Better social welfare through sustainable land-based production: assessing the potency of jurisdiction certification on the forestry sector

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Abstract. Certification and pledge have long been the primary mechanisms to safeguard unsustainable forest exploitations and maintain the social welfare of forest communities by providing better market access. However, commodity-based certification and pledges have been criticised for their limited success in ensuring forest sustainability and maintaining the social welfare of the forest community. A newly developed certification scheme, the jurisdictional certification approach, offers an alternative to sustainable resources use. It promises a more comprehensive and systematic approach for all stakeholders operating in a given jurisdiction and a more substantial role for government. The literature review indicates that although Indonesia's jurisdictional certification pilot project shows promising results in overcoming traditional certifications' drawbacks, the actors' acceptance within commodity chains is limited. The adoption of jurisdictional certification requires intensive collaboration among government, private sectors and civil society. The government is expected to streamline the regulatory process within the jurisdiction, while the private sectors and civil society provide material and human resource supports. This process is reliant upon effective communication among the private sector and the different levels of government.

1. Introduction

Studies on jurisdiction certification represent a growing field. Initiatives certifying that producers within bounded jurisdictions adhere to a defined sustainability standard have increasingly been popular since a decade ago[1-3]. This mounting attention is partly in response to the worldwide recognition of problems associated with traditional certifications schemes[4]. Certification and pledge have long been the primary mechanisms to safeguard unsustainable forest exploitations and maintain forest communities’ social welfare by providing the society better market access[5]. However, the existing commodity-based certification and pledge are criticised for their limited success in ensuring forest sustainability and
prohibiting forest community social welfare[6, 7]; this is marked by the persistence of over-exploitation of natural resources [8], deforestation[9, 10] and inequalities[11]. While sustainability certified products have gained broader legitimacy in the global trade governance, their progression is worth deeper scrutiny. The transformative implications of such schemes to the distribution of authority involving government and non-government actors in the worldwide commodity markets shall not be taken for granted.

More recently, jurisdiction certification approaches have emerged as an alternative to sustainable resource-use. Unlike the existing certification schemes—which excludes the government—jurisdiction certification provides a more comprehensive alternative to all stakeholders who operates within a particular landscape (or administrative boundary) and more substantial roles to the government. However, due to its infancy, long-term success and social welfare impacts have not yet been realised. Currently, few published studies investigate jurisdiction certification, especially from regulators perspectives.

Therefore, this paper investigates how far jurisdiction certification could be implemented in Indonesia. More specifically, the following questions are investigated. Those are: (1) What are the challenges to ensure land-based production sustainability? (2) How far have the existing approaches delivered their promises on social welfare? (3) To what extent have the jurisdiction certification schemes might overcome the shortcoming of their predecessors? Drawing on the literature review of product quality assurance such as the “Terpercaya Initiative” and “RSPO Report”, the insight gained from implementing land-based production certification schemes with specific attention to forest community social welfare is evaluated. The article also discusses the value of engaging jurisdiction certification schemes and their contribution to sustainable forest management.

The next part of the paper examines the literature on sustainability. Then, the discussion moves on to review challenges on sustainability certification. After reviewing the benefits and shortcomings of the existing certification schemes, the potency of jurisdiction certifications to overcome the weaknesses of the current systems is discussed. Finally, the paper ends with conclusions and the future way forwards.

2. Review of literature: sustainability questions

Efforts to promote sustainability of land-based production grew in the mid-1980s over tropical forest crises due to rapid deforestation[12-14]. The initial campaigns aimed to tackle illegal logging and promote sustainable forest production[15]; nevertheless, the focus was later evolved to include social and economic well-being[5]. Today, Fairtrade, Organic Certification, Rainforest Alliance, UTZ Certification and Roundtable for Sustainable Palm Oil (RSPO) are well-established certification standards. Although all standards advocate different certifications, all pursue similar objectives: promoting their standards/indicators and improving farmers’ livelihood[16]. In addition, the certification scheme aims to reassure that partners of the supply chains deliver their products without neglecting the sustainable forest principles[17].

Certification is a process of approval by a third party that a commodity meets the requirements of a standard governing production process. It then creates marketing niches, promotes product awareness, or secures premium prices[18]. In simple words, certification is a response to restoring trust between end-consumers and the primary producers[19]. To a certain degree, a certification of oil palm production and its value chains is the answer raised to overcome these governance issues[20]. The emergence of various kinds of certification for land-based production also indicates the strengthening of the green protectionism regime in Europe[21].

From the operating-unit perspective, the certification process follows a typical sequence: a review of the existing operation, assess the areas of non-conformances, closeout of those non-conformances and undergo (the third party) assessment. Thus, the certification process involves typically reviewing existing production operations, identifying areas of non-compliance with the standards, closeout of that non-conformance and audit by a certification body[22]. Certificate can be issued should there is a major non-conformance or after all major non-conformance identified during the audit is closed. Five tropical commodities—coffee, cacao, rubber, tropical timber and oil palm—are considered in a
In the following, the impact of palm oil on biofuels, followed by the current trend in certification regime from voluntary to mandatory, are assessed. This paper will end with a chapter concerning an overview of the jurisdiction certification approach.

