TRADE, DEVELOPMENT & THE ENVIRONMENT HUB

Executive Summary

TRADE Hub Indonesia Scoping Studies

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The TRADE Hub Indonesia project is focusing on trade in oil palm and coffee, which are both important agricultural commodities for Indonesia, as well as on trade in certain wildlife species. The palm oil industry is one of the leading sectors supporting Indonesia's economic growth, particularly in advancing rural economies. However, challenges to achieving sustainable trade persist, especially in regard to reconciling socioeconomic development with environmental externalities. In recent times, palm oil producers and consumers have become increasingly concerned with issues surrounding the trade-offs and impacts of trade and commodity development. These include challenges and opportunities for improving sustainable production and maintaining or enhancing benefits while reducing trade-offs and externalities. Coffee faces similar challenges, including legality and sustainable trade issues, expansion into the forest estate, and smallholder livelihoods.

The main goal of TRADE Hub activities in Indonesia is to address trade-offs in the global trading of palm oil and coffee. The project is expected to deliver benefits for the country whilst reducing adverse impacts on high-risk forested landscapes and rural communities. It is also expected to enhance information relating to both legal and illegal wildlife trading in Indonesia, particularly for the most commonly exported species. Understanding relevant actors, power relations, and benefit sharing in the context of trade may help in addressing illegal trade issues and contributing to efforts for sustainable trade.

To ensure project activities contribute to this goal, it was essential to understand existing conditions surrounding the three study commodities, so the Indonesia TRADE Hub team conducted a scoping study accordingly. In Indonesia, a scoping study was conducted for each of the project's work packages to understand prevailing conditions and identify research gaps. Comprehensive scoping analyses and feedback provided the basis for the

project to move forward. The aim of the scoping study was to map baseline information and data critical for project implementation and achieving greater outcomes and impacts. This report presents scoping study findings on palm oil, coffee, and wildlife trading in Indonesia.

Work Package 1

Work Package 1 (WP1) focuses on legal and illegal wildlife trading. For now, information is limited to the trade of songbirds in Indonesia, but we will also focus on the gecko and wild meat trades, as until now information on these has been lacking. By assessing the online marketplace, we expect to provide on-the-ground insights beyond currently available statistics. Songbirds are the most traded and popular species in Indonesia's online markets. From a total of 12,678 online advertisements, we found 10,743 related to the songbird trade. Around 10,810 birds from 141 species, 46 families, and 11 orders were advertised during the period from 22 August to 21 September 2019. The most frequently advertised orders were *Passeriformes* and *Psittaciformes.* Looking more specifically, we found the most frequently advertised species were lovebirds (*Agapornis spp*.), white-rumped shamas (*Copsychus malabaricus*), island canaries (*Serinus canaria*), zebra doves (*Geopelia striata*), and oriental magpie-robins (*Copsychus saularis*). These five most frequently advertised species represented approximately 70% of all individuals. We recorded conservation status for later selection of case studies and research activities.

Work Package 2

WP2 in TRADE Hub Indonesia focuses on oil palm and coffee, the two main agricultural commodities in this study.

Palm oil

Indonesia is the world's largest palm oil producer. Demand for palm oil drives massive expansion of oil palm plantations in Indonesia, and trade-offs are unavoidable (Pirard et al. 2017). One of TRADE Hub Indonesia's main goals is to address trade-offs between economic development and the environment in Indonesia. Following this goal, it was necessary to understand the impacts of oil palm development on forested landscapes and the important actors involved in the governance of this commodity. We found links between oil palm and deforestation, where an estimated 450,000 hectares are converted annually for oil palm plantations (Austin et al., 2017). Approximately one third of this area is forest estate. As domestic and global demand for palm oil continues to grow, threats to the remaining forest will increase further. Evidence on biodiversity loss and decline, potential human-wildlife conflicts, and threats to food security are well documented in the body of literature.

The palm oil value chain in Indonesia is complex (Pacheco et al. 2017). A study by Purnomo et al. (2018) revealed that the most powerful actors in the palm oil value chain are refinery owners, mill owners, and oil palm developers, who secure the highest distribution of added value, and the ability to determine standards and procedures for upstream to downstream palm oil trading. Meanwhile, smallholder growers are the weakest actors in the value chain in terms of the distribution of added value and power, and as such are the most vulnerable group. A major challenge for smallholders is securing sustainability certification. This is due to their lack of capacity and resources, and the legality requirements needed to comply with standards.

