



Policy Forum Article

Mitigating Tensions over Land Conversion in Papua, Indonesia

Mochamad Indrawan,* Julian Caldecott and Ermayanti

Abstract

In the south of the biodiversity-rich Indonesian province of Papua, a large agricultural program is planned for the districts around Merauke, with the ostensible aim of helping to meet Indonesia's food requirements. Questions arise over the scheme's compliance with national laws and sustainability policies, as well as its likely impacts on indigenous livelihoods and biodiversity. It is also contrary to the recent low-carbon development priorities of the provincial and national governments. For the initiative to be consistent with law and policy, therefore, considerably improved planning effort would be needed, taking into account many factors that have so far been ignored.

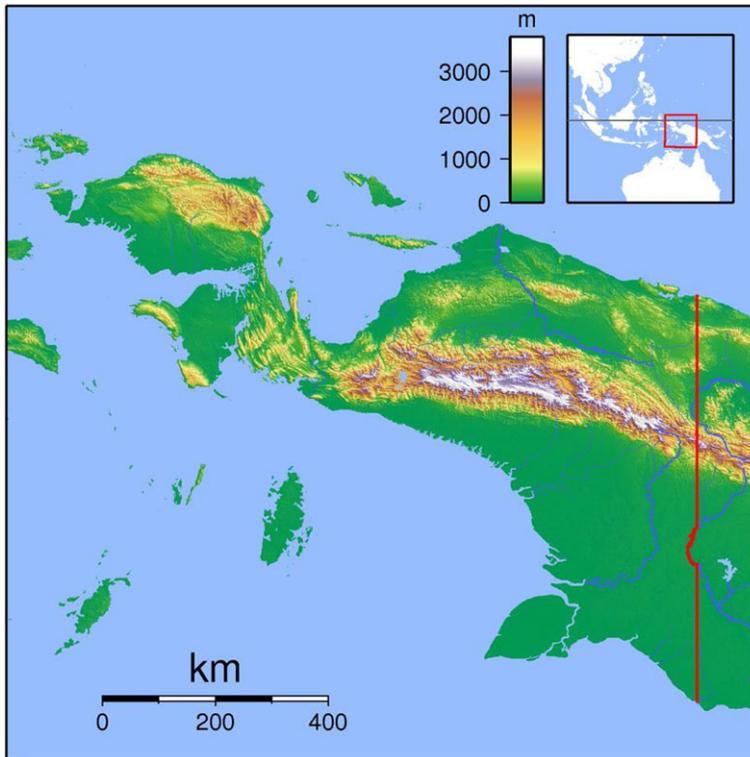
Key words: Papua, sustainable development, low carbon, policy, land conversion

1. Introduction

The western half of the island of New Guinea (Figure 1) has an area of 416,129 km² and became a province of Indonesia through a 1961–1969 process that involved military confrontation with the Netherlands, a temporary United Nations administration, and a controversial plebiscite (Timmer 2007). It was known as West Papua in 1961–1973 and as Irian Jaya in 1973–2002, and the province was managed primarily as a mining and petroleum resource region by the 1967–1998 regime led by President Suharto. It was also the target of a number of major proposals to use the province's land resources, including the mid-1980s Scott Paper scheme that would have involved a 790,000 ha *Eucalyptus* plantation and pulp mill in Merauke district and the mid-1990s Mamberamo scheme that would have involved diverse agro-industrial investments over some eight million hectares of Irian Jaya (Carr 1998; Marr 2011), and these were respectively halted by international protests and uncontrolled logging, followed by abandonment. Meanwhile, the province also received government-sponsored transmigrants and other settlers from elsewhere in Indonesia, resulting in a dilution of the indigenous Papuan share of the total population from 96 per cent in 1971, to 59 per cent in 2005, and 50 per cent in 2010 (Elmslie 2010). After 1998, however, decentralising reforms affected the whole of Indonesia and also resulted in Special Autonomy for Indonesian New Guinea under the new name of Papua. This gave the provincial government powers to plan development and formulate regulations based on local conditions, as well as a 2 per cent share of the

*Research Center for Climate Change, University of Indonesia, Depok 16424, Indonesia. Corresponding author: Indrawan, email: <mochamad.indrawan@gmail.com> <Mochamad.Indrawan@ui.ac.id>.

