

# Cooperation between Indonesia and World Neighbors in Implementing Climate Change Adaptation in Kabupaten Lombok Tengah

Clara Bilqis Florissa  
Disaster Management Study Program  
Defense University  
Jakarta, Indonesia

Adi Subiyanto  
Disaster Management Study Program  
Defense University  
Jakarta, Indonesia

Christine Sri Marnani  
Disaster Management Study Program  
Defense University  
Jakarta, Indonesia

Pujo Widodo  
Dean of National Security Faculty  
Defense University  
Jakarta, Indonesia

Herlina Juni Risma Saragih  
Vice Dean of National Security Faculty  
Defense University  
Jakarta, Indonesia

Putra Suardika  
World Neighbors Indonesia  
Bali, Indonesia

Kusuma  
Secretary of Disaster Management Program Study  
Defense University  
Jakarta, Indonesia

**Abstract:- Report from the United Nations Framework for Climate Change Convention (UNFCCC) stated that people living in coastal areas can feel the impact of climate change more. Indonesia is an archipelagic country, this condition caused Indonesia to become more vulnerable to the impacts of climate change. This study uses qualitative research methods. Adaptation is one of the efforts that can be made in dealing with the effects of climate change today. One of Indonesia's most vulnerable areas is Central Lombok Regency. To overcome the impact of climate change in Central Lombok Regency, the Indonesian Government is cooperating with World Neighbors. Cooperation in efforts to adapt climate change between Indonesia and World Neighbors increases people's resilience in dealing with the impacts of climate change in Lombok Regency.**

**Keywords:-** Climate Change Adaptation, Cooperation, Impact, resilience.

## I. INTRODUCTION

Global climate change can occur as a result of global warming. Global warming occurs because of the increasing number of greenhouse gas emissions on earth, which is a problem caused by industrial activities. Climate change is causing the earth's temperature to warmer, the frequency of heat waves to increase, the intensity of rainfall in some areas to become unstable, drought events to become more frequent and more severe, sea conditions to become more acidic due to absorbing too much carbon dioxide, and areas of ice mountains. diminishing which then has an impact on rising sea levels (Directorate General of Climate Change Control, 2016). IPCC research results state that the impact of climate

change has affected ecosystems and human life throughout the world (IPCC, 2007). The impact of extreme climate change can certainly be the cause of major problems that disrupt the health of living things, food security, and economic development (Directorate General of Climate Change Control, 2016). Because this threat is caused by human activities in all countries and its impact is also felt by all humans, cooperation from all countries in the world is needed in overcoming this problem or at least the impact of climate change is not getting worse for people's lives and other living things.

Based on a report from the United Nations Framework for Climate Change Convention (UNFCCC), people living in coastal areas can feel the impact of climate change more (UNFCCC, 2007). Indonesia is an archipelagic country whose territory consists of various large and small islands. This condition of Indonesia's territory then causes Indonesia to become more vulnerable to the impacts of climate change. The impacts of climate change that are predicted to occur in Indonesia are increasing drought conditions, more frequent floods and forest fires, coral bleaching, rising sea levels, and increasingly extreme weather, including the occurrence of storms that can damage natural and artificial systems. in a region (WWF Indonesia, 2009). The impact of climate change directly affects the life of living things. Climate change has an impact on biodiversity, clean water sources, and the economy of a country where as a result of climate change the lives of people whose livelihoods depend on natural resources and services are disrupted (WWF Indonesia, 2009).

One area in Indonesia that is vulnerable to climate change is Lombok Island. Lombok Island, which is located in West Nusa Tenggara Province, has an area of 4,738.70 km<sup>2</sup>, 57.75 percent of its area is in the form of forest, 11.95 percent is in the form of rice fields, and the rest is divided between settlements, mining, plantations and others (JDIH NTB Province, 2013). With this area, Lombok Island is included in the category of small islands in Indonesia, making it more vulnerable to climate change than other large islands. The condition of this region also encourages the majority of community economic activities to occur in the agricultural, fishery and mining sectors (JDIH NTB Province, 2013). The climate on Lombok Island is relatively dry throughout the year. Based on observations, in 1948 the temperature in Lombok ranged from 26.5°C - 27°C and then in 2007 it rose to around 28°C - 28.5°C (WWF Indonesia, 2009). The southern and eastern parts of Lombok Island are the driest areas where the dry season can last for months causing crop failure for farmers and causing famine (WWF Indonesia, 2009).

