

Indonesia: One Map Policy

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Overlapping Land Claims and Conflicts

The 17,000 islands that constitute Indonesia host one of the largest forest areas in the world. Home to many indigenous groups as well as to an incredible variety of flora, fauna, birds and animals, the forests are also often referred to as the “lungs of the world” for their role in carbon storage. Yet as the government pursues economic prosperity, many of these areas are becoming vulnerable to destruction due to the financial possibilities offered by palm oil production, a highly sought after commodity worldwide, and other monocultures.

This divergence of interests, fuelled further by the lack of a single national reference map with all geo-referenced data on space utilization, has led to conflicts about land ownership. Demand for oil-palm plantations has led to the clearing of forests and peatlands, and, in some cases, agricultural areas. Conflicts have been triggered where plantation licenses have been assigned to an area inhabited by indigenous people without any recorded formal rights, or where there are outstanding claims of land tenure.¹ Insufficient protection of customary and protected lands has also resulted in encroachments and illegal occupation that eventually increase the risk of forest degradation and fires.²

In 2013, Forest Watch Indonesia (FWI) found that 14.7 million hectares had overlapping licenses for forest concessions, industrial forest plantations, and mining areas.³ They also found that around 7 million hectares covered by natural forest were located on land with conflicting licenses among forest concessions, industrial forest and oil palm plantations, and mining areas. There are cases where licenses overlap with protected areas, customary land,⁴ and even with other licenses. In 2014, the Consortium for Agrarian Reform (KPA), a nongovernmental organization (NGO) network advocating for agrarian system justice, recorded an increasing trend of agrarian conflicts, with at least 472 agrarian conflicts in more than 2.8 hectares of land all over the country. Most of these were located in plantation areas.

The human cost is real and tangible, as seen in the case of Sungai Berbari village.

From just outside Pekanbaru, the capital of Riau province in Indonesia, all the way to Sungai Berbari, palm oil and acacia plantations on both sides of the road stretch towards the horizon. On a regular day, it takes about three hours to reach the village; the drive is smooth and nicely paved. The Sungai Berbari village office is located right by the main road. About every half hour, large lorries full of logs drive past the office, leaving behind a cloud of dust.

Sungai Berbari’s village head, Dulsat, moved to the village in 1984. He met and married his wife, a native of the area, and called the village his home. Over the years, Dulsat says, he has seen many of his neighbors leave the village after large areas of forest in the area were converted to plantations. In 1997, a forest-plantation company received a license from the Ministry of Forestry in Jakarta and claimed almost half of the village. Then, in 2013, another plantation company claimed another portion of the village. “We used to gather rattan in the forests here and catch fish in the river,” he says. “After the companies dig canals, we have no fish to catch, and there are no forests left to gather rattan.”⁵ According to Dulsat, the village covers an area of about 8,000 hectares.

Rafli, director of Yayasan Hutan Riau, a local NGO that works on mapping Riau’s forest, says there are many cases of overlapping licenses in the province. His organization, in a coalition with other NGOs in Riau, demands transparency from the local government in land-based resources management. “We see many cases where the community knows that licenses are issued on their land only when the companies started operating,”

1 “Konflik Sawit Menggunung, GAPKI Bilang Masih Kecil...” (“GAPKI Denies Rising Oil Palm Conflicts”). <http://www.mongabay.co.id/2012/12/24/konflik-sawit-menggunung-gapki-bilang-masih-kecil/>

2 Samadhi, Tjokorda Nirarta. “New forest fires threaten Indonesia’s protected areas.” The Jakarta Post, July 30, 2015. <http://www.thejakartapost.com/news/2015/07/30/new-forest-fires-threaten-indonesia-s-protected-areas.html>

3 FWI’s “Portrait of Indonesia’s Forest 2009-2013.” <http://fwi.or.id/publikasi/potret-keadaan-hutan-indonesia-periode-2009-2013/>

4 Customary land or *tanah adat* is land recognized by indigenous groups or tribes as their ancestral land.

5 Interview with Dulsat, village head, Sungai Berbari village, Riau. May 31, 2016.

Rafli says. “There was not enough public consultation before the operation began.”⁶

