

ADDRESSING WOMEN IN GREEN JOBS SECTOR: A PRACTICAL APPROACH ON DEVELOPING HERBAL MEDICINE AS GREEN COMMODITY

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Abstract

Green economy as a prominent and alternative solution to a sustainable development of a country plays a critical role in preserving the environment as well as generating national income to related country. To achieve these goals, many countries, particularly developing countries initiated a concise framework regulating the outcome of this green economy into more specific sectors by involving women and youth as an integral part of ensuring the success of program implementation. This paper attempt to reiterate the importance of woman in creating green jobs and to propose significance contribution from various perspective including religious, cultural, government and business context as well as offering practical solutions by utilizing medical herbs as a future green commodity.

Keywords: Green Economy; Green Jobs; Women; Islamic Teaching; Government Policies

Introduction

The main goal of sustainable environment is to achieve the best quality of life and sufficient income for the people. By prioritizing sustainable environment means that it will help promoting and creating more green jobs in the society. It is predicted that around 3.9 million work or 3.8 percent of total work is classified as green jobs. Green jobs and the promotion of green economy are pivotal for achieving an economic and social development that is also environmentally sustainable. According to ILO, green jobs are jobs that helps reducing negative environmental impact ultimately leading to environmentally, economically and socially sustainable enterprises and economies.

While we understand the urgency of implementing the green economy, much research in recent years has focused on the general idea of how the government of Indonesia formulates the regulations on green jobs into sub-sector category. However, little study has been carried out to address this fundamental issue in Indonesia from practical point of view. It is generally accepted that the implementation of creating green jobs in developing country like Indonesia will undertake major problems ahead, these classical problems extended from utilizing the unemployment which mostly consisted of youth and women in particular, creating robust green economy policies to a more comprehensive understanding of cultural and religious perspectives.

Notwithstanding, with so many difficulties are waiting ahead, the green economy is believed to be the only best alternative option available to generate national income due to the fact that Indonesian demographics offers abundant resource that goes unexplored. In term of plant species, Indonesia has more than 30.000 species of medical plant. Much to the writer's surprise, these medical based plants fall short of the current trend spotlight among Indonesia people who prefer to receive more natural medical treatments instead of conventional medical treatments. In addition, the commercial potential of nurturing these medical herbs will literally help women to be employed into a green job sector thus reducing the amount of unemployment in Indonesia. This paper attempt to reiterate the importance of woman in creating green jobs and to propose significance contribution from various perspective including religious, cultural, government and business context as well as offering practical solutions by utilizing medical herbs as a future green commodity.

1. Indonesian's Women Overview

The history of women in Indonesia has span since the Dutch occupation for over 400 years ago and had to endure another occupation by Japanese government in 1940s which ultimately changed the women's perspective how they live their life (Klaveren *et al*, 2010). Years of colonization have left the country devastated, up to 200.000 has been killed, and more than 1.000.000 remain unknown of their whereabouts leading the country into political and economic chaos. These series of event gave the opportunity for Soeharto to overthrow the incumbent government by taking national leadership under his command (Klaveren *et al*, 2010).

Under the command from a man with a military background, women's position has worsened since the majority of women that time joined Gerwani (*Gerakan Wanita Indonesia / Indonesia Women's Movement*), a sub organization of Indonesian Communist Party. Subsequently, the organization was banned and many of its members had been killed as a part of Anti-Communist purge movement initiated by Soeharto's government.

Gradually, Women's status has regained its position and garnered more support following the end of Soeharto's regime and the introduction of democracy. Several national bills were passed to support and advocate women's position. Even though many efforts have been made to fully empower women's position and to promote gender equality. Yet the government of Indonesia failed to build a comprehensive framework in empowering women in Indonesia. In 2010, only 36.67 percent of total workforce (107.7 Million) comprised of women (See table 1).

According to the data, it was believed that the percentage of Indonesian women population is around 51% of total population. Such a big number on the population, women provide a challenging area to be explored further in regard to the opportunity of promoting green jobs in Indonesia. Hence women are considered as the best target to promote green jobs and incorporate them as a part of development in Indonesia.

From the perspective on gender gap, women's economic participation ranked among the lowest countries, standing at 104 out of 135 countries. Women's educational attainment ranked 92 out of 135, health and survival ranked 107 out of 135 and political empowerment ranked at 73 out of 135 countries.

Table 1
Gender Gap

Index	Rank	Score
Economic Participation	104	0.565
Educational Attainment	92	0.973
Health and Survival	107	0.966
Political Empowerment	73	0.132

Source: The Global Gender Gap Report 2012

Women's status for most of the parts remain fragile and vulnerable in developing countries as in Indonesia. It is widely accepted that government laws indeed gave a basic perspective on women's status but thorough partnership and collaboration are still needed to facilitate for a better improvement in the future.