The National Disaster Management Agency (BNPB) stated that West Nusa Tenggara Province is an area prone to natural disasters, and drought is the most frequent disaster in NTB Province (Lombok Research Center, 2019). During the 2014 dry season, the Central Lombok District Disaster Management Agency (BPBD) reported that five sub-districts, namely Pujut, Praya Barat Daya, Praya Barat, Praya Timur and Janapria, were hit by drought and lacked sources of clean water (Antara News NTB, 2014). This drought problem then has an impact on the food security of the people of Lombok, where the majority of people who work as farmers cannot plant rice and experience crop failure. Public health is also disrupted where the impact of drought can increase the risk of spreading diseases such as diarrhea and leptospirosis (Lombok Research Center, 2019).

In responding to the issue of climate change, Indonesia issued a national document as a guideline for action, namely the National Action Plan for Climate Change Adaptation (RAN-API) published by Bappenas-KLH-DNPI in 2014 (World Neighbors, 2015). However, the efforts made by the government are still not running optimally, because the capacity of local governments is still limited. Coordination and development policies in the regions are still not capable of overseeing the mainstreaming of climate change issues in various development sectors. For this reason, the government cooperates and joins various international organizations, both government international organizations under the auspices of the United Nations (United Nations) and non-governmental international organizations. One of the Non-Governmental International Organizations that focuses on community welfare from the impacts of climate change is World Neighbors.

World Neighbors (WN) is a non-profit international organization whose aims are to eliminate hunger, poverty and disease among economically disadvantaged people in rural and remote villages and promote a healthy living environment in Asia, Africa, and Latin America. World Neighbors works is by building communities in the areas of food security,

agriculture, literacy, public health and production, water and sanitation, conservation of natural resources and the environment, savings and loans, formal education and productive activities to increase people's income (World Neighbors, n.d.). WN provides knowledge and training so that people have expertise and confidence so that local leaders and organizations participate and work together to build a community that is self-reliant in developing itself (World Neighbors, n.d.).

## II. METHODS

In this study, researchers used qualitative research methods. Qualitative research is a complex process in which the researcher performs an analysis of words and detailed reports from the point of view of the source and the research is carried out in natural situations (Creswell, 2014). Descriptive research is research that uses words both in writing and orally from various sources. Researchers also use literature reviews from previous studies to strengthen this research. Systematic reviews have been developed primarily in medical science as a way to synthesize research findings in a systematic, transparent and reproducible manner and have been referred to as the gold standard among reviews (Davis et al., 2014)

## III. THEORY

### A. *International Cooperation*

International cooperation is cooperation between countries and with non-state actors, namely international organizations, this cooperation arises as a result of mutual need to achieve the same goals, cooperation with international organizations is carried out in a more open way in providing information (Keohane, Robert. O. and Joseph S. Nye, 2012). International Cooperation is categorized into three parts, the first is bilateral cooperation where this cooperation is based on agreements between two countries whose cooperation is Treaty Contract. The second is regional cooperation where this cooperation is carried out by several countries in an area, this cooperation is Law Making Treaty limited Treaty Contract. Finally, there is multilateral cooperation where this cooperation agreement is carried out by many countries without looking at certain regional boundaries, the cooperation is in the nature of a Law-Making Treaty (James Dougzgrherty; Robert Pfaltzgraff, 1997).

The pattern of international cooperation that is crossing national borders, the process of international cooperation is based on a clear structure and a complete structure, in the continuity and implementation of the cooperation function it is hoped that it can run continuously so that the goals that have been mutually agreed upon can be achieved, both agreements between state governments and with international non-governmental organizations (Rudy, 1993). Through international cooperation, each country and the parties that join are trying to achieve their respective interests. Its interests can be in the form of the welfare of the people of a country or for the smooth running of an institution that joins the cooperation. As long as a collaboration takes place, active and maximum action is needed from each actor who joins so

that the goals and policies that have been made and agreed upon beforehand can be achieved. (Keohane RO, 1984). International institutions can be in the form of formal international organizations where the main actor is the state government, and can also be in the form of a series of agreements that are not too formal in nature which emphasize more global issues and activities (Robert Jackson and Georg Sorensen, 2005).

