



JGOP

JOURNAL OF GOVERNMENT AND POLITICS



Volume 5 Nomor 1 JULI 2023

ISSN 2774-728X (Print) ISSN: 2686-3391 (Online)

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Journal of Government and Politics (JGOP) ISSN:2686-3391
Vol. 5 No. 1 Juli 2023

Journal of Government and Politics (JGOP)

<http://journal.ummat.ac.id/index.php/jsip>



Collective Action and Climate Change Adaptation in Makassar

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Info Artikel

Sejarah Artikel:

Diterima: 25-01-2023

Disetujui: 03-04-2023

Dipublikasikan :

17-07-2023

Climate change is a problem that requires a variety of responses from individuals and institutions. Each entity can influence climate change policy and action, but as a complex matter, it is not surprising that there are deficiencies in climate change policy. This challenge highlights the need better to understand the selection of climate change adaptation programs. Therefore, this study aims to analyze how the collective action of various Makassar City Government institutions in the climate change adaptation program. This study uses a qualitative exploratory approach, with data collection through interviews and document review. The results of this study indicate that the collective action of the Makassar City Government can be assessed at the Climate Change Adaptation Working Group (Pokja-API), which consists of six institutions. It is just that the coordination between institutions that are members of the Working Group there is still a missing link between the programs that are the priorities of each institution.

Kata Kunci :

***Collective Action;
Climate Change;
Adaptation***

Tindakan Kolektif Dan Adaptasi Perubahan Iklim Di Makassar

Abstract

Perubahan iklim adalah masalah yang membutuhkan respon berbagai pihak dari individu maupun institusi. Setiap entitas masing-masing memiliki kapasitas untuk mempengaruhi tindakan dan kebijakan perubahan iklim, tetapi sebagai masalah yang kompleks, tidak mengherankan jika terdapat kekurangan pada kebijakan perubahan iklim. Tantangan ini menyoroti kebutuhan untuk lebih memahami pemilihan program adaptasi perubahan iklim. Oleh karena itu, penelitian ini bertujuan untuk menganalisis bagaimana aksi kolektif berbagai institusi Pemerintah Kota Makassar pada program adaptasi perubahan iklim. Penelitian ini menggunakan pendekatan eksploratif kualitatif, dengan pengumpulan data melalui wawancara dan telaah dokumen. Hasil penelitian ini menunjukkan bahwa aksi kolektif Pemerintah Kota Makassar dapat dinilai pada Kelompok Kerja Adaptasi Perubahan Iklim (Pokja-API) yang terdiri dari enam institusi. Hanya saja koordinasi antara institusi yang tergabung dalam Kelompok Kerja masih terdapat missing link antara program yang menjadi prioritas masing-masing institusi.

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INTRODUCTION

It is now clear that the world is facing a series of environmental hazards. The biggest environmental changes of which are climate change - changes to the Earth's climate system, which is manifested in events such as droughts, floods, sea-level rise, temperature rises in some areas, species extinctions, and the spread of pests (to give examples of various adverse impacts. climate change) (IPCC, 2007). Climate change arises from global warming, which is caused by human pollution of the atmosphere with greenhouse gases (GHG), especially carbon dioxide from burning fossil fuels (Holdren, 2010). This human-caused global warming was, until recently, seen as a problem of the future. However, there is now a realization that ongoing climate change is very likely a consequence of global warming (Harris, 2007).

The fifth Intergovernmental Panel on Climate Change working group II report demonstrates the urgent need to adapt to the climate impacts that society is already experiencing (IPCC, 2014). In the Indonesian context, this also reinforces the recognition that local governments have taken a leading role in climate adaptation planning, largely in response to unprecedented threats to human well-being (Burch, 2010; Fresque-Baxter & Armitage, 2012; Groulx et al., 2014; Leduc, 2007). Interestingly, the local adaptation response also reflects a recent theoretical shift in climate adaptation thinking (Smit & Wandel, 2006).