2.1. Concerns about the impact of palm oil biofuel

Palm oil is increasingly popular as the most prospective commodity and the growing demands for food, cosmetics, and biofuel. Most palm oil grows in the equator, which is also rich in tropical forest and biodiversity. Consequently, the expansion of palm oil increase concerns for environmental sustainability[25]. Most of the current production (89%) occurs in SE Asia, with Indonesia in the lead. Peru and Cameroon are examples of recent expansion elsewhere [19]. Indonesia is the leader in global palm oil production, with its main export destination to China, India, and Europe[20], which imported 7.6 million, 6.7 million, and 5.5 million metric tons, respectively[26]. This position puts Indonesia within the spotlight because the massive expansion of oil palm plantations can have various adverse effects[20].

Various negative impacts caused by oil palm plantation operations include environmental, social, state revenue and corruption issues[27]. World Bank estimate the forest fires that rampaged Indonesia in 2015 destroyed 2.6 million hectares, most of which are oil palm plantations, causing a loss of USD 16.1 billion (IDR 221 trillion) [28]. Moreover, the forest fires also affected the ecological balance of the areas. In addition, oil palm expansion also results in social conflicts, land rights issues, indirect land exchange (ILUC), labour issues, competition for foods with biofuel and environmental degradation[20]. The root cause of these problems is the absence of a road map for the palm oil industry [29] and the weak governance of oil palm plantations[27].

However, these negative impacts have not prevented Indonesia’s developing oil palm plantations, arguing that palm oil is a product with multiple functions. First, palm oil is a raw material of biofuels[20]. Second, palm oil has become the primary crop for edible oil, animal feed, and cosmetics. Finally, its demand increases since palm oil are the most productive commodity and spend at the least production cost compared to other vegetable oil[30].

In the context of biofuel programmes, a variety of plants are suitable for bioethanol and biodiesel: corn, canola, sunflower, sugarcane, and oil palm[31]. For Indonesia, several promising biofuel sources are oil palm, coconut, jatropha, nyamplung, candlenut, pongamia, rubber, sugar cane, cassava, corn, sago, palm sugar, and sorghum. However, only oil palm is feasible due to high productivity: every single hectare of palm oil can produce 4.27 tonnes of oil per year. In comparison, soybeans, rapeseed, and sunflower production are varied between 10 and 15 per cent of the palm oil [31]. Moreover, the high demand for palm oil for foods makes this commodity ready to be developed as biofuel[32].

In an increasingly integrated world, policies in a region will affect other countries or regions[20]. The enactment of the Renewable Energy Directive (RED) of the European Union (EU) in 2009, for example, dramatically affects the governance of biofuels. RED is a regulation that promotes the use of energy from renewable sources, with the commitment of EU member states to reduce primary energy use by 20%, reduce 20% of greenhouse gases, and use 20% of energy from renewable sources by 2020[20]. As a result, Indonesia energy consumption increases strongly. Ministry of Energy and Mineral showed a 30% increase in Indonesia energy consumption in 2017[33]. The Indonesia Energy Transition is crucial to attaining the country’s climate goals. Accordingly, Indonesia has a strong commitment represented in the country’s Nationally Determined Contribution (NDC) under the Paris Agreement, Indonesia, to reduce 834 MT CO₂ emissions by 2030. By 2025, Indonesia planned to achieve a 23% renewable share in its primary energy mix from the current share that is less than 8%[34].

The target of using 20% of energy from renewable sources can trigger social and environmental issues due to its massive expansion of land-based products, such as sugarcane and palm oil, to meet those targets[20]. For example, the B15 programme is estimated to require 4.5 million tonnes CPO/year, while B20 is required around 6.4 million tonnes. Therefore, production of B20, about 10 million tonnes
of CPO are needed, and the B100 programme requires 35 million tonnes of CPO. Meanwhile, the national oil palm plantation reaches 16.38 million ha with 2-4 tons of CPO/ha/year productivity. Thus, the total production from national oil palm plantations reaches more than 49 million tons of CPO per year. Of this amount, 14 million tonnes of CPO are used for cooking oil[35].

![Figure 1. Estimated demand for biodiesel (2015-2024)](image)

Source: EBTKE (2020); Investor daily (2020)

Biofuel (biodiesel) is a strategic and rational choice for accelerating energy transformation. The biodiesel programme will not compete with conservation initiatives as long as oil palm is produced applying sustainable forest principles [20]. Moreover, the government should consistently implement strategic policies, such as (1) making reform of oil palm governance through one map policy, reforming the licensing bureaucracy, and accelerating certification; (2) Increasing productivity from an average of 2-4 tonnes of CPO/ha/year to 8-10 tonnes of CPO/ha/year by implementing Good Agricultural Practices (GAP) of palm oil production and smallholder oil palm replanting programs; (3) performing Palm oil moratorium; and (4) Implementing Development of alternative raw materials such as jatropha, kemiri sunan and others[36].

2.2. Certification: voluntary and mandatory

Land-based production sustainable governance framework relies on the institutional arrangement that set a voluntary or mandatory scheme, private or public regulatory systems to encourage the desired level of social and environmental compliance[37]. However, even though the private initiatives endorsed by transnational regimes are the norms, it is increasingly competing with state-driven schemes. Thus, although the forestry certification was initially voluntary, it now becomes increasingly mandatory in practice[12]. Similarly, it started with a failed regulation to voluntary oil palm certification, although the current trends indicate that a mandatory regime is on the rise[38].