The author uses the theory of international cooperation in analyzing this research because the cooperation carried out by the Government of Indonesia involves external parties, especially OINP, namely World Neighbors. The collaboration carried out by Indonesia and World Neighbors is based on the common goals of each party regarding the issue of climate change. Indonesia is a very large country where economic equality has not been able to run optimally so that there are still many regions that are left behind. World Neighbors, which have a focus on working on disadvantaged areas, have found Indonesia to be a suitable partner. The two parties agreed to work together to address the impacts and countermeasures of climate change in Eastern Indonesia (Ministry of Environment and Forestry, 2015).

*B. Climate Change Adaptation*

United Nations Framework for Climate Change Convention (UNFCCC) states that one of the efforts that can be made in dealing with global climate change is through an adaptation process. According to the UNFCCC, adaptation is an effort to find and apply ways of adaptation to climate change. Climate change adaptation can be understood as an act of adjustment in anticipating the adverse effects of real climate change. Through adaptation to climate change, communities are encouraged to be able to improve their abilities and processes of adaptation to the impacts of climate change that are occurring in their respective regions (Directorate of Climate Change Adaptation, 2017). Climate change adaptation also encourages people to be able to seek and take advantage of opportunities that arise as a result of climate change events (Directorate of Climate Change Adaptation, 2017).

The UNFCCC stated the importance of initiation in implementing adaptation strategies effectively, including through scientific in decision-making, facilities and methods in implementing adaptation, education, training and public awareness (including children) on climate change adaptation, developing individual and community capabilities. institutions, technology development and transfer, and encouragement of coping strategies for local scale. In addition, the UNFCCC also calls for including climate change adaptation in the framework of laws, regulators and various actions, so that climate change adaptation can be more easily implemented.

In 2014, the Indonesian government created a national document which is used as a guide in responding to the impacts of climate change, namely the National Action Plan for Climate Change Adaptation (RAN-API) (World Neighbors, 2015). The aim of the Indonesian government's climate change adaptation agenda is to create a development

system that is environment-based and resilient in dealing with the impacts of climate change. The Indonesian government seeks to implement a sustainable development system that can reduce the impact of climate change so that it does not further threaten the lives of future generations (National Development Planning Agency, 2014). Climate change adaptation programs are also prepared by taking into account the conditions of people who are more affected by climate change, such as women, children, marginalized communities, and the elderly (National Development Planning Agency, 2014).

**IV. RESULTS AND DISCUSSION**

Climate change that occurred in Central Lombok Regency caused drought. The problem of drought in Central Lombok has a broad impact on people's lives, as a result of the drought the availability of clean water for household needs has become scarce. Drought also causes people to be hampered in carrying out their work, the people of Central Lombok, who are mostly working as farmers, face many problems when a drought occurs, such as crop failure, as a result, food security becomes threatened. The impact of climate change has also caused health problems, social conflicts, economic problems, to changes in the direction of the livelihoods of the people of Central Lombok (Lombok Research Center, 2019).

When the dry season arrives, the impact of climate change can be felt more by the people of Central Lombok Regency. One of the impacts of climate change is the increased threat of drought as a result of decreased quantity of rainfall (Lombok Research Center, 2019). The drought that occurred disrupted the availability of clean water supply for household activities and disrupted the economic sector of the people of Central Lombok.

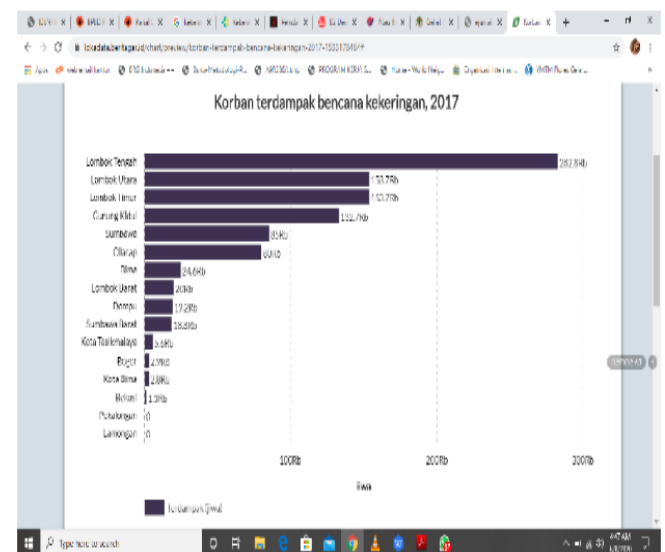


Fig 1: Number of victims affected by drought in 2017  
Source: Badan Nasional Penanggulangan Bencana