Climate change adaptation is designed to increase the resilience of natural and human ecosystems to threats posed by a changing environment. Resilience, in turn, can be seen as “the ability of a system to return to its initial state and function despite some major disturbance (Lawler, 2009). Collective action principles provide a useful tool for determining appropriate institutional arrangements to deal with climate change adaptation (Glicksman, 2010).

Simply put, collective action problems cannot be solved by one individual or group member but require the cooperation of others who often have different interests and incentives, increasing transaction costs or negotiating cooperative solutions. The most well-known collective problems arise concerning the provision of public goods, including clean air and water. The global climate is a global public good (Cole, 2008).

Makassar City is a lowland area that is directly adjacent to the sea. One of the characteristics of the area bordering the sea is high-temperature conditions, and the

difference in air temperature during the day and night (diurnal variation) is not too large. The average air temperature in Makassar City is around 28-30, with the daily maximum temperature reaching 36. The influence of the ocean on air temperature is visible in this area. It can be seen that the area around the coast has a relatively higher temperature than the area in the middle and eastern part of Makassar City. The average annual rainfall ranges from 2400 – 2800 mm. The annual rainfall in Makassar City is high. The rainfall pattern in this area belongs to the monsoon pattern. However, there is the influence of the equatorial region where the rainfall can be higher than the monsoon region in the southern part of Indonesia. The influence of ENSO also occurs in the Makassar City area (Malik et al., 2021).

Total greenhouse gas emissions in 2019 were 1,831,619 tons of CO₂e, excluding indirect energy from electricity consumption. These emissions were 1% lower than the previous year's emissions and 8% higher than 2010. Of these total emissions, the largest contribution came from energy (85.5%) and waste (14.5%), while AFOLU (livestock, agriculture, and forest and land-use change) is less than 1%. While indirect emissions in 2019 were 1,612,421 tons CO₂e, these emissions were 28% smaller than in 2018 but larger than in 2010. If we look at the overall direct and indirect emissions fluctuated in Makassar City in this period, where the highest emissions were in 2013 (19,932,597 tob CO₂) and the lowest in 2010 (1,692,267 tons CO₂e) (Makassar Regional Action Plan (RAD), 2021).

Table 1. GHG Trends in Makassar City (tonnes)

| IPCC Category | 2010 | 2014 | 2019 |
|-----------------------------|---------------|---------------|---------------|
| Energy | 1.499 .301 | 1.732 .787 | 1.552 .868 |
| Farm | 4.529 | 3.792 | 6.684 |
| Agriculture | 8.927 | 8.476 | 8.261 |
| Forests and Land Use Change | - 5.547 | - 4.280 | - 2.993 |
| Waste | 185.0 57 | 229.5 89 | 266.8 00 |
| Total | 1.692 .267 | 1.970 .364 | 1.831 .619 |

Source: IGRK Report and Makassar City Mitigation Action 2010-2030.

The purpose of this study is to find out how climate change adaptation policies in Makassar are, from planning to implementation, along with climate change adaptation working groups. Based on the research objectives, the research questions are 1) how does the climate change adaptation work group work in climate change adaptation, 2) what are the climate change policies and action plans in Makassar. Both questions are described in the results and discussion section.

METHOD

This study uses exploratory-qualitative research focusing on urban climate governance issues that are adaptive to the threat of climate change. The location of this research is Makassar which consists of several government agencies: Regional Development Planning Agency, Environmental Service, Regional Disaster Management Agency. The data collected are in the form of Regional Action Plans for Climate Change Adaptation – Disaster Risk Reduction (RAD API-PRB), Regional Medium-Term Development Plans (RPJMD), and other supporting documents. The data contained in the Regional Action Plans for Climate Change Adaptation – Disaster Risk Reduction to view issues, documents of the Climate Change Adaptation Working Group and climate change adaptation programs, and their handling in the form of collective action. The Regional Medium-Term Development Plan is needed to analyze the Makassar City Government's program in dealing with climate change. This study's data analysis techniques are 1) reduction, 2) data display, and 3) conclusion drawing/verification.

