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Bachelor Thesis

Decision-making in crisis situations
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National Decision-making in the Philippines regarding climate change and the typhoon Haiyan crisis

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I. Abstract

In this bachelor thesis the question is posed 'To what extent and how did the Haiyan typhoon crisis result in a change of the status quo on national decision-making in the Philippines regarding climate change?' The Philippines is one of the countries most prone and vulnerable to climate change and the effects thereof, such as the increase in the chance of a typhoon the size of Haiyan hitting the Philippines again. Did the typhoon Haiyan crisis have an impact on climate policy in the Philippines? And if yes, to what extent? Several theories were used, mostly decision-making models and disaster management theories. Based on policy documents, literature, news articles and interviews, a narrative is made of climate policy in the Philippines and the typhoon Haiyan crisis. Based on the narrative, a hypothetical decision-making analysis is made. This has shown that there were no major changes in national decision-making regarding climate policy in the Philippines due to several factors. However, there were some minor changes in Local Government Units and in several governmental agencies in the Philippines which eventually could lead to more major changes regarding national decision-making and climate policy in the Philippines.

II. List of Figures

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IV. List of Abbreviations

CCA	Climate Change Act
CCC	Climate Change Commission
CCCC	Cabinet Cluster on Climate Change
DBM	Department of Budget and Management
NEDA	National Economic and Development Authority
DENR	Department of Environment and Natural Resources
DILG	Department of Interior and Local Government
DoE	Department of Energy
DoT	Department of Transportation
DPWH	Department of Public Works and Highways
DRM	Disaster Risk Management
DRRM	Disaster Risk Reduction Management
DoST	Department of Science & Technology
GFI	Government Financial Institutions
LGA	Local Government Academy
LGU	Local Government Units
LPA	Low Pressure Area
MNCC	Multi-National Coordination Centre
NCCAP	National Climate Change Action Plan
NDRRMC	National Disaster Risk Reduction Management Council
NFSCC	National Framework Strategy on Climate Change 2010-2022
NGOs	Non-Governmental Organisations
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PHILVOLCS	Philippine Institute of Volcanology and Seismology
PSF	People's Survival Fund

1. Introduction

a. Background

According to the United Nations (2020), climate change is the defining issue of our time. Consequences of climate change include changing weather patterns and increasing climate disasters, which can cause flooding, as well as a threat to food production or overpopulation due to the inhabitability of certain areas. There are several states particularly prone to climate change.

One of those states prone to climate change effects is the Philippines. The Philippines is a state that is endangered to become inhabitable due to climate change and are yearly affected by several climate disasters, such as floods, earthquakes, volcano eruptions and typhoons. The Philippines is an island state with over 7000 islands which are divided into three main regions, Luzon, the Visayas and Mindanao (National Government Philippines, n.d.). The Philippines is located within the Ring of Fire, a belt characterised by its active volcanoes and frequent earthquakes. Due to being located in the Ring of Fire, the Philippines has over 24 active volcanoes (Philippine Institute of Volcanology and Seismology, n.d.). The Philippines has a tropical climate with a monsoon season and is, as of 2015, also affected by the 'El Niño' phenomenon (Aseanbriefing, 2017). Next to being located in the Ring of Fire, the Philippines is also located in the pacific typhoon belt. Due to this location, the Philippines is affected by, on average, twenty typhoons per year (Asian Disaster Reduction Center, n,d,), of which nine typhoons make landfall on average (PAGASA, n.d.).

One of the most recent and notorious examples of a typhoon hitting the Philippines is typhoon Haiyan in 2013. Typhoon Haiyan Typhoon Haiyan started above the Pacific Ocean and became a category five typhoon, the highest category, on November 6, 2013. On November 8, typhoon Haiyan made landfall on the eastern side of the Philippines, the Eastern Visayas. After its passage through the Philippine islands, Haiyan lost its strength and hit Vietnam as a first category typhoon. Within the Philippines, almost three quarters of what was in Haiyan's path was destroyed (National Disaster Risk Reduction and Management Council, 2013). Typhoon Haiyan caused over 6300 deaths in the Philippines and left over 1.9 million people homeless (BBC, 2020). The impact of typhoon Haiyan on the Philippines was of such size that the emergency response of the Philippines was not adequate enough and did not have the capacity for adequate implementation.

There is a steady increase in the number of typhoons in the Philippines. Normally, the typhoon season lasts from June until the end of October. However, typhoon Haiyan hit the Philippines in mid-november, and the typhoon season of 2019 lasted until late December. Typhoon Kamurri, a category 4 typhoon, hit the Philippines on December 2 and typhoon Phanfone, a category 2 typhoon, hit the Philippines on December 24, 2019. This was more than two months overdue compared to the regular typhoon season in the Philippines. In 2018, the last typhoon of the season was in the end of November and in 2017 the last typhoon also hit the Philippines in late December. In order to adapt to the effects of climate policy, better policies and frameworks are needed to adapt both disaster risk management and climate policies.

b. Scientific and social relevance

The Philippines is an example of a state prone to climate change. For such states, the current way of decision-making is not urgent enough and does not show enough change in environmental consequences. The urgency of adequate crisis management in the Philippines regarding climate change is shown by the increase in climate disasters such as typhoons. The Philippines is a case study for larger island states prone to climate change and the increase of natural disasters. However, due to the

Philippines' unique history and geolocation, the Philippines can be seen as an extreme case, which will be studies in this thesis.

Typhoon Haiyan has shown an underlying problem for the Philippines, namely the impact of climate change. Due to global warming, the chance of more super typhoons like Haiyan hitting the Philippines is getting bigger. This not only requires better disaster risk reduction policies, but also better climate policy to increase the climate change adaptability and resilience of the Philippines. Therefore, a change in national decision-making is necessary to implement policy changes to influence climate policy.
The problem of climate change can be seen as a creeping crisis. There is existing literature regarding creeping crises, as well as an analysis of the response of the Philippines during the Haiyan typhoon disasters, among others by Harvard University. However, there is nothing to find with regards to the possible change in national decision-making regarding climate change in the Philippines before and after the typhoon Haiyan crisis, and if so, to what extent. So, the question raises if national decision-making regarding climate change changes after the typhoon Haiyan crisis, especially with the imminent increase in natural disasters in the Philippines. Next to this, research is also needed because experts in the Philippines state that there is no extensive knowledge regarding this, and there should be a change in climate change policy. There has been research on national decision-making after disasters. However, most of the researches do not focus on the combination of natural disasters and climate policy, mostly on the reaction of the government to natural hazards which are not related to climate change.

c. Research questions

To research the national decision-making in the Philippines regarding climate change in connection to the typhoon Haiyan crisis, the following research question is posed:

RQ: To what extent and how did the Haiyan typhoon crisis result in a change of the status quo on national decision-making in the Philippines regarding climate change?

To give a complete answer to this research question, the following sub questions were created:

SQ1: What were the dynamics of the Philippines' national decision-making on climate change before typhoon Haiyan?
SQ2: How did typhoon Haiyan impact on the main elements of the collective decision-making model of the Philippines?
SQ3: What was the reaction of the Philippine government to typhoon Haiyan?
SQ4: What are the dynamics of the Philippines' national decision-making on climate change since typhoon Haiyan?
SQ6: To what extent prevents the Philippines' current national decision-making model the impact of climate disasters such as typhoon Haiyan?

2. Theoretical Framework

a. Theories

i. Decision-making after natural hazards

According to Nick Carter and the Asian Development Bank (2008), the importance of research regarding disaster management can be found in several elements. First of all, it could help eliminate previous mistakes being made again, it could contribute to improvements in disaster management theories as well as reduce a state's or actor's vulnerability to disasters. Lastly, it has the ability to stimulate new theories and concepts in disaster management. Carter also states that there should be a planned approach to use

such research regarding disaster management and that a planned experience should include several factors, them being experience from previous disasters, disaster management review aspects, projections of major national programs, major developments within national disaster management, effects of specialist research efforts, monitoring of available information and indirect sources of research information.

According to Frank Sperling and F. Szekely (2005), to deal with climate change risks, it is necessary to realise that the starting point for adaptation regarding climate change is the vulnerability of a state or group with regards to climate change, as well as to map the extremes that come with climate change. Several measures are needed to promote an integrated approach to risk management regarding climate change. First of all, a design is needed to share experiences and knowledge of experts and previous climate disasters. Then the known information can be identified and certified. To achieve this, some institutional barriers need to be overcome.
According to Birkmann et al. (2008), there are several conclusions that can be made with regards to government responses after natural disasters. They observed two case studies being Sri Lanka and Indonesia after the Indian Ocean Tsunami in 2004 and found that the formal and informal change observed differed very little from the Status Quo observed in both Sri Lanka and Indonesia. They state that the documentation of natural hazards needs to improve to improve organisational change (Birkmann et al, 2008). Next to that they state that the most visible changes were in the mandate or in the resources of existing organisation or in the establishment of new organisations, such as a disaster management centre in Sri Lanka, however, minor changes in decision-making were noticed in the social, environmental, economic and political domains. (Birkmann et al, 2008). They also state that disaster related changes have both progressive as well as regressive outcomes which do not necessarily lead towards a reduction in vulnerability, as well as that it may not necessarily lead to an enhancement of adaptive capability (Birkmann et al, 2008). Lastly, they notice that natural disasters may generate a large resource flow which can create the opportunity of organisational changes and changes in decision-making to support structural development activities (Birkmann et al, 2008).

ii. Disaster and emergency management

Chen, Sharman, Rao and Upadhyaya (2008) stated there a framework is needed for response in disaster management. They created a framework for coordination in Response Management. The Framework consist of three stages, namely the pre-incident phase, the during incident phase and the recovery phase. Each phase consists of five basic elements. First, the task flow phase, this phase defines the tasks of each actor and interdependent relations. Resource, consisting of resource utilisation management and dependencies. Information, which is task-critical information collection, analysis and distribution. The fourth element is decision, thus decision roles, rules, structures and process. The last element is responder: namely the relationships, team-thinking, and group dynamics such as culture.

