

# Factors Causing Failure of the REDD+ Program Implementation in Central Kalimantan

Nanik Lestari

Department of Public Policy and Management, Faculty of Social and Political Sciences,  
Gadjah Mada University, Jl. Sosio Yustisia, Bulaksumur, Yogyakarta, Indonesia 55281

Received January 28, 2019/Accepted March 27, 2019

## Abstract

*Deforestation becomes a crucial issue in the context of climate change. Deforestation in Southeast Asia is more serious than in Amazonia and Central Africa due to forest clearing done for economic activities such as agriculture and timber production. Among the ASEAN countries, Indonesia contributes to the biggest number. In order to solve this issue, Indonesia cooperates with the Government of Norway to implement the Reducing Emission from Degradation and Deforestation Plus (REDD+) program. The program is implemented in several regions in Indonesia as pilot projects. One of them is in Central Kalimantan. Although many resources are spent to support the success of the program in Central Kalimantan, it seems that the program does not successfully solve the problem for Central Kalimantan Province suffers high degradation and deforestation. Therefore, this study aims to investigate the causes of failure in implementing the REDD+ program in Central Kalimantan by using the bottom-up implementation model. This study applied a qualitative method. The informants in this study were government and non-government agents involved in the REDD+ implementation in Central Kalimantan, such as Lembaga Dayak Panarung, Aliansi Masyarakat Adat Nusantara of Central Kalimantan, and Wahana Lingkungan Hidup Indonesia. Data were collected using interview and observation. Collected data from interview and observation were supported by secondary data. This study found that there are two major problems causing the failure of REDD+ implementation. The first problem is different perceptions between the communities. They thought that the REDD+ program was a project that only benefited to certain groups. Furthermore, the practice of bad forestry governance triggers bad implementation.*

*Keywords: deforestation, climate change, REDD+, implementation*

*\*Correspondence author, email: naniklestari100@gmail.com, tel.: +62-274-563362*

## Introduction

Climate change has become a global problem. The response of the United Nations (UN) was the establishment of the framework convention on climate change, which is the United Nations Framework Convention on Climate Change (UNFCCC).<sup>1</sup> UNFCCC works through Conference of Parties (COP), which are conferences where decision making is done by members of the framework. The conference maintains the consistency and commitment of the members toward reducing greenhouse emissions.<sup>2</sup>

Deforestation is one of the crucial elements of climate change. Land-use-conversion contributes to as much as 12% of total greenhouse gases (FAO, 2010). Nearly 13 million ha are lost to deforestation in tropical countries (FAO, 2010). Southeast Asia has one of the largest tropical forests in the

world. Barbier (1993) issues a warning that due to economic activities, such as agriculture and timber harvesting, forest destruction in Southeast Asia caused a serious concern compared with the condition in Amazonia and Central Africa. Indonesia has the largest forest destruction in Southeast Asia (FAO, 2010).

Moreover, the rate of forest destruction in Indonesia is increasing. Based on Forest Watch Indonesia (FWI) in a book entitled *the Portrait of the Condition of Forests in Indonesia*, shows that during the period of 2009–2013, Indonesia lost 4.6 million ha of forests, which is equivalent to seven times the area of Special Capital Region of Jakarta. In 2008, *Wahana Lingkungan Hidup Indonesia (WALHI)* also noted that during a span of 50 years, forest area in Indonesia decreased from 162 million ha to 109 million ha. According

Note:

<sup>1</sup> UN (2009a) *About REDD+*. Website: <http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx>.

<sup>2</sup> The National Council for Climate change. 2009. National Economic, Environment and Development Study (NEEDS) for Climate Change : Indonesia Country Study. Retrived from: <http://dnpi.go.id/portal/id/lambung-pengetahuan/publikasi/topik-khusus/283-national-economic-environment-and-development-study-needs-for-climate-change>.

to Guinness Book of World Records, deforestation of tropical forests in Indonesia since the early 2000s is estimated to be 2 million ha year<sup>-1</sup>.

As one of the member countries of UNFCCC, Indonesia has implemented Reducing Emission from Degradation and Deforestation (REDD+) which is aimed to alleviate the problem. The program has been implemented in a number of pilot areas in Indonesia based on funding from the Royal Kingdom of Norway. The Letter of Intent (LoI) was signed by the two countries in May 2010 during COP 13 (Fischer et al., 2016). Central Kalimantan is the first province that was selected to become the first REDD+ pilot project in Indonesia.