RESULTS AND DISCUSSION

Climate Change Adaptation Working Group

The results of current and future climate risk analysis are used to develop adaptation actions. Adaptation action activities that have been implemented are obtained from regional documents and direct interviews with regional apparatus organizations related to adaptation actions to regional vulnerabilities and climate risks. This adaptation action needs to be integrated with the local government policy of Makassar City.

Tabel 2. Working Group Adaptation Program

| Institution | Program | Action |
|--|--|---|
| Regional Disaster Management Agency | Disaster prevention and preparedness | Disaster preparedness command post |
| | Rehabilitation and reconstruction | Psychological recovery and post-disaster damage training |
| | | Post-disaster rehabilitation facilitator training |
| Public Works Service | Provision and management of clean water | Sanitation facilities and infrastructure (assignment DAK) |
| | Construction of drainage channels | Drainage condition inspection |
| | | Urban drainage development |
| | Drainage rehabilitation/maintenance | Drainage channel rehabilitation |
| Fire Department | Increased alertness and prevention of fire hazards | Fire prevention education |
| | Socialization of early prevention of fire hazards at the student level | Socialization of early prevention of fire hazards at the student level |
| Public Health Office | Health services for the poor | Technical orientation of guidance and health services in poor slum areas and urban poor communities |

| | | |
|--|--|--|
| Regional Planning and Development Agency | Planning for socio-cultural development | Regional poverty reduction planning and strategies |
| | Free educational program | Monitoring and evaluation of free education programs |
| | Data/information development | Socio-economic studies of Makassar city residents |
| | Physical and infrastructure development planning | Preparation and identification of urban slum area mapping Makassar |
| Environmental Agency | Green Open Space (RTH) management program | RTH Rehabilitation |
| | | Vertical garden |

Source: Makassar Regional Action Plan (RAD). (2020)

Makassar City is the capital city of South Sulawesi Province. It is the largest metropolitan city in eastern Indonesia. The town is led by a mayor and assisted by a regional work unit under the direct coordination of the mayor. This unit consists of the Regional Inspectorate, Regional Secretary, Agency, and District stipulated in Makassar City Regulation Number 8 of 2016 concerning the Establishment and Structure of Regional Apparatus Work Units. Makassar City Government Structure to implement climate change policies in Makassar, the city government has formed a Climate Change Adaptation Working Group (Pokja-API), which has the following tasks:

Facilitating coordination between government agencies and between agencies and non-government groups (academics, NGOs, and community representatives);

Synergize various activities between agencies; and

Monitoring and evaluating implementation, namely assessing program achievements and impacts in a measurable and structured manner.

The Working Group consists of three sub-groups: (1) mitigation, (2) emergency and disaster situations, (3) data and monitoring. This Pokja was formed due to the 2015 Regional Action Plan for Climate Change Adaptation- Disaster Risk Reduction (RAD API-PRB) workshop organized by the Makassar Regional Planning and Development Agency (Bappeda). The Pokja-API is directly supervised by the mayor as the person in charge and coordinates the following three agencies and services:

Regional Disaster Management Agency (BPBD) in the Head of Mitigation and Disaster Management, responsible for coordinating programs and related mitigation activities. The mitigation sub-group also involves the Environment Service, Public Works Office, Spatial Planning and Building Service, Marine and Fisheries Service (DKP), and the Department of Marine Fisheries Agriculture Animal Husbandry (DKP3).

Social Agency and BPBD are responsible for coordinating programs and activities related to emergency and post-disaster management. The emergency and post-disaster response subgroups also involve the Community Empowerment Agency (BPM), SAR, Health Service and NGOs.

Statistics and Reporting Section of Bappeda, responsible for coordinating the processing and monitoring of program data. The data and monitoring sub-group also involves the Central Statistics Agency (BPS), the Meteorology, Climatology and Geophysics Agency (BMKG), the Environment Service and Non-Governmental Organizations.

