

# **Legal Aspect of Participatory Mapping on Formalisation of Right of Indigenous Community to Land in Indonesia**

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**Key words:** Indigenous Community, Participatory Mapping and Right to Land

## **SUMMARY**

Sustainable development in Indonesia is closely related to indigenous knowledge, which in turn links sustainable development to existence of indigenous community. By considering the role of indigenous knowledge and communities on supporting the fulfillment of sustainable development, such knowledge and communities are urgently to be protected by GoI. Nonetheless, at the implementation level, the protection of indigenous knowledge and community has not been further regulated. Furthermore, the mapping of the jurisdictions of indigenous communities in Indonesia, which acts as of the basis to protect indigenous knowledge and community, has only been done by Non-Government Organisations and Community-based Organisations that represent indigenous communities. This is mainly due to the inability of GoI to perform such mapping, especially by considering the vastness of the territory of Indonesia.

This paper highlights the effort to provide legal basis of participatory mapping in formalising the right of indigenous community to land in Indonesia. First, the policy and regulations concerning the protection of indigenous knowledge and community is depicted. Second, the progress and challenges in participatory mapping in general and mapping of indigenous community jurisdiction are also illustrated. Moreover, the proposed Standard Operational Procedure (SOP) in participatory mapping of indigenous community territory is described, which acts as the basis to analyse the loopholes in the above policy and regulations. Last but not least, concluding remarks are given.

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## **1. INTRODUCTION**

Sustainable development in Indonesia is closely related to indigenous knowledge, which in turn links sustainable development to existence of indigenous community. In spite of its limited land territories, indigenous communities in the Ambon Lease region in Maluku have been able to maintain the coverage of customarily protected forests. These communities contribute as well to sustaining stock of tuna in Banda Sea as they have been customarily protecting coral reefs, which acts as nursery ground of almost all species of tuna. Moreover, such communities have been able to regulate the exploitation tuna below its sustainable yield.

These communities have been driven by indigenous knowledge for doing such an environmental service. Such knowledge has been developed over time and become customary rules in this region. These rules are still being updated, mostly due to the advancement of technology in natural resources management. By applying customary rules in the natural resources management, these communities have also been sustaining their socio-cultural values at the same time.

The restrictions on the exploitation of natural resources in the Ambon Lease region have also not limited the effort to achieve economic advancement. The Province of Maluku, in which the Ambon Lease region is located, was ranked as the third poorest province in Indonesia in 2010 (National Statistic Agency, 2010). Nonetheless, perception of poverty at grassroots level in this region is completely different compared to that of Government of Indonesia (GoI). Due to the application of customary rules in Ambon Lease region, the sustainability of natural resources in this region has been maintained over time, which directly affects the level of prosperity of people in this region. With sustained, abundant natural resources, the limited land and marine jurisdiction could still provide the people with basic food materials, as well as the currency to buy clothes, increase quality of settlement areas and other basic food materials.

By considering the role of indigenous knowledge and communities on supporting the fulfillment of sustainable development, such knowledge and communities are urgently to be protected by GoI. The protection of indigenous communities and their rights to land has been done by several acts mainly Agrarian Principles Act of 1960 and Forestry Act of 1999, including the result of judicial review of Forestry Act of 1999 by the Constitutional Court.

Nonetheless, the implementation of the above acts has not been further regulated. Furthermore, the mapping of the jurisdictions of indigenous communities in Indonesia has

only been done by Non-Government Organisations and Community-based Organisations that represent indigenous communities. This is mainly due to the inability of GoI to perform such mapping, especially by considering the vastness of the territory of Indonesia. Additionally, such acts have not been able to provide protection to indigenous knowledge. The concern of the above acts is only to provide guidance on conversion of right of indigenous community to land into formal tenures, as well as the formal tenures that would be given to indigenous community.

Apart of the absence of regulations on implementation of indigenous knowledge and community protection, participatory mapping is considered to be of the alternatives to provide the solid basis for such protection. However, participatory mapping is also not yet regulated. This is considerably crucial as products of such mapping would act as legal basis of protection of indigenous knowledge and community. Consequently, such products should be in accordance with the national standards in surveying and mapping in general. It is therefore imperative to provide standard in participatory mapping, particularly in the scope of protection of indigenous knowledge and community with regard to fulfillment of sustainable development.