Thomalla et al. (2006), stated three experiments to decrease the vulnerability with regards to natural disasters. First of all, they propose a resilience and vulnerability dialogue, since resilience is a ‘dominant theme in natural resource management relevant to climate change adaptation and vulnerability has its roots in disaster-planning at a more local and shorter scale’ (Thomalla et al. 2006). Next, they also propose to identify the regions who are the most vulnerable to climate change (Thomalla et al. 2006), since the vulnerability of a region does not mean it has the adaptive capacity for its vulnerability to climate change. Lastly, they propose a meta-analysis of vulnerability (Thomalla et al. 2006). If these analyses include both the present risks and the future of the region with regards to climate change, it will be possible to show the importance of predictions with regards to climate change.

Rosenthal and Kouzmin (1997) created a five-step framework to analyse governmental crisis decision-making. The first step of this framework is; does a serious threat appear to the social-political system, followed by the necessity to respond to a threat and the necessity of government decisions. If this is necessary, the next step is the promptness of decisions. The larger the disaster, the faster decisions need to be made. Lastly, the role of government authorities in decision-making. Rosenthal and Kouzmin (1997), also state that in many situations, decisional restraint, prudence, media consciousness and management, open communications and a long-term policy perspective instead of short-term policies appear to be more effective in actual crisis management (Rosenthal and Kouzmin, 1997).

iii. Natural disasters and climate change

Birkmann (2011) stretches the fact that the increase in natural disasters due to climate change has not been scrutinised enough. Due to this, the manner in which adaptation strategies, including its implications and preconditions are not discussed well enough, as well as human security with regards to climate change and natural disasters. He stated that for a better resilience to climate change, 'the adaptation in terms of entities responsible for the development of the adaptation measures, the right time for the implementation of respective measures and the evaluation of the changes introduced by these measures and strategies must be better understood' (Birkmann, 2011). He emphasises the fact that extra measures are needed in order to monitor the local communities to make sure they can adapt to the increase in natural disasters due to climate change.
Next to that, Lujala, Lein & Rød (2013) state that in the current time, only the direct and personal experience within society of a natural hazard seems to be relevant for a change in their perception and attitude towards the consequences of climate change. They also state that a direct experience of such a natural hazard does not necessarily mean that climate change will become a key challenge within a society (Lujala, Lein & Rød, 2013).

Next to the personal experience of such a natural hazard, it is important that people are motivated to take action to mitigate and adapt to climate change (Lujala, Lein & Rød, 2013). They state two crucial preconditions, and a third important, but not crucial precondition. The first two preconditions are as follows: 1) for people to take action they must be aware of what kind of negative effects they are exposed to because of climate change and 2) that people are aware of what kind of preventive actions would be effective (Lujala, Lein & Rød, 2013). Their salience must be high enough to act upon climate policy. The first factor can be seen in the Philippines, especially in poor communities, which are ofttimes the most vulnerable communities. Therefore, it is hard to implement better climate policy. This lack of awareness is due to the fact that there is little to no knowledge available with regards to the effects of climate change in poor, vulnerable communities in the Philippines. It is thus not only a lack of awareness, but also a lack of knowledge with regards to the effects of climate change. Their third condition is that they could be personally responsible for the damage caused by natural hazards if there's no action taken (Lujala, Lein & Rød, 2013). If people who live in such climate change and natural hazard exposed areas have to pay for a large part of the damage themselves, local people and politicians are more likely to take action for a better resilience and adaptation. Eventually Lujala, Lein & Rød (2013) state that in order for climate policy to change, a better understanding and a more complex understanding of risks is necessary.

iv. Decision-making models

According to Shepsle (2010), there are several essential building blocks needed for political analysis. He stated that you need individuals, their preferences and their beliefs and saliences. He also stated that

there is no method that can guarantee a rational group preference. However, there are several models that can be used for an approach to analyse politics and collective decision-making. There are several collective decision-making models. One of the main models used is the rational choice model (SOAS London, n.d), where it is assumed that actors act rationally in their way of trying to achieve their own outcomes in competition with one another.

This model is the expected utility model by Bruce Bueno de Mesquita (1985, 1994). This model is also explained by Rojer (1999) Next to this model, an overarching model has been identified by Achterkamp (1999). Her model is distinguished by four stages, namely 1) each actor receives information on the positions of other actors and the importance of issues to other actors, 2) actors use the information to identify and use opportunities to influence one another, 3) responses are made by actors who received influence from other actors. They will either adjust their policy position or reject the influence. This is repeated until the necessary shifts in policy positions are made to come to a mutual outcome. In the fourth stage the positions of actors are being transformed into the collective outcome.

The expected utility model is based on a non-cooperative political bargaining. According to Bruce Bueno de Mesquita it is expected that each influential actor needs to make a choice whether to challenge actors who differ from their position. Whether the actor accepts the challenge depends on the salience of the challenged actor, as well as to the expected utility of not challenging the actor. Due to the challenges, some actors will change their policy positions which leads to a change in the expected outcome. This process is repeated is simulated negotiations where the revised policy positions is the status quo. Actors can then change back their policy positions if they don't like the outcome. According to this model, the expected outcome is based on the median voter theorem of Duncan Black (1948).

An implementation model has been elaborated on by Torenvlied (2000). It includes several approaches to create an overarching model for policy implementation. This model includes the following variables a) the implementation agencies' policy preferences, which include the salience they attach to several issues; b) the possibilities of monitoring and sanctioning implementation agencies' activities; c) the political control exercised on the policy implementation in the culture of the policy system and d) the level of consensus among political decision makers regarding a proposed decision (Torenvlied, 2000). The overarching implementation model of Torenvlied develops predictions of divergences in policies by individual implementation agencies. It is assumed that each agency wants to achieve their preferred position, but at the same time wants to maintain its reliability and credibility.

v. Policy and implementation failure

According to Howes et al. (2017) there are several reasons for implementation failure related to environmental sustainability, from interrelated structural causes, implementation traps as well as knowledge and scoping issues. There are however, three key factors contributing to implementation failures (Howes et al. 2017). First of all, there are economic incentives for private and public companies to continue to exploit natural resources without any consideration for the damage done to the environment. Within the Philippines, this can be seen in the most powerful families of the Philippines. They control not only politics, but also important media outlets. Because these families are so powerful, nepotism still lives in the Philippines. Secondly, often governments do not have the capacity or the political will to implement sustainable policies. Lastly, the seriousness of sustainability issues and the urgent need for change in environmental sustainability policies have not been communicated effectively enough to key stakeholders and institutions (Howes et al. 2017).

Next to that, according to Hudson, Hunter & Peckham (2018), there are four broad factors contributing to policy failure, namely overoptimism, which is mostly a problem in long-term projects and policies. Next to that, the implementation in dispersed governance, with the complicating factor that the central authority or national government cannot really grasp what is going on in the local context. Thirdly, inadequate collaborative policymaking, where several key stakeholders do not have the capability to design policy adequately, or there is a search for unanimousness instead of a common ground to look further into (Hudson, Hunter & Peckham, 2018). Lastly, there are the vagaries of the political cycle, which causes policies to be much more short-term focused instead of long-term (Hudson, Hunter & Peckham, 2018).

An example of implementation failure in environmental policy has been done in a case study of China by Ran (2013). He states that the implementation gap between national and local government can be partly explained by the failure of encouragement of the national government to fully implement environmental policies in local governments (Ran, 2013). Unless the central government takes measures to improves this lack of incentives for full implementation, this problem will not be solved. Another part of the problem of the implementation gap in China is that local government officials often are mostly focused by GDP growth of their community, and therefore turn a blind eye to pollution (Ran, 2013). The local governments believe that environmental policy will not lead them to the GDP growth they want, and thus the implementation gap occurs once again.

b. Hypotheses

After the analysis of theories regarding national decision-making models, the response of governments after natural disasters and disaster and emergency management, as well as to the background of the Philippines, several predictions were made with regards to the research question posed in this thesis, namely 'to what extent and how did the Haiyan typhoon crisis result in a change of the status quo on national decision-making in the Philippines regarding climate change?' These predictions are as follows:

P1: The Philippine people do not have enough awareness for the risks bound to climate change policy.
P2: Philippine citizens do not understand their exposure to natural hazards, and they do not take relevant steps to influence decision-making
P3: Local Government Units and the national government do not cooperate well to change decision-making with regards to climate change.

After analysing the theories for this thesis, a hypothesis is posed for the research question 'to what extent and how did the Haiyan typhoon crisis result in a change of the status quo on national decision-making in the Philippines regarding climate change?' These contextualised hypotheses are as follows:

H1: Disaster risk management has been improved due to the establishment of a new policy body. Due to an increase in knowledge of effects of climate change, DRM frameworks have been improved.
H2: There were some minor changes in decision-making in the environmental domain.
H3: Because of the absence of personal experience of Haiyan in the capital and the gap between the national and local government, national climate policy did not drastically change.
H4: Personal experience of Haiyan ensured better local climate policy.
H5: Government does not have the will to implement sustainable policies. Climate policy and national government's plans still do not align.

3. Approach

a. Methodology

i. Research Design

For this research, a single-case study will be done regarding the typhoon Haiyan crisis in the Philippines and climate policy. Based on a narrative analysis of news articles, scientific literature, policy reports and interviews, a reconstruction of decision-making will be done regarding the five issues noted below. The five issues are mostly retroactive and some of them are still relevant to this day. For the issues that have already an outcome, a reconstructive analysis is done based on the outcome, the nature of the relevant actors as well as relevant literature. For the issues that are still relevant to this day, an analysis based on the nature of the relevant actors, relevant literature as well as common sense is made.