The village has no spatial plan and was never properly mapped. The village head, Dulsat, says he had a sketch of the oil-palm concession made in 2014 before he wrote to the regent and the local parliament in protest, but he never received any response to his plea. According to him, the first company to begin operations never consulted the community before it started clearing forests and digging canals near his home. The second one carried out a limited consultation, but even after the people rejected its plans, it operated anyway. “Most of this village area is almost evenly claimed by the companies,” Dulsat says. “Even this village office is located within the plantation concession area.” Rafli says, “With spatial data openness, opportunities for corruption in license issuance can be narrowed.” Many would agree with this view.

Laying the Foundations for One Map for Indonesia

In December 2010, then President, Susilo Bambang Yudhoyono was presented with startlingly different maps of primary forests generated by the Ministry of Forestry and the Ministry of Environment in the context of ongoing work on REDD+. A search for explanations, led to uncovering different definitions of forests and different mapping methodologies used by the two Ministries. The idea of One Map for Indonesia was born out of the conversations that followed with the President instructing agencies to use One Map as national reference.

The One Map initiative aims to digitize data and information related to primary and secondary forests, including peatlands, on a single public portal, synchronized with data on licenses attached to the land area, with the urgent aim of eliminating duplicate licenses issued for the same land area. One of the first moves to meet the demand for accurate, responsible, and accessible geospatial information was the establishment of the Geospatial Information Agency (Badan Informasi Geospasial, or BIG).⁷ It became the only agency authorized to provide the country’s base map, or Basic Geospatial Information.⁸

Around this period, Indonesia became one of the eight founding members of the Open Government Partnership (OGP). Indonesia’s first action plan, covering the period 2012-2013, included a commitment to “develop the One Map portal by December 2013.”⁹

This was to be a first step in a larger effort that would ultimately end with integrating various thematic maps (forests, plantations, agricultural areas, customary lands etc.), with official base maps and eventually synchronizing them into a single reference map to identify overlaps in tenure and potential conflicts.

Nirarta Samadhi, director of World Resources Institute (WRI) Indonesia, says: “At the time, One Map Policy, or what used to be called the One Map Movement, was an activity supported by the president’s Delivery Unit for Development, Monitoring, and Oversight – the UKP4 – in the context of the REDD+ development agenda. It was adopted as one of the commitments of the Open Government Partnership because it was an action that stressed transparency as its key value.”¹⁰

The OGP commitments included in the first action plan were enacted as a regulation;¹¹ with detailed implementation plans and objectives assigned to specific ministries and government agencies.

The geoportal was to be hosted by BIG. The agency was also given the mandate to provide an implementation strategy and funding for base maps at various scales, from smaller-scale maps like those for school atlases to more detailed maps for urban planning or other ground-level infrastructure projects. A few months later, a directive was issued to map using the Standar Nasional Indonesia (SNI), or Indonesian National Standard, on land cover to ensure the production of a complete-overlap map, avoiding different ministries’ use of different definitions and standards. It was decided that subsequent maps would then be updated, using high-spatial-resolution satellite imagery.

Map custodians within ministries are responsible for collecting the thematic maps, or maps containing a particular theme connected to a specific geographic area. For instance, the Ministry of Forestry generates forest

6 Interview with Rafli, director of Yayasan Hutan Riau, Pekanbaru, Riau. June 1, 2016.

7 BIG was established by granting more responsibility to the National Coordinating Agency for Surveys and Mapping (Bakosurtanal) with Law No. 4/2011 on Geospatial Information and Presidential Regulation No. 94/2011 on the Geospatial Information Agency.

8 Basic Geospatial Information includes a geodetic control network or a set of reference -points of known geospatial coordinates, as well as basic maps, i.e., surface, coastal and maritime maps.