Voluntary certifications are targeted to the changes in the organisation’s behaviour and individuals within the owners, managers and workers without using the power of laws[39]. The mechanisms work through the ability of consumers to differentiate the good and poor products based on their impacts on the environment and social well-being. This better performance is then “awarded” with a premium price and markets access, which translates into financial incentives that make the producers comply with the sustainability standards[40]. These approaches are popular when it is too difficult and costly to implement a regulatory measure, for instance, where the political will[41] and government capacity is lacking[42], or environmental laws and enforcement are weak[43]. Certification schemes that are jointly
developed by the corporate-NGO partnership—which also provide mechanisms of third party audit—are “…one of the most innovative and startling institutional designs in the last 50 years …(p.4)” [44] in land-based production pioneered in 1993 by Forest Stewardship Council (FSC). Certification here refers to the third-party audit. The first-party audit is carried out within the organisation by internal resources, which is often called an internal audit. The second party audit is done by the supplier, customer contractor, lenders commonly against their requirement (in practice, the second parties can hire external resources). An independent body carries out a third-party audit against a well-known standard, followed by issuing a certificate.

Indonesian palm oil is a prominent example of how competition between voluntary and mandatory certification schemes evolve. Palm oil—although it can bring rapid economic development, alleviate poverty in rural areas, and provide a source of renewable energy—under poor management could have severe impacts such as the extinction of high conservation value forests, marginalisation of local people and indigenous communities, and social conflicts [45]. The concerns about the adverse effects of palm oil development motivate environmental NGOs to promote the development of market-based voluntary governance (without the involvement of governments) to the main players of oil palm industries in the importing countries. The role of the 2004 Roundtable on Sustainable Palm Oil (RSPO) in addressing social and environmental impacts of global palm oil production is then into the spotlight of the intensive NGO campaign [46], since the objective of RSPO is “…to promote the growth and use of sustainable palm oil through cooperation within the supply chain and open dialogue with its stakeholders, and the following are among others... (p.2)” [47].

The RSPO is a transnational private governance scheme including food and biofuels uses [48] that enjoys considerable support from EU-based companies and environmental/social NGOs. RSPO is different from other commodity sustainability initiatives that starts from the perception of sustainability problems and is not based on capturing business opportunities from a niche market demanding products with specific quality [49]. RSPO relies on the acceptance of the rules and norms developed by the commodity chain actors [50] and therefore seeks legitimation through external parties such as NGOs, companies (buyers), and the financial agency in developed countries that often do not implement the standards and continually do not develop the criteria. The practice in RSPO sets the new rule-of-the-game by developing and implementing sustainable palm oil standards through the principles and criteria. This rule aligns with the objective of the roundtable to claim governance authority by introducing environmental information in the chain of production and consumption as it combines moral and market authorities from advocacy groups and companies [51].

The RSPO’s website [52] records 5,067 members from 100 countries globally, covering 3.26 million ha of plantation. Of these, 470,499 ha comes from 165,917 smallholders with a total volume of 17.96 million tonnes or 19% of the total palm oil certified by RSPO. Production area certified by RSPO shows an increasing trend, as can be seen in Figure 2. Most certified sustainable palm oil production comes from Indonesia (51% or around 9.16 million tonnes) and Malaysia (42%). Compared to Indonesia’s total palm oil exports in 2020 based on Statista’s website [53], in which Indonesia exported 27.33 million tonnes in 2020, it can be said that a third of Indonesia’s palm oil production has been certified under RSPO.

Although RSPO was formally inaugurated as a non-state voluntary governance arrangement, it came to the Indonesian Government (GOI) to implement regulation compliance and smallholder certification [54]. This approach resulted in the establishment of the RSPO Indonesian Liaison Office (RILO) on December 1 2006, in Jakarta to work on priority issues of engagement of smallholders, trial implementation of RSPO principles and criteria (P&C) by volunteer companies, national interpretation of RSPO P&C, and communication with stakeholders [55, 56].

Besides RSPO, there is also a certification system for palm oil used as biofuel in the International Sustainability and Carbon Certification (ISCC), a multi-stakeholder initiative to support palm oil producers in achieving better GHG emission performances and credibly promoting deforestation-free supply chains using innovative tools for risk assessment [57]. ISCC dominates the EU market for biofuel sustainability and applies a more commercial and mainstream approach for meeting the requirement of
the sustainable biofuel used in the European Union[58, 59]. The association of ISCC has 164 members, with 30 new members joined in 2020 and 6 new members joined up to February 2021[60]. More than 4,600 ISCC certificates are currently valid with the two biggest regionals (57% of certificate holders are based in the European Union, 24% in Asia). ISCC certifies 1.72 million hectares of palm oil plantations, which are second after rapeseed (5.28 million hectares).

Responding to the emergence of voluntary standards where governments are not the dominant actor in regulation, Indonesia developed the Indonesia Sustainable Palm Oil (ISPO) standard launched in 2011[61]. A similar transformation occurred in Malaysia with its Malaysian Sustainable Palm Oil (MSPO) in 2015[62, 63]. ISPO legitimation relies on national producers and trade associations to reclaim state authority in managing domestic palm oil production[64]. The GOI argues that Indonesia needs ISPO as part of the Indonesian President commitment to reduce GHG emissions, especially from the opening and operation of oil palm plantations, raising awareness of sustainable palm oil production, accelerating the adoption of sustainable production systems and certification, and enhancing Indonesian palm oil competitiveness in the global market[65]. The launching of ISPO remarks the Indonesian Government’s repositioning as a key actor in the sustainable governance of global commodities by developing its standards, networks, and coalition in the international sustainable palm oil discourse[66]. The initial version of ISPO was criticised for its weakness in balancing sustainability objectives and economic interest, unauthoritative and poorly-equipped implementation and enforcement mechanism[67]. Trying to answer these challenges, a new ISPO was launched under Presidential Regulation 44/2020 by strengthening the role of third-party certification and strengthening legal sanctions.