Table 1: Infographics of Drought Events in West Nusa Tenggara 2019

Districts/Cities	Districts	Village	People
Lombok Barat	6	25	64.985
Lombok Tengah	9	83	273.967
Lombok Timur	7	37	128.848
Lombok Utara	5	20	28.136
Sumbawa Barat	3	13	10.084
Sumbawa	17	42	80.765
Dompu	8	33	48.717
Bima	10	36	20.819
Kota Bima	4	13	17.597
Total	69	302	674.017

Source: Pusalops BPBD Provinsi NTB

Based on figure 1, Central Lombok ranks first as the district/city whose people were most affected by drought in Indonesia in 2017. The number of people affected by drought in Central Lombok reached 282,800 people. This figure is not much different from data in 2019, where Central Lombok also ranks first as a district in West Nusa Tenggara whose people are most affected by drought (National Disaster Management Agency, 2017). Based on table number 1, in 2019 drought hit 83 villages in 9 sub-districts in Central Lombok Regency with a total of 273,967 people affected (BPBD NTB Province, 2019).

As a result of the impacts that are increasingly being felt, the people of the Central Lombok region are also trying to implement climate change adaptation. This effort is not only carried out by the government, but is carried out together with the community, local non-governmental organizations, community organizations, to international organizations. The Central Lombok Regency Government has carried out various outreach regarding the impacts of climate change to the community and students (MONGABAY, 2019). Through this socialization, it was also explained what crops can be planted in dry weather so that farmers can continue to carry out their work when the dry season arrives (MONGABAY, 2019).

Activities in community-based climate change adaptation in villages are usually simple, pragmatic, and inexpensive (mongabay, 2019). However, these adaptation activities will usually have a direct impact on the level of environmental, social and economic resilience of the community because they are carried out according to the needs of the region (mongabay, 2019). Various activities that have been established by the local community still receive less attention. When drought strikes, the local government always provides clean water assistance, but if it is not accompanied by good management efforts, then drought can continue to be a problem in the Central Lombok region. Local governments have great control so that the policies made are often not on target (Mongabay, 2019). Inappropriate development caused several areas of water sources to dry up and the community lacked clean water (Mongabay, 2019).

In 2015 World Neighbors (WN) and Indonesia again signed a Memorandum of Understanding (MoU) which contained a cooperation program for the 2015-2018 period (World Neighbors, 2015). Cooperation in the 2015-2018 period has the name "Integrated Program for Mainstreaming Climate Change for Sustainable Management of Natural Resources and Increasing Social Welfare of Marginalized Communities in Eastern Indonesia" (World Neighbors, 2015). In accordance with the agreed agreement, the performance of WN in Indonesia in this period has the goal of strengthening community resilience to the effects of climate change and damage to the environment and natural resources, in order to improve the welfare of marginal communities in Eastern Indonesia (Ministry of Environment and Forestry, 2015).

WN is a non-profit international non-governmental organization. In the work agreement between Indonesia and WN, WN is not under the flag of any country, so that the cooperation that exists is not in the form of cooperation between state governments. The performance of WN as OINP is based on policies and agreements with the Government of Indonesia so that WN has neither the right nor the obligation to decide on policies made by the Government of Indonesia.

WN assist the community in building food security, so that when shocks or disasters occur, the community can be more resilient (World Neighbors, n.d.). In the climate change adaptation program, WN focuses on the impact of climate change on agricultural activities. The Lombok region is very vulnerable to drought as a result of climate change, therefore WN is carrying out various activities to increase community resilience. Some of the activities carried out are:

#### A. Disaster Vulnerability and Risk Assessment

Based on the vulnerability assessment activities that have been carried out during the 2015-2018 collaboration period, the results of the study identified that the most common climate change vulnerabilities occur in all villages, both at moderate to high levels, namely drought, flood, wind typhoons, landslides, and food shortages (World Neighbors, 2018). The implementation of this vulnerability and disaster risk assessment involved the community, community group administrators, village-level government, and other groups that were in line with the results of this study and then followed up with the preparation of an Action Plan for Climate Change Adaptation and Mitigation (API) and Disaster Risk Reduction (DRR) for each types of disasters that occur in each village.