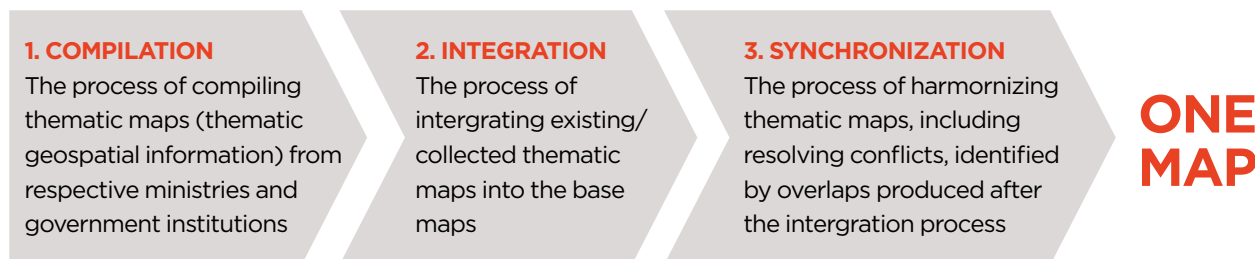
9 2012 -2013 Indonesia OGP Action Plan: http://www.opengovpartnership.org/sites/default/files/Indonesia_actionPlan.doc

10 Interview with Nirarta Samadhi, Director, World Resources Institute Indonesia, Jakarta. June 8, 2016.

11 Presidential Instruction Number.14/2011 regarding the “Accelerating the implementation of national development priorities in 2011.”

area maps, and the Ministry of Energy and Mineral Resources generates maps of mining areas. After all the thematic maps are collected, they are verified; local governments are asked to assist with ground-truthing. The thematic maps are then standardized by integrating them to the base maps at a scale of 1:50,000, before finally synchronizing the thematic maps to clear out overlaps. The stages involved in getting to One Map are shown in the figure below.

FIGURE 1: STAGES OF ONE MAP



There were significant challenges that needed to be overcome in getting to One Map. The inconsistent use of references and standards in producing maps by different government agencies issuing licenses for land utilization created overlapping borders on the ground. For example, to issue forest concessions and establish protected areas, the Ministry of Forestry generated their own maps. The Ministry of Energy and Mineral Resources generated their own maps as their reference in issuing mining licenses. The same situation was true for the National Land Agency when issuing land tenures, and so on.

In the initial stages of the project, the UKP4 brought ministries together in an effort to make everyone comfortable and gain trust to share their agency's data with others. Abdul Kamarzuki, assistant deputy minister for Spatial Planning and Economic Strategic Zones at the Coordinating Ministry for Economic Affairs, said in an interview that in the beginning of One Map implementation, ministries were reluctant to open their data: "They were afraid that their data will be misused," he said.¹² Once they brought their own data in the open, they started to agree on the basics of a map that could be used together.

In its end-of-term assessment of the 2011-2013 plan, OGP's Independent Reporting Mechanism assessed the commitment to develop the One Map portal as complete.

It observed: "Relevant sectoral ministries have agreed and collaboratively established the One Map. Some ministries have started to establish their own thematic maps developed from this basic map. The public participated to some degree, as community-based organizations gave inputs to revise the original map. The preliminary form of this map has been used in several pilot licensing projects to prevent overlap. This map built on existing initiatives, namely the National Spatial Data Network, and will be used as the only reference of basic geospatial information. This map will also serve as one standard for thematic mapping, whereby sectors may produce thematic maps to serve their purposes by using mapping standards approved by BIG so they can be integrated with other themes to create a national thematic map."

Losing and Regaining Momentum

After a good start, momentum on the One Map Policy began to wane. Although President Widodo had mentioned the initiative while campaigning for office in late 2014, little was heard about the further development of One Map for over a year after he came into office. "The One Map movement did not stop during the administration change, but it did lose momentum," said Samadhi, who led the implementation of the One Map movement under UKP4, in an interview.¹³

During this time, groups working on environmental issues and land rights for indigenous groups continued to push for the commitment to One Map to be upheld.

Eventually, in early 2016, the president issued Presidential Decree No. 9/2016 on the acceleration of the implementation of One Map. The decree appoints a One Map acceleration team as well as a One Map implementation team. It also spells out specific targets until 2019. The One Map acceleration team, led by the coordinating minister for economic affairs, has the task of strategically coordinating implementation of the policy. This includes setting policies, monitoring, and evaluation of the implementation of the One Map policy. The One Map implementation team, chaired by the head of BIG, has the task of technically coordinating

¹² Interview with Abdul Kamarzuki, Jakarta. August 11, 2016.