The mandatory certification uses diverse policy instruments to achieve the desired level of compliance. Furthermore, the strictness of the systems is determined by an emphasis on command and control (“sticks”), which create a restrictive regulatory framework. Understanding these context-dependent institutional settings is crucial to know how a certification regime shifts from one to another. Nevertheless, the enactment of the ISPO standard also indicates an unstable dynamic of Indonesia state responses to the established international private standard. The interaction between the standard swings from coordination to competition and from competition back to coordination[68]. Meanwhile, a more recent study concludes that the relationship between ISPO and RSPO evolve from competition to collaborative and coordination[69]. Notwithstanding those differing natures of ISPO and RSPO, both represent a trend in global norm favouring sustainable production[70] and that both initiatives align with sustainable oil palm production[71].
2.3. The newest approach in Jurisdiction Certification

The emergence of jurisdiction certification (JC) for sustainable production owes credit to the pivotal roles of two initiatives: the REDD+ and land-based sustainable production[72]. The REDD+, which UNFCCC negotiated in 2005, is a PES-based (Payment of Environmental Service) forest conservation framework that creates financial incentives by selling certified emission reduction[73]. Those initiatives were initially developed into a Landscape Approach (LA). However, there is the various competing definition of the JA that it is difficult to reconcile them[74]; we cited one of them: “...governance initiatives that promote sustainable resource use at the scale of jurisdictions through a formalised collaboration between government entities and actors from civil society and/or the private sector, based on practices and policies intended to apply to all affected stakeholders within the jurisdiction... (p.3)”[72]. Thus, the sustainable jurisdiction is: “…the successful transition to sustainable development—encompassing social, environmental and economic dimensions—across entire political geographies, such as a state, province, county, district or nation. Success is measured “wall-to-wall” across the entire jurisdiction and therefore encompasses the full range of activities, production systems, ecosystems and actors…(p.3)”[3].

The landscape approach arises from an awareness that forest (and biodiversity) conservation needs a holistic intervention across the landscape instead of fragmented initiatives without interlinkage[75]. In this approach, harmonised efforts among actors are required to integrate various competing claims to the land use that are often conflicting, where conservation initiatives are only one goal among many incompatible undertakings[76]. Furthermore, the landscape provides a context to the inhabitants’ farming activities and livelihood strategies due to adaptation and resilience to multidimensional changes and past/future agroeological and socio-economic pressure[77]. Many countries are increasingly trying to reconcile conservation and poverty alleviation objectives. In this case, they need to address the trade-off between securing livelihoods and conserving biodiversity. The LA approach is seen as a promising framework to resolve those competing goals. However, the policy will differ among countries depending on their financial capabilities, population pressure, and culture, determining the most appropriate conservation strategies from the available policy portfolios[75].

A recent effort in Indonesia, the initial work of landscape approach in curbing deforestation and promoting social-economic-wellbeing is done by targeting oil palm planting because the permission of land development for this purpose is under the influence of the subnational government[78]. In this regard, several pioneering works are worth mentioning[78]: (1) REDD+ initiatives pioneered the Jurisdiction Approach (JA) in East Kalimantan in 2014. First, the TNC has a long-standing relationship with the Berau, East Kalimantan, that paved the way for promoting the JA to the provincial level[79]; (2) the Seruyan district announced its support to JA, which later secured support from IPOP[78]. Then, two years later, INOBU as the intermediary, a smallholder group in West Kotawaringin, secured a deal with Unilever to supply palm oil under jurisdiction certification[80]. (3) Started with Lalan sub-district of Musi Banyuasin in 2014, South Sumatra, with the aids of IDH and ICRAF, South Sumatra province produced Green Growth Plan for South Sumatra in 2017. (4) Tambrauw district of West Papua proposed as “conservation district” in which the development will be carried out with a solid commitment to biodiversity conservation[81].

The idea of jurisdiction certification can be traced back to the concept of landscape labelling for PES to overcome existing challenges such as ecosystem service delivery, transaction cost and conditionality. The labelling is done by applying a combination of PES and product certification principles at a landscape scale instead of a products/value chains scale. Under this scheme, the certificate is applicable across the entire landscape[82]. Thus, one certification unit consisting of multiple commodities, services, and land uses across the landscape can share overall benefits[83]. Besides that, private sectors and sustainable commodities also bring jurisdiction certification on the ground [84]. They are interested in the promising benefit of the schemes, such as the ability to address deforestation, water depletion and other land-based production issues on a scale, and more straightforward and less costly in sourcing land-based commodities[85].
Various definitions exist over the jurisdiction certification, but in principle, it is a variant of landscape certification applied to the political territory. The basic idea is that independent projects cannot achieve environmental conservation due to the inability to become scale[86]. Moreover, it is increasingly recognised that any environmental conservation initiatives should base on government policies and programmes. Although JC is compatible with national level jurisdiction, it is commonly done at a subnational level due to managerial issues, such as being too far from the beneficiaries and diverse stakeholders of a country[87]. Therefore, applying jurisdiction certification to palm oil represents an effort of the jurisdiction(s) to comply with part of or the overall indicators of one or more sustainable standards, e.g. ISPO, RSPO and ISCC [88]. In Indonesia, the KELOLA Sendang programme by the Zoological Society of London in Sembilang, Lalan Dangku, South Sumatra[89] and Integrated Conservation and Development Project at the RIMBA corridor at the Kerinci Seblat National Park by Challenge Account-Indonesia (MCAI) dan WWF Indonesia[90] can be an example of jurisdiction certification.