We identified 35 actors from 10 different groups relevant to oil palm governance in Indonesia. An analysis of power relations revealed the private sector, the Indonesian Palm Oil Association (GAPKI), national government ministries: the Ministry of Agriculture (MoA), Ministry of Environment and Forestry (MoEF), and Ministry of Agrarian Affairs and Spatial Planning (BPN), and subnational governments to be the most powerful actors. A network analysis mapped the links between various actors in oil palm governance in Indonesia. Four participating actors: MoA, GAPKI, the Ministry of National Development Planning (BAPPENAS), and the Indonesian Sustainable Palm Oil (ISPO) Commission were identified as key actors. These key actors have competing interests in development and conservation, which make efforts to strive for sustainability more challenging.

Coffee

Coffee production is the principal driver of recent deforestation in some parts of Indonesia, particularly in Bukit Barisan Selatan National Park (BBSNP) in southern Sumatra (O'Brien and Kinnaird, 2003; Gaveau *et al.*, 2009) . The expansion of coffee plantations is a major threat to the habitats of key species, including the Sumatran tiger, elephant and Sumatran rhino. This situation is exacerbated by coffee's vulnerability to climate change, which is forcing growers to establish new coffee plantations in upland regions. This leads to increased land-use change risks with associated implications for biodiversity and ecosystem services. In Lampung province, coffee is the second largest export commodity. Approximately 20,000 of Lampung's 285,000 tons of Robusta was sourced from illegal cultivation areas in BBSNP. Around 40% of the coffee growing illegally inside BBSNP was planted between 1990 and 2000 (Gaveau *et al.*, 2009). Around 44% of farmers with coffee plantations in the forest live in villages around BBSNP, while 56% are outsiders who come from various regions to grow coffee there. On average, each farmer has 1-2 hectares of land designated for coffee production.

We mapped the supply chain and relevant stakeholders involved in the coffee sector using BBSNP and southern Sumatra as our case study region. The stakeholder mapping exercise revealed the supply chain to be complex and opaque. There are multiple levels of traders and trading companies, all engaged in the buying, selling, processing and movement of coffee. Coffee grown illegally inside the national park enters a complex supply chain early on and contaminates all subsequent stages of the supply chain, making full traceability and tracking of illegal coffee extremely challenging.

Various sustainability efforts have been conducted; in 2014, around 7,000 tons of certified coffee was produced in West Lampung. This was approximately 14% of the district's total Robusta production (West Lampung Central Statistics Agency (BPS) 2015). There is little known evidence on the effectiveness of different schemes in reducing the environmental impacts of coffee production.

Work Package 3

Social impacts of agricultural and wildlife trading are the focus of WP3. During the scoping study, the WP3 team conduct literature review on socioeconomic impacts following systematic protocol from WP3 global with adaptation to the need of Indonesia hub. The scoping aims to identify what possible intervention needs to be done within TRADE Hub Activities to deliver better change for sustainable trade. We reviewed 41 relevant articles

from 209 collected articles from using ISI Web Knowledge's database. In addition, we reviewed 10 selected non-journal articles published by CIFOR. Results revealed both positive and negative socioeconomic impacts of oil palm development for rural community. It indicated that oil palm development benefiting the rural community's livelihood in many ways, especially in terms of improved/gained household income and access. It also suggested that various externalities of oil palm development related to the rural community such as conflicts (mostly due to violation community right or land dispute between the company and local or indigenous community, and dispute between company versus workers due to violation of worker's right), and raising inequality due to unfair benefit sharing among stakeholders. We identified that independent smallholders as important target from direct stakeholder for WP3 interventions. We also found that three main barriers for smallholders to implement sustainable trade that need to be addressed are technical barrier (how to maintain yield and productivity), access to finance and compliance to sustainable standard. Results of the review may become the reference to support activities design within WP3 in Indonesia.