This paper highlights the effort to provide legal basis of participatory mapping in formalising the right of indigenous community to land in Indonesia. First, the policy and regulations concerning the protection of indigenous knowledge and community is depicted. Second, the progress and challenges in participatory mapping in general and mapping of indigenous community jurisdiction are also illustrated. Moreover, the proposed Standard Operational Procedure (SOP) in participatory mapping of indigenous community territory is described, which acts as the basis to analyse the loopholes in the above policy and regulations. Last but not least, concluding remarks are given.

## **2. PROTECTION OF INDIGENOUS KNOWLEDGE AND COMMUNITY**

### **2.1 Formalisation of Right of Indigenous Community to Land**

Since the 19<sup>th</sup> century, the land tenure system of Indonesia has gone through two different periods, namely pre and post 1960 periods. In the pre 1960 period, Indonesia was experiencing pluralism of land tenure system. This is due to the existence of three different land tenure systems, which were the Dutch Colonial, indigenous community and autonomous region system. In 1960, GoI enacted the Agrarian Principles Act, which was considered as its effort to establish a single land tenure system in Indonesia. The Agrarian Principles Act was argued to be composed based on land tenure system of indigenous community from the previous period, particularly due to the inability of the colonial agrarian law to provide Indonesians with the legal assurance to access their land. According to Article 5 of this act, customary laws are the valid agrarian law in Indonesia as long as such laws are existed and in accordance with the national and State's interest.

By the enactment of the Agrarian Principles Act, GoI promotes several land, water and air space tenures. Furthermore, the Agrarian Principles Act also regulates the conversion of tenures from the pre 1960 period. The Agrarian Principles Act regulates the conversion of commonly found tenures in the previous systems, while the others can be converted through enactment of decree of head of National Land Agency. Particularly on the conversion of customary tenures that are not yet regulated by the Agrarian Principles Act, the indigenous community in question is required to provide evidences concerning the existence of customary law, dependency to customary jurisdiction and implementation of customary law.

Nonetheless, the formal land tenure system has not been able to provide the protection of indigenous knowledge. In most cases, the conversion of customary land tenures into the formal one has led to the deterioration of the authority of the indigenous community in question to control the use of customary land that has been registered under the formal system. As previously mentioned, the indigenous land management, if existed, has mostly been able to sustain natural resources, enhance prosperity of indigenous people and protect customary rules on management of natural resources. Thus, the inability of indigenous community to control the use of customary land, which tenure has been converted into the formal one, mostly leads to the deterioration of environmental quality, people's welfare and customary rules. Furthermore, customary land tenures have been functioning as the main tool to control the use of such lands. All lands in the indigenous community jurisdictions belong to the community in question. The customary land is managed and administered in order to provide greatest benefit to the member of the community, as well as to maintain the environmental carrying capacity and protect custom. Consequently, the conversion of customary land tenures has weakened the function of customary land tenure system to lead to achievement of sustainable development.

However, the jurisdiction of the Agrarian Principles Act only covers settlement areas. The administration of forestry area has been done by means of Forestry Act of 1999. Consequently, different arrangements have been applied in settlement and forestry areas.

## **2.2 Indigenous Community Forest**

The right of indigenous communities to their forest has been practically neglected (Marzali, 2002). The status of indigenous knowledge in the Forestry Administration System is not yet defined (*ibid.*). Even indigenous knowledge has been blamed as one of the main drivers of the deforestation (Lestari, 2010).

The judicial review of Forestry Act of 1999, which acts as the fundamental of Forestry Administration System, in 2013 has been strengthening the status of indigenous community in this system. Before such a review, a customary forest is still considered as a State's forest located within an indigenous community's jurisdiction, which meant that there was no such a customary forest.

Since 2013, an indigenous community is an eligible subject of forest management. Minister of Forestry is responsible to determine the status of forest, including customary forest. The determination of customary forest would be done based on the existence of indigenous community, which should be enacted as a municipal or provincial decree. Any eligible indigenous community is allowed to exploit forestry product, perform activities concerning management of forest and enhance their welfare by means of the latter activities.