3. Challenges of sustainability certification

3.1. Challenges in sustainability certification

Sustainable land-based production is essential for reducing deforestation and improving the social welfare of rural households, which is achieved by providing a niche market. The niche market for sustainable raw materials (timber, palm oil, soy, and sugar)—initiated in 1993 with the introduction of the FSC standard and certification system—continuously rises. However, the global market share for sustainable feedstock remains small: ranging from 2% to 26%. With its long history, certified timber is the highest, certified RSPO is the fastest growing (22% in 2021)[52] and certified soy and sugar are negligible[91]. Therefore, developing a new market for sustainable palm oil is increasingly important. The leading company’s motive for RSPO certified products is to access the EU palm oil market, which is currently stagnant at 14% of the global market[92]. In contrast, the most prominent market (China, India and Pakistan) prefers un-certified ones. The world market is already an oversupply of palm oil, it is unlikely that palm oil growth will be driven by price and demand-side but rather by producer reputation risk. [78, 91].

The slow adoption of sustainability certification—for instance, it takes 19 years for RSPO to certify 21% of globally traded palm oil[52]—indicates lingering challenges in implementation, including the effectiveness of the scheme to reduce fire and deforestation[93], reduce poverty[94] and producers profitability issues[95]. Here, the sustainability of smallholders is crucial because it accounts for 40% of the global production[96]. Albeit the positive roles of sustainability standard—as acknowledged by community development—risk smallholders excluded from the process and requirement of the certification remain. [97, 98]. Moreover, the high cost of acquiring and maintaining the certificate, especially among smallholders, restrict them to enter into certification and prevent them from entering into certification. For example, in Malaysia and Indonesia, RSPO annual certification and corrective action costs range between $1.19 and $34.66 per smallholder per hectare [99], prohibitive for smallholders.

Drawing from Indonesia and PNG experiences, smallholders often lack the individual, organisational and institutional capacity required by the certification[100]. Land titles issues, seedlings, pesticide usage, fertilisation, and documentation are the most challenging tasks for smallholders to comply with the standard[100-102]. Reports from various case studies in Indonesia confirm that smallholders have faced perennial issues since their inclusion in the RSPO certification: (1) having poor documentation, including difficulty complying with legal requirements, primarily related to the land title. (2) experiencing difficulty complying with Good Agricultural Practice (GAP), e.g., using low-quality planting materials, lacking the technical capability to assess oil palm nutrition and determine fertiliser requirements. (3) having lacked the skill to meet the RSPO requirements for safe pesticides’ handling and disposal, and (4) continuing access to monetary incentives, such as premium price[100-105]. These issues stem from the fact that RSPO P&C are firstly designed for the company, which generally has sufficient resources before the P&C is adapted for smallholders.
Other challenges are convincing the sceptic NGOs over the capabilities of the RSPO/ISPO in governing their certifications. Most external critics are related to weak certification standards, which falls short to prevent forest degradation, tropical deforestation, and improving social welfare. From the governance side, several issues are raised: complaint panel is inefficient and unsatisfactory, the non-credible certification body (CB) and auditors, the difficulty of product traceability, weak monitoring of P&C implementation, failure to prevent the recurring problems from happening, and failed to imposed sanctions to the member repeatedly violating the standard[106].

Another remaining issue is the inequality of value distribution along the commodity chain, which is higher than the conventional chain[107], only limited to the solution. Therefore, bringing this issue into the roundtable is increasingly important so that fair distribution of value within the chain can be elaborated[108]. Furthermore, it can be done should the government and producers be better represented in the standard body, which in the case of RSPO, both parties are underrepresented since the inceptions[109]. Although another scheme, the ISPO, is promoted by the government, the scheme faces harsh criticisms from NGOs. The critics mainly addressed are the weak indicators, reliant on Indonesian regulations, inadequate protection of human rights, women and children and HCV, low adoption, unreliable complaints systems, insufficient monitoring and enforcement of the standard, lacking resources to carry out the standard, untransparent standard development and the audit result, and no traceability[106]. Therefore, the inclusion of the government into voluntary certification schemes are becoming more crucial because the newest study confirms that challenges to smallholder certification stem from current and previous government policies and regulations[102] instead of smallholders’ socio-economic backgrounds previously thought[104, 110]. Thus, addressing those challenges will require government intervention in the form of policies, regulations, and provision of extension services[102].

The emergence of certification with a jurisdictional approach offers options, opportunities and challenges to overcome the various limitations currently identified from the existing schemes. The most recent study on jurisdiction certification confirms that smallholders certification challenges are mainly previous and ongoing government policies[102]. Therefore, government staff and processes are crucial components of orchestrated efforts of multi-stakeholder governance and collaboration processes between government (including subnational), civil societies, and private sectors interested in reducing deforestation and improving the social welfare of the smallholders[72, 78, 111]. Since the majority of jurisdiction initiatives in Indonesia are directed toward sustainable and inclusive production of palm oil[72, 78], theoretically, the government can provide support to jurisdictional certification by facilitating smallholders to meet the standard, inform the streamlining regulatory process within their jurisdiction. In contrast, private sectors and civil society provide material and human resource supports [102].

