

Collaborative Governance in Eucalyptus Oil Industry Development from Forest Area

(A Study at Tarakan City Forest Management Unit)

Arief Rakhman*

Magister of Public Administration
Brawijaya University
Malang, Indonesia

*arief_rakhman24@student.ub.ac.id

Agus Suryono, Ainul Hayat

The Faculty of Administrative Science
Brawijaya University
Malang, Indonesia

Agus_s@ub.ac.id, ainulhayat13@gmail.com

Abstract—Collaborative Governance in the industry development of Eucalyptus Oil from forest area that is being done by the Forest Management Unit of Tarakan City, North Kalimantan, is an essential thing in managing resource disputes, where the results, potential synergies and ‘win-win solution’ have not been deeply explored. An active role is needed from each related party to achieve a success in that industry development. A good forest governance system is characterized by countries’ collaboration process and any form voluntary initiative from societies and private parties. Collaborative Governance is a form of arrangement that is aimed at handling public programs or assets intentionally in a formal-collective and consensus-oriented way, where one or more public agencies that directly involve private stakeholders. The present study will be conducted under qualitative approach by using the literature study method and photovoices. By using a model proposed by Ansell dan Gash, where there are four variables including Starting Condition, Institutional Design, Facilitative Leadership, and Collaborative Process, it is known that Collaborative Governance has been on track, but still there are several things that need to be anticipated and to be upgraded, such as the change in laws and regulations that happens and the role of the actors involved. A joint-mission has to be built among the actors, and also an optimization of needing variable, so that the Eucalyptus Oil Industry Development can be reached as expected.

Keywords—*Collaborative Governance, Eucalyptus Oil Industry Development, Forest Management Unit (KPH)*

I. INTRODUCTION

The concept of Governance is related to the involvement of non-governance actors to response public issues. The practice of Governance is aimed at serving public services by involving actors from the societies and market mechanism [1]. According to Chema in Keban [2], Governance is a measurement system, policies, and institutions, where economic, social, and politic issues are handled through the interactions among societies, government, and private sectors.

According to Emerson in Purnomo et al. [3], currently, a new governance strategy that is called Collaborative

Governance is being developed. This Governance model has unify a lot of stakeholders that have similarities with public agencies to take part in decision making. In a research about Collaborative Governance, in a Community-based Forest Governance, Collaborative Governance is defined as a process and structure of public policy making and governance that embrace society, private sectors, and NGOs from various institutions and levels to determine a shared-goal that will be hard to be formulated individually.

Forestry issues that emerge as a result of conversies and function conversion activities, the decline in forestry business performance, as well as forest and land conflicts, continue to occur in Indonesia. This is because the programs / policies that are being implemented are responsive and are not solving problems comprehensively, so that they are not strong enough to embrace the main issues in forestry sector, which is the weakness in its governance [4]. On the other hand, critical lands are widened as the result of the non-optimized reforestation activities. To overcome this condition, changes in forest governance, including the monitoring process of forest resources; the use of environmental and forestry thematic geospatial information in supporting one map policy; and legal certainty of forest area [5], are required.

Quite similar to the aforementioned condition, there are land recognition and control in several forest areas inside the protected forest area in Tarakan. In addition, there are many of those protected areas are no longer forested, but they come in the form of community gardens. Likewise, there are tenurial problems (claims over rights) in one sub-district where some parts of the area are considered as protected forest areas, there are many permanent and semi-permanent buildings that are not belong to the protected area [6].

To achieve a productive and sustainable protected forest management, the collaboration among the government, non-governance sectors and the society is necessary. Collaborative governance is crucial in managing resource disputes, where outcomes, potential synergies and “win-win solutions” have not been deeply explored [7].