Most of relevant information can be found through an extensive literature and media review, any additional and inside information were acquired through interviews done with experts. Both through newspaper reports, the interviews with experts and the theories, the policy positions of relevant actors were simulated, and a simulation of the relevant issue was done. Next to the acquirement of policy positions, an outcome of relevant issues was also found through newspaper reports, policy documents and interviews. Through the outcome and the simulation of the issue, the hypotheses could be tested. There are five issues found through an analysis of the World Bank in June 2013 with regards to climate policy in the Philippines: 'Getting a Grip on Climate Change in the Philippines' (World Bank, 2013), five months before typhoon Haiyan hit the Philippines. This report was written because of a request of the CCC and the DBM to review the Climate Change Act which was implemented in 2009 (World Bank, 2013). Both the CCC and the DBM wanted to assess gaps as well as accelerate implementation of the climate agenda, therefore they asked the World Bank to carry out a Climate Public Expenditure and Institutional Review, which was carried out between February 2012 and March 2013 (Worldbank, 2013).

There are several threats to this research. First of all, information regarding the Philippines might be hard to gather when there is no direct gateway to documents of the Philippine government and national decision-making in the Philippines. However, there are some relevant contacts in the Philippines who are able to provide these documents when needed. Next to aforementioned threat, there is the threat of retrospective bias. Since the typhoon Haiyan crisis already happened in 2013, people who will be interviewed will be biased. This will be countered by making sure the research is reliable and valid. This will be done by making objective observations in combination with using scientific models and theories, to make sure that this particular research could be done another time. Data triangulation will also be used to ensure the reliability of data. Other things that will be done to ensure the validity and reliability is to make sure that the registration of data and the quality of data collection will be as high as possible (Torenvlied, 2000).

The following issues are found for a decision-making analysis regarding climate policy in the Philippines and the typhoon Haiyan crisis, namely:

- **Issue 1: Disaster Risk Management**

The Philippines has an extensive Disaster Risk Reduction Framework compared to other countries in the south-east Asia region (Humanitarian Practice Network, 2015). The Philippine government spends almost $800 million on Disaster Risk Reduction every year (Humanitarian Practice Network, 2015). However, due to the sheer size of typhoon Haiyan and the underlying problems of the Philippines, the vulnerability of the people and their poverty, it's hard to rightfully assess and implement the Disaster

Risk Reduction Framework in place. Even though the Philippines invests a lot into Disaster Risk Reduction and Management, Haiyan showed that there are still gaps to bridge in Disaster Risk Reduction and Management in the Philippines. These gaps are shown, for instance, in the disaster done by Haiyan in Tacloban City. The overall leading coordinator in Disaster Risk Management is the National Disaster Risk Reduction and Management Council (GFDRR, 2014). It consists of thirty-nine members from national government agencies, LGUs, NGOs and the private sector and is complemented by regional and local Disaster Risk Reduction councils. However, even though the NDRRMC is the lead policy coordinator with regards to Disaster Risk Management, it is not an independent body and does not have enough capacity to effectively execute their disaster response policies.

- **Issue 2: Responsibilities of the Climate Change Commission**

According to the World Bank (2013) the CCC has too much roles and responsibilities, the scope of the CCC is too large. Therefore, there is little coordination between the CCC and other important stakeholders, such as the CCCC. Therefore, before Haiyan, the CCC did not have much leadership and accountability within the organisation. (Worldbank, 2013). Next to that, the roles between the CCC and their oversight agencies are not clear, which can limit their effectiveness as a policy coordinating body.

- **Issue 3: Coordination between Local Government Units and the national government (CCC)**

There were no clear guidelines on how to operate the collaboration between Local Government Units and the national government. Next to that, there was no clarity with regards to how to operationalise the agreement between the Local Government Units and the national government.

- **Issue 4: Presence of the CCC in local communities**

Even though the CCC is a national institution, it lacks capacity to engage itself within local communities and therefore lacks presence within LGUs. Without the help of the CCC with establishing their Local Climate Change Action Plans, it might be hard for certain LGUs, especially the ones with limited financial capacity, as well as knowledge. Therefore, it might be hard to create a sustainable society.

- **Issue 5: Synergy between National Climate Change Action Plan (NCCAP) and national government plans**

The government's plans are not in accordance with the with the detailed activities and objectives present in the NCCAP. This actually is a concern with many national government agencies (Interview respondent 1).

ii. Case selection

For this particular research, the typhoon Haiyan case in the Philippines will be used. This will make it a single-case study. At first sight it would seem that the typhoon Haiyan case is a typical case, since a typhoon would overall, have the same emergency response. However, due to the location of Haiyan being in the Philippines, the case of the typhoon Haiyan crisis is an extreme case, due to its unprecedented damage, as well as due to the Philippines' geolocation, history and poverty issues.

This case is relevant to the research question posed: since the Philippines is one of the states most prone to climate change. This is shown by the severity of the impact of the typhoon Haiyan crisis. Therefore, it is of interest to research the situation before and after the typhoon Haiyan crisis and if the status quo of national decision-making regarding climate change is different after the typhoon Haiyan crisis. Another reason why this is relevant is because a typhoon is a climate-related event, in contrast to a

tsunami, which is caused by plate tectonics. Because a typhoon is a weather-related event, the number and severity of a typhoon can increase.

To analyse the aforementioned research question, there are several cases that need to be analysed within the Philippines. First of all, it's the national decision-making, both before and after typhoon Haiyan. This is focused on national decision-making in the Philippines regarding climate change. Next to national decision-making, it is necessary to look at the disaster and emergency response and policies in the Philippines to eventually answer the research question. The analysis of the national decision-making is relevant to analyse this certain type of research since it is a model-guided approach for collective decision-making.

b. Operationalisation

To research national decision-making regarding climate change in the Philippines, the research needs to be framed by operationalising the research question. This will be done by analysing five aforementioned issues by creating alternatives for the issues mentioned. The alternatives are important for the issues, since they make the positions of the actors measurable. These alternatives are as follows for the five issues, with the following actors and saliences. Their saliences will be measured through media articles, as well as through the reputation and goal of the involved institution. This was done through literature review, a media search and interviews. Their policy position was measured combined with their salience to create a hypothetical analysis. For the five issues stated, the following alternatives, actors and saliences were found.

In the analysis, a winset and a single peaked preference will be made. Through this, the median voter will become clear. To check whether the median voter theory is correct, the following formula will be used:

(Preferred position actors x salience) / amount of actors

The outcome will be somewhere between 0 and 1, where 0 is the Status Quo and 1 is the alternative furthest away from the Status Quo.

- **Issue 1: Disaster Risk Management**
  - A1: Status Quo (0)
  - A2: Create a new policy body to oversee DRM and recovery (0,5)
  - A3: Increase independence and capacity of the NDRRMC and regional DRRMC (1)

Actor	**Position**	**Salience**
President of the Philippines	Create new policy body	0,8
National Disaster Risk Reduction and Management Council	More independence and capacity	0,9
Regional Disaster Risk and Management Councils	More independence and capacity	0,9
Local Government Units	Create new policy body	0,8

Department of Interior and Local Government	Status Quo	0,7
Department of Environmental and Natural Resources	More independence and capacity	0,5
Climate Change Commission	More independence and capacity	0,5
Department of Science & Technology & PHILVOLCS	Create new policy body	0,7
Department of Public Works and Highways	Status Quo	0,7
PAGASA	Create new policy body	0,7
People affected by Haiyan	Status Quo	0,9

Table 1

- **Issue 2: Responsibilities of the Climate Change Commission**
  - A1: Status Quo (0)
  - A2: The CCC gets a more defined role to clearly define their scope and responsibilities (0,5)
  - A3: The CCC has delegated some of its responsibilities to the Local Government Units (1)

Actor	**Position**	**Salience**
Climate Change Commission	The CCC gets a more defined role	0,9
Cabinet Cluster on Climate Change Adaptation, Mitigation and Disaster Risk Reduction	The CCC gets a more defined role	0,8
Department of Energy	Status Quo	0,6
Department of Transportation	Status Quo	0,6
LGUs	The CCC delegates responsibilities to LGUs	0,8
Department of Budget and Management	Status Quo	0,65
National Economic and Development Authority	Status Quo	0,7

Table 2

- **Issue 3: Coordination between Local Governments Units and the national government (CCC)**
  - A1: Status Quo (0)
  - A2: Clear guidelines will be introduced to improve collaboration between LGUs and the CCC (0,5)

- A3: The CCC transfers their responsibilities to the LGUs (1)

Actor	Position	Salience
National Government	Status Quo	0,6
Local Government Units	Responsibilities LGUs	0,8
Climate Change Commission	Clear Guidelines	0,8
National Economic and Development authority	Clear Guidelines	0,7
Cabinet Cluster on Climate Change Adaptation, Mitigation and Disaster Risk Reduction	Status Quo	0,7
Department of Environment and Natural Resources	Clear Guidelines	0,5
Department of Interior and Local Government	Clear Guidelines	0,8
Local Government Academy	Responsibilities LGUs	0,5

Table 3

- **Issue 4: Presence of the CCC in local communities**
  - A1: Status Quo (0)
  - A2: The CCC will present itself more in local communities (0,5)
  - A3: The CCC increases its capacity to engage with LGUs (1)

Actor	Position	Salience
Local Government Units	CCC will present itself more in local communities	0,7
Climate Change Commission	CCC increases its capacity	0,7
Department of Interior and Local Government	Status Quo	0,7
People's Survival Fund Board	Status Quo	0,7
Citizens LGUs	Status Quo	0,4

Table 4

- **Issue 5: Synergy between the National Climate Change Action Plan and national government plans**
  - A1: Status Quo (0)
  - A2: The NCCAP and government's plans are both compromised (0,5)
  - A3: The government will adapt its vision to the NCCAP (1)

Actor	Position	Salience
President of the Philippines	Status Quo	0,8
National government	Status Quo	0,65
Climate Change Commission	The government will adapt vision to NCCAP	0,9
Department of Environmental and Natural Resources	The government will adapt vision to NCCAP	0,85
Cabinet Cluster on Climate Change Adaptation, Mitigation and Disaster Risk Reduction	The NCCAP and government are both compromised	0,75
Department of Energy	The government will adapt vision to NCCAP	0,6
Department of Transportation	The NCCAP and government are both compromised	0,6

Table 5

c. Data

i. Data collection

The data required for this research will be both collected through primary and secondary sources. This makes this research both a content analysis as well as an empirical research. The primary data will mostly be collected from interviews with experts in the Philippines to create a well-rounded image of the issues, policy positions and saliences of the involved actors and get further inside information if necessary.