The Makassar City Government's commitment to facing the challenges of climate change is evidenced by establishing a Climate Change Adaptation Working Group. This Working Group is a collective action to deal with climate change. Because climate change has a very complex problem, it requires various actors and agencies to deal with it. Government institutions involved in the Working Group coordinate with each other and carry out their respective priority programs. Some experts argue that within working groups, the government offers the opportunity to regulate not one but several government agencies, with each of these units being able to exercise independent authority to make and enforce rules within a particular area (Olson Jr, 1971; Ostrom, 2010; Rusnaedy & Haris, 2021).

The Working Group does not only involve government institutions but also involves NGOs and the private sector. Policy formulation in the policy-making process involves not only one-sidedness but also from the government but also involves entrepreneurs, and non-governmental organizations as an effort to develop standard criteria and indicators of a policy (Elliott & Schlaepfer, 2001). This step has been taken by the Makassar City Government in dealing with climate change.

Overlaps between programs and agencies still occur even though the division of work has been carried out based on the main tasks of each agency. This indicates that the communication and intensity of meetings in the Working Group (Pokja) on slum management have not been intensively carried out. Whereas better communication will increase collective action, a coalition is possible to solve problems and increase cooperation (J.-C. Cardenas, 2003; J. C. Cardenas et al., 2011; Carpenter et al., 2004). Effectiveness of communication relates to the need for individuals in such social settings to express the desire of each other so that they must give up their interests for the benefit of the group. In other words, communication is used for "moral persuasion" (Rusnaedy & Haris, 2021).

The intensity of face-to-face communication when discussing moral issues will be much better than relying on written communication. Communication, in general, helps groups gain a sense of "solidarity", and face-to-face communication increases the likelihood that individuals will keep their promises to work together. In general, communication effectiveness appears to be related to the increased trust individuals gain when guarantees are made to them face-to-face (Ostrom, 2010). The lack of intensity of communication in a large group reduces the sense of responsibility with the division of tasks each has been given. This gap is then exploited by free riders to gain unique benefits from the program being implemented. So that the policy will not run effectively and efficiently as planned (Rusnaedy & Haris, 2021).

Climate Change Policy and Action Plan

The Makassar City Government's commitment to combating climate change is manifested in several policies such as those in the Makassar City Regional Action Plan (2020):

Climate Change Mitigation Policy. GHG emission reduction through Governor Regulation No. 59 of 2012. The decrease comes from 3 (three) sectors, namely: (1) land-based sector, (2) energy-based sector, and (3) waste-based sector. The 2020 local emission projections based on the BAU scenario without any mitigation actions show that the energy sector will be the largest contributor to GHG emissions, at 49%, followed by the land-based sector and the waste-based sector, which will contribute 44% and 7% of the province's 2020 BAU emissions. Mitigation priority is given to the energy sector, with a primary focus on transportation.

The Makassar City Government has also translated the RAN API into the Regional Action Plan (RAD API PRB) as a form of its commitment to combating climate change. RAD API-DRR contains 7 strategies to achieve the goals: 1) Increasing and expanding Green Open Space (RTH), 2) Improving the quality of infrastructure and public services, 3) Increasing socio-economic welfare, 4) Increasing community participation, 5) Increasing institutional capacity government agencies, NGOs and CSOs, 6) Conservation and improvement of environmental quality, and 7) Strengthening and enforcing regulations and laws. In particular, the Makassar Environment Agency (DLH) has developed the following programs in the 2014-2019 Strategy Plan: 1) Environmental quality monitoring and monitoring, 2) Environmental data/information assessment and development, 3) Public services, 4) Climate improvement village (Pro-Klim), 5) Conservation, rehabilitation and rehabilitation of Natural Resources, and 6) Pollution control. 7) Implementation of the RAN API policy, the Makassar City Government has planned several strategies and programs that are being carried out: Expansion of Green Open Space through the following programs: (a) 'Lorong Garden' is a program to create gardens along the road, which has limited green open space. "Lorong Garden" 'provides better living conditions for the vulnerable poor, female heads of household, children, the elderly and the disabled, as well as improving the quality of slum areas, infrastructure, city facilities, and utilities; (b) Mangrove Reforestation Program in coastal areas aim to improve environmental quality, the resilience of fishermen and fisheries, as well as