3.2. How far the existing certification are able to deliver their promises
Certification is not an interest-free mechanism. The social and environmental standards present in certification are often affluent with the political and economic interests. Certification that regulates the governance of the biofuel industry is also often regarded as a non-tariff barrier used by several countries to guarantee biomass production in the country concerned, preventing it from invading imports from third countries. Biofuel certification is also a product of the political economy of developed countries in protecting their domestic land-based industry. Therefore, the Indonesian government needs to be more active in carrying out economic diplomacy and responsive to various Indonesian products’ various policies [20].

A nationally based certification like ISPO is developed based on the slow development of RSPO implementation[65]. To some extent, this claim has a basis since, in more than 15 years, RSPO can only certify 19% of the total palm oil traded globally. However, beyond this claim, there are various weaknesses in the certification model. For example, RSPO certification has flaws based on individual corporations or farmer groups economically and socially constrained. For farmer groups, for example,
high costs are the main problem in obtaining certification, and another issue is such certification relatively challenging to guarantee the traceability of the commodity.

NGOs have long investigated that certification schemes fail to prevent environmental and social impacts on two main areas[106, 112]. Firstly, RSPO initially allows the development of plantations on degraded forests and peatland to some extent which is considered contradictory to the objective of RSPO to conserve HCV and HCS areas. This situation makes NGOs sometimes blame RSPO as a facilitation agent for greenwashing. To address this criticism, RSPO improves its principles and criteria while issuing the guidelines such as reducing GHG emissions. RSPO develop more ambitious criteria in RSPO-RED: more aggressive protection against forest/peat conversion, greenhouse gasses (GHG) reduction etc. The RSPO move further by the RSPO NEXT which requires more stringent protection against deforestation, fire and peatland conversion, GHGs reduction, human rights abuse, etc. Secondly, the certification tends to be silent on problems like human trafficking and intimidation of environmentalists. ISCC faces similar challenges with the objections for limited coverage on the lacking of instruments for preventing environmental issues. In addressing these criticisms, ISCC issued ISCC Plus.

These weaknesses have led to the emergence of alternatives like POIG (Palm Oil Innovation Group) developed by NGOs and palm oil producers that aim for going beyond RSPO’s requirements on deforestation, peatland, human and labour rights, and climate change effects. Besides, the palm oil producers, transnational retailers, and consumer goods companies announced the pledge of “No Deforestation, No Peat, No Exploitation (NDPE)”, signed by 96% of the global palm oil market by 2020. However, the NDPE pledge also seems to be limited in preventing the expansion of plantations on forests and peatlands.

The lack of achievement of palm oil sustainability certification partly comes from the differing interpretation on promoting sustainable palm oil[113]. RSPO shows a better result in economic sustainability but fewer clear benefits in environmental and social sustainability. The lack of ecological and social benefits is associated with the inability of certification policies to consider a high degree of variation in environmental and social conditions among palm oil concessions before certification. In addition, although the plantations have been certified, the sustainability certification itself could not prevent deforestation that happens as a spill over effect[10]. Further analysis shows that overall oil-palm-caused deforestation outweighs the direct and indirect deforestation prevented by the certification. The failure to avoid deforestation at the sector level is assessed due to the promise of sustainability certification to expect certification to improve the overall palm oil sector environmental performance. Two factors contributing to this situation are the lack of market uptake to the certified products and significant loopholes in the sustainability certification criteria[114]. Furthermore, deforestation-free terminology is not precise in defining the scope of its commitments that tend to adopt a general agreement and define the methodology for preventing deforestation[115]. On this basis, the effectiveness of sustainability certification is contributed by the perception and expectation, which are beyond the technical aspects of the certification itself.

3.3. The international perception of the effort in improving/achieving sustainability and global deadlock on certification

The perception of governments in the palm oil importing countries and the critical stance of other international community members are at the core of the certification debate. Governments in the destination markets, notably the European Union, are increasingly critical of the limits of compliance by palm oil-producing countries as more rigid Renewable Energy Directive (RED) II criteria are introduced. However, the European Union also opens the possibility to strengthen the existing certification scheme by not putting a burden on the individual smallholders by taking the group certification and landscape approach[116]. As palm oil sustainability certification is discussed as part of the inter-regional cooperation, the establishment of the EU and ASEAN Joint Working Group on Palm Oil highlights an ambitious plan for research, dialogue and collaboration. Such a new avenue of palm oil certification emerges while the EU remains hesitant to recognise national sustainability standards in
Indonesia and prefers to rely on voluntary standards[117]. Beyond the EU markets, governments of India and China are leaning towards securing their palm oil supply to feed the domestic market demand while also responding to the evolving sustainability standards. In addition, India and Indonesia work on debunking the perception that Indonesia’s palm oil is cheaper due to its lower quality[118]. China, meanwhile, is one of the most challenging markets to sell certified palm oil: market uptake only 2 per cent, while the targeted amount should have been 10% of RSPO certified palm oil. This challenge does not allow market actors’ substantial engagement, which further affects the social welfare agenda in palm oil-producing countries[119].

