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Green Economy in the Forestry Sector:
The integration of REDD+ activities and the enhancement of community's roles in sustainable forest management

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Key Points

1. There is a big challenge for Indonesia forestry economic growth to perform in accordance with sustainable development principle under the condition of declining forest resources, and arising of environmental and social issues.

2. Green economy is a concept of economic growth that can overcome the unsustainable economy growth, reducing environment scarcity, and the need of social inclusiveness that could not be seen in normal GDP approach.

3. REDD+ is green economic activities that can be measured with parameter of low-emission, resources efficiency and social inclusiveness. As part of the green economy, both in term of its activities, and as sources of funding available for REDD+ can be used as catalysts of economic activity around the forests.

4. The paradigm of community empowerment is no longer sufficient due to rapid development of social sciences that has changed the community perspective on natural resources. It demand more roles of community be involved in forest resources utilization policies as in green economy approach.

Background

Green economy is a concept of economic growth which was developed in line with the sustainable development objectives adopted at the Rio+20 meeting in 2012 in Rio de Janeiro, Brazil. Green economy emphasizes the importance of economic growth that takes into account equally the impact of environmental and social aspects. UNEP (2011) has defined Green Economy as "*One that results in improved human wellbeing and social equity, while significantly reducing environmental risk and ecological scarcities. It is low carbon, resources efficient, and socially inclusive*" (UNEP, 2011). Meanwhile, Indonesia defines Green Economy as "*a development paradigm that based on resources efficiency approach with strong emphasizes on internalizing cost of natural resources depletion on environmental degradation, efforts on alleviate the poverty, creating decent jobs, and ensuring sustainable economy*[1]".

Green economy is a concept of economic development that can overcome inequality of economic growth, environmental degradation and social disparity that cannot be shown in the normal Gross Domestic Product (GDP).

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[1] Presented by the Indonesian Delegation to the 11th UNEP meeting in Bali in 2010

Green Economy concept is very relevant to the current forestry economic growth in Indonesia which is currently declining. Leaving the forestry economic growth pattern as the current business resources utilization (Business As Usual / BAU[2]), Indonesia's forests presumably will be vanished by 2045 (Salim 2014), which indicates that current forest management in Indonesia is not sustainable. Therefore one needs a new approach in the utilization of forest resources that is concerned about economic growth, environmental and social issues. The development of the green economy concept is the right approach in the forestry sector to achieve the development objectives within the framework of the sustainable development.

[2] BAU forest management is the current system of forest management and utilization of forest areas (production, conservation, and protection) that is practiced today with all the strengths and weaknesses of the system and its implementation

Forestry economic growth and environmental damage

There are three challenges in the current economic growth of the forestry, namely a) continued declining economic growth, b) large emission reduction targets and c) severe forest and environmental damages. The economic growth of the forestry sub-sector can be seen from its contribution to the national GDP which is relatively low, only 0.63% with 130 million hectares of forest area, far below the GDP contribution of other ASEAN countries such as Malaysia, where it has reached 3.0% with 20 million ha of forest areas, and Vietnam's 2.4% with 13.7 million ha forest areas (Yasman et al 2014). The target of GHG emissions reduction in the forestry sector is calculated at 0,672 Gt CO2 eq., or 87% of national emission reduction target of 26% (or 45% with International assistance) in 2020[3], which is a major challenge to the forestry sector in increasing and maintaining its economic growth target of 7% per year.

[3] Presidential Decree 61/2011 on National Action Plan for Reducing Emissions of Greenhouse Gases (GHG RAN). This number is reviewed become 29% at year 2030 as Intended Nationally Determined Contribution (INDC) of Indonesia submitted to UNFCCC.

Meanwhile, with the current forest management system in place cause a severe environmental and forest damages. Forest degradation and deforestation data for the period 2000-2012 shows an annual deforestation rate of 671,420 ha per year, and the annual forest degradation was 425,296 ha per year (BP REDD+, 2014). While the environmental damages are exposed by the increasingly widespread former mining lands that have not been reclaimed yet, the frequency of forest fires, floods and environmental disasters which are increasingly frequent. However, despite the economic decline of the forestry and the still high forest degradation, as well as the large emission reduction target, forestry is still an important sector for many other sectors depending on forestry as regards to land requirements and the potentials of the other natural resources located in the forest areas and the role of forestry in climate change issues are increasingly important in the future.