2. Unemployment in Indonesia

Indonesia has been struggling to maintain the rate of poverty and unemployment stable at the average level of eight to ten per cent in 2014. On the other hand, the number of youth unemployment stands at the figure of 55 per cent of the total unemployment in Indonesia. According to Salsiah (2012), the rate of unemployment declined from 6.8 per cent in 2005 to 6.32 per cent in 2001. Although the number of employment has been declining significantly, unemployment among youth and women remain surprisingly high (See table 2 and Table 3) in 2012, it was around 19.56 per cent of youth unemployment. This number decreased from 19.99 in 2011.

Table 2
The Percentage of Workforce (107.7 million people)

Workforce 107.7 million					
Gender		Location		Status	
Male	Female	Urban	Rural	Having Job	Seeking Job
63.23%	36.67%	47%	53%	97%	3%

Source: BPS 2010

Table 3
Unemployment rate in Indonesia based on age and gender
(February 2006)

No.	Age group	Unemployment (%)		
		Male	Female	Total
1.	15-19	33.85	41.58	37.09
2.	20-24	24.75	30.87	27.20
3.	25-29	9.96	15.28	11.90
4.	30-34	4.36	8.85	5.92
5.	35-39	2.23	5.65	3.41
6.	40-44	1.91	3.73	2.58
7.	45-49	2.08	3.28	2.51
8.	50-54	2.20	3.03	2.48
9.	55-59	2.21	3.67	2.71
10.	60+	3.16	9.14	5.71
	Total	8.58	13.72	10.45

Sources: Bappenas

In Indonesia, unemployment rate that is based on age and gender can be seen on table 3. By analyzing Table 2, it is clearly derived that unemployment among young people (age 15-29) is dominant and the percentage of young female unemployment is higher than those of male.

Based on those data, it seems that it is a good opportunity for women in participating on green jobs. However, they also pose huge challenges. Most green jobs are perceived by many as 'not prestigious' jobs. While the jobs itself require an extra effort to earn money, it is also time-consuming and do not give the effect instantly. For example, many best practices of green jobs such as on city greener, water supply, renewable energy program need time to get the result. Meanwhile, a dramatic change in a lifestyle among modern society influence them to be more pragmatic in their daily life. They tend to expect the result instantly regardless how it has been achieved.

Furthermore, Gender equality promotes the rise of education for women. Nowadays many women attain highest degree of education. Many of them dream to have a good job and also economically independent from men and resulted in the increasing number of female workforce both in formal and informal. Table 4 explains the women's achievement in workforce has increased although the number is not significant.

Table 4
Workforce based on gender, in million¹

Gender	2006	2008	2010	2012
Male	68	69	72	73
Female	39	42	45	45

Sources: BPS 2012

Examining the increasing number of women who go to paid work means that they have better opportunity to participate on green jobs. Also by looking at the type of work (See table 5) which cover mostly in informal sectors is also giving hope that green jobs is more flexible with women. However, this is also a challenge since the division of labor between men and women is somewhat rigid. This phenomenon will endanger women's position especially those who are employed in informal sectors usually receive lower pay than the formal sector. Thus perceiving the work itself as not prestigious or second-rate works.

Table 5
The Percentage of Formal and Informal Work Based on Gender

Type of Work	2006		2007		2008	
	Male	Female	Male	Female	Male	Female
Formal	32.92	25.80	33.15	25.80	34.08	26.46
Informal	67.08	74.20	66.85	74.20	65.92	73.50

Sources: Sakernas and KPP and PA

These two factors could be the primary reasons of stakeholder to be more attentive in producing decent green job sectors. While youth offers unlimited result to be involved in further employment sectors, the idle state of women can also be considered as a prominent force of generating more profitable income to national economy as well as improving their standard of life.

3. Islamic Perspective on Healthy Life

Islam considers health as a basic human right, as mentioned in one *hadiths* of Prophet Muhammad "your body has a right over you". Health is a total physical, mental and social well-being in order to maintain the quality of life that we can enjoy at our best performance. A Muslim's quest for good health is in conformity with his salvation in his life hereafter. For a Muslim, health consciousness is god consciousness. With so many practices in Islamic teaching ranging from the concept of ablution, diet, consuming nutrition to the prohibition of intoxicants encourage its follower to live a healthy life. This can be concluded that Islam concomitantly promotes a green based life.