protect coastal areas from abrasion and sea-level rise; (c) tree planting program aims to plant trees in arid areas to make cities cooler and more comfortable; expansion of green open spaces and recreational areas (parks); reduce vulnerability, drought, and heat; and improve the overall environmental conditions of the city.

Improving the quality of infrastructure and the provision of public services through the following programs: a) Emergency centers help residents prepare for disasters; b) Development of basic facilities and infrastructure in the outskirts and disaster-prone areas aims to increase access to basic infrastructure (clean water facilities, roads, electricity); and c) Construction of the Seawall aims to protect the coast of Barang Caddi Island.

Improving socio-economic welfare: a) restoring the post-disaster productive economy; b) implementation of social rehabilitation and reconstruction for affected communities; c) provide effective and efficient technology training for fishers and optimize product management and marketing; d) fisheries development and fishery counseling (course); and providing working capital for community groups.

Increase community participation: a) providing training on disaster prevention and management, and b) disseminate information on climate change adaptation to the public.

Increasing the institutional capacity of government agencies, NGOs, and CSOs through the establishment of climate villages to build the capacity of rural communities to respond to climate change.

Preservation and improvement of environmental quality through environmental quality monitoring in coastal areas and small islands as part of disaster risk mitigation efforts in coastal areas. Efforts to reduce vulnerability and increase capacity for adaptation to climate change that considers gender aspects in planning and implementation are carried out through the following activities: a) Improving the socio-economic welfare of vulnerable groups by increasing the capacity of economic access. These groups include poor fishermen, informal workers, female heads of households, and persons with disabilities. This program will also help target communities develop fisheries and provide fisheries education and support for community groups to increase their adaptive capacity from socio-economic aspects. b) Improving the quality of infrastructure and the provision of public services in

disaster management, particularly concerning emergency response for the affected communities, by ensuring the fulfillment of the special needs of women and other vulnerable groups. Women will have access to and benefit from emergency response.

c) Increasing community participation, among others, by increasing public awareness of climate change issues by providing better access to information and capacity building for vulnerable groups to be encouraged to increase their participation in environmental management and build their adaptive capacity. Among the activities designed for women are disaster prevention training and RAD API-DRR Makassar City. In addition to the above, through the RAN GRK policy, the Makassar City Government has issued a decree to establish an implementing agency for climate change mitigation and an inventory of GHG emission reductions (Decree No. 660.4/1103/BLHD/VI/2015 Head of the Makassar City Regional Environment Agency regarding Establishment of an Implementing Team for Climate Change Impacts and Inventory (GHG) Activities The Agency will work in 4 main sectors: energy, AFOLU, waste and industry, and the use of fertilizers.

The climate change adaptation policy in Makassar has been implemented by stakeholders, both government agencies, the private sector, and NGOs-CSOs. Policies that are planned and implemented by involving multi-stakeholders are collective actions to adapt to climate change. The selection of adaptation programs has been very good, and it is just that the relatively large group size influences coordination and communication regarding the priority programs of each agency. The existence of a missing link between agencies needs to be corrected by the Makassar City Government so that Makassar becomes a city that is adaptive and resilient to climate change.