Based on the local regulatory framework,<sup>3</sup> the institutional framework to support the implementation of the REDD+ was started by integrating REDD+ programs into Central Kalimantan Development Plan in 2011. Unfortunately, the REDD+ program was terminated in 2015. Central Kalimantan province continues to experience high forest degradation and deforestation during the program implemented (Suwarno et al., 2015). Based on statistics of Ministry of Environment and Forestry for the 2011–2014 period, deforestation in Central Kalimantan caused by the land conversion of operational permissions for plantations, development of settlements and transmigration, and mining activities. Based on that data, it can be concluded that during the implementation of the REDD+ in Central Kalimantan Province, forest degradation and deforestation went on unabated, because permit of forest degradation in 2011 to 2014 from plantations reaches 263.885,04 ha, transmigration reaches 5.222,90 ha, and mining reaches up to 48.077,18 ha. REDD+ failed to reduce deforestation, this study needed to explore how international program was implementing.

REDD+ implementation as a global mechanism is not only failed in Central Kalimantan, but also in Indonesia in general. Several researches revealed factors that have caused failure of the REDD+ implementation. Balooni and Lund (2014) describe the failure causes of the REDD+ in Nepal, Philippines, Tanzania, Mexico, Ethiopia, and Cambodia were caused by (1) the accumulation of forest biomass during program implementation, (2) high contestation of various interests over various types of forests, and (3) the difficulty of controlling forest degradation in areas outside conservation zones. A study on the implementation of the REDD+ in Papua New Guinea by Mattew and Heather (2012) shows that elite capture played an important role in hampering the use of forests by local communities. Karsenty and Ongolo (2012) shows weakness in the governments' commitment to the implementation of the REDD+. They did not really solve the problem of deforestation, but only took the opportunity for REDD+ funding. A similar thing is mentioned in Pasgard (2015) that conservation agents and local partners depend on the success of project funding. Karsenty & Ongolo (2012) cited the inconsistency between central and regional regulations that occurred in Congo and Indonesia which

affected the process of implementing REDD+ and weakened the protection of forests in terms of regulation.

Based on that articles, this research takes argument that the REDD+ failed to be implemented because it did not fit the local context. Not all global commitments can be implemented in accordance with the policy environment. This study, therefore, tries to explain the phenomenon of this failure in the discourse of public policy implementation. This is important considering the fact that without affording local implementers, the freedom to adapt the program to a local context, failure is unavoidable (Palumbo et al., 1984; Matland, 1995). Thus, using this perspective, we should ensure that program implementation is in line with the perspective of implementers and the local target group on the ground program (Lipsky, 1978; Hjern & Hull, 1982). Secondly, research on climate change from the vantage point of policy approach is rare. Rykkja et al. (2014) show that policy implementation faces serious problems in the design and implementation of climate change policy. In any case, research on policy on climate change implementation is still limited, so this study is relevant and necessary. Thirdly, the substance of REDD+ policy is a given by nature as it is based on global policy, and stresses the importance of non-state actors, both individual, groups, or civil society, as the target for program implementation.<sup>4</sup> To get the whole picture of the program implementation, it requires to get and to incorporate viewpoints of non-state and state actors. The purpose of this paper is to identify and to analyze the factors that caused the failure of the REDD+ program implementation in Central Kalimantan, which should help in finding answers to the key question as to why the REDD+ implementation failed.

## Methods

This study was a qualitative research using a case study approach. Creswell (2015) said that the case study explores a specific research area or topic. The direction of this research is to answer the main question of why, with respect to factors that are attributable to the failure of the policy implementation process. This is suitable with the techniques of a case study as Yin (2002) elaborates as an empirical study of a phenomenon in the real-time context, in the event boundaries between the phenomenon and the context is far from explicit, it makes the use of various sources to strengthen the proof.

This research was conducted in Central Kalimantan Province which was one of the REDD+ pilot projects in Indonesia. Data was collected using an interview technique. Informants were selected by using purposive techniques. The author used those techniques to choose informants who appropriate with the research purpose and they, who are considered by the author, were relate to the REDD+ implementation. This research subject focuses on the implementation process, includes the institutions that implement the program and the factors that cause failure.