On the other hand, Christianity offers a similar view on how to preserve your health. Of Christianity teachings, Jesus said "Do not fear them that only kill the body fear him that can destroy both body and soul in hell (Matt. 10:28)". The idea of this concept is that Christianity does not share in the modern thought of health obsession, they indeed believe that by having a good health will undoubtedly make them easier to practice their religious teaching but they also present a unique idea that living healthy is not their main purpose. Instead, they fear more about neglecting the care of their souls which will live forever as a foundation of their belief.

Other religions such as Hindu does not offer an exact definition of how to live a healthy life and remains obscure for a period of time about this subject, the only single source available that stated how Hindu teaching share its view on living a healthy live is through the concept of practicing yoga to maintain the balance of one's physical and mental state stable. This concept has been widely recognized over the past ten years in our society and yet numerous people have been practicing yoga regularly.

To the knowledge of the writer, almost every religion teaches its follower to live a healthy life regardless how the religion conveys this message; the existence of religion basically helps us to better understanding how different elements need to be unified to create a stable and balanced life.

4. Islamic Perspective on Women's Status and Family Welfare

We understand that the scope of religion on family welfare can be divided into several parts of the current issue, the most prevalent issue regarding to family welfare and social welfare is to underline the role of religion in bridging the gap between female and its male counterpart.

Throughout the history, Islam has been exclusively entrusted its teaching to male and its superiority over female. Islamic teaching especially on women issues have evolved to an extent in which many Islamic scholars would redefine and debate whether it is appropriate for women to have a bigger role in a modern and complex society (Dean & Khan, 1998). Consequently, the status of women in Islam differs among various countries where Islam is the dominant religion (Sechzer, 2004).

As Islam spread over the decade and gain a momentum to take some recognitions by the sharp increase in number in term of its follower, the discussion over women's position become necessary (Sechzer, 2004). Subsequently, as more civilizations began to diverge and caused the religion stance to dissolve with social stance completely, Islam need to modify the view of women's position in order to adapt with current developments. This phenomenon leads some Islamic scholars to reinterpret Islamic teachings in regard to women's status in a society to a more moderate view which will bring about the change that Muslim women are dream about.

Much of the concern over this issue has been exceptionally well-addressed and well-taken care of in Indonesia, this is reflected by the amount of responsibility of Islamic women have taken by permitting them to join social community and setting up small business but although this is viewed as a relieve to some parts, women in another countries do not merit the same condition as in Indonesia (Sechzer, 2004). Women's status in Arab country such as Iran, Saudi Arabia, Kuwait and Nigeria remains strictly limited and oppressed (Ahmad, 2001; Susman, 2003; Pal, 2002).

On a broader context, women's status in Islam in Indonesia has been heavily influenced by a cultural limitation. This issue has been problematic to some extents. First, the scope of cultural dimension particularly in Indonesia society is widely recognized to overlap with religious dimension and therefore suggest a combination of this two different context that shape the life in Indonesia society (Adamson, 2007). Second, in Javanese Island where the majority of population resides in has been maintaining a considerable amount of belief where Javanese discourage individualism and focused instead on central value of family (Adamson, 2007).

Consistently, Islam urges its follower to prioritize family welfare over social welfare; it envisages that providing adequate resource in the form of tangible assets and intangible assets are viewed as mandatory task to every Muslim regardless the person that caters the resource. One of the most striking features in Muslim society is the importance attached to the family. The family unit is regarded as the cornerstone of healthy and balanced society (Sheikh, 1998).

Islam therefore views the family as commitment to itself, to society, to the dignified, meaningful survival of human race. It's also regarded as a medium of accomplishments through which individual can constructively contribute and effectively render services to other member of the community and eventually Islam identified its follower to look after the family, parents, children, siblings and relatives (Ahmad, 1974).

5. On The Importance of Family Welfare Movement In Becoming Primary Basis to Promote Green Jobs

Family Welfare Movement (*Pemberdayaan dan Kesejahteraan Keluarga*) was first established in 1961 based on the idea of one particular woman; Isriati Moenadi who decided to help people who suffered from malnutrition in Central Java region, since then, the movement has been expanding exponentially and has been well-known for its 10 principles. Family welfare movement began to give greater impact by recruiting people consisting of various backgrounds, these include: women volunteers, wives of head departments, influential women on a specific region to the lowest scale of government system.