Figure 1 Tanah Papua (map courtesy of Bruce Beehler)



national budget's block grant over 20 years. Resistance to Special Autonomy came from mining, plantation and settler interests, the latter based particularly in western parts of the territory. Political events then led to its partition into the two new provinces of Papua and West Papua, which are collectively known among many Papuans as *Tanah Papua* ('the Land of Papua'). This partition was disputed before the Constitutional Court, which however ruled in 2004 that the creation of West Papua was indeed lawful.

In 2008–2011, a succession of national government recommendations, policies and laws revealed the intention to develop the Merauke Integrated Food and Energy Estate (MIFEE) in south-eastern Papua (Zakaria et al. 2011), this being justified in terms of Indonesia's strategic needs for food and energy. The targeted area had previously been zoned as suitable for plantations, and its flat terrain and accessibility to the southern coast had already attracted loggers and transmigration

projects (Haarstad et al. 2009). According to detailed plans announced in 2010, the MIFEE was to cover more than a million hectares in the districts of Merauke, Mappi and Boven Digoel and to be used for growing food crops such as rice (*Oryza sativa*), maize (*Zea mays*), soybean (*Glycine max*) and sugar cane (*Saccharum* spp.), as well as oil palm (*Elaeis guineensis*) and fast-growing *Acacia* tree species for wood chips to be used in paper or as an energy source. A national policy, namely, Presidential regulation No 32 of 2011 'regarding acceleration and expansion of the economic development of Indonesia, 2011–25' further strengthened MIFEE and its links to national food and energy-security perceptions.

At the end of 2014, Susilo Bambang Yudhoyono ('SBY') was succeeded as President of Indonesia by Joko Widodo ('Jokowi'), who further extended SBY's moratorium on issuance of logging licenses (which had been introduced in 2011 and extended in 2013). The new president also set out new

targets for self sufficiency, involving the doubling of palm oil production by 2020, a 23 per cent share of renewable energy in the energy mix by 2025 and targets and subsidies to encourage the use of biodiesel (i.e. palm oil processed for use as a fuel oil). The re-launch of MIFEE was announced by President Jokowi during his visit to Papua in May 2015 (Barahamin 2015).

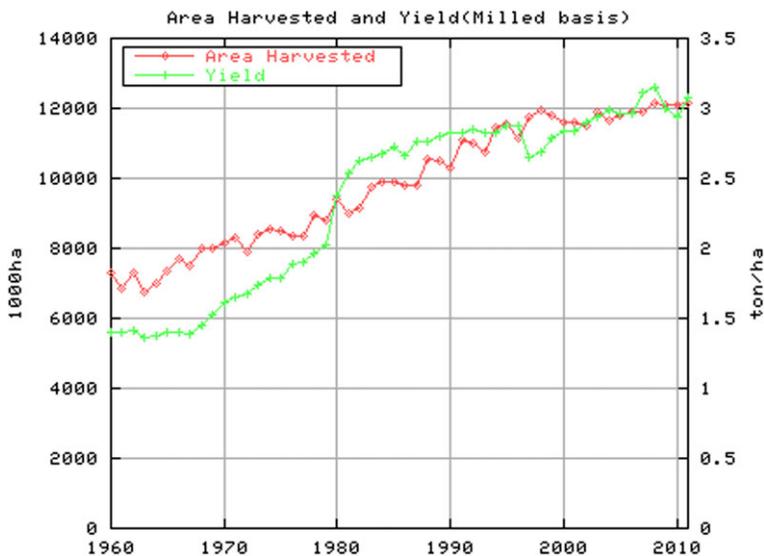
From the central government's point of view, the case for MIFEE is clearly based on the need to assure an adequate energy and rice supply for voters in the populous island of Java and on the need for export revenues, with palm oil expected to be especially profitable (CIFOR 2009). The quest for food security is everywhere deeply intertwined with politics, but especially clearly so in Indonesia. For example, Figure 2 depicts national rice production from 1960 to 2010 and records the rapid increase in rice production in the 1970s induced by the 'Green Revolution', which did much to stabilise and allow the full establishment of the 'New Order' Suharto regime after the famines of the 1960s. It also shows the downturn in rice production in the mid-1990s, which drove the regime's decision in 1996 to establish the (subsequently failed) One Million

Hectare Peatland Development Project or 'Mega Rice Project' in Central Kalimantan (see the following).

