

Green Economy and Green Jobs Development in Indonesia

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Abstrak

Keywords:
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The utilization and development of environment-friendly renewable energy are becoming increasingly important given the increasingly limited fossil energy sources or non-renewable energy sources. The problem in this study is how to develop a Green Job in support of realizing Green Energy in Indonesia. This study is qualitative research with descriptive analysis. Green Energy is one step to realize a Green Economy. In practice, the required human resources also support and in line with the context of the Green Economy and Green Energy, i.e. Green Jobs. Development opportunities Green Jobs in the energy sector is very large, but the phenomenon of Green Jobs in Indonesia is still relatively new, therefore the participatory processes in policy development and implementation that supports it is absolutely necessary, and also with the promotion.

1. METHODS

This study is qualitative research with descriptive analysis. The analysis methods of the study uses literature review.

2. RESULT AND DISCUSSION

Natural resources energy has a very big role for a country, both in terms of economic, social or national development. The Government then made a wide range of policies that support the utilization of energy in a country for the sake of realizing progress and sovereignty of a country.

Indonesia's energy policy forward stated in Government Regulation Number 79 by 2014 about National Energy Policy (KEN) which replaced the Presidential Regulation Number 5 in 2006 about a national energy policy, i.e. the energy management policies based on the principle of fairness, environmentally sustainable, and to the creation of energy independence and resilience of energy nationwide. KEN conceived as guidelines for national energy management give direction in order to realize the energy independence of the national energy and endurance to support sustainable national development (DEN, 2015).

As for some of the main policy in KEN: (1) changing the paradigm of energy again as commodities into capital construction; (2) prioritise the use of renewable energy and minimize the use of petroleum by optimizing the utilization of natural gas and rely on coal as the national energy supply; (3) reduce export of fossil energy gradually mainly the use of gas and coal, and set a deadline to start stopping the export; (4) reducing subsidies on oil fuel and electricity gradually up to the ability of purchasing power is achieved as well as redirecting subsidies to renewable energy; and (5) requires the Government to provide Backup Energy Buffer (CPE) and the strategic energy reserves, in addition to ensuring the availability of backup operations by business entities (DEN, 2015).

Indonesia energy usage viewed from its sectors, the final national energy needs up to the year 2050 is expected to be dominated by the industrial sector, energy consumption in

this sector look take a portion of 41 percent dominated by coal, natural gas and electricity. This is because the industrial sector is a very productive sector so that it requires a lot of fuel in the thermal and meets the needs of its driving force, therefore if there are an increasing number of industry will directly increase the amount of energy consumed (DEN, 2015). Energy use in large amounts will also result in a contribution of emissions carbon dioxide (CO₂). The emissions of CO₂ donated by industry sector 24.6 percent of total emissions in 2012, which is the second biggest contributor ranking after transport and since 2002 has continued to grow with an average 2.1 percent per year (DEN, 2015). It will be perfect if the development and improved use of renewable energy or Green Energy carried out in this sector. Green energy is a resource and energy that are considered environmentally friendly that your long-term goal gave significant contribution to sustainable development because to achieve sustainable development requires the use of energy resources and technologies that do not harm the environment so that it does not provide the impact that economic and social adverse to pula (Muna, 2011).

Furthermore, the development of industries that use natural resources in a more efficient including the consumption of Green Energy, which is based on principles of sustainability through the maintenance of natural resources and the environment towards a better and friendly environment will greatly contribute to the creation of a green economy or Green Economy. In connection with the development of the industry, the large potential of the wealth of biodiversity can be utilized and developed as new materials in treatment (bio-farmaka) or more new materials leads to products which are environmentally friendly (bio-prospecting). This can be used as a potential new source of income for the country's acceptance. To manage the potential mengembangkan and of course green or profession will be required is often referred to by the term Green Jobs (Deputy SDAL, 2012).

Green Jobs are defined as jobs that reduce the environmental impact caused by the companies and sectors of the economy, which was routed to a level that is capable of preserving the environment and sustainability. This definition includes jobs in agriculture, industry, services and administration that contributes to maintaining or restoring environmental quality, it also meets the criteria for decent jobs, such as an adequate wage, safe conditions, worker's rights, and social protection (Strietska-Ilina, et al., 2011). The more Green Jobs that will be created as an effort to create a sustainable economy, so created an economy that is environmentally friendly and low-carbon (ILO, 2010). Indonesia has made some steps forward to create a greener future with policy development and/or frameworks in areas such as the environment, eco-tourism, green industries, and sustainable energy (Gunawan and Fraser, 2012).