The Management of Protected Forest in Tarakan has been technically implemented by the Forest Management Unit (KPH) of Tarakan since 2009, where currently, its management refers to the 2015-2024 Long Term Forest Management Plan Document (RPHJP KPH Tarakan Document 2014). The Eucalyptus Oil Industry Development that is intended to rehabilitate forest areas and to improve the economy of societies around forest areas is one of the priority programs in Long Term Management Plan of KPH Tarakan.

Until today, a total of 250 hectares of eucalyptus has been planted with a total of 600,000 plants [8] in the protected forest area of Tarakan as a forest rehabilitation step and optimization of Non-Timber Forest Products (*Hasil Hutan Bukan Kayu*) from forest areas, where mostly from the existing plant areas are logged-over areas or ex-forest fires locations that have been occupied by the society for a long time.

In a research on eucalyptus oil content that is conducted by the collaboration of Forestry, Mining and Energy Service of Tarakan in with Mulawarman University in 2015, it was concluded that the eucalyptus oil plant in Tarakan is potential to be developed as one of the mainstay local commodities because it contains Cineole ranging from 71.95% - 92.41% [9], where this figure 2 has exceeded the standard of Cineole content 50-65% [10].

Today, UPT. KPH of Tarakan has 2 eucalyptus oil refineries with a capacity of 0.4 and 2 tons (See Fig. 1). Both of these tools can process eucalyptus oil up to 25 liters of oil in a day.



Source: Doc. KPH Tarakan City, 2020.

Fig. 1. Eucalyptus oil refining factory with a capacity of 0.5 tons and 2 tons owned by KPH Tarakan City.



Source: Doc. KPH Tarakan City, 2015.

Fig. 2. The official announcement of KPH Tarakan by the Director General for Management of Watersheds and Protected Forests, Ministry of Environment and Forestry, together with the Mayor of Tarakan and the Regional Leadership Council for Tarakan City, private parties and communities around the Forest Area.

The Eucalyptus Oil refining activity itself began in 2015 which was marked by the inauguration of the factory directly by the Mayor of Tarakan together with the Director General of Watershed and Protected Forest Management (PDASHL), Ministry of Environment and Forestry. By 2016, the existing eucalyptus oil products obtained a distribution permit from BP POM RI [11], and began to be traded through cooperatives and Micro small and Medium Enterprises in Tarakan City with Cap Burung Kenawai Eucalyptus Oil as the brand (See Fig. 3).



Source: Doc. UPTD. KPH Tarakan City, 2016.

Fig. 3. Cap Burung Kenawai Eucalyptus Oil Products are produced from the Eucalyptus Oil Industry which is implemented by UPTD. KPH Tarakan City collaborates with cooperatives, private parties and communities around the Forest Area.

A targeted forest management planning which involve related parties is a determining factor for the successful development of the Eucalyptus Oil Industry in Tarakan. It takes an active role from each related party to achieve the successful development of the industry.

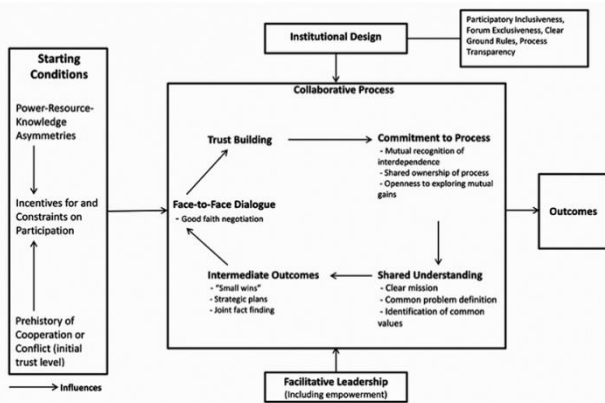
This research is going to describe and analyze the implementation of Collaborative Governance in the Eucalyptus Oil Industry Development by UPTD. KPH Tarakan City. It is aimed at revealing how the Collaborative Governance is being applied in the ongoing Eucalyptus Oil Industry Development.