### **2.3 Regional and Village Governance**

According to Regional Governance Act of 2004 and Village Act of 2014, provincial, municipal and village government can have an authority to manage their own territory, which is regulated further by regional decrees. In the Province of Maluku, as each village has been administered by the indigenous community in question, the provincial and municipal governments have conveyed the authority to govern each village to the indigenous community in question. This also includes the customary management of natural resources in the jurisdiction of the mentioned community.

Nevertheless, these acts do not provide an authority for local government in general and indigenous community in particular to administer the lands and forests located under their jurisdictions. As mentioned earlier, the land and forest administration has been regulated by Agrarian Principles Act and Forestry Act respectively. Consequently, the authority of local government to govern its own jurisdiction cannot be applied in the scope of the administration of use and tenure of land and forestry area. On the other hand, the customary governance concept always includes the administration of land and forestry areas. This has created confusions in the implementation of the acts that have been described in this section, particularly due to the overlapped jurisdictions of these acts.

## **3. PARTICIPATORY MAPPING OF INDIGENOUS COMMUNITY TERRITORY**

Spatial information has been considered as of fundamental basis of development in Indonesia. Indonesia has a long history of mapping. Zandvliet (1994; as cited in Ikawati and Setiawati, 2009) reveals that, at the end of aggression of Java Island by Yuan army between 1292 and 1293, Raden Wijaya handed out the administrative map of Kingdom of Kediri. Between the 15<sup>th</sup> and 16<sup>th</sup> century, Indonesia was mapped by several countries for various purposes (Ikawati and Setiawati, 2009). Since the late of 16<sup>th</sup> century, the Dutch initiated the mapping of Indonesia, especially for supporting their activities in Indonesia (*ibid.*).

Nonetheless, not until 2011 did GoI enact the regulation concerning spatial information. The Act No. 4 of 2011 concerning Geospatial Information was enacted with the purposes of guaranteeing availability and access to spatial information; facilitating cooperation, coordination, integration and synchronisation of implementation of spatial information; and encouraging employment of spatial information on the governance of public and private sector.

Geospatial Information Act of 2011 has been acting as the sole regulation concerning participatory mapping. Such an act provides general guidelines for individuals, groups of people or corporate to participate in surveying and mapping activities. Article 11 of Geospatial Information Act obliges individuals, groups of people or corporate to maintain the benchmarks. Article 23 of this act also states that individuals, groups of people or corporate are allowed creating thematic spatial information.

Particularly in land registration, participation of individual, groups of individuals or corporate on identification of boundary of land parcel is also encouraged. Article 18.1 of the Governmental Decree No. 24 of 1997 concerning Land Registration states that determination of boundary of land parcel shall be done by Adjudication Committee for systematic land registration and Head of Land Office for sporadic land registration based on boundary pointed by land tenure applicant, which is expected to be agreed by owner of adjacent parcel(s). Nonetheless, the adjudication principle and such a participation in adjudication process have not been applied on the determination of status of forest.

In order to be eligible to create spatial information, each individual is obliged to have several competence qualifications as stated in Article 54 of Geospatial Information Act. Furthermore, Article 56 of this act also regulates several requirements for any corporate to create spatial information. Besides administrative, technical and legal requirements, each corporate should also be certified to have qualification in surveying and mapping. Such a corporate should also employ certified professional in surveying and mapping.

Since 2005, certification of professional in surveying and mapping has been done by Association of Surveyor of Indonesia (*Ikatan Surveyor Indonesia/ISI*) (BSA-ISI, 2011). Since then, ISI has been certifying professionals in terrestrial surveying and mapping, aerial photogrammetry, remote sensing, hydrographic survey and bathymetric mapping, and Geographic Information System (GIS) (*ibid.*).

Furthermore, in the late 2013, a new competence standard for spatial information sector was enacted by means of the Decree of Minister of Workforce and Transmigration No. 331 of 2013. Such a standard comprises of the competence standards in terrestrial surveying, hydrography, aerial photogrammetry, remote sensing, GIS and cartography. Therefore, qualification of individuals, groups of people or corporate in surveying and mapping will be assessed by means of this standard.

