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Main Assumption for Treatment the Natural Resources in Environment

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Abstract

The limited natural resource is a real challenge that can hinder the achievement of the goal of Environmental treatment. Holistic and integrated efforts from various sectors are needed to overcome the challenges of limited natural resources. In addition, the development planning needs to pay attention to balance the use of natural resources and the achievement of development targets and to pay attention to the reaction that the environment may depict against using its natural resources. In this regard, economists are taught that long-term economic growth should be maximized. However ecologists and environmentalists believe we can have too much of a good thing. The models used by mainstream economists do not properly take into account a few details – such as melting iceberg, shrinking resource stocks, or the opinions on all this of future generations. In fact, the real credit crunch is not the one involving banks, but the one involving the environment. For centuries we have been depleting forests, oceans, fuel sources, and other species, and the bill is about to become due. Economists' cherished belief in economic growth is colliding with the reality that we are just one part of larger ecosystem. It explores new economic approaches that aim to resolve the conflict and bring our financial system into balance with the rest of the world.

Keywords: Natural resource, Ecological economics, Mainstream economics, Human population, Environment

1 Introduction

Ecological economists believe that when the human economy becomes too large relative to the natural systems that support it, then the problems caused by economic growth can outweigh any benefits. The world is already stretched to capacity to feed the current human population. We can increase production by improved efficiency, but there is always the trade-off between efficiency and robustness-intensive monoculture farming, for example, is inherently fragile and requires large amounts of fertilisers and pesticides to maintain it. Our agricultural system exhibits the same lack of modularity, redundancy, and diversity as our banking system, but it is even more important for our survival. Development constraints (natural resource development constraints) can be defined as a condition of natural resource limitations that can be exploited as the main capital of development that needs to consider aspects of availability and quality (which is increasingly diminishing) as well as characteristics that are classified as vulnerable and high risk to support development. Based on the analysis of the Strategic Environmental Assessment conducted by the Ministry of PPN / Bappenas, several natural resource parameters that need to be considered in terms of development planning aspects.

2 Primary Forests on Peatlands

Indonesia's primary forest cover tends to decrease gradually. Although the rate of deforestation has decreased significantly compared to before 2000, the area of primary forest cover is decreasing so that it is estimated that th ere will be only 18.4 percent of the total national land area (189.6 million ha) in 2045 compared to conditions in 2000 which reached 27.7 percent of the total national land area. In addition, the primary forest moratorium policy which has been implemented since 2011 has not been able to completely prevent the decline in primary forest area. Based on an analysis of land cover, for seven years the implementation of the policy of delaying the issuance of new permits and improving the management of primary natural forests and peatlands of at least three million hectares of primary natural forests and peatlands or roughly equivalent

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to 5 times the area of Bali Island has been completely converted for use other. In the same period, thousands of fire hotspots had destroyed the forest areas that were protected in the Moratorium map every year.

For the primary forest loss trend to not continue, the area of primary forest cover must be maintained at a minimum area of 43 million ha (conditions in 2019). Therefore, the area of the primary forest moratorium becomes an absolute boundary that must be considered in development planning. The area of forest cover, both primary and secondary forests located on peatlands is increasingly reduced. The 2015 moratorium on peatlands has not been able to fully prevent the decline in forest cover on peatlands. In the future development plan Total forest cover on peatlands should be maintained at a minimum of 9.2 million ha, such in 2000. Besides, the additional peatland restoration of 2 million ha from 2015 according to Peat Moratorium Regulation is needed to reach the minimum limit. For this reason, peatland restoration efforts need to be a priority.

3 Rare Species Habitat and Abrasion/Accretion Coastal Areas

The Main rare species habitat is significantly reduced due to a reduction of forest cover area. The analysis shows that forest cover in the rare species habitat in the west of the Wallacea line will shrink from 80.3 percent in 2000 to 49.7 percent in 2045, especially in Sumatra and Kalimantan. It is estimated that the key biodiversity areas on the east side of the Wallacea Line, particularly the Papua region, will also be significantly reduced. According to the KLHS analysis of the RPJMN 2020-2024, the area of rare species habitat that must be maintained is a minimum of 43.2 million ha. If the loss of habitat for this rare species is not well anticipated, it will trigger ecosystem instability that can be a major obstacle in development.