But the MIFEE project seems less attractive from the point of view of Papua province than it does from that of Jakarta (Ginting & Pye 2013; Lang 2013; Takeshi et al. 2014), and in many ways it encapsulates the conflict between alternative visions of the role of Papua in Indonesia: as a resource supplier to the nation or as an ancestral homeland of traditional peoples. Assuming the central government's wish to establish the MIFEE by importing capital and labour, expropriating and converting lands as needed and directing the resulting revenue streams, key points of concern expressed by various stakeholders during interviews with the authors are summarised subsequently, alongside ways to reconcile these contrasting visions, at least partially, through the compliance of all parties with existing Indonesian law.

This article is based on a synthesis of information from a number of sources, ultimately resting on interviews with knowledge holders, direct observations, literature review and participation in low-carbon development workshops for Papua and West Papua provinces.

Figure 2 Areas Harvested and Yield of Rice in Indonesia between 1960 and 2010



Source: WFSG (2012)

The process began with a study leading to the forestry and climate change update of the EC's Country Environmental Profile (Caldecott & Indrawan 2009) and continued through the formulation of EC-Indonesia climate change cooperation (Caldecott & Indrawan 2010), both of which included extensive dialogue with Papuan authorities surrounding their low-carbon development priorities. Further detail was provided through subsequent participation (by senior author Indrawan) in meetings in Papua and dialogue and correspondence with provincial and other stakeholders (e.g. Indrawan et al. 2011).

2. Concerns over the MIFEE

There are several kinds of concern over the MIFEE proposal, reflecting the priorities of different stakeholder groups. First, the provincial and district governments of Papua and Merauke have different views on how the south-eastern part of Papua should be developed, with the district government being better disposed to large-scale estate development. In 2007, for example, 4 years before the presidential regulation that authorised the MIFEE development plan, the then regent of Merauke established a Merauke Integrated Rice Estate, and this plan by the district government served as precursor of MIFEE (Hidayat & Yamamoto 2014; Takeshi et al. 2014).

Second, there is a general concern, widespread in the outer islands of Indonesia (i.e. the islands beyond the national 'core' islands of Java, Bali and Madura), about central government initiatives that result in sudden, large-scale land-use change. This arises from the historic cancellation of traditional rights to lands and forests in the 1960s, the allocation of those resources to central government control and their uncompensated consumption by non-local interest groups ever since. An example of this process was the One Million Hectare Peatland Development (or Mega Rice) Project in Central Kalimantan, Indonesian Borneo. This involved the logging and draining of forested deep peatland and the movement of about 100,000 migrants into the area, where they were expected to grow rice,

thus shoring up official targets for both assisted transmigration and rice production. Once logged and drained, the peatland became fire-prone as well as being unsuited to rice growing, so the initiative led to an ecological disaster that produced desertification, local extirpation of forest-dwelling species, the release of an estimated 150 million tonnes of carbon-based greenhouse gases (GHGs) in 1997 alone (Rieley & Page 2008) and economic calamity for in-migrants and indigenous people alike. The MIFEE initiative is of a scale that invites comparison with the Mega Rice Project, and with this as a precedent, there is the expectation within Papua that most of the financial benefits flowing from the MIFEE will be captured by stakeholders outside the province, while the greatest environmental and social costs will be borne locally. There is also the probability of massive GHG release due to planned and unplanned forest conversion as the MIFEE is developed. The area is drought-prone and vulnerable to fire during El Niño events, and has burned extensively during the current severe El Niño (Jong 2015; WRI 2015).

Third, there is the fear that the MIFEE would involve extinguishing the resource tenure rights of local people, replacing ecosystems that have provided them with important resources for millennia, displacing communities to new and unsuitable locations and importing up to eight million workers and their families from other parts of Indonesia (Pangkali 2010; Yudhistira 2011). Papua as a whole has long been receiving flows of spontaneous migrants (Barter & Côté 2015), and fear of in-migration is particularly intense in Merauke, which in 2010 had a population of only 250,000, half of whom were already migrants (Zakaria et al. 2011).

A fourth kind of concern draws on indignation that Special Autonomy is being infringed by pressure to accept an initiative originating outside Papua, other than on terms freely negotiated, understood and accepted by Papuans. Connected with this is the fact that, while MIFEE was being designed and activated, the provincial government was formulating its own low-carbon development

(LCD) plan for Papua (Suebu 2009). Papua Province has developed its sustainable development vision, also known as Papua 2100, which includes the aim of maintaining 90 per cent of the territory under forest with two-thirds of this being totally protected. The resulting provincial spatial plan for 2013–2033 was formalised by provincial regulation in 2013.