Up to 2012, *Aliansi Masyarakat Adat Nusantara* (AMAN/National Indigenous Community Alliance) and *Jaringan Kerja Pemetaan Partisipatif* (JKPP/Working Group in Participatory Mapping) had identified and mapped 265 indigenous community areas, with an approximate extent of 2.4 million hectares (Saturi, 2012). Nonetheless, AMAN predicted that conflicts concerning management of natural resources and violation of human rights would still be escalated (Saturi, 2013).

Based on the assessment of the current progress on the protection of indigenous knowledge and participatory mapping of indigenous community territory, besides the inability of GoI to implement the policy on the protection of indigenous knowledge and communities, factors that will escalate the above conflicts are the lack of ability of GoI to map all indigenous community areas and promote a wider use of the existing maps of indigenous communities' jurisdictions. Of the obstacles to map all indigenous community areas and promote a wider use of maps of indigenous communities' territories is the absence of specific guidelines concerning participatory mapping of the mentioned jurisdictions. Article 21 of Geospatial Information Act states that thematic spatial information containing legal boundary shall be created based on documents expressing clear boundary definition by public institution in-charge.

Most importantly, the concept of participation has not been properly applied in the participatory mapping activities in Indonesia. According to Merriam-Webster Online Dictionary, the term of participate is defined as to be involved with others in doing something, to take part in an activity or event with others. On the other hand, the participatory mapping activities have only been done by NGOs and CBOs without any involvement of other related stakeholders particularly government and academician. Even though AMAN and JKPP have submitted 265 maps of the indigenous communities' territories with the total extent of 2.4 million Ha to Geospatial Information Agency (*Badan Informasi Geospasial/BIG*) (Irwanto, 2014), it is expected that GoI gets involved in the participatory mapping process, particularly to ensure the quality of participatory mapping product in order to be utilized for various purposes.

#### **4. STANDARD OPERATING PROCEDURE FOR PARTICIPATORY MAPPING**

Based on the above mentioned findings, SOP on Participatory Mapping of Indigenous Community Area has been developed. Such an SOP comprises of two main parts, namely SOP on Policy Making concerning Identification and Participatory Mapping of Indigenous Community Area. SOP on Policy Making concerning Identification of Indigenous Community Area is as follows:

1. Municipal and/or Provincial Government, together with experts on indigenous community, indigenous community itself, NGOs and other related governmental institution, establish working group for assessing the existence of indigenous community in question based on the Regulation of State Minister of Agrarian/Head of National Land Agency number 5 of 1999 concerning Guidelines on Resolution of Issues concerning Right to Land of Indigenous Community, as well as the Forestry Act
2. Such a working group is responsible for identifying boundary of indigenous community area, including boundary of indigenous community zones within area in question, by adopting adjudication on land registration. Identification of boundary of indigenous community area, as well as indigenous community zones, should be done based on socio-cultural and physical characteristic of area in question by individual, a group of individual or corporate that is licensed to perform surveying and mapping

3. Indigenous community area is legalized by means of municipal regulation, which is expected to be formulated by municipal government and governmental institution in-charge. Such a municipal regulation should include textual and spatial description of indigenous community area in question. Spatial description of such an area is attached in the form of Indigenous Community Area Map, which should be developed based on SOP in Participatory Mapping of Indigenous Community Area.

Furthermore, SOP on Participatory Mapping of Indigenous Community Area is as follows:

1. The above mentioned working group, together with experts on surveying and mapping, defines basemap that will be utilised as the basis of mapping of boundary of indigenous community area
2. The above mentioned working group pursues large-scaled mapping by considering expected scale of Indigenous Community Area Map, as well as surveying and mapping technology that will be utilised
3. Indigenous Community Area Map should be submitted to BIG for evaluation of quality and geospatial information presentation standard.