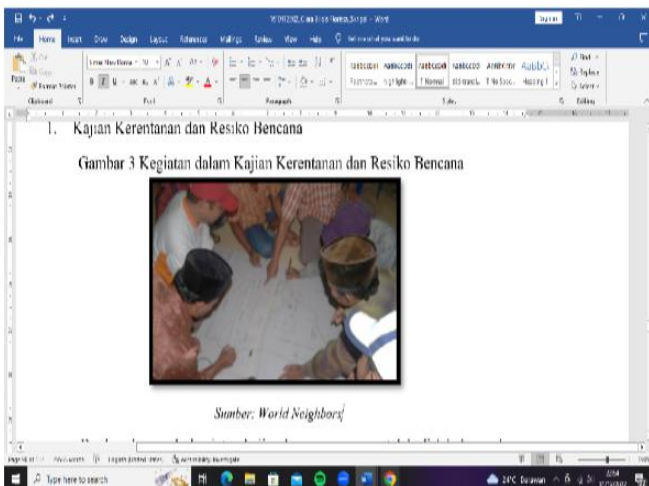


Fig 2: Implementation of Vulnerability and Disaster Risk Assessment Activities  
Source: World Neighbors

Through this study activity carried out, the people of Central Lombok Regency from time to time can be more resilient in dealing with the impacts of climate change and are able to adapt to climate change. This vulnerability and disaster risk assessment activity is the basis of the direction of other activities in the climate change adaptation program, because through this activity WN, local regional government, community, community groups, and local NGOs know the problems that are really a problem in an area such as drought, floods, hurricanes, landslides, and food shortages. Other activities in the climate change adaptation program were formed to address the problems resulting from this climate change.

#### *B. Preparation of Action Plans and Integration into the RPJMDes*

After the results of the vulnerability and disaster risk studies have been identified, the WN will then provide facilities to the community in developing adaptation and mitigation action plans to reduce the impact of climate change and prevent disasters caused by climate change. This action plan was advocated to the Village level Government for further accommodation in the Village Medium-Term Development Plan (RPJMDes), and was also advocated to the Regional Government so that it would receive financial support from the government's development budget (World Neighbors, 2018). In the activity of preparing the Action Plan and Integrating it into the RPJMDes, WN acts as a provider of facilities in the communication between the community and the Village Government and Regional Government. Through this meeting, input from the community regarding action plans and climate change mitigation and disaster prevention was conveyed to the Village and Regional (Regency) Governments, so that it could become material for consideration and input in preparing the RPJMDes and the community could obtain funding support from the Regional Government during the program. ongoing climate change adaptation and disaster prevention activities.



Fig 3: Action Plan Development Activities and Integration into RPJMDes  
Source: World Neighbors

In this process, WN and local NGO partners collaborated with community groups in five villages in Central Lombok District, namely the people of Karang Sidemen, Aik Bual, Selong Blanak, Montong Ajan, and Montong Villages Who. The API and DRR action plans are accommodated in the RPJMDes gradually, in 2016 around 30 percent of the API and DRR action plans were accommodated, in 2017 around 40 percent of the API and DRR action plans, and in 2018 around 30 percent were accommodated (World Neighbors, 2018). Action plans that are not successfully accommodated in the RPJMDes are then championed by local governments through the Multi-Stakeholder Forum (Disaster Risk Reduction Forum) and agencies (SKPD) relevant to this program (World Neighbors, 2018).

#### *C. Formation of Groups, Strengthening Capacity and Facilitation of Cooperation with the Government and Other Parties*

In an effort to increase community capacity related to climate change adaptation and mitigation programs and disaster prevention, WN formed Community Disaster Management Groups (KMPB). The CDMG is an organization formed at the village level where the organizational members represent all hamlets in the area. CDMG members come from various elements of society, starting from women, village officials, farmer groups, youth, cadres and community leaders (World Neighbors, 2018). The CDMG functions and plays a role in overseeing and implementing the API and DRR action plans, the CDMG provides motivation and makes people aware that they are always prepared for disasters. The CDMG also coordinates and advocates for the API and DRR action plans to the village government and local government so that the community gets support (World Neighbors, 2018).

In order to strengthen the capacity of the CDMG members, various activities are carried out regularly through material provision such as material provision on data collection systems, agricultural techniques and conservation, climate change and disasters, communication and coordination, advocacy and lobbying, proposal writing, and

other materials (World Neighbors, 2018). This material provision activity was adapted to the capacity building needs of each CDMG.