The coast length total which is abrasion/accretion because of the changes in sea level is estimated to reach 18,480 km in 2045. If no intervention is carried out, the area of abrasion/accretion certainly cannot be utilized optimally to support development, particularly threatening the sustainability of settlements and industries which already in the area. Based on the results of the analysis, it is known that the residential area which is currently affected by the abrasion / accretion along 11 km. Residential areas that are potentially affected by the effect of abrasion / accretion along the 253 km, whereas residential areas that need to be aware of the impact of abrasion / accretion along 155 km.

4 Disaster-Prone Areas

Geographically, Indonesia is a country that is prone to disasters, both hydro-meteorological and geological disasters. Most of Indonesia's territory is located above the major earthquake source routes from the megathrust-plate subduction zone and active faults so that it does not only potentially cause damaging the infrastructure and basic connectivity, but it can also cause huge loss of life. Around 217 million (77 percent) of the population are potentially exposed to earthquakes> 0.1 g, and 4 million are only 1 km away from active faults; About 3.7 million people have the potential to be exposed to tsunamis; around 5 million people live and live around active volcanoes. Disaster-prone areas are classified as high risk to support development, so they need to be considered as boundaries in planning development. Therefore, zones with high levels of disaster risk need to be prioritized as protected areas in spatial planning, rather than as cultivation areas. If this cannot be avoided, it needs to be supported by an increase in adaptation efforts and disaster risk reduction to reduce losses because of disasters.

5 Water Availability and Energy Availability

The damage of forest cover is predicted to trigger a water scarcity especially on islands that have very low forest cover such as Java, Bali and Nusa Tenggara. From the results of the projections, the water scarcity also began to spread in several other regions because of the impact of global climate change that is affecting most of Indonesia are. It is estimated that the area of critical water has increased from 6 percent in 2000 to 9.6 percent in 2045. At present, the availability of water has been classified as scarce to critical in most areas of Java and Bali; while southern Sumatra, West Nusa Tenggara and southern Sulawesi will be water scarce / critical in 2045.

So that water scarcity does not hamper development, nationally safe water areas need to be maintained at a minimum area of 175.5 million ha (93 percent of the total area of Indonesia); while the availability of water on each island must be maintained above 1,000 m3 / capita / year. Specifically for Java, given the threat of the water crisis is very worrying, the proportion of safe water areas needs to be significantly increased. The challenge in meeting future energy needs is predicted to be tougher. Reserves of fossil energy sources (non-renewable) such as petroleum, gas and coal are running low, while the development of renewable energy sources is still not significant to meet the needs. Domestic energy supply is estimated to only meet 75 percent of national energy demand in 2030 and will continue to decline to 28 percent in 2045. By the expectation of relatively high economic growth, the reduced ability of domestic energy production is predicted to affect the balance between energy supply and demand in national level in the future. If the energy demand exceeds the domestic supply, this is predicted to disrupt the government's current account deficit which can have an impact on the stability of the Rupiah exchange rate and economic growth. In order to reduce the scarcity of energy, the portion of new renewable energy must be increased to a minimum of 20 percent of the national energy mix by 2024. In addition, it aims to find new sources that can be exploited to anticipate the decline in natural gas and coal reserves in the future.

6 Levels of Emissions and Intensity of GHG Emissions

GHG emission is increasing at baseline conditions, while the intensity of emissions although tends to be positive but have not been able to support the overall emission reduction effort. This is not in line with the commitment of the Government of Indonesia to reduce GHG emissions by 26 percent on its own, and 41 percent with international support in 2020. Even at the UNFCCC COP 21 2015 meeting in Paris, this commitment was increased so that the emission reduction target was at least 29 percent in in 2030. To achieve the 29

percent emission reduction target (fair / minimal scenario), GHG emissions must be maintained below 1,825,374.5 Giga gr CO2 / year by 2030. The GHG emission intensity must be maintained below 261.1 tons CO2 / billion Rp. in 2030 (a reduction of 33 percent from the baseline).