The secondary sources are policy reports, reports of how the Haiyan crisis was handles as well as media articles to establish the positions of the formal actors. Next to that, literature will be used to provide a base for the collective decision-making models. The policy documents and the reports as to how the Haiyan crisis was handled are convenient to use as they are relevant to answering some of the sub questions. Also, more general papers regarding disaster risk reduction will be inquired to create a complete image. The policy reports will predominantly regard climate policy as well as policy papers with regards to the five issues aforementioned. These are policy papers regarding LGUs, the CCC, the NDRRMC and the NCCAP.

ii. Data analysis

The study of national decision-making regarding climate change in the Philippines before and after the typhoon Haiyan crisis is a typical case study. Therefore, the analysis will be done on the basis of a narrative analysis. The analysis by will be done both during and after the typhoon Haiyan crisis. Predictions can then be made based on the outcome of the collective decision-making models. The alternative explanation as mentioned in the research design will also be tested whether the alternative explanation is true or false.

With regards to several sub questions, a data analysis will be done regarding risk and emergency management as to how the Philippine government reacted to the typhoon Haiyan crisis. The situation during typhoon Haiyan will be analysed. This will be mostly an analysis based on literature provided

regarding risk and emergency management combined with the analysis of policy papers and news articles.

From the analysis of policy papers, news articles, disaster and emergency management and the outcome of the collective decision-making models a conclusion will be drawn to the research question of this research.

4. Analysis

a. Case description

i. Governmental Institutions Climate Change Philippines

The Government of the Philippines have several institutions which are established to monitor climate change and coordinate climate policy. First of all, there is the Climate Change Commission of the Philippines. A commission that is a part of the National Economic and Development Authority and serves the President of the Philippines. The CCC is the policy body of government which is asked to coordinate, monitor and evaluate government programs with regards to climate change, as well as mainstreaming climate policy in national, sectoral and local development programs towards a climate-resilient Philippines (Climate Change Commission, n.d.).

Next to the CCC, there is also the Cabinet Cluster on Climate Change, of which the CCC is a part of. This cabinet cluster focuses on the 'conservation and the protection of the environment and natural resources.' The chair of this cabinet cluster is the Department of Environment and Natural Resources, and it has over eleven members (Office of the President, n.d.).

Lastly, there is the People's Survival Fund Board. It was created as a fund for Local Government Units as well as for local community projects and organisations to implement climate change adaptation projects (People Survival Fund, n.d.). This was done in the Republic Act No. 10174. Their goal is to better equip vulnerable communities to deal with climate change effects. The chair of the PSF Board is the secretary of the department of Finance.

Next to the several institutions that are connected to climate policy of the Philippines, there are frameworks and laws and regulations that lay down climate policy. First of all, there is the National Framework Strategy on Climate Change 2010-2022. It lined out the objectives and strategic priorities for climate mitigation (Climate Action Tracker, 2019). This framework also laid out the basis for the National Climate Change Action Plan, 2011-2028. This Action Plan set out detailed activities and objectives in three six-year periods for all the sectors involved in climate policy, thus energy, industry, the build environment, waste and land use.

The Climate Change Act was found in 2009, which created the Climate Change Commission. The combination of the two are tasked with coordinating the government's climate change efforts (Climate Action tracker, 2019). Then there are also the Renewably Energy Act of 2008 and the Biofuels Act of 2006.

With regards to national decision-making and climate policy in the Philippines, the main body is the Climate Change Commission, together with the NFSCC and the NCCAP. However, in June 2013, the World Bank analysed the climate policy of the Philippines, and they found several issues with regards to the climate policy in the Philippines. This is mainly regarding the synergy between national and local

government, as well as synergy between the National Climate Change Action Plan and the plans of the national government.

ii. Reaction and impact government Haiyan

On November 8, 2013, a super typhoon hit the Philippines, typhoon Haiyan, locally known as Yolanda. In total, 6245 people died, almost 30.000 were injured and as of 2014, there are still 1039 people missing (Takagi & Estaban, 2015). In total, Haiyan left damage worth of almost $900 million (PAGASA, 2014). After Haiyan's passage through the Philippines and the assessment of the damage Haiyan had done, Haiyan became known as one of the strongest typhoons to ever hit the country and even one of the strongest typhoons to have hit the Western Northern Pacific (Takagi & Esteban, 2015). This could also be seen in its intensity and speed, in which Haiyan was one of the most intense and fast typhoons ever recorded globally. Below, a table can be found of the timeline of events that occurred leading up to and after typhoon Haiyan. The italic font are decision-making events.

Date	**Event**
1 November	Low Pressure Area (LPA) spotted over Caroline Islands, Western Pacific Ocean
2 November	LPA develops into tropical depression and intensifies into tropical storm. Named Haiyan
4 November	The NDRRMC raises it alert to red. They are prepared for imminent disaster.
5 November	PAGASA issues weather advisory that a storm is approaching *Executive director of the NDRRMC directed chairpersons of regional DRRMC of the most vulnerable regions and National Capital Region to plan all necessary actions and alerted all responder groups.*
6 November	Haiyan is upgraded to the status of typhoon. PAGASA warns public of strong typhoon and releases severe weather bulletin. *Executive secretary of the Philippines convened the NDRRMC member-agencies for an emergency meeting to see if every member is prepared.*
7 November	*The NDRRMC chairperson and Secretary of Interior and Local Government go to Tacloban City to monitor preparations of the region. Pre-emptive evacuations are taking place in vulnerable regions, classes are suspended. The President of the Philippines urges people to follow the warnings issued by PAGASA.*
8 November 4:40AM	Haiyan makes first landfall over Guiuan, Eastern Samar
8 November 7:00AM	Haiyan makes second landfall over Tolosa, Leyte
8 November 9:40AM	Haiyan makes third landfall over Daanbantayan, Cebu

8 November 10:40AM	Haiyan makes fourth landfall, Bantayan Island, Cebu
8 November, 12:00PM	Haiyan makes fifth landfall, Concepcion, Iloilo
8 November 8:00PM	Haiyan makes sixth and final landfall in the Philippines, Busuanga, Palawan. Several roads in Region-IV (Calabarzon) became only one-lane passable. *1221 men and 520 heavy equipment of the Department of Public Works and Highways are deployed for relief operations*
9 November	PAGASA releases final Severe Weather Bulletin. Haiyan leaver the Philippine Area of Responsibility. *Social Welfare Secretary and NDRRMC Executive Director brought additional relief goods to Tacloban City. Emergency facility established. President meets with key cabinet secretaries. Task Force Yolanda is created.*
10 November	*Number of meeting s to assess the full picture of the Haiyan catastrophe. Press conference is conducted to update the public.*
11 November	*President declares state of National Calamity.*
12 November	*NDRRMC activated the One-Stop-Shop (OSS). OSS will handle and facilitate the acceptance of donations.*
16-17 November	Individuals and family received food and rice packs, water, energy biscuits. 87 medical teams deployed in regions hardest hit by Haiyan.
18 November	*Combined Joint Task Force Yolanda is created*
20 November	*Multi-National Coordination Centre (MNCC) is created.*

Table 6: Source: NDRRMC, 2016

Haiyan made sure of several problems during relief and rescue operations. First of all, due to the damage to telecom poles, communication of any sort was not possible, and electricity was not available. Due to the high storm surge Haiyan created, especially in Leyte, heavy equipment and large vehicles were unusable and roads became impassable (PAGASA, 2014). The relief goods that were already stored in several provinces, also became unusable. It became clear quickly that members of local disaster response units were victims as well and cannot do their jobs properly. This also was shown due to the fact that regional DRRM couldn't do their jobs, and disaster managers and Local Government Units were also victims.

Due to its size and damage that it had done, typhoon Haiyan has been one of the most destructive typhoons that ever hit the Philippines and tested the capacity of both the local and national governments their disaster response. On paper, the Philippines has a good framework for disaster response and relief, but the key implementing body, the NDRRMC, does not have the capacity and independence to fully execute their mandate (Salazar, 2015). Next to that, typhoon Haiyan has shown that the LGUs need greater help to effectively execute their regional disaster response and management.

Because of the impact of typhoon Haiyan, the rehabilitation process went slow, especially in the region hardest hit, Tacloban City. This was not because of geographical regions, but mainly because of political differences between the Mayor of Tacloban City and the national government of the Philippines. According to Salazar (2015), this showed that the national government tried to bypass the LGUs, which affected the public hit by Haiyan.

Afterwards, several lessons were learned during the relief and release operations of Haiyan. First of all, the public was not aware of the power of a storm surge, and there is not a proper implementation plan for every hazard, or the power of every hazard. Next to that, the people do not listen to the advice of LGUs and the LGUs' DRRM. The NDRRMC and their regional counterparts decided that a drill should be done every year, in vulnerable coastal areas mangroves have been planted to create more resilience. Lastly, evacuation centres have been created with more resilience and basic amenities (PAGASA, 2014).

iii. Poverty in the Philippines

Poverty is still a large problem in the Philippines. According to the Asian Development Bank (2020), 16,6% of the population of the Philippines lives in poverty, and 7,8% of the population in the Philippines lives below the $1,90 Purchasing Power Parity a day (Asian Development Bank, 2020). The Asian Development Bank list several causes of poverty in the Philippines. They are mostly regarding little financial growth compared to other south-eastern Asian countries, and a weakness in employment generation and the quality of jobs. Next to that, the Asian Development Bank (2009) also listed 'recurrent shocks and exposure to risks such as economic crisis, conflicts, natural disasters and environmental poverty' as a cause for poverty in the Philippines. The World Bank adds to this by stating that the reason why poverty reduction did not go as well in the Philippines as in other states in South-East Asia because of not only a high inequality in wealth and income, but also due to natural disasters and conflict.