II. PREVIOUS STUDY

Collaborative Governance is a form of arrangement that is aimed at handling public programs or assets intentionally in a formal-collective and consensus-oriented way, where one or more public agencies that directly involve private stakeholders [12]. Seigler in Kurniasih et al. [13] proposed eight main principles in the implementation of Collaborative Governance, namely (1). Citizens have to be involved in the production of public goods, (2). The society must be capable in assembling resources and assets in public problems resolutions, (3). Professional staffs must share their expertise to empower community members, (4). Policies must present public deliberation, (5). Policies must contain ongoing collaborative

partnerships, (6). Policies must be strategic, (7). Policies must change institutions for community empowerment and solving public problems, (8). Policies must contain accountability.

Collaborative Governance is defined as public policy decision-making and management procedure and construction where society within the public institutions borders, government and or society of various stages, are productively taking a part. Levels of governance and / or society, and non-governance sector and domestic society in performing public interests that cannot be achieved without the involvement of non-governance sectors and societies [14]. Collaborative Governance is consisted of four main variables, namely Initial Conditions, Institutional Design, Leadership and Collaborative Processes. Collaborative procedures comprise a face-to-face dialogue, trust building, and procedures faithfulness. Mutual understanding and provisional results [12], as shown in the following figure 4:



Source: Ansell and Gash [12, p. 550].

Fig. 4. Collaborative governance Ansell and Gash model.

In a research on Protected Forest Management in the City of Tarakan: A Sustainable Development Perspective [6], states that in the process of preventing and eradicating forest damage in protected forest areas, the role of community empowerment, especially those who live around the Protected Forest area of Tarakan, is needed. Then, in a research on Legal Aspects of Community Empowerment around the Tarakan Protected Forest [15], it is found that community empowerment around the forest has a very strategic role in preventing and eradicating forest damage in order to preserve Tarakan Protected Forest.

Furthermore, Kamnoonwatana in Tando et al. [16], in his research on Collaborative Government as a Solution to Deforestation Cases in Kalimantan Island: Literature Review, states that the role of the private sector in collaborative government is of course necessary, especially because the private sector has a large capital both from technicians, finance, managerial that are already standardized and a good pattern of work.

Besides, Kamnoonwatana in Johansson [7] states that a good forest management system is characterized by a collaborative process initiated by the state and various forms of

voluntary initiatives from the community and the private sector. Then, several studies related to Collaborative Governance show that it is necessary to strengthen institutions and its systems that are able to manage the social interactions among various parties [13,17]. From the industrial development point side, several studies have shown that the inclination of industrial competitiveness is highly dependent on the availability of capital, development of business actors, as well as aspects of marketing that are integrated with technology [18].

III. METHODOLOGY

The current study will be conducted by using literature study method [19], under qualitative descriptive approach. Data analysis was carried out through literature studies related to collaborative governance and industrial development, especially the eucalyptus oil industry, and by using Photovoices where people can identify and represent their community through certain photography techniques [20].

Official documents, supported by research journals related to this writing, are used as the source of data in this present research. Those documents can be in the form of writings, pictures, or monumental works of a person [21]. Official documents are divided into internal and external documents [22]. The data analysis used in this research is qualitative analysis as stated in Miles et al. [23], namely data condensation, data presentation and the final step, drawing conclusions and verification.

IV. RESULTS AND DISCUSSION

Collaborative Governance is a form of governance arrangement where one or more public institutions directly involve non-governance stakeholders in the process of a formal-collective and consensus-oriented way, that is aimed at handling public programs or assets where one or more public

The Four variables in the Collaborative Governance model proposed by Ansell and Gash [12] in the development of the eucalyptus oil industry carried out by KPH Tarakan City includes:

A. The Starting Condition in the Eucalyptus Oil Industry Development at UPTD. KPH Tarakan City

Three important things in the initial conditions in the emergence of Collaborative Governance are the imbalance of resources, past histories, and incentives [12]. There is still a resource imbalance among the government, the non-governance sectors and the society related to the development of the Eucalyptus Oil industry. Then, there has never been any activity to carry out an industry of Eucalyptus Oil before. Speaking of incentives, in 2018, PT. Pertamina has received a Green Proper rating by the Ministry of Environment and Forestry of the Republic of Indonesia, one of which is because of its participation in the Eucalyptus Oil Industry Development in Tarakan City. This condition still needs to be improved. It is hoped that the implementation of the carried out industrial

development will be a tool to overcome the sustainability, tenure, social and economic problems of the people living around the forest.

B. Institutional Design in the Eucalyptus Oil Industry Development at UPTD. KPH Tarakan City

De Save in Sudarmo [24], argues that one of success indicators of Collaborative Governance is the certainty of governance or clarity in governance which includes clarity about who are the members of Collaborative Governance, the rules that underlie the running of the program and determine how collaboration will work.

In terms of laws and regulations, which underlie the implementation of Collaborative Governance in the Eucalyptus Oil Industry Development at the UPTD. KPH Tarakan City is Law Number 41 of 1999 [25] about Forestry, Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.49 / Menlhk / Setjen / Kum.1 / 9/2017 [26] about Cooperation in Forest Utilization in Forest Management Units, and Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.83 / Menlhk / Setjen / Kum.1 / 10/2016 [27] regarding Social Forestry.

The current problem is that there is a change in the regulations related to forest management which is the authority of the province, which causes the Eucalyptus Oil Industry Development cannot be run optimally.

C. Facilitative Leadership in the Eucalyptus Oil Industry Development at UPTD. KPH Tarakan City

Ansell and Gash [12] claims "leadership is crucial for setting and maintaining clear ground rules, building trust, facilitating dialogue, and exploring mutual gains". In addition, Lasker and Weiss in Ansell and Gash [12], argued that an ideal competent head must master the skills to (1). Participate extensively and actively (2). Ensure an extensive impact and control, (3). Facilitate constructively the changes of the team and (4). Enlarge the procedures' span.



Source: Doc. UPTD. KPH Tarakan City, 2017.

Fig. 5. Collaboration among UPTD. KPH Tarakan City with PT. Pertamina and the societies around the forest in the Eucalyptus Oil Industry Development.

In this variable, facilitative leadership has been seen as evidenced by the inauguration of the Eucalyptus Oil Industry and the existence of cooperation with the private sectors and communities, namely PT. Pertamina and community groups around the forest. However, it is still necessary to optimize the role of facilitative leadership so that the Eucalyptus Oil Industry can develop more as expected.

D. Collaborative Process in the Eucalyptus Oil Industry Development at UPTD. KPH Tarakan City

This procedure face-to-face dialogue, trust building, procedures faithfulness, and mutual understanding and provisional results.

1) *Face-to-face dialogue:* In the process of developing the Eucalyptus Oil Industry a face to face dialogue process has occurred. Callahan [28] stated that the focus of the accountability mechanism is not only administrative or bureaucratic, but also focuses on stakeholders and professional norms. Because, with multi-stakeholders, implementation requires a strong network among the stakeholders involved, namely the government, society and third parties, or often termed as administrative networks.

The network will be strong if the flow of information, honesty and understanding can be obtained by each stakeholder without any exception. Each stage in the process has begun to be carried out through a process of direct dialogue among the government, the community and the private sector. Starting from plant development, procurement of production equipments and also increasing the capacity of communities around the forest have been carried out.

2) *Trust building:* Sudarmo [24] stated that trust among actors is an important factor in determining success. In this case, trust can be in the form of information or efforts from other stakeholders to achieve the goals of implementing Collaborative Governance.

There has been an agreement for the provision of assistance by the private sector; in this case, PT. Pertamina TBBM, for the development of Eucalyptus Oil; and the signing of the Cooperation Agreement between Tarakan Forest Management Unit and the Forest Farmers Group, shows that trust has been built among the actors involved.