The Green Economic Potential in the Forestry Sector

The concept of development of green economy is the right approach for the forestry to achieve development objectives within the framework of sustainable development, which is characterized by low-emission, efficient and socially inclusive. Green economy in the forestry sector is basically the use of forest resources based on green economic principles in order to guarantee economic growth, sustainability of forest functions and improvement of social welfare. Forestry economic resources from raw material supplies (upstream sector) to timber industries (downstream sector) have contributed to the national economic growth at different levels. Wood is still the dominant forest product over three decades of forest utilization, while the contribution of biodiversity utilization and ecosystem services have not been optimal yet. In applying green growth, forestry economic resources should be directed to green economy with policy interventions that can measure the management and utilization of low emissions, efficient utilization of natural resources and is socially inclusive.

Below are the types of forest management and forest product utilization that contribute to forestry economy. With policy interventions, these types can make further contribution to green economy in Indonesia's forestry sector today:

1. Natural Production Forest: natural forest areas licensed for utilization (IUPHHK HA) cover an area of 23.9 million ha with 297 licenses of IUPHHK HA and produce logs from the natural forests of around 4-5 million m3 per year (out of a quota of 9.1 million m3 / year). The process of timber forest product utilization of this natural forest should make only a minimal impact on the forest ecosystem with maximum efficiency and paying considerably attention to communities' rights. The green economic policy interventions are directed towards improving forest management system through the implementation of Reduced Impact Logging (RIL), logging waste utilization, logging efficiency, and increased productivity of natural forests.

2. Plantation Forest. The license to establish plantation forest issued by the government (IUPHHK HT) has covered 10.5 million ha for a total of 257 licenses of IUPHHK HT, and the realization of plantation areas was only 6.5 million ha which is still far from the target of the roadmap for forestry to establish 14.5 million ha until 2020. Indonesia's plantation forests annually produce 32 million m3 of wood for the pulp and paper industry, 2.3 million m3 of wood as raw material for furniture industry, and wood processing industries (molding, sills and doors, etc.). The intervention of green economic policy are directed towards the development of forest plantations for energy (biomass energy), increased land productivity, land preparation without burning, the use of environmentally friendly fertilizers and partnerships with local communities, and trading policies that maximize the value of the wood.

3. Community Forest (HKM), Community Plantation Forest (HTR), and Private Forest (HR) or outside forest areas, Community-based forest management is given to community

groups or cooperatives, or individuals. The green economic policy interventions are directed towards the use of Non-Timber Forest Products at HKM, increasing forest productivity, and land preparation without burning for HTR and HR.

4. Ecosystem Restoration. The government set the Ecosystem Restoration (ER) as forest utilization license with ecosystem restoration patterns for production forest area which is damaged and unsuitable to be managed as IUPHHK natural forest or HTI. During the restoration process, the license holders can only use non-timber forest products and environmental services. The green economic policy interventions are directed towards increasing forest productivity through planting, the use of NTFPs and environmental services. Ecosystem restoration would be a major activity in GHG emission reduction in production forests.

5. Forests are intended also for other uses and conversion forest (which can be) converted (APL and HPK). These forests in the long term are no longer designated for timber production, but converted into areas for other uses. The green economic policy interventions are directed towards ensuring that forest conversion is only applied in degraded forests, and with maximum utilization of timber from conversion forests (IPK).

6. Conservation forest and protection forest. These forests can produce great economic potentials by exploiting their biodiversity and environmental services. There are no exact figures of how much economic value is generated from these forests. However, in the next five years the government expects to earn revenues from conservation and protection forests which could reach 25 trillion rupiah (RPJMN Forestry 2015-2019). The green economic policy interventions are directed towards the use of NTFPs and environmental services optimally from these forests.

7. Indonesia's Act No. 21 of 2014 on Geothermal Energy, which is an amendment to Act No. 27 of 2003, is a strategic step in utilizing geothermal potentials in forest areas in Indonesia. Geothermal is an environmental service of forest areas. According to the Ministry of Energy and Mineral Resources, the potential renewable energy from geothermal energy in forest areas can reach 29.5 Giga Watt, from mini-hydro power 16.5 GW and from solar energy 20.5 GW. Potential renewable energy of forest areas is expected to cover the energy deficit of 69 GW by 2020 (Supriyanto, 2015).

8. In addition to the economic sources of the upstream sector, the green economy is a potential in the field of timber industry (downstream sector) which has never been considered before. The green economic policy interventions in forestry's downstream sector are directed towards the use of non-fossil fuels, energy saving, efficient use of raw materials, waste and air pollution management, and the utilization of wood from lesser known species.