A non-income related factor of poverty is education and knowledge, an essential factor in starting the incentive for climate action and raising awareness. Compared to the other countries in the South-East Asia region, the performance rate of the Philippine school system is far below the regional average (World Bank, 2018). The difference in programmes between the Philippines and Vietnam is a learning curve of three years. This shows that the quality of the Philippines their school system is behind on the rest of other states in South-East Asia, and in the poorest areas of the Philippines, this is even worse.

b. Analysis

i. Issue 1: Disaster Risk Management

H1: Disaster risk management has been improved due to the establishment of a new policy body. Due to an increase in knowledge of effects of climate change, DRM frameworks have been improved.

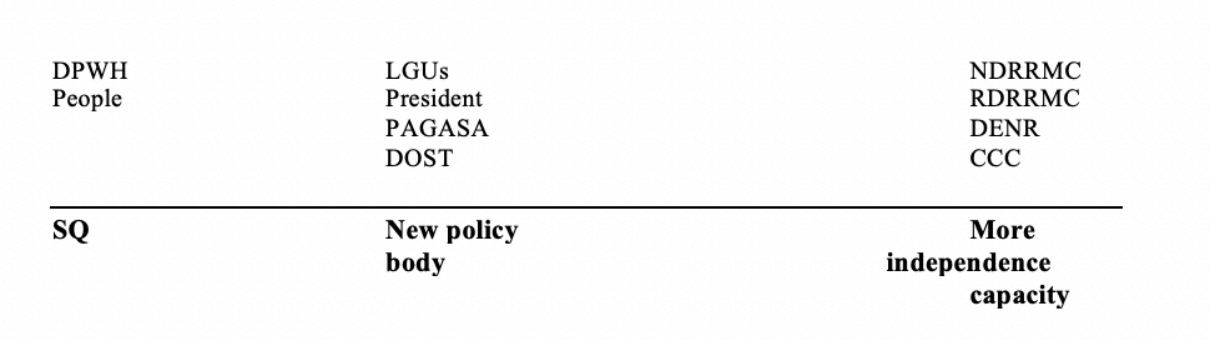

Figure 1

Group	Position	Salience
1 (President of the Philippines, LGUs, Department of Science & Technology & PHILVOLCS, PAGASA)	Create new policy body	0,75
2 (NDRRMC, Regional DRRMC, Department of Environment & Natural Resources, Climate Change Commission)	More independence and capacity	0,7
3 (Department of Interior & Local Government, Department of Public Works & Highways)	Status Quo	0,7

Table 7.1

	Group 1	**Group 2**	**Group 3**
Preference 1	*Create new policy body*	More independence and capacity	Status Quo
Preference 2	Status Quo	*Create new policy body*	*Create new policy body*
Preference 3	More independence and capacity	Status Quo	More independence and capacity

Table 7.2

As can be seen in the table above, the most preferred option is 'A2: create a new policy body'. The preferences above thus conclude a stable outcome, namely:

Create a new policy body Pp Status Quo Pp More independence and capacity

This can also be seen when looking at the winset and the single peakedness theorem. The winset for issue 1 is as follows:

Winset: Disaster Risk Management
W(More independence and capacity) = Status Quo, create a new policy body
W(Status Quo) = create a new policy body
W(create a new policy body) = empty

Table 7.3

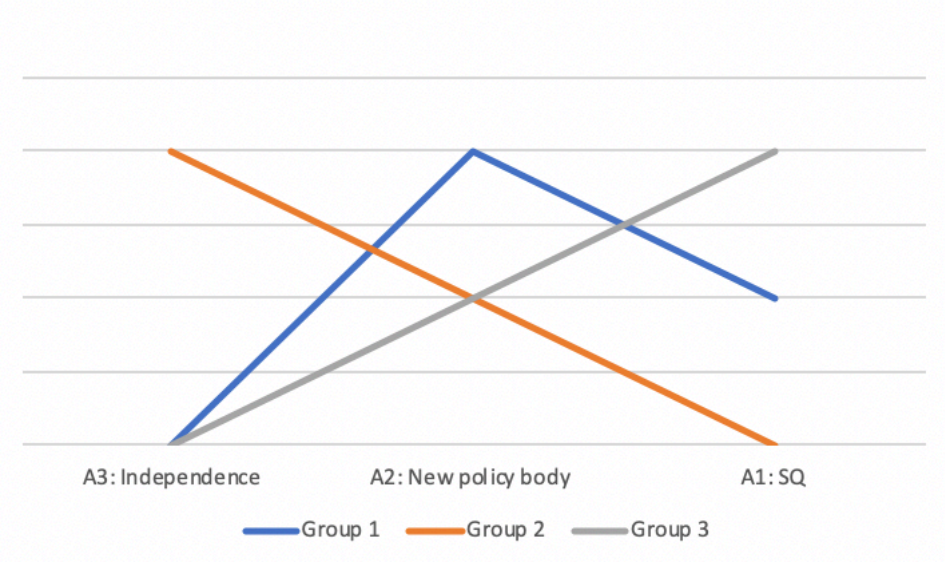

Figure 2

Even though the saliences of all groups are almost equal, it is important to note that the influence of all groups on the decision-making differ. Group one has the most power, since the President of the Philippines had the preference 'create a new policy body'. As mentioned by Torenvlied (2000) one of the variables in creating an overarching model for policy implementation is the political control exercised on the policy implementation in the current policy system. The President of the Philippines can assure this by creating a new policy body that he can control better and sanction if necessary. The preference of the President would lastly be to give the NDRRMC more independence and capacity.

The group preference of the involved actors is 'A2: create a new policy body'. Due to the fact that the President of the Philippines makes the executive decisions, this was eventually also the outcome of this issue. A new policy body was created, the 'Office of the Presidential Adviser on Rehabilitation and Recovery to coordinate efforts across different national and local government bodies as well as with domestic and international governments, agencies and organisations' (Salazar, 2015) This preferred outcome can also be seen when looking at the weighted mean of the individual actors, their saliences and preferred policy positions.

(0,5*0,8 + 1*0,9 + 1*0,9 + 0,5*0,4 + 1*0,5 + 1*0,5 + 0,5*0,7 + 0,5*0,7) / 11 = 0,39

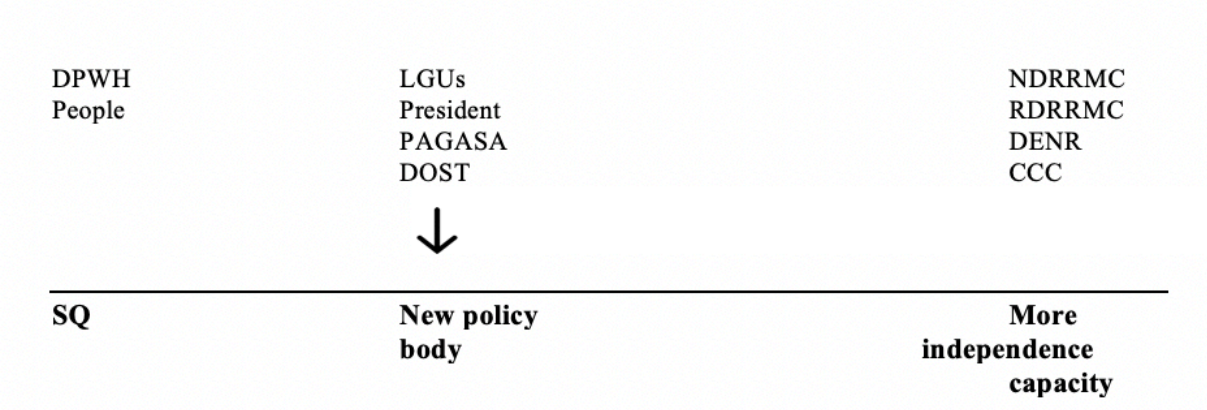

Figure 3

ii. Issue 2: Responsibilities Climate Change Commission

H2: There were some minor changes in decision-making in the environmental domain.

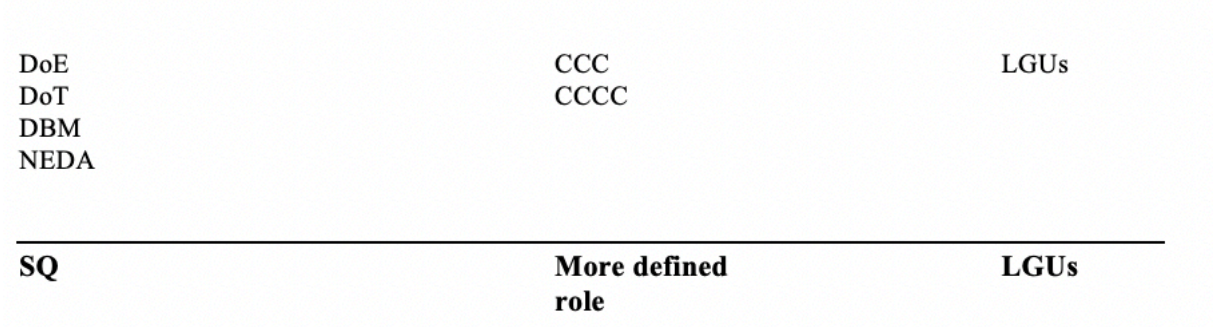

Figure 4

Group	Position	Salience
1 (CCC, CCCC)	The CCC gets a more defined role	0,85
2 (LGUs)	The CCC delegates responsibilities to LGUs	0,80
3 (DoE, DoT, DBM, NEDA)	Status Quo	0,64

Table 8.1

	Group 1	Group 2	Group 3
Preference 1	The CCC gets a more defined role	The CCC delegates responsibilities to LGUs	*Status Quo*
Preference 2	*Status Quo*	*Status Quo*	The CCC gets a more defined role
Preference 3	The CCC delegates responsibilities to LGUs	The CCC gets a more defined role	The CCC delegates responsibilities to LGUs

Table 8.2

As can be seen in the table above, there is a stable outcome, this outcome is as follows:

Status Quo Pp the CCC gets a more defined role Pp the CCC delegates responsibilities to the LGUs

This can also be seen when looking at the Winset and the single peakedness of the second issue.