The LCD plan envisioned greatly reducing deforestation for oil palm, saving up to four billion tonnes of GHG emissions (4 GtCO₂e), and quickly attracted the interest of official donors and potential investors (Caldecott & Indrawan 2009, 2010). The LCD plan ruled out large-scale development projects unless geared to green investment and established principles including recognition of traditional rights, free prior informed consent and effective conflict resolution, as well as the effective establishment of conservation areas. A starker contrast in intent and impact can scarcely be envisioned than that between the provincial government's LCD plan and the central government's MIFEE initiative. One key issue was the historical licensing and permitting system for forest use, which did not allow the implementation of alternative land uses, and implied an urgent need for more open-access data to support spatial planning at all scales, including synchronised data between the national and subnational levels.

A fifth kind of concern is that the MIFEE conflicts with the Government of Indonesia's own policies to reduce GHG emissions. These have been prominent since the President's commitment in 2009 to reduce emissions by 26 per cent against a business-as-usual estimate of emissions in 2020, leading to a huge amount of policy, legislative and executive work in order to make meeting this target achievable. To begin with, the earlier 5-year development plan (RPJMN 2010–2014) addressed climate change through the three cross-sectoral themes of food security, energy and environment and disaster management. This is continued within the current medium-term development plan (2015–2019), which puts climate change under the main national development agenda, along with the direction of and policies for sectoral

development. The 26 per cent target was increased to 29 per cent in 2015, as part of Indonesia's Intended Nationally Determined Contributions commitment under the United Nations Framework Convention on Climate Change. At the subnational level, the medium-term development plan for Papua Province (RPJMD Papua 2014–2018) mandated the involvement of traditional communities in safeguarding ecosystem sustainability including climate change mitigation and adaptation. All these paralleled a presidential regulation in 2011 that mandated GHG reduction measures through action plans at national and provincial levels. Because 63 per cent of Indonesia's Intended Nationally Determined Contributions-defined GHG emission reductions are estimated to be found in the land use, land-use change and forestry sector, and about a fourth of these are available from altering land conversion plans in Papua (Suebu 2009), it can be seen that MIFEE is deeply contrary to these priorities. With about 200,000 ha of tropical moist forest immediately exposed to conversion by MIFEE (Greenomics Indonesia 2012) there is little chance that a centrally planned MIFEE will achieve lower emissions over a comparable time scale than the small-scale land conversions that are already happening in the region. Thus, the MIFEE constitutes a forgone opportunity to stem high carbon development in Indonesia, and it could fatally undermine Indonesia's credibility as a serious actor in addressing the challenge of climate change.

A sixth concern is that complications arise with the national government's policy to recognise land tenure rights. The Constitutional Court ruling No 35 in May 2012 stipulated that the land rights of peoples living by customary law (*Masyarakat Adat*) must henceforth be recognised fully by government. Yet, MIFEE is expected to infringe on 2.5 million hectares of ancestral lands belonging to the Malind-Amin community (Barahamin 2015).

Numerous ecosystem services have yet to be factored in to the aforementioned concerns. There are compelling lessons from Aceh, another well-forested special autonomous province at the opposite end of Indonesia, that

was subjected to conversions for large-scale monoculture and/or subsistence farming. The studies showed that floods, including inundation of rice fields, caused net economic loss across the landscape, with direct costs conservatively estimated at US\$27 million per year (van Beukering et al. 2003). Increased productivity per unit land area through improved husbandry and investment would greatly relieve pressure on forests; for instance, a 5 per cent per year increase in productivity would halve demand for 220,000 ha of land for oil palm conversion in Aceh under the business-as-usual scenario for 2015–2019 (Leggett et al. 2015).

Further, there are issues related to the loss of biodiversity, for instance, the Malind community's traditional staple food is not rice but a mix of sago, sweet potatoes, fruits and wild meat. In terms of wildlife richness, the area in question is characterised by major seasonal concentrations of migratory water birds and a diverse and endemic-rich biota (Johns et al. 2007; Polhemus & Allen 2007). The potential of biodiversity as a resource for sustainable development is appreciated by the provincial government and integrated in their LCD planning (Indrawan et al. 2011), so the destruction of biodiversity assets in the MIFEE area is an additional unwelcome factor that is of concern to international and local observers alike.