REDD+ and Green Economy

REDD+ has been transformed into an important part of forest management in Indonesia. COP 13 in Bali in 2007 and COP 16 in Cancun in 2010 have agreed to consider REDD+ as a policy approach and incentives towards the efforts to improve forest management[4].

There are five REDD+ activities that can be undertaken by a state, namely 1. Reducing emissions from deforestation, 2. Reducing emissions from forest degradation, 3. Conservation of forest carbon stocks (role of forest conservation), 4. Sustainable management of forest, and 5. Enhancement

[4] COP decision in Cancun , 2010 (Dec1/CP16) mentions that REDD+ is: "Policy approaches and positive incentives on issues relating to reducing emission from deforestation and forest degradation in developing counties, and the role of conservation, sustainable management of forests and enhancement of forest carbon stock in developing countries".

of forest carbon stocks. REDD+ can be used as the criteria to measure the success of forest management where CO_2 emissions reduction becomes the main parameter. REDD+ is basically how to maintain or to increase forest carbon stocks in forests through forestry based economic activities according to the five REDD+ activities mentioned above. REDD+ economic activities are green economic activities characterized by low-emission, efficient and socially inclusive. REDD+ is part of the green economy, both in term of its activities, and as sources of funding available for REDD+ can be used as catalysts of economic activity around the forests. By creating economic activity in accordance with the framework of REDD +, the forests will be preserved and managed inclusively.

REDD+ and Forest Utilization

REDD+ does not have to stop forest utilization as it is practiced presently. Many REDD+ projects in production forests are tend to conserve the forests and to stop forest utilization. Conserving forest and replacing the use of forests with financial compensations/incentives are not the appropriate way because it will not guaranty a sustainability. Implementation of REDD+ in the form of economic activities such as forest management with environmentally friendly techniques , the use of timber which is more efficient (pressing waste), plantation and utilization of timber and non-timber based on local wisdom, and creating best agricultural practices for forest communities which are better in sustainable economic activities. The utilization of the forest with better

methods and with a more inclusive[5] social approach within the REDD+ scheme is the utilization of forests in accordance with the principles of the green economy.

Therefore, REDD+ should be seen in a perspective other than carbon trading or project based grant funds as it is today. REDD+ is part of the green economy, so that both its activities and funding sources available for REDD+ can be used as the catalysts of economic activities around the forest. It is therefore necessary to reformulate existing REDD+ scheme into economic activity by using REDD+ elements such as MRV and safeguard in measuring its success to forest management.

[5] Inclusive means fairness (equity) and equality in utilizing natural resources and enjoying economic growth

The Role of Local Communities in Green Economy

One of the important pillars of the green economy is the socially inclusive economy. The potential for community to use natural resources directly from the forest is quite big. Forty-six percent (46%) of Indonesia's population live in rural areas, and 48.8% of the population's lives depend on forest and forestry. The number of inhabitants of forest villages is 37 million people (17.1% of Indonesia's population), and they are generally poorer than the rural population in general (Suhardjito, 2015). This indicates that the utilization of forest resources has not been inclusive since it has not been able to improve the welfare of the society. This condition has the potential to remain a social occurrence (conflicts) in the forest areas.

There is an increase of forest resources conflicts lately. The imbalance in the allocation of large-scale and small-scale utilization of forest resources is presumably the trigger of this forest conflicts. The ratio between large-scale forest utilization and current community-based forest utilization is only 98.5% versus 1.5%, while the past three decades of forests utilization is considered to have failed to improve the welfare of the communities living around the forest (Bappenas 2014). Therefore, the government will increase the share of community-based forest management with the reallocation of 12.7 million ha forest areas over the next five years[6].

In the concept of green economy and REDD+, the social aspect becomes a very important issue to be included. Social inclusive in green economy and 'safeguards' in REDD+, require a more apparent role of communities in forest resource management. The paradigm of community empowerment[7] is no longer sufficient due to rapid development of social sciences that has changed the community perspective on natural resources that demand more roles to be involved in forest resources utilization policies. Therefore the roles of communities in forest management need to be revitalized and adjusted to the demands and conditions in the new era of democratization as it is today. The concept of community empowerment which is practiced must be improved to become socially inclusive in the economic sense. Therefore, it is good both in the perspective of green economy as well as REDD+ activities, the role of communities should be transformed from originally as the object of empowerment to become economic actors and the addressees of sustainable economic growth.