7 Fiscal Capacity and Development Funding

Based on the RPJPN 2005-2025, the medium-term development target of 2020-2024 is to realize an independent, advanced, just and prosperous Indonesian society through accelerated development in various fields by emphasizing the development of a solid economic structure based on competitive advantage in various regions supported by sources qualified and competitive human resources. These goals can be achieved through quality public investment, namely: 1) the right on target and time; 2) provide a significant positive impact and sustainable; 3) the consistent direction of policies, programs and development plans; and 4) The efficiency of resource and fund uses.

In the last five years, Indonesia's tax revenue to GDP (tax ratio) is still low, even lower than the tax ratio of countries with an equal income. The main problem of low tax ratio is the tax policy that has not been sufficient enough to realize a tax system that is able to mobilize tax revenue optimally. In addition, the tax administration system, individual compliance with taxation obligations, and the role of taxation institutions also influence the tax performance which is not optimal yet. These various tax problems cause limited fiscal space to fund development needs.

By limited fiscal capacity to finance large and increasingly diverse development needs, it needs a funding strategies that can optimize the use of all available funding capacities to achieve development goals. The utilization of development funding is prioritized to meet the basic needs of the community by taking into account the Minimum Service Standards (SPM) and the investment activities that provide high leverage for national development. Therefore, it is necessary to encourage and synergy the participation of various stakeholders to strengthen the use of development funding. The central and regional government are directed to provide the public basic services, while business entities (BUMN and Private) are focused on strengthening economic growth and achieving development targets.

To optimize the use of funding, it is necessary to integrate development funding at government sources (K / L, Non K / L, Transfer to Regions and Village Funds), the fund which is financed by BUMN, government and business entities, the community in line with the implementation of the Money Follow the Program principle. In addition, the government needs to encourage more use of funding sources that come from the public and the private sector through innovative financing schemes including through the development of Government and Business Entity (PPP) schemes, Non-Budget Government Investment Financing (PINA), and forms of funding other innovative (innovative financing).

To accelerate the achievement of national development targets, RPJMN IV in 2020 - 2024 has established 6 (six) mainstreaming as a form of innovative approach that will be a catalyst for equitable and adaptive national development. The six mainstreaming have a vital role in national development while still paying attention to environmental sustainability and the public participation. In addition, mainstreaming also aims to provide equitable development access by increasing the efficiency of governance and also being adaptive to external environmental factors. This needs to be done by Indonesia to achieve global goals indicators such as GPI.

8 Mainstream economists

Mainstream economists treat money in abstract numerical terms, as something that can grow and expand without constraints. Ecological economists see this is an illusion, and believe that money should be tied more closely to real physical wealth. Under fractional-reserve banking, banks can lend our far more money than they hold as reserves. The result is a debt-based financial system in which most of the money is in the form of credit, and everyone is running around franctically trying to pay it off. The situation is exacerbated by the existence of complex financial derivatives. The hugh tower of money that was sitting uneasily on top of the world's oil supply in 2008 was an imaginary thing that could vanish as easily as it was created (though its effects on humanity were real enough). One of the biggest obstacles to a sustainable, controlled growth economy is that governments would have to get out of debt in order to afford it. Ecological economists therefore argue that we should reduce the amount of credit in the economy even to the extent of returning to full-reserve banking, in which the only money that can be lent out is backed by deposits.

9 Conclusion

The difference assumptions and worldviews behind ecological and mainstream economics mean that the two come up with very different policy recommendations. For instance, mainstream economists, along with most politicians and media, are almost religiously in favour of economic growth, as measured by GDP. The one thing every politician around the world could agree on after the credit crisis was that growth needed to be restored; less often was it mentioned what kind of growth. Some ideologues even argue that the best way to protect the environment is by growing the economy – as if a healthy planet is a luxury that only the rich can afford. Yet there is now ample evidence that GDP growth is often associated with a decline in environment-sensitive. Mainstream economists, or at least their models, often seem to treat the planet's resources and pollution sinks as if they were essentially infinite, but according to estimates from the World Wildlife Fund we are already living beyond our means. The ecological footprint of the human race – as measured in terms of the amount of the resources we need to support ourselves sustainably is now equivalent to 1.3 planets. The extra 0.3 planets worth of resources is being borrowed from future generations. If all countries had the same ecological footprint. We are building up a large and unsustainable debt of a different kind that far outweighs anything produced by the subprime housing market.

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