The research begun with an interview of informants who

<sup>3</sup> The regulation is embodied in a MoU signed between REDD+ task force and Central Kalimantan Provsincial government regulation Numbered 1/2011 on regional government long term plan for Kalimantan province and Gubernurial regulation Numbered 10/2011 on REDD+ local government strategy for Central Kalimantan

<sup>4</sup> Soedis, Delon Marthinus, D., Wardoyo W., & Bukhari, R. (2013). Modul: Konsep REDD+ dan Implementasinya. Jakarta: The Nature Conservancy Program Terrestrial Indonesia.

are directly involved in the implementation of REDD+, who are knowledgeable about the causes of the failure because they are the key players in the program. The informants could be the government and non-government actors and agents. We already made a list of informants, however, after arriving in Central Kalimantan, the researchers encountered obstacles in meeting several target informants, especially the government actors. This case happened because; firstly, the REDD+ program in Central Kalimantan has run out and disbanded its institutions. Secondly, there was a mass breakdown of employees after the replacement of the new governor. We succeed to interview Environmental Agency (*Badan Lingkungan Hidup*, BLH) of Central Kalimantan Province, *Biro Hukum Sekretariat Daerah* Central Kalimantan, Provincial Forestry Office, *Aliansi Masyarakat Adat* (AMAN) Central Kalimantan, WALHI of Central Kalimantan, Save Our Borneo (SOB), and *Lembaga Dayak Panarung* (LDP).

Data collection was took place during December 2016 until January 2017. The researchers conducted interviews and met directly with informants on December 12<sup>th</sup> 2016 to December 18<sup>th</sup> 2016. The researchers conducted interviews with small questions to build personal closeness, such as personal background, family, position, and experience during the relevant agencies. Then, interviews begin with their knowledge of the REDD+, implementation of the REDD+, and failures that occurred. The interview guide is used as a guide so the interview does not deviate too far from the topic of discussion. The researchers did not limit the discussion of information related to the causes of the REDD+'s failure, so that it was explorative in order to explore matters related to the failure of the REDD+ beyond the interview guidelines. After data were collected, this research used interactive data analysis adopted Miles and Huberman (1994)( Figure 1).

During completing data collection, the researchers conducted data transcription and reduction. We explained the research finding with triangulation of data interviews to

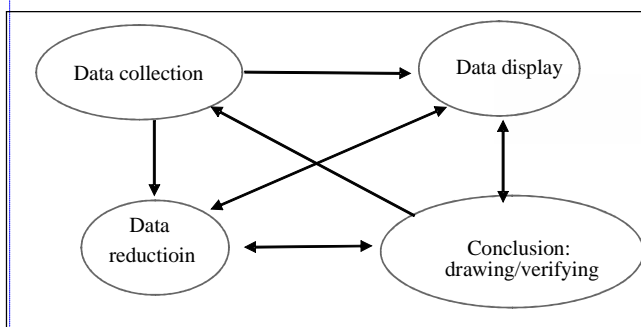


Figure 1 Qualitative data analysis.

draw the objective result. We analyze research finding to identificate factors of failure.

## Results and Discussion

**Different perceptions between actors** The agreement in which Central Kalimantan Province established a commitment to implement the REDD+ program was in the form of an MoU signed on September 16<sup>th</sup>, 2011.<sup>5</sup> The agreement was signed by Mr. Kuntoro Mangkusubroto who represented the REDD+ task force and Mr. Agustin Teras Narang as the incumbent governor of Central Kalimantan Province.<sup>6</sup> The step was a part of efforts to establish the REDD+ infrastructure in Indonesia. Socialization of the program implementation strategy in Central Kalimantan Province was conducted during February–March of 2011.<sup>7</sup>

In general, the REDD+ implementation in Central Kalimantan comprises several components that converge or have the joint the REDD+ secretariat as the apex of all program activities. The joint secretariat consists of the Governor of Central Kalimantan as the leader of the REDD+ program activities in the province and BLH of Central Kalimantan Province and provincial secretary for legal affairs. The above in this context fall into the category of street-level bureaucrats or program activities implementers. Meanwhile, the non-government side includes first donor institutions, who serve as the third party appointed by the Norwegian government to disburse the REDD+ incentives that comprise United Nations Development Programme (UNDP) and The World Bank. Secondly, local NGOs as the implementers of the REDD+ program activities on the ground and beneficiaries of the program. Figure 2 illustrates REDD+ institutions.