Various palm oil sustainability certifications put pressure and offer incentives to actors within the supply chain to comply with the international commodity markets’ demand and government requirements [120]. As a result, there is an appreciation of corporate commitments and pledges towards meeting sustainability criteria. It is also noted that the gaps in collaboration with the government remain to be facilitated through a multi-stakeholder mechanism[121]. Some corporate actors in the supply chain can access segmented markets that purchase certified palm oil at a premium price through voluntary schemes.

International non-governmental organisations working on social and environmental issues present varying positions regarding the current efforts pursued by palm oil-producing countries. Those who promote sustainability certification appreciate the existing measures in advancing governments’ legal and regulatory capacity. However, critics also raise how the current policy that bans palm oil to the European Union market by 2020 will likely penalise producers who already meet sustainability standards. Therefore, a more comprehensive introduction of sustainability certification that covers other vegetable oils is a more desirable approach[122]. Meanwhile, transparent information regarding how palm oil products circulate globally becomes the priority issue[123]. Therefore, the current debate on the progress of sustainability certification needs to consider various implications beyond corporate and producing countries’ compliance with sustainability standards in international trade.

While there are numerous indicators, the international perception on the effort of palm oil-producing countries to address sustainability debate focuses mainly on the ecological aspects (emission, deforestation, indirect land-use change, and biodiversity conservation). There are still limited discussions on the viewpoints of smallholders as the beneficiaries of the social welfare agenda in the global palm oil industry. Smallholders mostly rely on considerable support and facilitation by the government as well as international certification. The broader socio-economic context of inequality and injustices in which unsustainable practices are claimed (including those shaped by the global power relations) has been chiefly of secondary consideration. Such lack of prioritisation has tremendous implications on how the current and future certification schemes will substantially address the social welfare agenda.

International scholars are divided in valuing the merit of sustainability certifications. There is strong criticism on sustainability certification for palm oil as it only sustains political actions related to branding myth and the welfare of small majority[124]. Some others argue that while certification efforts are worth considering, there are problems around commercial certification, which is highly associated with large-scale plantations. There is a lack of recognition of the benefit of outsourcing from smallholders, while otherwise, this will directly link to rural poverty alleviation and conservation outcomes. More deliberate action by retailers and consumers who promote sustainable palm oil production to purchase smallholder’s products is still to be seen[43]. Certification schemes face challenges as it does not guarantee the inclusion of the smallholders due to some associated characters of the smallholders, notably lack of capacity and knowledge on standard compliance, lack of organisation, lack of incentives, and certification costs[101]. This shortcoming applies primarily to independent smallholders.

4. Jurisdiction certifications: how it can overcome the weaknesses of traditional certification

Jurisdiction certification seems promising in overcoming the drawbacks of traditional certifications with its inclusive nature in governing sustainability. But, as it has been found in Kotawaringin Barat and Seruyan, Central Kalimantan[102], the mounting challenges persist[72, 78]. Successful jurisdiction
certification requires the flexibility of stakeholders in navigating governmental challenges. Since the jurisdiction certification is commonly implanted into the existing initiatives, it will need a smooth horizontal alignment. Moreover, in an era where non-state actors are dominant players, the vertical alignment of jurisdiction certification with multilevel initiatives can be tricky, especially when there is no coherent vision of resource use among the levels [125].

The novelty of the collaborative approach as the basis of jurisdiction certification offers a promising way to move forward with the need to recognise the sustainability improvement in a specific jurisdiction. Jurisdictional certification will be cheaper than conventional certification because it will simplify the certification process[126]. For example, deforestation issues are better addressed from landscape/jurisdiction instead of certification units. Should a jurisdiction certified for deforestation—certification body has confirmed that government meets the criteria for preventing deforestation—the assessment of deforestation issues can revoke the need for assessing deforestation issues during the operating unit certification, thus reducing the cost of certification.

In 2015, the website of RSPO mentioned that the Central Kalimantan Province had started jurisdiction certification for sustainable palm oil [127]. Some examples are mentioned by initiatives led by NGOs like Packard Foundation/CLUA, Lingkar Temu Kabupaten Lestari (LTKL), Forest Carbon Partnership Facility (FCPF) Carbon Fund and IDH [128]. These initiatives are welcomed by the government both at the local (like those who are participating in the projects led by these NGOs and assume the leadership position) and the national level such as Bappenas—through the report on low carbon development, the National Medium-term Development Plan 2020-2024 and pilot low carbon development in collaboration with several provincial governments. Seymour and Aurora inform that some obstacles met in implementing jurisdiction certification, like limited land-use planning data availability, insufficient district official’s capacity, and policy misalignments between national, provincial and district levels. Due to political turnover, the continuity of the programme could be a major challenge, especially if the successors are reluctant to continue their predecessors’ programme, as in Low Emissions Development, in West Kalimantan, which was stalled when the initiating governor left office in 2005.

Meanwhile, in Siak, Riau, the national government’s low-carbon development effort gained momentum when the regent was elected governor of Riau[78]. Although it seemed that the governor was successfully influencing his predecessor to continue his vision over Siak regency, in a negative term, this could be seen as an effort to impose external values on local stakeholders[129]. Another perennial issue is the availability of funding. Since the capability of local government to finance the initiative is relatively limited, current initiatives mostly rely on external financing. For example, the certification of smallholders in Kotawaringin Barat and Seruyan was made possible with financial support from five foreign agencies[102].