¹³ Interview with Nirarta Samadhi, Director, World Resources Institute Indonesia, Jakarta. June 8, 2016.

implementation of the policy.

“The objective is to have one reference, one standard, one base map, and one geoportal,” says Yanuar Nugroho, deputy chief of staff of the office of the president. “What we aim for is stronger evidence-based policy making. One Map is about how the government can make policies that are based on data, especially policy on spatial planning.”¹⁴ The vision was conveyed to the ministers, and the coordinating minister of economic affairs took on the role held by UKP4 in the previous administration to support and accelerate One Map. The previous UKP4 approach was based on the belief that One Map is something that everyone needed without being bound by regulations. The Widodo administration has chosen to formalize it in the form of a decree. Nineteen ministries and agencies are now involved in the implementation.

The portal - tanahair.indonesia.go.id - is available for everyone, including the general public, to download Indonesia’s base maps at no charge. In the past, these maps were not distributed for free. The maps are now available online at no charge upon registration. Base maps contain seven layers: land cover (settlement, forest, etc.), hydrography (rivers, lakes, coastal lines, etc.), hypsography (elevation and contours), buildings, transportation and utilities, administrative borders, and toponyms (names of places).



Although the base maps are ready and available for the public, some information is indicative only. For example, only around 30% of administrative borders at the regency level are clearly defined by the Ministry of Internal Affairs. Thematic layers are built and completed by individual ministries in their own servers and databases, and then linked to the BIG portal. So far, the most progressive is the Ministry of Public Works, which has made its thematic maps available to the public through BIG’s portal. Other ministries are lagging behind.

Before the OGP commitment was made, in 2011, Indonesia’s base map for the whole country was available only at the 1:500,000 and 1:250,000 scales. Java, Bali, and the islands of Nusa Tenggara have now been mapped in more detail at 1:25,000¹⁵. The large islands – Sumatra, Kalimantan, Sulawesi, and Papua – have less detailed maps at the 1:50,000 scale. The outer islands having less detailed maps are a problem because many of the land utilization permits – mainly for logging, mining, and industrial plantations – are issued on these outer islands.

For the thematic maps, the target is to have all 85 compiled and integrated into the official base maps, and available to the public by the end of 2019. By mid-2016, all targeted 85 thematic maps had been collected.¹⁶ The collected maps are now being verified by BIG before being integrated into the standard base maps. However,

14 Interview with Yanuar Nugroho, Deputy Chief of Staff, Office of the President, Jakarta, June 8 2016

15 Smaller scales of 1:500,000 and 1:250,000 are adequate for development planning, but they are not detailed enough for mapping individual urban houses. In other words, it’s enough to draw a main road but not smaller and more detailed geographical features. Another example: a 10-meter by 10-meter building would be represented by a dot on a 1:50,000 scale map.

16 The Jakarta Post, “One Map Policy’s success hinges on local involvement.” July 22, 2016. <http://www.thejakartapost.com/news/2016/07/22/one-map-policy-s-success-hinges-local-involvement.html>

the target of integrating these thematic maps correctly on a one-reference base map is behind schedule. The last stage of the One Map process is synchronizing all thematic maps that have been integrated into the base maps. “Synchronization of the thematic maps will continue [beyond 2019],” says Kamarzuki, in charge of leading the One Map team at the Coordinating Ministry of Economic Affairs.

14 thematic maps for Kalimantan – a region prioritized for implementation – of 68, have been integrated into base maps; Nine are in the process of being verified; and 18 others have been returned to the respective custodians for revision. Progress in other regions, however, has been slower. But for many this progress is too slow to meet their unmet and urgent needs as environmental costs of deforestation and land-related conflicts continue to rise.