CONCLUSION

The climate change adaptation policy in Makassar has been implemented by stakeholders, both government agencies, the private sector, and NGOs-CSOs. These policies are contained in several flagship programs. The Makassar City Government's commitment to climate change is by forming a Working Group – Climate Change Adaptation (Pokja-API). This group consists of six institutions. Policies that are planned and implemented by involving multi-stakeholders are collective actions to adapt to climate change. The selection of adaptation programs has been very good. It is just that the relatively large group size influences coordination and communication

regarding the priority programs of each agency. The existence of a missing link between agencies needs to be corrected by the Makassar City Government so that Makassar becomes a city that is adaptive and resilient to climate change.

REFERENCES

Burch, S. (2010). Transforming barriers into enablers of action on climate change: Insights from three municipal case studies in British Columbia, Canada. *Global Environmental Change*, 20(2), 287–297.

Cardenas, J.-C. (2003). Real wealth and experimental cooperation: experiments in the field lab. *Journal of Development Economics*, 70(2), 263–289.

Cardenas, J. C., Rodriguez, L. A., & Johnson, N. (2011). Collective action for watershed management: field experiments in Colombia and Kenya. *Environment and Development Economics*, 16(3), 275–303.

Carpenter, J. P., Daniere, A. G., & Takahashi, L. M. (2004). Cooperation, trust, and social capital in Southeast Asian urban slums. *Journal of Economic Behavior & Organization*, 55(4), 533–551.

Cole, D. H. (2008). Climate change and collective action. *Current Legal Problems*, 61(1), 229–264.

Elliott, C., & Schlaepfer, R. (2001). Understanding forest certification using the Advocacy Coalition Framework. *Forest Policy and Economics*, 2(3–4), 257–266.

Fresque-Baxter, J. A., & Armitage, D. (2012). Place identity and climate change adaptation: a synthesis and framework for understanding. *Wiley Interdisciplinary Reviews: Climate Change*, 3(3), 251–266.

Glicksman, R. L. (2010). Climate change adaptation: A collective action perspective on federalism considerations. *Envtl. L.*, 40, 1159.

Groulx, M., Lewis, J., Lemieux, C., & Dawson, J. (2014). Place-based climate change adaptation: A critical case study of climate change messaging and collective action in Churchill, Manitoba. *Landscape and Urban Planning*, 132, 136–147.

Harris, P. G. (2007). Collective action on climate change: The logic of regime failure. *Nat. Resources J.*, 47, 195.

Holdren, J. P. (2010). *Climate-Change Science and Policy* (Vol. 1). Island

Press.

IGRK Report and Makassar City Mitigation Action 2010-2030.

IPCC. (2007). *Climate change 2007: impacts, adaptation and vulnerability*. 2300.

IPCC. (2014). *Climate Change 2014 impacts, adaptation, and vulnerability: IPCC Working Group II contribution to AR5*. Geneva, Switzerland: IPCC.

Lawler, J. J. (2009). Climate change adaptation strategies for resource management and conservation planning. *Annals of the New York Academy of Sciences*, 1162(1), 79–98.

Leduc, T. (2007). Fuelling America's climatic apocalypse. *Worldviews: Global Religions, Culture, and Ecology*, 11(3), 255–283.

Makassar Regional Action Plan (RAD). (2020). *Mitigasi dan Adaptasi RAD (Rencana Aksi Daerah) Perubahan Iklim Kota Makassar (Vol. 15)*.

Malik, I., Rusnaedy, Z., & Khaerah, N. (2021). Coastal Women's Resilience Strategy against Climate Change Vulnerability in Makassar, Indonesia. *E3S Web of Conferences*, 277.

Olson Jr, M. (1971). *The Logic of Collective Action: Public Goods and the Theory of Groups, with a new preface and appendix (Vol. 124)*. harvard university press.

Ostrom, E. (2010). Analyzing collective action. *Agricultural Economics*, 41, 155–166.

Rusnaedy, Z., & Haris, A. (2021). Advocacy Coalition in The Arrangement of The Coastal Slum Area of Untia in Makassar. *Journal of Governance and Public Policy*, 8(1), 71–81.

Smit, B., & Wandel, J. (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, 16(3), 282–292.