Finally, spontaneous in-migration is likely to constrain development in Papua the province which is deemed as the most lagged behind in Indonesia in terms of human development index, and deeply challenged by the lowest scores in Indonesia for incomes, educational levels, and life expectancies, which contrasted with the highest maternal and child mortality rates in the nation (BPS 2014).

Not all of these concerns can be fully accommodated within a development program in the Merauke area that depends on wholesale conversion of natural forests to plantation agriculture. While it is possible to imagine alternatives, in which sustainable wealth would mostly be captured locally and would mostly come from green initiatives of various kinds, the process of large-scale land development is already underway, albeit probably in a more

fragmented way than originally conceived because of patchy soils and drainage and practical difficulties of access and supply. In these circumstances, with declining but still available opportunities to do so, the aims should be to minimise harm and maximise sustainability. This would depend, however, on modifying the MIFEE approach by applying existing Indonesian and Papuan policies and laws that were developed with these aims specifically in mind. Some ways in which this might be achieved are considered in the following sections.

3. Opportunities to Mitigate Conflict

There remains scope to minimise tensions among policy priorities at the local level (e.g. self-determination, equity and environmental security), the national level (e.g. food security and export revenues) and the global level (e.g. GHG emission reductions). Some of these issues require choices between incompatible objectives, which may be contested by different stakeholders. The process by which the MIFEE is being developed provides an opportunity to apply mitigation measures based on the following principles, which are offered as a potential checklist for negotiators.

3.1 Free prior and informed consent

A negotiated rather than an imposed outcome requires the recognition by all parties that each has a legitimate interest in what happens. Active participation in decision-making is needed by the provincial *and* district governments, with priority given to the resolution of issues related to land rights traditionally claimed by local communities. One way to promote free prior and informed consent would be to increase effectiveness of the formal processes of *Musrenbang* ('participatory forum for yearly development planning') whereby stakeholders work together to protect bottom-up planning from intervention by outside interests. Conflict resolution mechanisms involving local stakeholders are mandated by Papua province's medium-term development plan (2014–2018).

3.2 Transparency

Closed-door decision-making can be the enemy both of justice and of sustainability, because it offers opportunities for corruption, collusion and nepotism and prevents the growth of public understanding and potential support for decisions. Act 14/2008 on Public Information Transparency obliges public entities in Indonesia to reveal all public information under their control, the content of deliberations and outcomes of decisions, all policies that apply to the public entity concerned and all of its agreements with third parties. Papua is among the first provinces of Indonesia to have developed open-access data on spatial planning, known as *Simtaru* ('information system for the management of spatial planning'; BAPPEDA 2015), and this system displays the province's spatial planning regulation from 2013. Agencies and offices that hold sectoral data are obliged to upload their data into the system, thus helping to build a single development map as a tool for avoiding planning conflicts.

3.3 Inclusive policy framework

Decisions on initiatives on the scale of MIFEE should involve public welfare, security, agriculture, forestry, village development and other viewpoints while also considering Papua's LCD plan and climate change aspects, not only in terms of GHG emissions but also the vulnerability of the investments themselves to climate change and the scope for adaptation to it. The relevant Presidential regulation (i.e. No 32 of 2011 regarding acceleration and expansion of the economic development of Indonesia, 2011–2025) would need to be reviewed and replaced to provide for such an inclusive policy framework. The implication would be to expose MIFEE to a much higher level of public consultation, including through national, provincial and district parliamentary dialogue. Fiscal incentives might be used to encourage companies to set parts of their land holdings aside where they are of particularly high environmental or cultural value.

3.4 Ecosystem goods and services

Changes in land use have consequences that include the loss of ecosystem goods and services (e.g. water catchment functions, flood control, carbon storage, biodiversity and sacred areas) and substitute others that may have lower, less inclusive or shorter-term socio-economic utility. Hence, there is a need for detailed comparative analysis of costs and benefits that include all known ecosystem goods and services, even if they cannot be quantified, and the interests of all stakeholders, coupled with a precautionary approach and a preference for maintaining existing goods and services where possible, or adequately compensating for them if lost. The potential use of 'green budgeting', in which social and environmental factors are fully integrated with the economic paradigm, is now being promoted as a development tool in several Indonesian provinces (Qibtiyyah et al. 2015).