The view of international community members on the prospect of jurisdiction certification is varied. As an alternative to traditional certification, jurisdiction certification is expected to address the long-standing debate that often puts voluntary and mandatory certification schemes in confronting positions. There is a need to forge the alignment between the two[130, 131]. Other writers assert the swinging approach of palm oil certification in Indonesia: from failed government regulation to voluntary and private to mandatory state governance[38]. Beyond this dichotomy, the intersection between the two forms of certification assumingly allows complementarity of roles and resources, shaping the hybrid nature of the jurisdictional approach in its implementation. This nature shall also allow more space for multi-stakeholder involvement in the formulation and implementation of sustainability criteria.

For an international non-profit organisation, reliable information can better facilitate an information exchange certification scheme for all stakeholders. This exchange, however, needs a closer engagement for all stakeholders in anticipating the potential of market demands which can provide incentives for the government to strengthen their regulatory capacity in their jurisdiction[132]. Another study on implementing the jurisdictional initiative in South Sumatera and Central Kalimantan reveals that some issues regarding alignment between the government and the private sector potentially scale up best practices and lessons learned across different jurisdictions. This scale-up is on the condition that an
effective communication line between the private sector and the different levels of government is present. In Kotawaringin Barat, Central Kalimantan, the jurisdictional approach is implemented with a critical goal to increase the productivity of smallholders by assisting them through the RSPO certification. Some remaining issues include bridging the ongoing but isolated initiatives through the role of mediator[130].

Social welfare is another central point in which the evolving jurisdiction approach may present its role towards a broader context of well-being. As McCarthy argues, in the supply chain, current and future certification schemes need to address procedural and distributional justice[133]. In a procedural term, as jurisdiction certification engages more deeply with governments at the subnational level, it assumes better connections with the farmers and the local communities as the beneficiaries of the social welfare agenda attached to the certification process. Smallholders’ inclusion in the value chain is a central issue to accommodate the social welfare agenda promoted through the certification process. There are aspects of political democratisation to be considered, such as a more substantive representation of smallholders’ needs in the local government policy.

Beyond procedural terms, it is necessary to situate the current progress within the broader social welfare agenda. In Central Kalimantan, the RSPO palm certificates can generate US$ 30,000 that support 190 smallholders out of 4,000 who are part of the stakeholders’ mapping[87]. It is argued that there are often repeated policy changes where several initiatives are established and then disbanded while commitments are in place; strong leadership through adaptive and networking approaches is required in pursuing a jurisdictional approach.[134]. In addition to that, various structural barriers are embedded in the redistribution of benefits from the certification process to economically vulnerable actors in the supply chain. This is a strategic problem to address by strengthening public-private alignment in the certification process grounded in the socio-economic reality of uncertified smallholders. Factors such as property ownership, social inequality, and the presence of conflicts over land use need to be part of comprehensive efforts to address deforestation, peatland degradation, wildfires and climate change impacts. A more progressive internalisation of the social welfare agenda needs to be considered and more profound engagement with various stakeholders.

In addition, all examples mentioned in the literature have not shown visible proofs of market basis interaction in the commodity chain. In contrast, the market still demands commodity-based certification from the jurisdiction. Acquiring market power becomes an essential factor in developing the legitimacy of a commodity certification, as crucial as getting political power from the actions [50]. In particular, a commodity certification depends on the capacity of the actors to develop meaningful influence over sustainable commodity governance, not only to the Global South but also to the consumers, civil society actors, manufacturers and green politicians in the Global North [114]. In a way, this shows a limited acceptance by commodity chain actors to practice jurisdiction certification at the practical level.

5. Conclusions and the way forward
The emergence of certification with a jurisdictional approach offers options, opportunities and challenges to overcome the various limitations of the existing schemes. Jurisdictional approach pilot project in Indonesia shows promising results in overcoming the drawbacks of traditional certifications, such as reducing deforestation and improving the social welfare of the forest community. However, the review indicates limited acceptance of the actors within commodity chains to adopt the jurisdictional certification.

The inclusive nature of the scheme makes it possible to reconcile competing interests among different stakeholders within the jurisdiction. Since the recent and previous regulations are the leading obstacles of the certification, government staffs and processes are crucial components of multi-stakeholder governance and process concerted at reducing deforestation and improving the social welfare of forest communities. The government can support jurisdictional certification by streamlining the regulatory process within their jurisdiction, while private sectors and civil society provide material and human resources support. This is reliant on effective communication between the private sector and the different levels of government.
Successful jurisdiction certification requires the flexibility of stakeholders in navigating governmental challenges. Moreover, the jurisdiction certification is also necessary to align vertically with multilevel initiatives and horizontally with existing ones. Political turnover could hamper and strengthen the jurisdiction certification, depending on the coherence of predecessors and successors’ vision on sustainable resource use. Funding availability is another issue to address; the initiatives need to ensure that they can generate sufficient funding to keep the programme running after external funding is terminated.

Social welfare is another central point in which the evolving jurisdiction approach may present its role towards a broader context of well-being since it would create procedural justice and distribution. As jurisdiction certification engages with governments at various sub-national levels, better connections will develop between government authorities and local communities as the beneficiaries of the social welfare agenda attached to the certification process. Moreover, the agenda needs to include smallholders in the value chain to accommodate the social welfare agenda promoted through the certification and political democratisation to facilitate a more substantive representation of smallholders in the local government policy.

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