While the technical progress on One Map is slow, the culture of trust and cooperation between agencies is changing as a result of this effort, according to some in government. “There is currently a high degree of cooperation,” says Kamarzuki, describing the degree of trust that exists today between ministries and government agencies. Yanuar Nugroho, deputy chief of staff in the executive office of the president, says: “One Map started during President Susilo Bambang Yudhoyono’s administration as a test case. It has now matured through the issuance of Presidential Decree Number 9/2016. It was an initiative that started at the concept level and was tested in a number of locations, and now is being implemented nationally,” said Yanuar Nugroho.

Public Participation in Improving Indonesia’s Map

“People can accelerate the One Map process through participative mapping,” says Kasmita Widodo, the head of the Ancestral Domain Registration Agency (BRWA), an organization set up by a number of NGOs to pool the results of customary land mapping.¹⁷

In the early 1990s, the participatory mapping movement started with the community of Long Uli in Malinau, North Kalimantan. Today, the movement is national in scope. In 1996, the Participatory Mapping Network (JKPP) was founded to assist communities in mapping their own land. JKPP has mapped around 10 million hectares of customary land all over the country.¹⁸

BRWA was set up to consolidate the indigenous community’s maps into one registry system and database. The registry is used not only in the incidental cases of conflicts, but also in the customary land recognition process.

BRWA regularly submits the community maps to different ministries. In their latest submissions, in March 2016, they handed 665 community maps covering around 7.4 million hectares to the government, including the Ministry of Environment and Forestry, the Ministry of Interior Affairs, the Ministry of Agrarian Affairs and Spatial Planning, and the newly formed Peatland Restoration Agency. In the process of detailing the maps, it showed that the government’s data lacked key information needed to improve the quality of maps. This is information that could and, many would argue, should have come from the community.

JKPP participated in and had numerous meetings with BIG to draft a standard operating procedure to incorporate community maps into formal maps.¹⁹ When successful, the existence of indigenous communities will be acknowledged in the country’s official maps. However, this process hit a snag on technical requirements put forth by BIG.

“The Geospatial Information Agency said that our maps are not adequate, not valid according to their standard operational procedures,” according to Kasmita. BIG’s main complaint was the JKPP’s use of less accurate but widely more available handheld Global Positioning System (GPS) receivers, as opposed to a standard, more accurate, but highly expensive device. At one point, the customary maps were uploaded to BIG’s website, but not into the One Map portal, and posted in the gallery as input from the public.

Furthermore, BIG’s position was that it can only incorporate only thematic maps that have been verified by the respective thematic map custodian, and since no government agency has verified the independent maps, the millions of hectares on JKPP maps could not be readily included in the official maps. The Alliance of Indigenous People (AMAN) estimated that indigenous people had traditionally occupied about 40 million hectares of land, of mostly natural forest. The community mapping’s long struggle to gain recognition from the government was mainly due mainly to the absence of a data custodian of the indigenous maps, required to

17 Interview with Kasmita, Head BRWA, Bogor. June 16, 2016

18 Customary or ancestral land can be officially recognized by the Ministry of Internal Affairs with a decree. Registry of customary land to the state has to meet a number of prerequisites, including proof that the indigenous people exist, have a governing customary law, and are bound by an area they claim as customary land. Not all customary land registered by BRWA is recognized by the state.

19 See: <http://www.mongabay.co.id/2014/11/27/jkpp-bikin-standar-operasi-pemetaan-partisipatif/>

verify the claims of the map.

In 2014, UKP4 facilitated BIG to launch a vehicle to accept community map submissions. BIG launched a separate participative mapping portal,²⁰ allowing the public to draw and edit mapping information through tools that are simple to use, such as Google Maps or OpenStreetMap. Also in 2014, the REDD+ agency agreed to become temporary data custodian for the map encompassing 4.8 million hectares of land. However, after the REDD+ agency was dissolved in early 2015, concerns mounted over whether the customary lands belonging to indigenous people can be incorporated into the official One Map, and the future of the customary map became uncertain once again.

By the end of 2015, the head of BIG stipulated 41 custodians of thematic geospatial information, assigning government agencies to specific map themes.²¹ The Survey and Thematic Mapping Directorate of the Ministry of Agrarian Affairs and Spatial Planning has been assigned as custodian of customary land data. According to JKPP, discussions with the newly assigned data custodian are under way but have yet to show concrete results.