From an institutional perspective, the REDD+ program does not have a well-streamlined structure. Based on the REDD+ accountability report for 2013, the REDD+ programs are formulated by the joint secretary as the government representative, while program implementation is delegated to local NGOs, such as AMAN, *Lembaga Dayak*

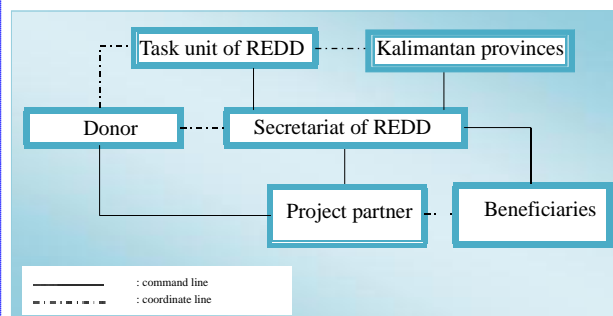


Figure 2 REDD+ institutions in Central Kalimantan.

<sup>5</sup> See the report on the REDD+ program implementation progress REDD+ joint secretariat Central Kalimantan July 2013. Data was obtained from BLH of Central Kalimantan documents; and MoU on preparations for REDD+ institutionalization based on Central Kalimantan Province Regulation Number Mou-01/REDD+/09/2011.

<sup>6</sup> See documents in the appendix.

<sup>7</sup> Document on the implementation of REDD+ in Central Kalimantan Province 2012, obtained from REDD+ Joint secretariat Central Kalimantan Province.

*Panarung*, and academics from Palangkaraya University (LKMLIT) and Muhamadiyah University Palangkaraya. The REDD+ program design in the aftermath of REDD+ in Central Kalimantan was in the form of activities that included (1) institutional coordination, (2) designing an agenda in piloting the program in the province through implementing non-carbon REDD+ activities, and (3) formulate regulatory framework in the form of local government the REDD+ strategic development plan for Central Kalimantan Province that prioritizes REDD+ in an integrated policy framework.

Based on AMAN, SOB, WALHI, and LDP sources, efforts to reduce deforestation have been hampered by the inability of the government to control the issuing of forest utilization licenses. Based on interview with the Panarung Dayak Institute, there were difference of interest between society land use with REDD+ institution<sup>8</sup> The intensity of relations between institutions in this joint secretariat experienced different perceptions in accepting the REDD+ especially between the provincial government and NGOs as implementers of REDD+. According to SOB, it is the government and companies that benefited most from REDD+ program activities. This is because, through the REDD+ program, the government and companies were able to sell forest carbon.<sup>9</sup> SOB sources also said that, the companies exploited the opportunity of participating in the REDD+ to obtain green certification based on theory forest concession but did little to reforest degraded forests.<sup>10</sup> Meanwhile, the local population had limited access to carbon funding. AMAN of Central Kalimantan noted that various programs from overseas, such as Green Carbon Forestry (GCF, Mc Kennsey), *Badan Restorasi Gambut* (BRG), and the REDD+, competed to join the carbon emissions reduction efforts fray in Central Kalimantan, but local communities could not access program because they did not have land certification.<sup>11</sup> Based on outcome of the interview, the support of NGO and street-level bureaucrats for the REDD+ program implementation was different because they did not have the same interest.

One of the causes of the failure of REDD+ program implementation is the opposition of environmental activists against program activities. WALHI, AMAN, and SOB rejected the REDD+ conservation activities. However, LDP was largely supportive of REDD+ activities because it was involved in its implementation. The differences between WALHI, AMAN, and SOB on one hand, and LDP in their perception about REDD+ activities are depicted in Table 1.

**Bad implementation** The REDD+ implementation was not in line with the REDD+ goals. The REDD+ program was aimed to reduce carbon emissions through lower forest degradation and deforestation in Central Kalimantan. Nonetheless, one of the key factors attributable to the failure of the program is the fact that it was formulated by international parties, which caused it to be inappropriate with the local policy context. The REDD+ activities did not go as far as reforestation. The government and NGO were by and large pre-occupied with activities that relate to the formulation of economic development related programs. The programs were formulated with the purpose of exploit the REDD+ funds. The government of Central Kalimantan said that the REDD+ funding mechanisms involved channelling funding through a third party: the World Bank. The local government with the collaboration of local NGOs formed a joint secretariat that was charged with the task of formulating activities that were later submitted to UNDP. UNDP, then submitted such activities for funding to The World Bank. Nonetheless, the program implementation was entrusted to local NGOs.<sup>12</sup> The role of the government in the implementation of the program was limited to provide the regulatory framework and other facilitative services. Thus, the local government has not controlled over the availability and disbursement of the REDD+ funding.