3) *Commitment to the process:* Margerum in Ansell and Gash [12] stated that the commitment of members in Collaborative Governance is an important factor that facilitates collaboration. When commitment among actors is weak, both at the top and bottom levels, it can be seen as a superior issue that can hinder the progress of collaborative governance. This has been demonstrated with the help and participation of the private sector and forest farmer groups.

4) *Shared understanding and intermediate outcome:* Ansell and Gash [12] claimed that a mutual understanding is about several things that should be understood by all stakeholders in a collaborative process related to the joint

vision and mission, clear objectives and strategic direction of the program being implemented. In the Eucalyptus Oil Industry Development, there is no strong joint vision, development is carried out with a joint mission that is short-term and does not have an integrated joint strategic planning, which in the Eucalyptus Oil Industry Development has begun to show the results of the ongoing collaboration process.

V. CONCLUSIONS AND FUTURE SCOPE

The results of the above description indicate that the implementation of Collaborative Governance in the Eucalyptus Oil Industry Development carried out by UPTD. KPH Tarakan City has been running, but there are still things that need to be further anticipated, such as changes to laws that have been done, inclination of collaborations number and quality among actors. It is necessary to build a shared vision among the actors involved as a reference for success in the Eucalyptus Oil Industry Development in the future.

ACKNOWLEDGMENT

We would like to express our gratitude to the authors whose writings we cited as our literature reviews, and to the Supervisors who have guided us in writing this paper and the organizers of the 2020 Annual International Conference on Business and Public Administration (AICoBPA) and their reviewers who have reviewed this paper.