In Central Lombok District, the results of advocacy on the API and DRR action plans during the 3 years the program was running were that community groups had access to resources in the form of projects, financial and material support from the village government and local government in the amount of Rp. 2,214,800,000. Access to resources is in the form of reservoirs, normalization of rivers and drainage channels, agricultural equipment, seeds and plant seeds, savings and loans business capital, evacuation roads, community capacity building, and others (World Neighbors, 2018).

One of the main objectives of WN's performance is to improve the quality of human resources through capacity building and leadership so that they can jointly create new, better changes (Peters, 2007). This is realized by providing facilities and support for the establishment and performance of the CDMG. WN also plays a role in strengthening the capacity of marginalized communities through the provision of relevant materials. To achieve the CDMG objectives and obtain financial support from the government budget, WN also supports advocacy and coordination between the CDMG and the Village and Regional Governments.

#### *D. Increasing Yields of Food Crops*

In an effort to increase yields of food crops, various activities have been carried out, starting from socialization regarding the rainfall projection calendar and planting calendar to adjust crop types and planting times to suit them, training and practicing agricultural techniques to increase soil fertility such as soil and water conservation, organic farming, and cultivation of local food crops (World Neighbors, 2018). These activities are carried out so that the food needs of the people of Central Lombok Regency can be fulfilled when drought or floods strike. Through the application of sustainable agricultural techniques, farmers can anticipate crop failures.

#### *E. Application of Agroforestry Gardens*

One of the efforts made by WN in sustainable natural resource management in Central Lombok Regency is by providing facilities to the community (farmers) to create permanent gardens using the agroforestry model. Agroforestry is an agricultural model/concept that combines forest management and garden farming under tree stands (Mongabay, 2013). Through this model, the slash-and-burn system and the use of shifting fields can be reduced so that environmental damage can be minimized (World Neighbors, 2018). Agroforestry gardens can also increase land productivity and work time effectiveness of farmers. This activity begins with nurseries at the group level, garden planning, terracing on sloping land, and garden fencing (World Neighbors, 2018). Several types of plants that have been successfully planted using the agroforestry model are mahogany, gmelina, teak, cashew, candlenut, mango, jackfruit, coconut, orange, banana, and soursop (World Neighbors, 2018).

#### *F. Conservation of Critical Land*

In managing natural resources, WN also encourages critical land conservation activities to be carried out in areas of water catchment springs such as ponds, river banks, coastal areas and beaches, as well as locations prone to landslides and floods. In addition to facilitating community groups in producing plant seeds, WN also assists community groups in Central Lombok Regency in preparing and submitting proposals to the Agency/Environmental Service, Forestry Service, and BPDAS to obtain plant seeds (World Neighbors, 2018).

In order to ensure the sustainability of conservation, in this program WN also facilitates the formation and strengthening of conservation groups, as well as facilitating the making of regulations related to the protection of springs (World Neighbors, 2018). This regulation contains the rights and obligations of the community in accessing water, what may and may not be done in the area of the spring, the sanctions that can be obtained if the community violates it, and other regulations. This regulation on the protection of springs has been ratified by each village head in Central Lombok District (World Neighbors, 2018).

#### *G. Construction of Rainwater Storage Tanks*

When the dry season arrives, drought natural disasters also occur in the area of Central Lombok Regency. As a result of this drought, some people in Central Lombok Regency always have difficulty accessing clean water. This problem continues to occur from year to year, and usually the government's efforts are to bring clean water to villages using tankers (World Neighbors, 2018). However, the water assistance provided by the government is often insufficient to meet the needs of the community's households, so that the community still has to buy water from the water service provider or utilize rainwater by collecting it when it rains. Therefore, through this collaboration program, WN facilitates the construction of Rainwater Storage (PAH) tanks at the household level with volumes of PAH tanks that vary from 1,500 liters to 8,000 liters according to community self-help capabilities (World Neighbors, 2018). The assistance provided by WN in this program amounts to a maximum of 60 percent of the total cost of making a volume of PAH tubs measuring 2,000 liters, this is done by taking into account the socio-economic conditions of the households receiving the assistance (World Neighbors, 2018). The remaining financing is borne by the beneficiaries (community) with various mechanisms between the beneficiaries (World Neighbors, 2018).