Two years since the signing of the cooperation, UN-REDD+ stopped funding for activities. Since that time, the implementation of all the REDD+ program-related activities was postponed. Based on documents on the progress of program implementation that were obtained from the

Table 1 NGOs' perception about REDD+

| Environmental conservation<br>NGO/activists          | Support/rejection   |
|--|---|
| <i>Wahana Lingkungan Hidup</i> of Central Kalimantan | Basically, agrees with the idea of reducing deforestation but rejects REDD+ program funding mechanism but considers an environmental preservation program that is project based is unsustainable.   |
| <i>Aliansi Masyarakat Adat</i> of Central Kalimantan | Rejects, they demand incentives or reimbursement for efforts they have put into the program. The existence of REDD+ has aroused jealousy society. Members of traditional forest communities claim that they have invested in forest preservation for centuries before REDD+ program got underway. Thus for them REDD+ program is not needed |
| Save Our Borneo                                      | Agrees with the basic idea of reducing deforestation but find mechanisms used to achieve it unlikely to resolve the problem   |
| <i>Lembaga Dayak Panarung</i>                        | The existence of an international program is one of the forms of local community support for and involvement in development. The program served as an opportunity for earning incentives, experience, and new knowledge.  |

<sup>8</sup> Interview Lembaga Dayak Panarung (LDP), Juni 2016, Palangka Raya.

<sup>9</sup> Interview Save Our Borneo (SOB), July 2016, Palangka Raya

<sup>10</sup> Ibid.

<sup>11</sup> Interview Aliansi Masyarakat Adat Nusantara (AMAN), July 2016, Palangka Raya

<sup>12</sup> Interview Badan Lingkungan Hidup Central Kalimantan Province, July 2016, Palangka Raya.

REDD+ joint secretariat, the program had a span of only two years. It happened because the REDD+ program activities that were designed for implementation in Central Kalimantan were not commensurate with program goals. After designating Central Kalimantan as the pilot project for the program, the local government was authorized to formulate the REDD+ programs. However, the programs that were designed ended up divergent or not consistent with program goals.

Based on REDD+ documents, activities that the local population<sup>13</sup> supposed to carry out to support the program were largely tailored toward economic development rather than improving forestry management. That shows that implementers diverted program activities on the ground from program goals of curbing carbon emissions. There were essentially five program activities in Central Kalimantan.<sup>14</sup> Such activities included among others: evaluating non-carbon MRV of former PLG, forest fire reduction, education for sustainable development, citizen journalism, and mainstreaming local government strategy. Among the five REDD+ activities in Kalimantan, there were 11 activities involving non-carbon MRV, which in principle was a diversion from program goals. Besides, the only rational program that suited the REDD+ goal was forest fire reduction. Local government strategy to implement REDD+ was not sustainable and short-term.

The non-carbon MRV experimentation program was the activity that was very divergent and inconsistent with REDD+ goals. The program was aimed toward economic development and had little to do with reducing deforestation. There were 11 activities that included providing training in creating rattan handicrafts, a program for developing brackish fishies and rubber growing, mushroom cultivation, entrepreneurship development, and developing creative economy skills in the local population. The same can be said to apply to education, citizenship journalism and program on the local government strategy, which did not make a direct contribution to achieve the primary goal of the REDD+ program of reducing carbon emissions. Thus, many actors involved in the REDD+ program formulated activities that were not in consonance with the goals of the program, rather based on the interests of donors.

The inconsistency of the REDD+ program activities is attributable to the mandate entailed the piloting activities which were not accompanied by clear guidelines on the scope of activities from the central government. To that end, the local government interpretation of program activities was to execute those activities that were in line with the needs of the local population. The implementation of the MoU was not supported by clear SOP, which created the opportunity for various vested interests to exploit program implementation for their respective interests. The existence of inconsistency in program implementation underscores the reality that what street-level bureaucrats implemented was based on discretion, albeit inconsistent with the policy's goal. This lends support to the bottom-up approach that the idea of policymakers may not necessarily be the reality on the ground. Implementers on the ground can sometimes implement

activities that diverge from the policy's goals and objectives.