3.5 Environmental change management

Where land conversion for a food estate has been agreed or is unavoidable, the process is legally required to be undertaken in a measured and step-wise manner. Compliance is mandatory with Act 32/2009 concerning environmental management, which requires strategic environmental assessments (SEA) and then for individual projects (such as concessions) environmental impact assessments (EIA). This obliges the central government to provide backstopping and capacity-building support to the district governments concerned, so that they can perform adequate assessments. Again, the main challenges lie in compliance and enforcement.

3.6 Principles of spatial planning

A key part of the process by which decisions on land conversion are made in Indonesia is spatial planning, as mandated by Act 27/2007, which obliges governments at the central, provincial, district and municipal levels to disseminate information relating to spatial planning, including to local communities. This

contributes to transparency but is also intended to allow stakeholders to articulate their development visions and priorities in relation to irreversible decisions on the use of resources before those decisions are made. Papua province's own regulation for spatial planning regulation thus prioritises sustainability and has been approved by central government authorities including the Ministry of Planning, but the process needs to be enforced so that forestry licenses can be handled with proper reference to spatial planning beforehand. There is also a need for better alignment between provincial and village spatial plans.

3.7 Private sector participation

Policy instruments should provide more than mere fiscal and infrastructural incentives, and from the very beginning, private capital investors should be required to design, and locally consult on, their contribution to the social and economic sustainability of Papua. In practice, this would mean that business plans are reviewed both by government and by local communities and positively screened for such contributions. Here, it can be helpful to define accurately what constitutes a 'resource' to the communities (Banks 2008), followed by participatory analysis leading to conflict management plans (Warner 2000).

4. Conclusions

The process of integrating *Tanah Papua* into Indonesia presents both opportunities and hazards. Among the latter is the fact that the whole area is exposed to decisions made far away, by people acting under pressures that are powerful to them but alien to the circumstances of most Papuans. Following reforms since 1998, however, provincial governments, particularly in Papua, have much more power than before to reject any plan imposed by central government. Hence, at least on paper, any major decision on the scale of MIFEE simply has to be made through consultation and mutual agreement. Lessons from Aceh special province are especially relevant because of numerous parallels involving top-

down decision-making and implementation that resulted in degradation, deforestation and net loss of sustainability and productivity.

The drivers of demand for MIFEE are complex and include corporate land-hunger, for areas to use for speculation, for harvestable resources such as wood pulp and for export crops such as palm oil, as well as a political requirement to be seen to safeguard national rice supplies. Papuans may or may not benefit from opportunities linked to land speculation and commodity exports, but in any case, they seldom eat rice. The growth in demand for rice is driven largely by population growth within Indonesia, and food estates are not a long-term solution to this challenge, which instead requires a sustainable relationship between human numbers and the productive capacity of ecosystems. Meanwhile, the global economy is now recognised as being constrained by environmental limits, notably by climate change, so the days of freely liquidating carbon-storing ecosystems in order to export food and biofuels are clearly numbered. Indonesia has already begun participating in efforts to create a lower-carbon world economy, and this participation is important and should continue as a matter of urgency.

On the immediate matter of MIFEE, however, we have listed key principles that if applied consistently and together in accordance with Indonesian law would greatly mitigate the impacts of MIFEE and similar schemes, or else greatly change their nature so they contribute to building sustainable human development, rather than undermining it. Contained in this issue, however, is the challenge of making choices between paths that lead in different directions, whereby decisions need to be justified through the complete understanding of costs and benefits of all options, and the consequences of decisions fully explored. Where ecosystem change is decided upon, educational dialogue is essential to build consensus around new ways of relating to the affected resource. This applies also to in-migration, because indigenous Papuans have much to share with settlers about how to live sustainably in a land very different in climate and biota to where they came from. Whether settlers can learn to

respect and use this local knowledge, or will remain as inflexible as those who tried to introduce European farming systems into Australia in the nineteenth and twentieth centuries (Flannery 1994), remains to be seen but should be a topic for environmental education of newcomers in Papua. Meanwhile, as a new common vision is developed, revenue sharing, arbitration, new investment, compensation and compulsion will all then have their places in putting it into effect. Applying these principles to the MIFEE initiative would be consistent with Indonesian law and with the desires of those who seek sustainable outcomes among the central and provincial governments, local people and other concerned citizens of Indonesia. Conversely, one may question the taking of decisions that are not consistent with law and evidence. By summarising the issues and opportunities raised by the MIFEE initiative, we hope to support more effective public debate on a subject of critical importance to Papua, to Indonesia, and to the world as a whole.

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