One example of inclusive is the utilization of forest resources in one concession managed jointly by a wood utilization business group while at the same concession the community was to exploit the NTFPs facilities and resource-based economics of biodiversity. This pattern will divide their roles in the utilization of forest resources and capabilities in accordance with a share for each. With this pattern equality and fairness will occur in the utilization of forest resources and is expected to prevent conflicts of forest resources.

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[6] Included in the Forestry Strategic Plan for 2015-2019

[7] Empowerment has been realized in the form of granting of compensation money, infrastructure, employment, or involvement of the community in a manner of formality.

Policy Recommendations

Green economy cannot follow market mechanism. Green economy should be mainstreamed by the government and should be included in the government's long-term and medium-term development strategy (ESCAP, 2012). Mainstreaming of green economy in development planning will encourage economic growth that creates green job[8], better environmental protection and an inclusive social involvement.

The implementation of the concept of green economy must be measured in order to assess its success[9]. Ministry or the sector, however, can start to formulate the green economic policy based on their authorities. Ministry of Environment and Forestry as the main implementer of Act no. 32 on the Protection and Management of the Environment, which is the legal instrument for implementing the green economy, should be the leader in realizing the green economy concept. Yet there is no country that has developed land-based and forest-based green economy concept. Therefore, if Indonesia could be the initiator, this would be a good example for other countries with rich forest resources. To be able to start the implementation of the green economy in the forestry sector, the recommended policies that should be issued are as follows:

1. Formulating internal policies in the Ministry of Environment and Forestry for mainstreaming green economy in the forestry business sector and making policy for 'greening' the forestry economy sources, and making the achievement of green growth as the performance indicators of the Directorate General of PHPL and the Directorate General of Climate Change.

2. Making one of the provinces that have most major challenges in terms of economic and environmental damages as well as complex social issues as the pilot project of green economy such as East Kalimantan, Central Kalimantan and Riau provinces, or Perhutani in Java. Forest Management Unit (KPH) is an appropriate institution and place to start the implementation of green economy forestry.

3. To do revitalizing and reformulating of REDD+ activities (including regulation) as part of the forestry economic activities.

4. Changing the regulations concerning governing social and economics of communities living around the forest areas that can provide bigger access to communities in accordance with the principles of inclusive economy.

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[8] The field of green job is to implement the green economy and innovation to produce low-emission technologies, and efficiency

[9] Measured in terms of low emission with REDD + methodology, measured in resource efficiency ratio input output ratio, and measured in socially inclusive of community income, the Gini numbers and other social parameters. The aggregate form of this was the growth of green economy or green growth.

References

Bappenas 2012. Menuju Ekonomi Hijau: Sintesa dan Memulainya. Deputi Sumber Daya Alam dan Lingkungan Hidup. Kementerian Perencanaan Pembangunan Nasional. Jakarta. 58pp.

BP REDD+ 2014. REDD+ in Indonesia: Laying the Foundation for Transformative Change. BP REDD+ Jakarta. 50pp. http://km.reddplusid.org

ESCAP 2012. Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning resources constrain and the climate crisis into economic growth opportunities. United Nations ESCAP and KOICA. Www. Unescap.org/esd/environment/lcgg. 174pp.

OECD 2014. Toward Green Growth in Southeast Asia, OECD Green Growth Studies, OECD Publishing. 184pp. http://dx.doi.org/10.1787/9789264224100-en.

Salim, E. 2014. Peran Kehutanan dalam Pola Kebijakan "Pro Growth, Pro Job, Pro poor, Pro Green". Presentasi. Prosiding Pertemuan Stakeholder Tentang Penanganan Isu Perubahan Iklim, Pusat Standarisasi dan Lingkungan Kementerian Kehutanan. Jakarta p 8-11.

Suharjito, D. 2015. Kesimpulan Diskusi Panel peran pengelolaan huan berbasis masyarakat dalam pemberdayaan dan peningkatan kesejahteraan. Rimba Indonesia Vol 55 (2015).

Supriyanto, B. 2015. Bisnis Kehutanan Indonesia, Tantangan dan Peluang di Kawasan Konservasi. Rimba Indonesia Vol 55 (2015). P 4-9.

UNEP 2011. Towards a Green Economy: Pathway to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers. UNEP. France.

UNEP 2014. Building Natural Capital: How REDD+ Can Support a Green Economy. Summary for Policy Makers. United Nations Environment Programme. France. 50p.

Yasman, I. and Suprihanto, P. 2014. Besar tapi tak berdaya, Letari tapi tak bersaing. A Policy paper for the Association of Forest Concessioners (APHI). APHI Jakarta. 56pp.