The report of activities on implementing the REDD+ stopped because of a period of government change, it meant that the REDD+ institutional framework also experienced change with another program. The government and NGOs in Central Kalimantan are accustomed to deal with programs that are tailored toward forest conservation. BLH of Central Kalimantan, AMAN, and SOB affirmed that many development programs are ostensibly aimed at protecting forests come and go with the changes of government. For the example, after the government period changed, the REDD+ program changed to a Peatland Program (*Program Restorasi Gambut* belong to *Badan Restorasi Gambut*, BRG).

The REDD+ implementation at the local level started experiencing uncertainty in 2015 when Indonesia witnessed a change in the government from Susilo Bambang Yudhoyono to Joko Widodo. BLH of Central Kalimantan showed the report of the REDD+ that in the beginning, the REDD+ institutions fell under the direct control of Susilo Bambang Yudhoyono who formed the REDD+ work unit that eventually became the agency for REDD+ management (BP REDD+) through Presidential Regulation Number 62/2013. Nonetheless, prior to BP REDD+ completing its functions, Joko Widodo changed the organizational structure into relevant ministries. The President merged two institutions, that are The Ministry of Environment and Ministry of Forestry, to form The Ministry of Environment and Forestry. Subsequently, BP REDD+ became the part of the functions and tasks of the Directorate General for National Climate Change (DNPI). Then, the REDD+ changed to be *Restorasi Gambut* Program in the same place. It happened because the forestry program can change easily including the REDD+ because its implementation is dependent on the availability of resources and program support.

The causes of the failure of REDD+ implementation in Central Kalimantan cannot be separated from the interaction of local governments as implementors with NGO and communities as program recipients, as stated by Warwick (1982) that policy implementation is determined by the implementor. Lipsky (1980) called it "street-level bureaucrat", they are the ones who know and meet the target group directly in the field. Smith (2003) called street-level bureaucrat as the implementing organization.

As described by Purwanto and Sulistyastuti (2012), the street level bureaucrat holds an important position in the policy implementation process because they related to the target group directly, they use their interpretations of policy objectives and they share to the target group. They hold and affect the failure or success of the implementation process. In this regard, the failure of REDD+ implementation in Central Kalimantan raises the question "what did they do with the REDD+ implementation?". Sabatier (1986) said that a bottom-up approach in policy implementation is needed to look at cases of program implementation involving many parties, not only the government, but also international

<sup>13</sup> Report on REDD+ program implemenetation progress obtained from the REDD+ joint secretariat in Central Kalimantan province, 2013  
<sup>14</sup> Ibid.

donors and local NGOs. A bottom-up view is needed to remind that the success and failure of the program are determined by local actors such as the bureaucrat street-level and the target group.

From this research result, the author reminds that REDD+ implementors in Central Kalimantan have a tendency to distort policy directions for their own interests. That happens because there are problems with the perception between implementors and what they do. The REDD+ program only works when the capacity or resources support and are available, such as sustainable funding and regulation. When they change, the REDD+ will be stopped like a policy of a project. This is because the policy cycle itself is not clearly defined, so it opens space for street-level bureaucrats and target groups to influence and implement the program poorly.

### Conclusion

This study has answered the factors that caused the failure of the REDD+ program implementation in Central Kalimantan. This study found that the policy was designed by international parties hence it was not in consonance with local implementation in Central Kalimantan Province. The REDD+'s objective of reducing emissions through suppressing forest degradation and deforestation was not achieved because the implementation process failed. Implementation failure was the failure of the interaction between the street-level bureaucrats and the target group. The researcher found two factors causing failure of implementation: first, the interaction between government and NGO have different perceptions. The two parties above degenerated into distrust among implementers, program implementation that was not in line with policy objective and meaning attached to deforestation as an unsustainable project. Second, bad implementation of the REDD+ program, the practice of implementation was not in line with the REDD+ goals of reducing deforestation. REDD+ activities emphasized more economic development activities. It was coupled with the REDD + institutions stopped because the policy has changed. Research findings lend credence to the need for a bottom-up approach in effecting policy implementation. The standpoint of the Government of Central Kalimantan and NGOs with interest in environmental protection and conservation as parties that have the public mandate to represent their interests, is that policy implementation was not in line with interests of people they represent. On the contrary, the REDD+ program was motivated and directed toward serving interests of international organizations. Program implementation's success and failure are influenced by the degree to which the policy receives acceptance and extent to which it is implemented on the ground. To that end, findings on the ground lent support to the argument the author advanced to the effect that the design and goal of the program based on foreign parties were not in consonance with policy environment in Central Kalimantan.