REFERENCES

- [1] A. Dwiyanto, *Mewujudkan Good Governance melalui Pelayanan Publik*. Yogyakarta: Gadjah Mada University Press, 2008.
- [2] Y.T. Keban, *Enam Dimensi Strategis Administrasi Publik: Konsep, Teori dan Isu*. Yogyakarta: Gava Media, 2014.
- [3] E.P. Purnomo, R. Ramdani, R. Setyadiharja, dan A. Muzwardi, *Collaborative Governance Dalam Tata Kelola Hutan Berbasis Masyarakat*. Universitas Muhammadiyah Yogyakarta: Lembaga Penelitian, Publikasi dan Pengabdian Masyarakat (LP3M), 2018.
- [4] Forest Watch Indonesia, *Hutan Sumber Air, Hutan Sumber Hidup, Hutan Milik Warga*. Bogor, Indonesia: Forest Watch Indonesia, 2015.
- [5] Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, *Status Hutan & Kehutanan Indonesia 2018*. Jakarta, Indonesia: Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, 2018.
- [6] A. Syaprih dan Sapriani, "Pengelolaan Hutan Lindung Kota Tarakan: Perspektif Pembangunan Berkelanjutan," *Padjadjaran Jurnal Ilmu Hukum*, vol. 1, no. 3, pp. 598-618, 2014.
- [7] J. Johansson, "Collaborative governance for sustainable forestry in the emerging bio-based economy in Europe," *Current Opinion in Environmental Sustainability*, vol. 32, pp. 9-16, 2018.
- [8] UPT. KPH Kota Tarakan, *Rencana Strategis Bisnis UPT. KPH Kota Tarakan Provinsi Kalimantan Utara tahun 2018-2022*. Tarakan, Indonesia: UPT. KPH Kota Tarakan, 2017.
- [9] UNMUL, *Hasil Uji Laboratorium Sifat Fisika dan Kimia Minyak Kayu Putih*. Kalimantan Timur: Universitas Mulawarman, 2015.
- [10] Badan Standarisasi Nasional, *Standar Nasional Indonesia (SNI) SNI 06-3954-2006. Minyak Kayu Putih*. Jakarta, Indonesia: Badan Standarisasi Nasional, 2006.
- [11] BPOM RI, *POM TR 165 692 631 dan POM TR 165 691 211*. Jakarta: BPOM RI, 2016.
- [12] C. Ansell and A. Gash, "Collaborative governance in theory and practice," *Journal of public administration research and theory*, vol. 18, no. 4, pp. 543-571, 2008.
- [13] D. Kurniasih, P.I. Setyoko, dan M. Imron, "Collaborative Governance dalam Penguatan Kelembagaan Program Sanitasi Lingkungan Berbasis Masyarakat (SLBM) di Kabupaten Banyumas," *Sosiohumaniora*, vol. 19, no. 1, pp. 1-7, 2017.
- [14] K. Emerson, T. Nabatchi, and S. Balogh, "An integrative framework for collaborative governance," *Journal of public administration research and theory*, vol. 22, no. 1, pp. 1-29, 2012.
- [15] A. Syaprih, "Aspek Hukum Pemberdayaan Masyarakat di Sekita Hutan Lindung Pulau Tarakan," *Jurnal Rechts Vinding Media Pembinaan Hukum Nasional*, vol. 4, no. 2, pp. 295-310, 2015.
- [16] C.E. Tando, Sudarmo, dan R.H. Haryanti, "Pemerintahan Kolaboratif Sebagai Solusi Kasus Deforestasi Di Pulau Kalimantan: Kajian Literatur," *Jurnal Borneo Administrator*, vol. 15, no. 3, pp. 257-274, 2019.
- [17] T. Handoko dan M.T. Tinov, "Collaborative Governance Dalam Pengendalian Pencemaran Lingkungan Oleh Aktivitas Industri Pada Daerah Aliran Sungai (DAS) Siak di Kota Pekanbaru," *Jurnal Administrative Reform*, vol. 6, no. 3, pp. 102-109, 2019.
- [18] G.S.A. Putra dan N. Maulana, "Strategi Meningkatkan Daya Saing Industri Kreatif Indonesia: Studi Kasus Pengembangan Klaster Industri Alas Kaki Kecamatan Tamansari, Bogor," *Ultima Management: Jurnal Ilmu Manajemen*, vol. 10, no. 2, pp. 97-109, 2018.
- [19] A. Hamzah, *Metode Penelitian Kepustakaan*. Library Research Kajian Filosofis, Teoritis dan Aplikatif. Batu, Indonesia: CV. Literasi Nusantara Abadi, 2019.
- [20] C. Wang and M.A. Burris, "Photovoice: Concept, methodology, and use for participatory needs assessment," *Health education & behavior*, vol. 24, no. 3, pp. 369-387, 1997.
- [21] Sugiono, *Metode penelitian kuantitatif, kualitatif dan R&D*. Bandung: Alfabeta, 2015.
- [22] L.J. Moeloeng, *Metode Penelitian Kualitatif*. Bandung: PT. Remaja Rosdakarya, 2006.
- [23] M.B. Miles, A.M. Huberman, dan J. Saldana, *Qualitative Data Analysis, A Methods Sourcebook*, Edition 3. NY: Sage Publications, 2014.
- [24] Sudarmo, *Isu-Isu Administrasi Publik dalam Perspektif Governance*. Solo: Smart Media, 2011.
- [25] Undang-undang No. 41 Tahun 1999 tentang Kehutanan.
- [26] Permen LHK Nomor P.49/MENLHK/SETJEN/KUM. 1/9/2017 Tentang Kerjasama Pemanfaatan Hutan Pada Kesatuan Pengelolaan Hutan.
- [27] Permen LHK Nomor: P.83/MENLHK/SETJEN/KUM.1/10/2016 tentang Perhutanan Sosial.
- [28] K. Callahan, *Elements of Effective Governance: Measurement, Accountability, and Participation*. UK: Taylor & Francis Group, Boca Raton, 2007.