Work Package 4

WP4 focuses on agricultural and wildlife trade policies in Indonesia, specifically on the roles traded commodities play for forested landscapes and rural communities. One part of the ongoing study is the development of a conceptual framework that frames plausible drivers through which palm oil trading is defined, and their possible relations to resulting trade outcomes. The four categories of palm oil trading drivers include: endowment, markets, institutions, and trade policies. Trade outcomes are framed through six typologies: economic growth, job creation, poverty alleviation and prevention, income, food security, and sustainability, which includes deforestation, biodiversity, and environmental issues. These aforementioned typologies are critical to strike a balance between social-economic and biophysical matters to enable a unified assessment of trade, development and the environment, as TRADE Hub seeks to achieve. In terms of relevance, these matter to countries producing palm oil which at the same time are largely forested. Current research on palm oil usually portrays the oil palm sector as either damaging or beneficial for the environment and rural livelihoods, but rarely looks at the complexity and the dynamics of the oil palm sector comprehensively from a broad scope (Hospes et al. 2017). Research trends, mainly on the sustainability of palm oil production, have risen to an imbalance in palm oil research that is not comprehensive and is often unclear (Hansen 2015). In regard to wildlife trading, we found three trade chains: legal, quasi-legal, and illegal. These chains involve various actors who will contribute to defining stakeholder roles and economic impacts in trade policies. Reviews of legal instruments show international and domestic wildlife trading is perceived to be well regulated in Indonesia. The Government of Indonesia (GoI) has carried out many law enforcement efforts, including its establishment in 2014 of a specialized Directorate General under MoEF, i.e. the Directorate General of Law Enforcement. However, illegal trading and trafficking continue to occur. Legal reforms, capacity strengthening, improved intergovernmental collaboration, and legal and regulatory awareness are all critical to addressing existing issues.

Work Package 5

WP5 focuses on land use models that can support trade modelling activities within TRADE Hub Indonesia. The Indonesia team reviewed various trade models it expected to be useful, and decided on four types of land-use modelling: 1) Land Use Change Driver Modelling (LUDM); 2) Land Use Change Scenario Modelling (LUSM); 3) Land-Based Development Scenario Modelling for Decision Support (LDDS); and 4) Land-Based Development Scenario Modelling for Negotiation Support (LDNS). We are reviewing Dinamica EGO as an example of LUDM; FALLOW and InVEST as examples of LUSM; GLOBIOM and system dynamics models as examples of LDDS; and LUMENS, developed by ICRAF, as an example of LDNS. The latest modelling type is land-use development modelling for decision and negotiation support, which will be useful for developing policy scenarios for policy makers. The Indonesia team has experience in developing and utilizing land-use modelling, which it will develop based on the sustainable agriculture and wildlife commodity trade business scenarios recommended by later findings of TRADE Hub Indonesia.

Work Package 6

WP6 focuses on studying private sector solutions and impacts. The scoping work has reviewed the various commitments, initiatives and standards of private sector operators in Indonesia. It also follows the typology and characteristics of the main private initiatives to promote zero deforestation by Lambin et al. (2018). In the review, these initiatives are grouped into four types: 1) collective aspirations towards minimizing biodiversity impacts and social impacts, such as the Consumer Goods Forum and One Planet Business for Biodiversity (OP2B); 2) certification schemes for sustainable palm oil, such as the Roundtable on Sustainable Palm Oil (RSPO); 3) company pledges towards minimizing biodiversity impacts and social impacts, such as sustainable palm oil manifestos and sustainable policies by corporate groups or individual companies; and lastly 4) adoption of codes of conduct by corporate groups or individual companies, such as Unilever and Nestle. A general assessment of efficiency and challenges was identified as a part of the scoping study. We found different degrees of success for effective implementation and adoption of standards and translation of commitments into expected outputs and outcomes. However, various challenges hamper the effective realization of commitments. Among other things, these include a lack of coherent legal frameworks, transparency and incentives.

Work Package 7

WP7 focuses on the oil palm sector, specifically on identifying existing Indonesian public sector initiatives and approaches on minimizing biodiversity, zero habitat loss, and preventing harm to local people in connection with globally traded commodities. The findings show that GoI has committed to supporting the implementation of international conventions, as reflected by the promulgation of relevant laws. Major laws and regulations on oil palm plantations and ISPO are already in place. Over the last two years, President Jokowi has issued three different presidential instructions to improve forest and peatland governance, protect natural forests and peatlands, prevent deforestation and land degradation, improve crop productivity, and accelerate efforts to promote and attain the country's sustainable palm oil targets. These presidential instructions also specify key actors and necessary programs. In addition, GoI has led many initiatives including essential ecosystem areas or *Kawasan*

Ekosistem Esensial (KEE), and protection of high conservation value (HCV) forests. Despite government-led initiatives, most efforts to protect HCV and high carbon stock areas are still driven by markets and voluntary certification.