### Acknowledgment

This manuscript is part of a master thesis result. The author say thanks to Dr. Ely Susanto, MBA, as the supervisor

for his comments and support, and Faculty of Political and Social Sciences of Gadjah Mada University for the research grant.

### Disclosure Statement

No potential conflict of interest was reported by the author.

### References

- Balooni, K., & Lund, J. F. (2014). Forest rights: The hard currency of REDD+. *Policy Perspective*, 7(3), 278–284.
- Barbier, E. B. (1993). Economic aspects of tropical deforestation in Southeast Asia. *Global Ecology and Biogeography Letters*, 3(4/6), 215–234. <https://doi.org/10.1111/conl.12067>.
- Creswell, J. W. (2015). *Qualitative inquiry and research design: Choosing among five approaches* (4rd ed.). Thousand Oaks: Sage.
- [FAO] Food and Agriculture Organization. (2010). *Global forest resources assessment 2010: Terms and definitions*. Rome: FAO.
- Fischer, R., Hargita, Y., Günter, S. (2016). Insights from ground level? A content analysis review of multi-national REDD+ studies since 2010. *Forest Policy Economics*, 66, 47–58. <https://doi.org/10.1016/j.forpol.2015.11.003>
- Hjern, & Hull. (1982). Implementation research as empirical constitutionalism. *European Journal of Political Research*, 10, 105–115. <https://doi.org/10.1111/j.1475-6765.1982.tb00011.x>
- Karsenty, A. & Ongolo S. (2012). Can “fragile states” decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism. *Forest Policy and Economics*, 18, 38–45.
- Lipsky, M. (1978). Standing the study of public policy implementation on its head. In W. D. Burnham, & M. W. Weinburg, *American politics and public policy*(pp. 391–402). Cambridge: MIT Press.
- Lipsky, M. (1980). *Street-level bureaucrats*. New York: Russell Sage Foundation.
- Matland, R. E. (1995). Synthesizing the implementation literature: The ambiguity-conflict model of policy implementation. *Journal of Public Administration Research and Theory*, 5(2), 145–174.
- Mattew, L., & Heather. (2012). Community perceptions of REDD+: A case study from Papua New Guinea. *Climate Policy*, 12(1), 115–134. <https://doi.org/10.1080/14693062.2011.579317>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). USA: Sage Publication.
- Palumbo, D. I., Maynard-Moody, S., & Wright, P. (1984).

Measuring degrees of successful implementation. *Evaluation Review*, 8(1), 45–74. <https://doi.org/10.1177/0193841X8400800103>

Pasgard, M. (2015). Lost in translation? How project actors shape REDD+ policy and outcomes in Cambodia. *Asia Pacific Viewpoint*, 56(1), 111–127. <https://doi.org/10.1111/apv.12082>

Purwanto, & Sulistyastuti. (2012). *Implementasi kebijakan publik: Konsep dan aplikasinya di Indonesia*. Yogyakarta: Gava Media.

Rykkja, L. H., Neby, S., & Hope, K. L. (2014). Implementation and governance: Current and future research on climate change policies. *Public Policy and Administration*, 29(2), 106–130. <https://doi.org/10.1177/0952076713510344>

Sabatier, P. (1986). Top-down and bottom-up approaches to

implementation research: A critical analysis and suggested synthesis. *Journal of Public Policy*, 6(1), 21–48. <https://doi.org/10.1017/S0143814X00003846>.

Smith, S. R. (2003). Street-level bureaucracy and public policy. In B. G. Peters, & J. Pierre, *Handbook of public administration*. London: Sage.

Suwarno, A., Hein, L., & Sumarga, E. (2015). Governance, decentralisation and deforestation: The case of central Kalimantan Province, Indonesia. *Quarterly Journal of International Agriculture*, 54(1), 77–100.

Warwick, D. P. (1982). *Bitter pills: Population policies and their implementation in eight developing countries*. Cambridge: Cambridge University Press.

Yin, R. K. (2002). *Studi kasus desain & metode*. Jakarta: Raja Grafindo Persada.