not been properly represented in the sub-national regulations. The lack of regulations in the subnational measures may have rendered the implementation of policies ineffective. The problems that lead to these current issues originate from how the lack of understanding of climate change itself by the subnational government, taking into account the 5 points established above.

At this point, the stake of achieving NDCs regionally in the ASEAN hinges on the performance of subnational governments in creating measures to support a well-rounded implementation of a country's climate pledge. Hence, there is considerable demand to pay more attention in the supervision of subnational level measures. Responding to such demand, this study suggests that there must be a mechanism to ensure strong commitment and no mixed messages from central governments to support subnational governments. Moreover, the terminologies of NDC and climate change impacts should be understandable to each level of government as well as communities – including farmers, small holders, village governments and *adat* communities. Comprehensive understanding of climate change and NDCs of all actors may enable them to push corresponding governments to create regulation. In any case, the government's lack of ambition may necessitate civil societies to step in and secure accountability.

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5. Methods

Recognizing that Climate Change has been regarded as a significant threat to ASEAN, this study provides an overview of the measures being conducted by Indonesia and The Philippines during the period of 2014 – 2022. In doing so: (1) it lays out the policies and regulation that both countries have established in subnational levels to support NDC implementation; (2) elaborates on the gaps and challenges of the policies and regulations; and (3) analyzes the underlying problems that caused the gaps and challenges in both countries.

This is a normative and empirical research study focusing on the availability of subnational measures in form of policies and regulations which supports NDC implementation in Indonesia and The Philippines. The research process was conducted through gathering policy and regulatory instruments about climate and/or related to climate change in the subnational arena of both countries. Data is retrieved from Indonesia’s and The Philippines’ NDCs, from sources such as laws, regulations, textbooks, journals, UNFCCC website, ASEAN’s website, local Governments’ websites, and reports. During this process, authors encountered several barriers in gathering the data. Since digitalization level in both countries are not yet in the advanced level, it is difficult to find policies and regulations uploaded online. Also, up to the present date, there is relatively little climate legal scholarship or media coverage on the topic of subnational climate policies and regulation in both countries.

Moreover, the process proceeds with identifying the challenges and problems that may or have barred the instruments from being effectively conducted. This is done by assessing the content of the regulation itself and understanding the surrounding problems to the implementation.

Finally, in analyzing the result found, this study utilized Carol Bacchi’s ‘What’s the problem presented to be?’ approach. The method exposes the underlying problem that has caused the challenges and gaps to occur in the subnational government’s effort in creating climate policies and regulations.

Table 1: Subnational Government Mentions in ASEAN Member’s NDC

Country	Number of NDCs	Mention of Subnational Government
Singapore	3	Not applicable (Singapore is a city state)
Indonesia	3	Mentioned in all three submissions
Vietnam	3	Mentioned in all three submissions
Thailand	3	Mentioned in the second and third submissions
Malaysia	2	Not mentioned
Laos	2	Mentioned in all two submissions

Myanmar	2	Mentioned in all two submissions
Cambodia	2	Mentioned in all two submissions
Philippines	2	Mentioned in all two submissions
Brunei	1	Not applicable

Table 2: Numbers of LCCAP in The Philippines

Region	Total LGUs	Total LCCAP Submitted to the CCC	Percentage (%)
CAR (Cordillera Administrative Region)	83	72	86.75%
Region 1	129	129	100.00%
Region 2	98	86	87.76%
Region 3	137	123	89.78%
NCR (National Capital Region)	17	15	88.24%
Region 4A	147	122	82.99%
MIMAROPA (Mindoro Occidental, Mindoro Oriental, Marinduque, Romblon, and Palawan)	78	78	100.00%
Region 5	120	72	60.00%
Region 6	139	119	85.61%
Region 7	136	102	75.00%
Region 8	149	128	85.91%
Region 9	75	40	53.33%
Region 10	98	90	91.84%
Region 11	54	52	96.30%
Region 12	53	40	75.47%
Region 13	77	58	75.32%
BARMM (Bangsamoro Autonomous Region in Muslim Mindanao)	125	46	36.80%
Total	1715	1372	80.00%