Work Package 8

Various web-based trade platforms have been reviewed through big data analyses in the scoping paper for WP8, and analysis results will provide important guidelines for further TRADE Hub activities. Web addresses, developers, donors, data providers, data sources, types of spatial coverage, and commodity data availability are included in a database of these platforms. Twenty-nine platforms were selected for the review. Around 97% of the platforms provided data and/or visualization on international trade for more than one country; 93% of platforms contained data and or visualization of Indonesian trade, while data on coffee and palm oil were found in 79% and 90% of platforms respectively. However, data for wildlife was only available in 31% of platforms. There were 159 actors involved across the 29 platforms. These consisted or organizations (95%) and individuals (5%) playing different roles from developers and data providers, to financiers. A single actor might be engaged in more than one platform or play more than one role in a single platform as well as across multiple platforms. Approximately 41% or 65 actors were data providers, 30% were developers, and 14% were financiers. A social network analysis recommends potential data providers and developers to work with in future studies.

Work Package 9

WP9 focusses on capacity building for internal and external actors or team members. In the scoping study, we identified key actors and key networks for targeted stakeholders in WP9 activities. Capacity building topics for internal group including multifunctionality of oil palm landscape and oil palm supply chains. In addition, various trainings of new tools and methods that are used or going to be used for Trade Hub Global can be offered to improve capacity of Trade Hub Indonesia. For external group, the scoping study resulted in four types of key institutional networks for TRADE Hub capacity building: government regulators; financial institutions; the private sector; and an NGO network. First, the government regulator with the greatest potential for engagement was the Indonesia Green Growth Program (IGGP) hosted by the Ministry of National Development Planning (BAPPENAS). Second is the financial institution network, where the Indonesia Sustainable Finance Initiative was seen as having the greatest potential for engagement. This network brings together Indonesian banks pioneering ‘Sustainable Banking’ to promote and implement inclusive sustainable finance practices. Third, in the private sector network, the Indonesian Palm Oil Association (GAPKI) has a central role in the palm oil industry. Lastly, the NGO network consisting of WWF was identified as the most relevant network. The WP9 team has also mapped various training activities on sustainable trade and financial investment. Based on the literature review, critical topics in the context of sustainable trade and financial investment are climate finance, green bonds, green economy, green finance, green funds, sustainable finance, sustainable investment, and sustainable practices. TRADE Hub knowledge products that can contribute to this capacity building include: a) Connection of investment and global trade on sustainable principles in palm oil, coffee and wildlife trade; and b) financial regulatory tools, products and services in palm oil investment and trade

decision making at district, provincial and national scales, which incentivize/disincentivize sustainable smallholder production.

Events and meetings

The TRADE Hub Indonesia team organized a project kick-off workshop in Jakarta on 4 March 2020, and a provincial-level workshop in West Papua province on 19 February 2020. Essentially, the aims of these workshops were to introduce TRADE Hub to key stakeholders, communicate findings, and gain perspectives, insights, contexts, and feedback on the project, framework, and findings. The Jakarta kick-off workshop involved 154 participants, while 85 participants attended the workshop in West Papua. Participants included representatives of key institutions ranging from academic/ research institutions, government, financial institutions, private sector operators and business associations. Both workshops went well and achieved their objectives. Key stakeholders in Indonesia's palm oil, coffee, and wildlife trades welcomed the project. The TRADE Hub project raised issues that aligned with key stakeholders' interests and tasks. Key stakeholders participating in both workshops were involved in discussions and provided critical input and insights.

In addition to organizing events, the TRADE Hub Indonesia team also conducted stakeholder consultations between December 2019 and February 2020. The team discussed the latest issues in sustainable trade, and informed 19 key stakeholders occupying prominent positions in central government institutions, such as at the Coordinating Ministry for Economic Affairs, the Ministry of Trade, Ministry of Environment and Forestry, the Oil Palm Plantation Fund Management Agency (BPDKS), and Ministry of Home Affairs, about the TRADE Hub research project. These key stakeholders welcomed the TRADE Hub Indonesia team and showed support for its research focus. The project is expected to contribute to science-based policy making and will continue its engagement with key stakeholders in government and other relevant institutions to ensure important actors are kept informed and invited to participate.

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TRADE HUB INDONESIA TEAM

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