## **V. CONCLUSIONS**

Through the process of adaptation to climate change, communities are encouraged to be able to improve their capabilities and processes of adaptation to the impacts of climate change that are occurring in their respective regions. Climate change adaptation also encourages people to be able to seek and take advantage of opportunities that arise as a result of climate change events. Cooperation between Indonesia and World Neighbors in climate change adaptation

has had a very good impact on the resilience of society in facing climate change.

Community capacity in managing natural resources as a result of climate change and disaster risk reduction efforts has increased. The people of Lombok District have also succeeded in improving the quality of their human resources, yields and income. So that when the dry season arrives, the community is ready and more resilient in dealing with drought disasters.

## REFERENCES

- [1]. Badan Perencanaan Pembangunan Nasional. (2014). *Rencana Aksi Nasional Adaptasi Perubahan Iklim (RAN-API)*. Jakarta: Badan Perencanaan Pembangunan Nasional RI.
- [2]. BPS Kabupaten Lombok Tengah. (2015). *Lombok Tengah Dalam Angka 2015*. Lombok Tengah: Badan Pusat Statistik Kabupaten Lombok Tengah.
- [3]. BPS Kabupaten Lombok Tengah. (2019). *Statistik Daerah Kabupaten Lombok Tengah 2019*. Lombok Tengah: Badan Pusat Statistik Kabupaten Lombok Tengah.
- [4]. Direktorat Adaptasi Perubahan Iklim. (2017). *Buku Praktis ProKlim*. Jakarta: Direktorat Adaptasi Perubahan Iklim Kementerian Lingkungan Hidup dan Kehutanan.
- [5]. Direktorat Adaptasi Perubahan Iklim. (2017). *SIDIK Sistem Informasi Data Indeks Kerentanan Perubahan Iklim*. Jakarta: Direktorat Adaptasi Perubahan Iklim Kementerian Lingkungan Hidup dan Kehutanan.
- [6]. Direktorat Jendral Pengendalian Perubahan Iklim. (2015). *Rencana Strategis Tahun 2015-2019*. Jakarta: Direktorat Jendral Pengendalian Perubahan Iklim Kementerian Lingkungan Hidup dan Kehutanan.
- [7]. Direktorat Jendral Pengendalian Perubahan Iklim. (2016). *Perubahan Iklim, Perjanjian Paris, dan Nationally Determined Contribution*. Jakarta: Direktorat Jendral Pengendalian Perubahan Iklim Kementerian Lingkungan Hidup dan Kehutanan.
- [8]. Direktorat Jendral Pengendalian Perubahan Iklim. (2017). *Road Map Program Kampung Iklim (PROKLIM)*. Jakarta: Direktorat Adaptasi Perubahan Iklim Kementerian Lingkungan Hidup dan Kehutanan.
- [9]. Dougherty, J. E., & Pfaltzgraff, R. L. (1997). *Contending Theories of International Relations: A Comprehensive Survey*. New York: Harper and Row.
- [10]. IPCC. (2007). *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Cambridge University Press: Cambridge.
- [11]. James Dougzgrherty; Robert Pfaltzgraff. (1997). *Contending Theoriess*. New York: Happer an Row Publisher.
- [12]. Joseph Nye dan David Welch. (2017). *Understanding Global Conflict and Cooperation: An Introduction to Theory and History*. Boston: Pearson.
- [13]. Sugiyono, P. D. (2016). *Metode Penelitian Kualitatif, Kuantitatif, dan R&D*. Bandung: Alfabeta.
- [14]. C. Rosenzweig dan M.L. Parry. (1994). *Potential impacts of climate change on world food supply*. Retrieved from nature.com: <https://doi.org/10.1038/367133a0>
- [15]. Lombok Research Center. (2019). *Identifikasi dan Strategi Mitigasi Bencana Kekeringan Potensial*. Retrieved from Lombok Research Center: <https://lrc.or.id/wp-content/uploads/2019/09/IDENTIFIKASI-DAN-STRATEGI-MITIGASI-BENCANA-KEKERINGAN-POTENSIAL.pdf>
- [16]. Susan Stone dan Chacon Mario. (2010, December). *Climate Change and the Role of Forest*. Retrieved from Conservation International: [https://www.researchgate.net/publication/259175760\\_Climate\\_Change\\_and\\_the\\_role\\_of\\_forest\\_A\\_community\\_Manual\\_Published\\_by\\_Conservation\\_International](https://www.researchgate.net/publication/259175760_Climate_Change_and_the_role_of_forest_A_community_Manual_Published_by_Conservation_International)
- [17]. Kementerian Lingkungan Hidup dan Kehutanan. (2015). *Memorandum Saling Pengertian antara Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia dan World Neighbors*. Jakarta: Kementerian Lingkungan Hidup dan Kehutanan.
- [18]. UNFCCC. (2007). *Climate Change 2007*. Retrieved from unfccc.int: [https://unfccc.int/files/meetings/cop\\_13/press/application/pdf/sekilas\\_tentang\\_perubahan\\_iklim.pdf](https://unfccc.int/files/meetings/cop_13/press/application/pdf/sekilas_tentang_perubahan_iklim.pdf)
- [19]. World Neighbors. (2018). *LAPORAN HASIL PROGRAM TERPADU PENGARUSUTAMAAN PERUBAHAN IKLIM UNTUK PENGELOLAAN BERKELANJUTAN TERHADAP SUMBERDAYA ALAM DAN PENINGKATAN KESEJAHTERAAN SOSIAL MASYARAKAT MARGINAL DI WILAYAH INDONESIA TIMUR PERIODE APRIL 2015 - DESEMBER 2017*. Bali: World Neighbors.
- [20]. World Neighbors. (2004). *Ringkasan Capaian Program Periode 1998-2004*. Bali: World Neighbors.
- [21]. World Neighbors. (2014). *Laporan Tahunan Program Terpadu Pengelolaan Sumberdaya Alam dan Peningkatan Kesejahteraan Sosial di Wilayah Indonesia Timur Kerjasama WN dan KLH-RI Periode 2009-2014*. Bali: World Neighbors.
- [22]. World Neighbors. (2015). *Arahan Program Kerjasama World Neighbors dengan Kementerian Lingkungan Hidup dan Kehutanan Periode 2015-2018*. Bali: World Neighbors.