Since 1997, Indonesia has introduced a number of laws relating to the management of the environment, and from 2009, which introduced legislation includes the dimensions of social, economic, and sustainability. However, the policy of Green Economy and Green Jobs not explicitly discussed. Furthermore, support for Green Policy in various fields such as education and skills policy development policy are still lacking at both the operational and strategic levels. For the moment, there is no policy that was introduced by the Ministry of Manpower and Transmigration, and Ministry of Education to promote Green Jobs. This is possible because the current policy is still focused on improving economic activity, taking into account the environmental and social aspects, rather than preparing for green economic activities in the future, also there is the belief that the greening of the economy requires high investment (Gunawan and Fraser, 2013).

Though not addressed directly in the legislation or regulations, according to Gunawan and Fraser (2013) in his study found four groups of sectors that promote Green Jobs: agriculture, industry, tourism and energy. While according to Kleden & Kauppert (2011), simply put a sector Green Jobs can be seen as follows.

Green Jobs in the four sectors that are able to create new jobs, and the greatest potential is in the Renewable Energy sector. The renewables sector is a possible source of large-scale green employment, but a conducive policy environment is essential for translating this

potential into full-fledged reality. Leaders in this field will naturally regard u.s. renewables part of national competitive economic strategies (UNEP, 2008). 2.3 million people have obtained jobs in the last few years indicates the magnitude of the potential growth in employment in this sector. About 2.1 million jobs in the wind energy sector and 6.3 million in the solar energy sector is expected to be open until 2030. In total, up to 20 million jobs will be open in all sectors of the renewable energy (Yunita, 2015).

It can also be seen from the various regulations made by the Government of Indonesia to support the use and development of renewable energy proper that the Government will make this sector a priority for the future (Kleden and Kauppert, 2011), although its use until now has not been fullest. That's why Green Job is very important because in addition to being one of the solutions to environmental problems, it also potentially in addressing the problem of unemployment is due to being able to create new jobs.

Green Job's indicators according to Martinez-Fernandez et al. (2010) is divided into three parts, namely, the organization, industry and employment, in which interdependent and cannot always be separated from each other.

Occupational profile: this refers to the nature or purpose of the work. Almost all the work can be considered green as long as it contributes to reduce the harmful impact of human activity on the environment, either directly or indirectly.

Required skills and abilities: to determine whether a work can be considered green in some cases carried out based on the necessary skills and competencies required to do the job. Job decency: UNEP and ILO both stressed the fact that "Green Jobs" should be a decent job, that is a good job that offers adequate wages, safe working conditions, job security, career prospects are reasonable, and the rights of workers.

Green workload: some workers can do their jobs in the Green and some of their work in traditional areas. In this regard, it is important to adequately measure the part of the workload that was officially dedicated on green tasks to determine whether the work can be considered green (Martinez-Fernandez *et al.*, 2010).

To develop Green Economy, Green Jobs and Green Business requires a number of supporting mechanisms such as: policies, actions, monitoring, control, and promotions. The phenomenon of Green Jobs in Indonesia is still relatively new, therefore the participatory processes in policy development and implementation is indispensable (Gunawan and Fraser, 2013). The International Labour Organization (ILO) has made the project of Green Jobs in 5 Asian countries including Indonesia in it that contribute directly to the development of policies and programs that promote Green Jobs in crucial sectors. The main activity in the project are: (1) drawing up integrated studies based on countries and sectors, including country studies regarding the interconnectedness of the economy-environment and the study of the creation of Green Jobs and decent work; (2) devise a device to examine the challenges and opportunities for Green Jobs; (3) draw up training activities for constituents and national partners in order to create Green Jobs and greening the economy, enterprise and employment in larger scale; (4) organized a conference on Green Jobs in each of the participating countries; (5) create the task force about Green Jobs, policy making and training to support policy formulation; and (6) exposure to projects and support for national program socialization opportunities employment creation of Green Jobs, such as waste management and recycling, management of natural resources, energy efficiency and reforestation of traditional sectors (ILO, 2010).

In addition to improving the success rate of this process the following and its impact to consider: (1) mindset, involving Government (as policy makers), private (as a player), the public (as customers and stakeholders); (2) the development process, the development of Green Jobs in the form of training and financial support, not just one aspect; (3) coordination mechanisms, the need for a coordinated process to promote Green Jobs; and (4) explicitly measuring system, in the form of indicators for management, monitoring and control of the development of Green Jobs need to be explicitly quantified (Gunawan and Fraser, 2013).

3. CONCLUSION

Energy crisis situation accompanied by increased consumption, in line with the increasing rate of population growth and the rate of economic growth, resulting in soaring the price of fuel oil. This requires a paradigm shift in energy utilization on the utilization of renewable energy, later called as Green Energy.

Green Energy is one step to realize a Green Economy. In practice, the required human resources also support and in line with the context of the Green Economy and Green Energy, i.e. Green Jobs. Development opportunities Green Jobs in the energy sector is very large, but the phenomenon of Green Jobs in Indonesia is still relatively new, therefore the participatory processes in policy development and implementation that supports it is absolutely necessary, and also with the promotion.

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