One Map has also led to a public debate on the rights of indigenous people. According to some observers, one possible reason for BIG's reluctance to incorporate independently collected customary maps could be the lack of any law recognizing self-determination of customary rights. In the constitution, "customary people and their traditional rights" are acknowledged and respected. Acknowledgment of customary rights is under the auspices of the Ministry of Internal Affairs, which keeps a registry of customary lands.

In 2013, a draft, "The Acknowledgment and Protection of Customary Law," was discussed by the parliament. However, the draft law is has not been given much priority.

Looking Ahead

It is unclear whether the targets set for 2019 will be met. Technically this is possible. The real challenges, according to some stakeholders, are political in nature; a major factor cited is that permit-issuing authorities are reluctant to collaborate. Deeply entrenched corporate interests wrapped up with vested political interests are other factors. Perhaps this is to be expected. When implemented fully, One Map will reduce opportunities for illicit gains in high-value sectors, such as mining, plantations, and logging.²²

The success of the use of One Map will also be determined, to a large degree, by the availability of information on utilization rights, such as timber and mining concessions, plantation etc. If this information is readily available in the public domain, then the public can monitor violations, thus helping avoid issuing rights over existing rights.

Indonesia's Law Number 14/2008 on Public Information Openness guarantees people's right to have knowledge of public policy planning, programs, public decision-making processes, and the reason for the decision-making. The law allows every citizen to demand to know public information and provides the vehicle to legally contest any public institution that obstructs the effort to do so.

In 2015, Forest Watch Indonesia, as part of a coalition of NGOs, won a legal dispute against the Ministry of Environment and Forestry to disclose information on industrial timber supply and land-clearance licenses issued. The information was needed in the process of monitoring the timber legality assurance system (SVLK). However, in another case, the Central Information Commission (KIP) refused the coalition's demand to disclose digitized forest area maps.

"We have appealed to the Jakarta State Administrative Court [PTUN Jakarta], but the court confirmed KIP's decision," said Christian Purba, executive director of FWI. The court decided that digital data is not public information and susceptible to tampering. "We think the information should be open," Purba said.²³ "In doing our analysis, we will get higher errors if we re-digitize hard copies." FWI is currently taking the Ministry of Agrarian Affairs and Spatial Planning to court for refusing the disclosure of plantation licenses information.

A recent major cut in state budgets across ministries has also cast doubt on whether progress will remain on schedule. At this stage, there is uncertainty on how these cuts will impact schedules for further development of One Map. For instance, BIG gets to keep their budget for their One Map work, while other ministries – such as

20 See: <http://petakita.ina-sdi.or.id/pempar/>

21 Head of Geospatial Information Agency Decree No. 54/2015 regarding Thematic Geospatial Information Custodian.

22 See: <http://indonesiaatmelbourne.unimelb.edu.au/getting-one-map-policy-right/>

23 Interview with Chris Purba, executive director, Forest Watch Indonesia, Bogor. June 16, 2016.

the Coordinating Ministry for Economic Affairs, which leads the One Map Policy acceleration team has had its budget slashed. They have had to drop plans to organize training and clinics until the end of the year.

Five years after the first initiative was introduced to the Indonesian public, efforts to tidy up the country's maps seem to be progressing at a slow pace. However, on the positive side, there is now commitment from the highest levels of government, backed by a firm legal basis. This serious commitment should be supported by a secured budget. Aside from the formal framework, in the journey towards achieving One Map for Indonesia, there needs to be highly committed individuals to continue to break the tradition of working in isolation and to encourage cooperation between ministries and government institutions. This more personal approach will ensure that resistance, if any, can be reduced for the policy to reach its targets by the end of 2019.

The next big challenge is to continue to the final stage: to synchronize all the conflicting maps at the ground level. The current process should be coupled with a bottom-up process, where locally based initiatives need to solve site-specific problems, involving all conflicting parties. This process may need new innovations in policy and social engineering.



Open Government Partnership