- [23]. World Neighbors. (2015). Rencana Kerja Program Tiga Tahun Kerjasama World Neighbors dengan Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia Periode 2015-2018. Jakarta: World Neighbors.
- [24]. Mongabay. (2013). Agroforestri: Perjalanan Praktik Pengelolaan Kebun Hutan di Indonesia. Retrieved from [mongabay.co.id](http://mongabay.co.id).
- [25]. Mongabay. (2019). Kala Hidup di Daerah Sumber Air Malah Krisis Air Bersih. Retrieved from [mongabay.co.id](http://mongabay.co.id):  
<https://www.mongabay.co.id/2019/08/30/kala-hidup-di-daerah-sumber-air-malah-krisis-air-bersih/>
- [26]. MONGABAY. (2019). Kemarau Panjang Lombok Krisis Air dan Gagal Panen, 30 Desa di Sumenep Kekeringan. Retrieved from [mongabay.co.id](http://mongabay.co.id):  
<https://www.mongabay.co.id/2019/10/12/kemarau-panjang-lombok-krisis-air-dan-gagal-panen-30-desa-di-sumenep-kekeringan/>
- [27]. World Neighbors. (n.d.). What We Do. Retrieved from World Neighbors: <https://www.wn.org/what-we-do/>
- [28]. World Neighbors. (n.d.). History. Retrieved from World Neighbors: <https://www.wn.org/who-we-are/history/>
- [29]. World Neighbors. (n.d.). Indonesia. Retrieved from World Neighbors: <https://www.wn.org/map-location/indonesia/?mpfy-pin=477>
- [30]. WWF Indonesia. (2009). Pulau Lombok di Indonesia dan Langkah Awal untuk Beradaptasi terhadap Dampak dari Perubahan Iklim. Retrieved from WWF Indonesia: <https://www.wwf.or.id/?13420/Langkah-Awal-Beradaptasi-terhadap-Dampak-Perubahan-Iklim-di-Pulau-Lombok>
- [31]. WWF Indonesia. (n.d.). Tentang Iklim dan Energi. Retrieved from [www.wwf.or.id](http://www.wwf.or.id):  
[https://www.wwf.or.id/tentang\\_wwf/upaya\\_kami/iklim\\_dan\\_energi/solusikami/kampanye/powerswitch/spt\\_iklim/](https://www.wwf.or.id/tentang_wwf/upaya_kami/iklim_dan_energi/solusikami/kampanye/powerswitch/spt_iklim/)