These SOPs however cannot be immediately applied. Coordination among governmental institutions in various administrative levels, local experts and indigenous communities in question is expected to be encouraged in the scope of participatory mapping of indigenous community jurisdiction. Such a task can be handled by BIG. Most importantly, enactment of the more detailed regulations that would act as the basis in coordinating and implementing participatory mapping of indigenous community is expected to be done, particularly to support the establishment of the working group, standards concerning quality of spatial data and guidelines concerning the use of products of participatory mapping activities for their wider use.

## 5. CONCLUSION

The legal basis to protect indigenous knowledge and community in the management of land and natural resources attached to it is already provided. Furthermore, the legal foundation of surveying and mapping is also existed at the moment. Nonetheless, participatory mapping of indigenous community jurisdiction, which acts as of the basis to protect indigenous knowledge and community, has not yet fully regulated.

Even though the participatory mapping of indigenous communities' jurisdictions has been done by AMAN and JKPP, the products have not been fully utilized in the scope of the protection of indigenous knowledge and community. This is particularly due to the inability of the above organizations, together with GoI, to promote the wider use of such products. The conformity of such products to related standards is considerably low. On the other hand, the involvement of GoI on guiding the NGOs and CBOs to produce high quality maps is also low. Additionally, the regulations concerning the protection of indigenous knowledge and community, as well as the participatory mapping, have been enacted by different



governmental institutions without any coordination among these institutions during the composition and implementation of such regulations.

Consequently, coordination among related sectors should be encouraged. Of the existing principles that is expected to be applied is the adoption of adjudication principle on the determination of boundary of indigenous community area. Considering that indigenous community area is mostly overlapped with various system's jurisdictions, the adjudication process should be done by all related institutions, while, on the other hand, each institution is expected to perform its own task at the same time. Most importantly, the foundation of legal basis in participatory mapping of indigenous community jurisdiction is urgently to be done, particularly by considering the vastness of Indonesia's territory.

## REFERENCES

Badan Pusat Statistik (2010). Profil Kemiskinan di Indonesia Maret 2010: Jumlah Penduduk Miskin Maret 2010 Mencapai 31,02 Juta. Berita Resmi Statistik no. 45/07/Th. XIII, 1 Juli 2010

BSA-ISI (2011). Badan Sertifikasi Asosiasi Ikatan Surveyor Indonesia. Accessed on 23 March 2014 from <http://www.bsaisi.com>

Ikawati, Yuni and Setiawati, Dwi Ratih (2009). Survei dan Pemetaan Nusantara. Jakarta: BAKOSURTANAL

Irwanto, Yudi (2014). Aliansi Masyarakat Adat Nusantara Serahkan Peta Wilayah Adat ke BIG dan UKP4. Accessed on 30 March 2014 from <http://www.bakosurtanal.go.id/berita-surta/show/aliani-masyarakat-adat-nusantara-serahkan-peta-wilayah-adat-ke-big-dan-ukp>

Lestari, Sri (2010). Memotret Kondisi Hutan Indonesia. Retrieved on 2.3.2012 from [http://www.bbc.co.uk/indonesia/berita\\_indonesia/2010/06/100609\\_hutanindo.shtml](http://www.bbc.co.uk/indonesia/berita_indonesia/2010/06/100609_hutanindo.shtml)

Marzali, Amri (2002). Hukum Adat dan Komersialisasi Hutan. In: Suhendar, Endang; Sunito, Satyawan; Sitorus, M. T. Felix; Satria, Arif; Agusta, Ivanovich and Dharmawan, Arya Hadi (eds.). Menuju Keadilan Agraria: 70 Tahun Gunawan Wiradi. Bandung: Yayasan Akatiga, 95-123

Saturi, Sapariah (2013). AMAN: 2013 Konflik Agraria Bakal Tinggi di Wilayah Adat. Accessed on 22 Maret 2013 from <http://www.mongabay.co.id/2013/03/17/aman-2013-konflik-agraria-bakal-tinggi-di-wilayah-adat/>

Saturi, Sapariah (2012). Peta Wilayah Adat Diakomodir Masuk One Map Indonesia. Accessed on 22 Maret 2013 from <http://www.mongabay.co.id/2012/11/15/peta-wilayah-adat-diakomodir-masuk-one-map/>

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