Winset: Responsibilities of the Climate Change Commission
W(LGUs) = The CCC gets a more defined role, Status Quo
W(Defined Role) = Status Quo
W(Status Quo) = Empty

Table 8.3

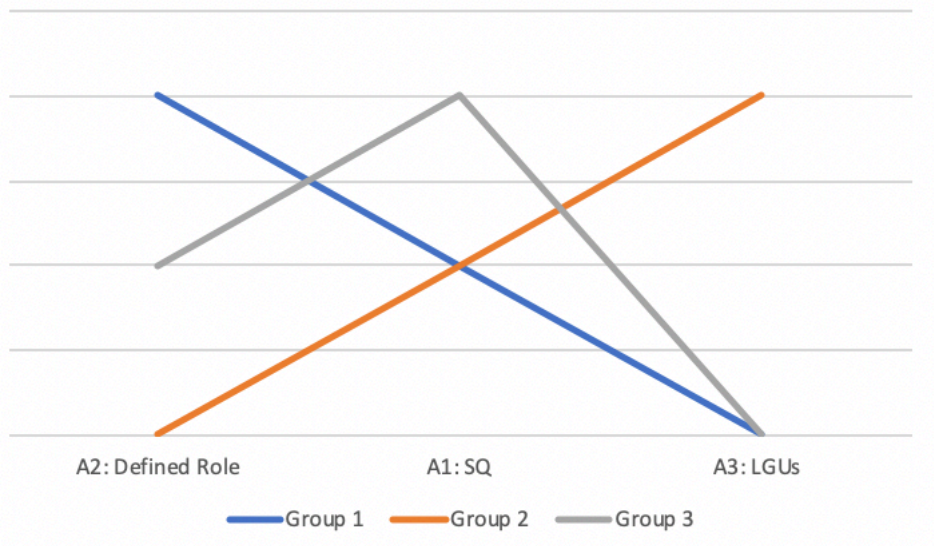

Figure 5

According to the Single Peakedness of the groups and the winset, the Status Quo should prevail. This is almost what happened. The scope of the Climate Change Commission indeed did not change after Haiyan (Interview respondent 1, 2020). However, due to the amendment of the Climate Change Act (CCA) in 2011 and therefore the introduction of the People's Survival Fund, some responsibilities were already given to the LGUs without changing the scope and responsibilities of the Climate Change Commission, since the Climate Change Commission vice-chairperson is a member of the People's Survival Fund Board (PSF, n.d.). Due to the introduction of this fund, the involvement of Government Financial Institutions (GFIs) started for the CCC (Interview respondent 1, 2020). Therefore, in the end, the scope of the CCC indeed did not drastically change. However, the responsibility of the CCC did became more accountable due to the involvement of GFIs. The weighted mean of the individual actors is 0,24, so that also shows more towards the Status Quo than 'A2: a more defined role'.

(0,5*0,9 + 0,5*0,8 + 1*0,8) / 7 = 0,24

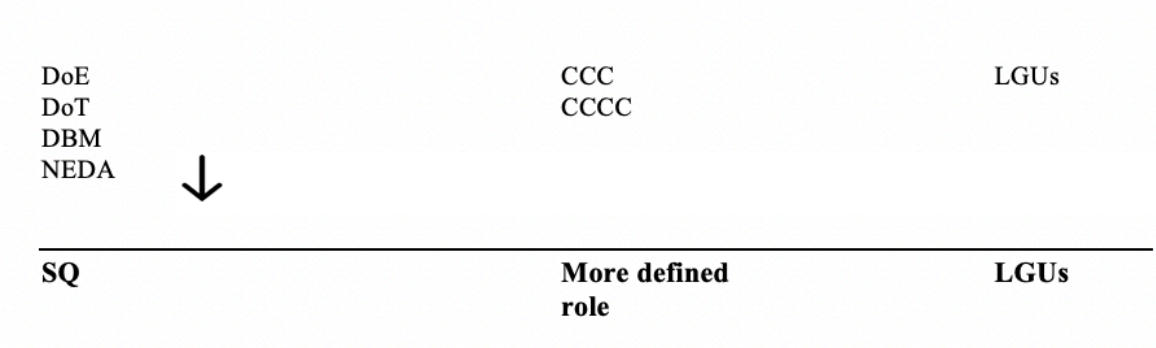

Figure 6

iii. Issue 3: Coordination between LGUs and national government

H3: Because of the absence of personal experience of Haiyan in the capital and the gap between the national and local government, national climate policy did not drastically change.

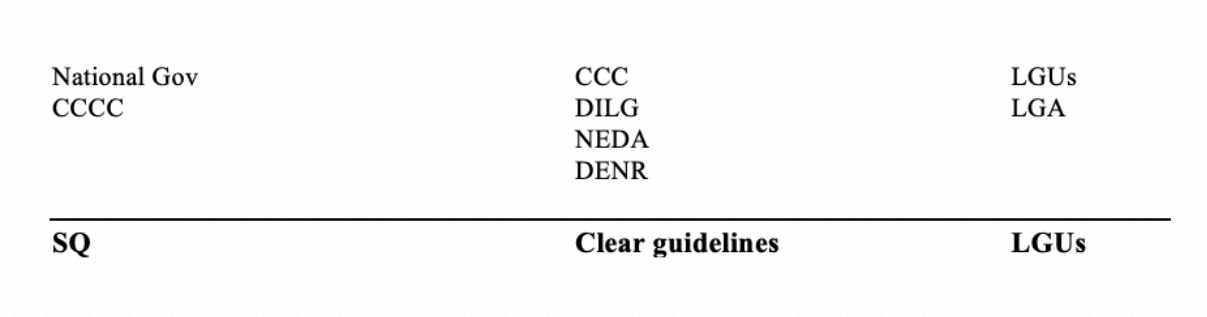

Figure 7

Group	Position	Salience
1 (National Government, CCCC)	Status Quo	0,65
2 (LGUs, Local Government Academy)	Responsibilities to LGUs	0,65
3 (CCC, NEDA, DENR, DILG)	Clear Guidelines	0,70

Table 9.1

	Group 1	Group 2	Group 3
Preference 1	Status Quo	Responsibilities to LGUs	*Clear Guidelines*
Preference 2	*Clear Guidelines*	*Clear Guidelines*	Responsibilities to LGUs
Preference 3	Responsibilities to LGUs	Status Quo	Status Quo

Table 9.2

For this issue, there is a stable outcome. The preferred option is 'A2: clear guidelines', and the outcome is as follows.

Clear Guidelines Pp Responsibilities to LGUs Pp Status Quo

Winset Coordinations LGUs and the national government through CCC
W(Status Quo) = Responsibilities to LGUs, Clear Guidelines
W(Responsibilities to LGUs) = Clear Guidelines
W(Clear Guidelines) = Empty

Table 9.3

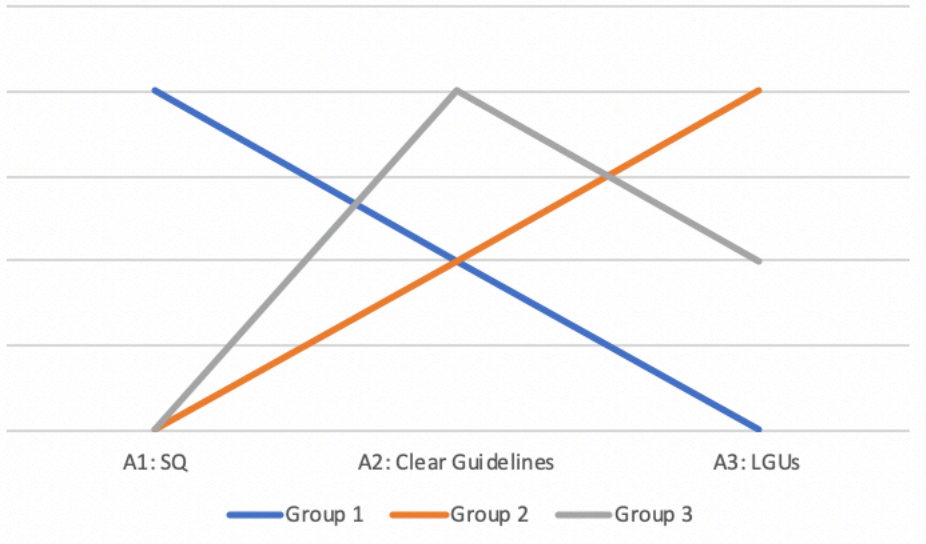

Figure 8

The overall preference of the actors and stakeholders was 'A2: clear guidelines' for the national government and the CCC. According to the interview with respondent 1 (2020), the DILG has partnered with the CCC and the Local Government Academy to 'provide capacity building through the local government code and local government planning to incorporate the issue of climate planning.' In the end, a hybrid form between the Status Quo and clear guidelines is used. Real clear guidelines have not been introduced. However, due to the partnership between the Local Government Academy, the DILG and the CCC, it is clearer how to handle climate policy than before the typhoon Haiyan Crisis. The preference for a hybrid form can be seen when looking at the involved actors' preferred policy positions and saliences, thus the weighted mean. This shows indeed that the new position would be in the middle of 'A1: status quo' and 'A2: clear guidelines'. When looking at the weighted mean of the individual actors, the outcome is as follows:

(1*0,8 + 0,5*0,8 + 0,5*0,7 + 0,5*0,5 + 0,5*0,8 + 1*0,5) / 8 = 0,34

In the weighted mean, it can also be seen that a hybrid form is the preferred option, since 0,34 is between Status Quo (0) and Clear Guidelines (0,5)

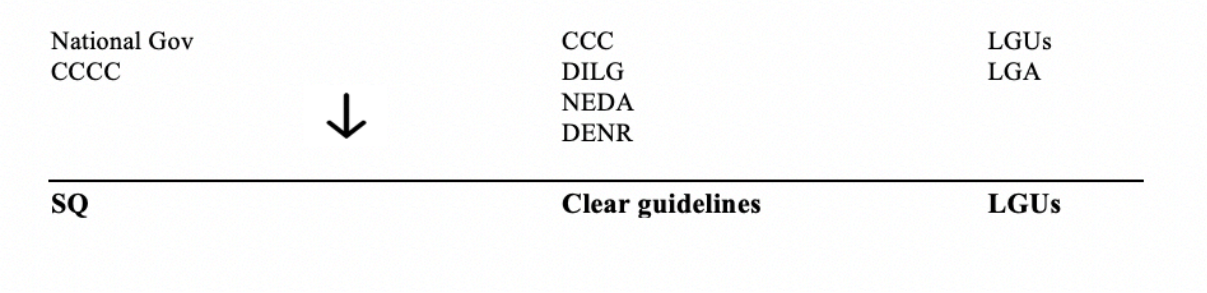

Figure 9

iv. Issue 4: Presence Climate Change Commission local communities

H4: Personal experience of Haiyan ensured better local climate policy.

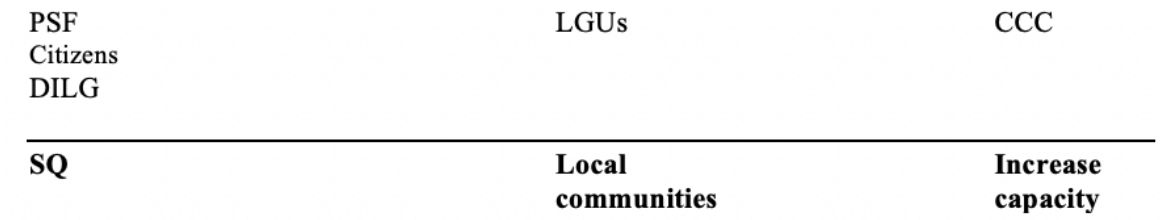

Figure 10

Group	Position	Salience
1 (LGUs)	CCC will present itself more in local communities	0,70
2 (CCC)	CCC increases its capacity	0,70
3 (DILG, PSFB)	Status Quo	0,70

Table 10.1

	Group 1	Group 2	Group 3
Preference 1	CCC will present itself more in local communities	CCC increases its capacity	Status Quo
Preference 2	CCC increases its capacity	CCC will present itself more in local communities	CCC will present itself more in local communities
Preference 3	Status Quo	Status Quo	CCC increases its capacity

Table 10.2

According to the preferences of the different groups, the group preference would be that the Climate Change Commission should present itself more in local communities. This would show the following:

CCC will present itself more in local communities Pp CCC increases its capacity Pp Status Quo

Winset Presence of CCC in local communities
W(Status Quo) = CCC increases its capacity, CCC will present itself in local communities
W(CCC increases its capacity) = CCC will present itself in local communities
W(CCC will present itself in local communities) = Empty

Table 10.3

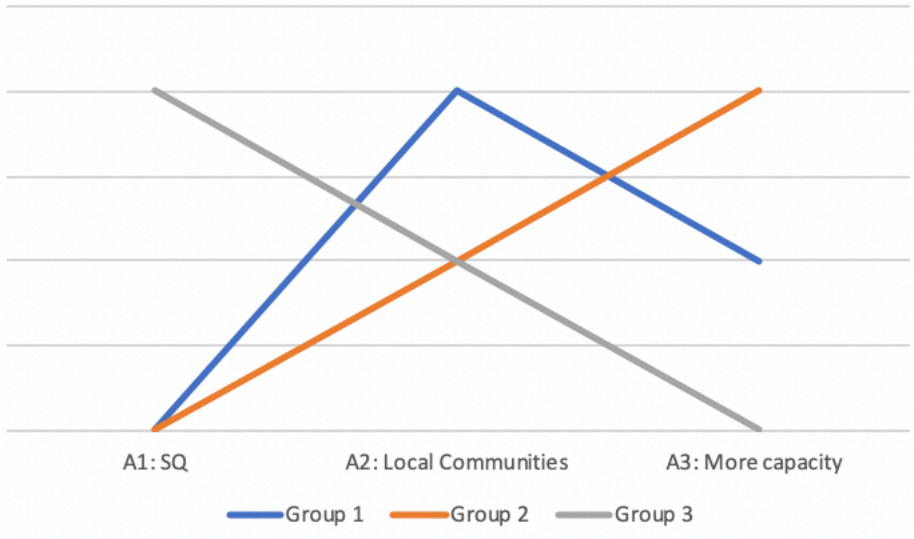

Figure 11

The Winset and single-peakedness of the presence of the CCC in local communities also shows that the stable outcome would be that the CCC should be 'A2: present itself more in local communities.' However, 'A1: Status Quo' preserved after the typhoon Haiyan crisis. This is due to several factors, first of all, the People's Survival Fund, which the CCC is a part of, has the goal to provide funds for the implementation of climate adaptation projects. Through the PSF, the CCC has more presence in local communities. Next to that, there are also Local Climate Change Action Plans in place for climate adaptation, as well as the DILG, who serves as a mediator for the presence of the CCC in local communities. Lastly, there is the will of the people and the LGUs themselves to implement climate change adaptation and natural disaster response. If there is no awareness of the community of how climate contributes to the problem, there is no need for the CCC to be present according to local communities, as stared in the interview with respondent 1 (2020). This is in accordance with P1 and P2 as posed in the theory section, namely that the Philippine people do not have enough awareness for the risks bound to climate change policy and Philippine citizens often do not understand their exposure to natural hazards and they do not take the relevant steps to influence decision-making. This has to do with several factors, but most importantly due to the poverty in local communities. The Philippine people in communities prone and vulnerable to climate change often do not have access to the means to influence decision-making and are not aware of the damage that climate change can do. This can mostly be seen in the rural areas of the Philippines.

Despite the outcome of the single peakedness, the weighted mean of the individuals indeed shows a preference towards the Status Quo. This is also because of the introduction and improvement of the PSF. Because of the PSF the CCC indirectly has a better presence in local communities.

(0,5*0,7 + 1*0,7) / 5 = 0,21

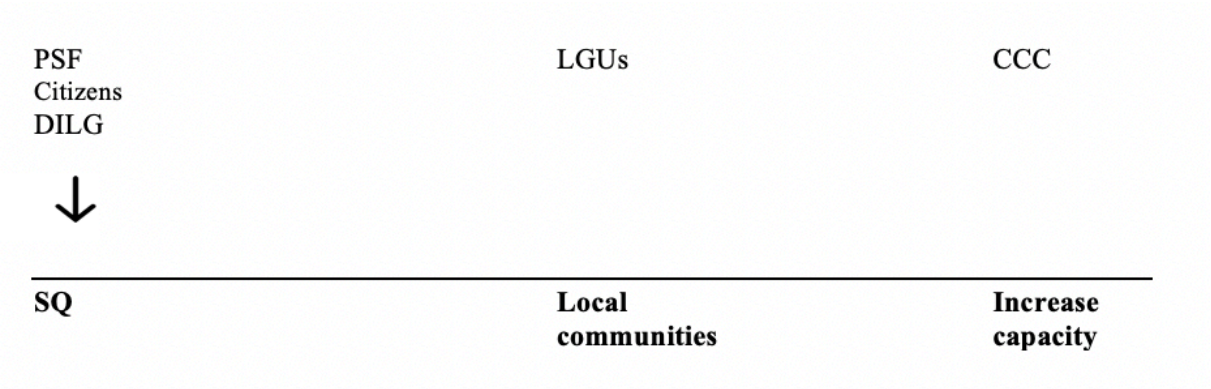

Figure 12

v. Issue 5: Synergy between NCCAP and national government plans

H5: Government does not have the will to implement sustainable policies. Climate policy and national government's plans still do not align.

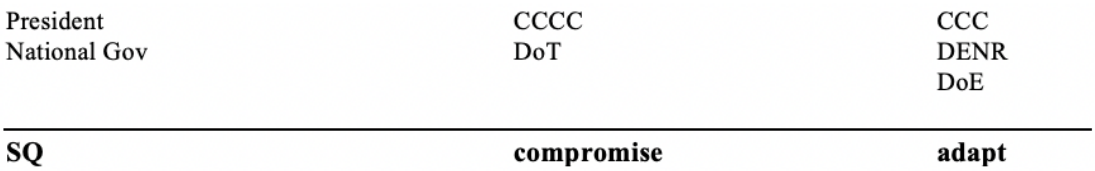

Figure 13

Group	Position	Salience
1 (President of the Philippines, national government)	Status Quo	0,73
2 (CCC, DENR, DoE)	The government will adapt vision to NCCAP	0,78
3 (CCCC, DoT)	The NCCAP and government are both compromised	0,68

Table 11.1

	Group 1	Group 2	Group 3
Preference 1	Status Quo	The government will adapt vision to NCCAP	The NCCAP and government are both compromised
Preference 2	The NCCAP and government are both compromised	The NCCAP and government are both compromised	The government will adapt its vision to NCCAP
Preference 3	The government will adapt vision to NCCAP	Status Quo	Status Quo

Table 11.2

This concludes the following stable group preference:

<u>The government and NCCAP are both compromised Pp the government will adapt its vision to NCCAP Pp Status Quo</u>

Winset synergy between NCCAP and national government plans
W(Status Quo) = the government will adapt its vision to NCCAP, NCCAP and government are both compromised
W(government adapts) = NCCAP and government are both compromised
W(Both compromised) = Empty

Table 11.3

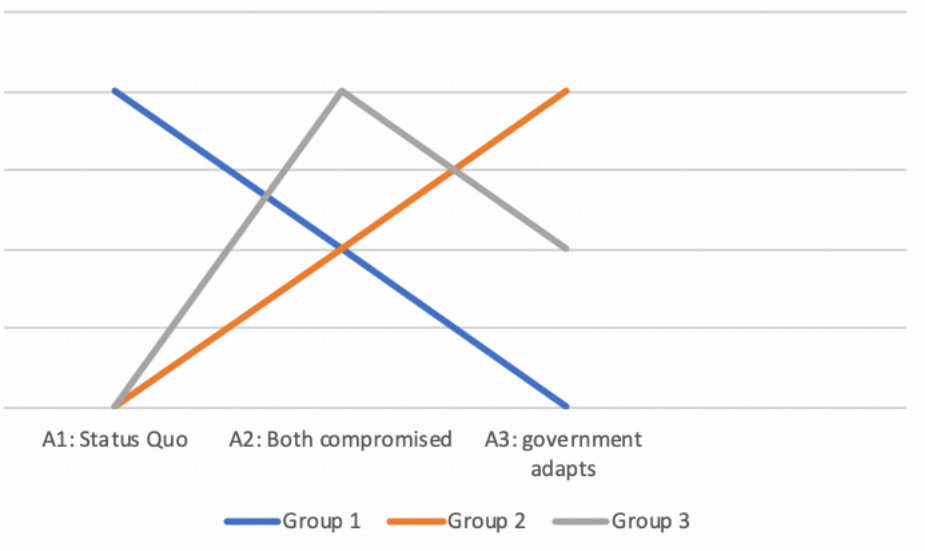

Figure 14

As can be seen above, the group preference is 'A2: the NCCAP and the government their plans are both compromised.' However, due to the power and resources of the President of the Philippines, 'A1: the status quo' prevailed and there are still gaps in the effectivity of the NCCAP. Several factors can be explained for this. First of all, there is an absence of an overarching authority and capability to look at the long-term of climate change, and therefore there the frameworks in place are not rightly executed. Next, there is a fragmentation of responsibilities and several institutions have duplicate functions (CCC, 2019). The evaluation of the NCCAP 2011-2016 actually states that there is still a missing link to synergise and cohere policies, plans and actions (CCC, 2019).

When looking at the weighted mean of the individual actors, it shows a preference towards 'the government and the NCCAP are both compromised. However, once again, due to the executive power of the President of the Philippines, this did not happen. This is also due to the fact that the mandate of the CCC not being maximised right now (Interview respondent 2, 2020).

(1*0,9 + 1*0,85 + 0,5*0,75 + 1*0,6 + 0,5*0,6) / 7 = 0,43

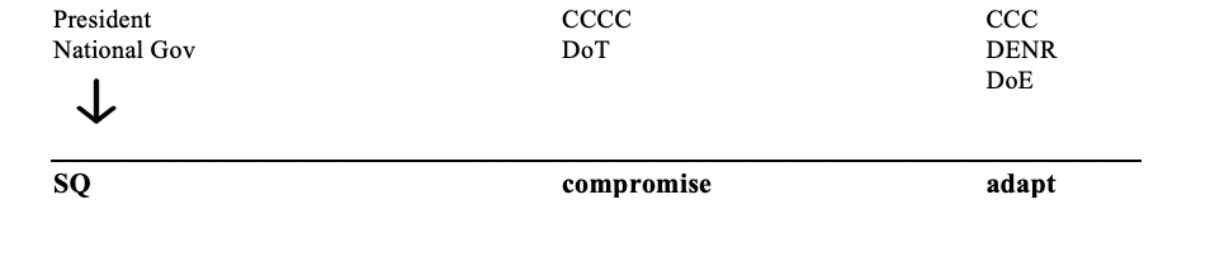

Figure 15

vi. Preparedness for similar disaster

The Philippines has an extensive framework on Disaster Management and Disaster Risk Reduction, created by the NDRRMC and the local DRRM. However, the overarching framework that should make sure of adequate disaster risk management came into place three years before Haiyan in Republic Act 10121 (Interview Respondent 1, 2020). Haiyan unintentionally became the limit test for this framework.

As Birkmann et al. (2008) observed in Sri Lanka and Indonesia after the 2004 tsunami, very little eventually changed in the Status Quo in disaster risk reduction policies. This is also confirmed by respondent 1 (2020), who stated that policy-wise not much has changed within disaster risk reduction in the Philippines.

As stated before, there is a problem in the Philippines with the incentive of citizens to act within local initiatives towards climate action, since the awareness of people in vulnerable regions and communities is not present and not visible. A problem of poverty in the rural, vulnerable regions makes it even harder to act upon such community initiatives or take action to influence local decision-making. However, it must be stated that Tacloban City can be an example of redevelopment after Haiyan in a sustainable way, so it is possible to enact upon community initiatives and influence local decision-making towards a more sustainable way of living.

To improve the preparedness of the Philippines for such natural disasters, especially for the vulnerable communities as well as to improve awareness, the three experiments to reduce vulnerability proposed by Thomalla et al. (2006) could be used. This would be a resilience and vulnerability dialogue, identifying the most vulnerable regions within the Philippines and a meta-analysis of vulnerability. While the last two are interesting for the NDRRMC, the first experiment can be a helpful incentive for the local DRRM to raise awareness for climate change and thus the increase in (super)typhoons.

Even though there are problems with the awareness of the danger of climate change and the increase in natural disasters, as well as with the implementation of the framework of the NDRRMC, it is not sure whether there is ever a good preparedness for a natural disaster which has the same size as Haiyan had. This is not only due to the sheer size that Haiyan had, but also the problems that come with poverty in the Philippines and insufficient resources, both nationally and locally (interview respondent 1, 2020).

5. Conclusion

To what extent and how did the Haiyan typhoon crisis result in a change of the status quo on national decision-making in the Philippines regarding climate change? In conclusion, there has been a small derivation from the Status Quo regarding climate change. A new policy body has been created and the CCC became more accountable. Next to that, a partnership between the DILG and the CCC started, to

increase involvement and presence in the LGUs in the Philippines. This was done, among others, to increase awareness for the consequences of climate change.

An issue that is still present to this day is the lack of synergy between the national government plans and the NCCAP. This was clear during Aquino III's administration, and it's still clear during the administration of Rodrigo Duterte. This is, among others, due to the fact that there is a lack of overarching authority and the long-term effects of climate change are not taken into account. This lack of overarching authority is mainly due to the fact that the CCC should be the main policy body, but there are too many institutions for climate policy to be executed correctly (Interview respondent 2, 2020). This can also be seen in the budget of the Philippine government. Instead of giving the CCC a certain budget, every department of the government of the Philippines has its own budget related to climate policy, which can cause confusion of responsibility in the end (Interview respondent 2, 2020).

Not every group preference happened as expected when looking at the issues. This is mainly due to the power and resources of the President of the Philippines, who can issue an executive decision because of his mandate as the President. Due to this, the Status Quo prevailed even though the group preference was to derive from the Status Quo.

Despite the change in status quo in climate policy in the Philippines, there are still several issues existing. First of all, there is still too little awareness present in the Philippine community in rural areas. Next to that, due to this lack of awareness, there is no incentive to make a change in decision-making. Even if there is an incentive, it is hard to break through a political landscape where a lucky few families have all the influence and power. Also, poverty makes it hard to make a major derivation towards a sustainable society and improve existing frameworks. The amount of institutions with regards to climate policy in the Philippines is too high. There is no overarching authority, which was underlined by the evaluation of the NCCAP. Lastly, the distance between the national government and LGUs is too large to make a difference, it is hard to control whether improved policies are actually implemented in rural areas.

In the end, a small derivation from the Status Quo happened. A major derivation did not happen because the Philippines already has good base framework for climate policy in the Philippines. However, to include the poor, vulnerable communities in the Philippines, it is important to make a larger derivation and look at the more long-term aspects of climate policy. This could cause a decrease in the vulnerability of the Philippines toward climate change as well as to increase awareness with regards to the impact of climate change. In the end, this could also increase the incentives of citizens to take action in community initiatives with regards to climate action. This can be seen in Tacloban City already. If such structural changes would happen, then this might also be the case in other vulnerable communities in the Philippines.

6. Discussion

Several problems occurred when writing the thesis on decision-making regarding climate change in the Philippines and the typhoon Haiyan crisis. First of all, there is quite a distance between the location where the thesis is written and the location where the Haiyan crisis took place. At first, this should not have been a problem. However, since the Covid-19 pandemic happened, it became a lot harder to come into contact with governmental agencies in the Philippines, since every agency was, and at this time still is, closed during the quarantine in Manila, where almost every governmental agency is located.

The Covid-19 pandemic caused some trouble with collecting primary data, due to every agency being closed down. In the end, two interviews were done, one with a contact in the Philippines working at an environmental NGO and one with a member of the CCC. Also, a book was sent by the NDRRMC, but they were not willing to give an interview. This could possibly be foreseen when agencies were contacted when writing the thesis proposal, to ensure some interviews before the lockdown in the Philippines happened. However, a lockdown in the Philippines could not have been foreseen.

Next to the Covid-19 pandemic causing some troubles, the Duterte administration also made it hard to access some information. The government of Duterte is not keen on sharing important policy documents. However, since the Haiyan crisis happened in 2013, most of the documents could be found online or through international organisations as the Asian Development Bank, the World Bank and the United Nations.

A combination of the aforementioned factors, namely distance, Covid-19 and Duterte, made it hard to collect the appropriate data. Therefore, a change must be made in the research design, and a decision-making analysis became a hypothetical decision analysis based on a narrative. In this way, it was still possible to look into the decision-making with regards to climate policy in the Philippines. However, due to this research being a hypothetical analysis based on literature, newspaper reports and common sense, the reliability and validity of this research is lower than it should've been when the proposal for this research was made.

Therefore, the reliability and validity could be improved by several things. First of having more interviews to validate positions and saliences of the actors. Next to that, it would be good for the reliability to triangulate all data by having policy papers, literature and interviews, which was not possible due to the lack of contact with the Philippine governmental agencies because of the Covid-19 lockdown.

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