Since mother is regarded as the central role of this woman organization, the movement's programmes focus mainly on them (Lenart, 1988). The initial main purpose of establishing this organization was to improve women's knowledge and encourage them to participate in the greater scope of social welfare, by initiating programmes that would boost both women's knowledge point of view and economic point of view. These activities have attracted government officials to give a special attention to stimulate national economic activity through this organization and eventually began to construct a clear framework within the organization on a later date. These frameworks are used by villages to design their main activities which relate to:

1. The teaching of Pancasila, the national philosophy embracing belief in god, national unity, democracy, humanity and social justice;

2. Community self-help (*gotong royong*);
3. Nutrition;
4. Clothing;
5. Housing and Home Economics;
6. Education and Handicrafts;
7. Health;
8. Promotion of Cooperative;
9. Protection and Conservation of Environments;
10. Domestic Planning.

Family Welfare Movement that recruited its members from the grassroots community is expected to bring the general Indonesian family for a more prosperous and better life meaning that the family is able to provide its basic needs in term of material, social, psychological and spiritual toward an independent, modern and prosperous family. In addition to that matter, Family Welfare Movement is expected to unchain from the old patriarchal system that has been limiting the women for over years and to unleash women's maximum potential to be independent and capable of creating something that offer economic value as well as levitating women's position (Handayani, 2005). Nevertheless, these activities have not been fully explored until now thus making them unable to implement the concept of gender equality in Indonesia.

The data shown (Table 5) on the table that large number of women are still employed on the informal sectors proved that the majority of women could not enjoy their dream jobs. Rather than dwelling on how to offset the numbers of employment on both sectors, women can be fully utilized in informal sector by presenting with decent green jobs. This can only be done by presenting with an innovative of way of maximizing the role of Family Welfare Movement, Local Cooperatives and Big Corporations.

Unfortunately, the green job sectors have been scarcely analyzed from a gender perspective, one reason is that the sector in which green jobs are mainly concentrated have never been given a proper attention from government institutions especially when the majority of those green job sectors are characterized by women representative (Rustico & Sperotti, 2012). As a matter of fact, informal sectors on green jobs will definitely propose an enormous potential economic output. The following sub section will discuss about the possibilities of creating green jobs that involves Family Welfare Movement organizations, local cooperatives and big corporations

6. On Developing Herbal Medicine As A Future Green Commodity Using Home Herbal Garden

Herbs have built a longstanding reputation as a medium of curing disease, rejuvenate skins and as a source of food. Herbs have been used over centuries for the purposes of treatment, eating, smoking and massaging and proved to be unharmed materials.

Home gardens are viewed as an alternative approach of generating economic value in the near foreseeable future, there are no universally accepted definition of home gardens, but generally home gardens consist of multi various type of trees and vegetables which provide the family with food or other goods, including ornaments and a source of income (Torri, 2012; Michon and Mary, 1994; Del Angel-Perez & Mendoza 2004; Kumar & Nair, 2006).

Home garden can also be considered as a dynamic component of an integrated land use (Wiersum, 2004). The concept of home garden is unique compared to the concept of growing seeds in a vast field, because garden is perceived as a small disused land adjacent to dwelling and often categorized as an unexploited land therefore making it easier to harness (Bloom et al, 2001; Albuquerque et al, 2005; Coomes and Ban, 2004). Previous studies have shown that uncultivated plants are important for a large variety of agricultural system in all parts of the world, rather than exclusive to hunting and gathering, they are particularly useful during some seasons of the year and for certain group of people especially youth and women (Garcia, 2007).

The revival concept of sustainable development, food security and women's role has enabled stakeholder to take part of this activity by providing relevant knowledge how to cultivate those plants to be inserted as a promising commodity to national economy output. However, most recent studies only focused solely on making those plants as tradable commodity that take form as a sheer raw material overlooking the concept of producing a more sophisticated product that will add the value of its commodity as well as building a closer relationship of social justice and community based organization such as Family Welfare Movement Organization.

Indonesia as an archipelagic country needs to address the problem systemically. In developing country like Indonesia, a direct access to doctor in very remote areas still remains as a huge problem, such limitation will impart detrimental effects to the particular society. These problems worsened by the fact that culturally our society does not receive an appropriate education on the other hand, strong beliefs in ancient myth are still rampant as if herbal medicine is often associated with shamanic practice.

In fact, Herbal medicine practices have been in use long before the invention of modern medicine. In addition, its extension, cosmetic and physical maintenance regimens have also been used before modern time, despite the relentless invention of modern technology on chemical-based medicine, Herb medicine has retained its initial position and began to launch a comeback to reclaim the spot as a natural medicine alternative.

There are number of reasons behind this, first, there is a growing concern that chemical-based medicine and chemical-based cosmetic bring about unwanted side-effects after using for a long period of time. Second, herbal medicine has been making a quite entrance into a modern pharmaceutical industry by masking their true form into a chemical-based medicine like packaging. Third, there is a growing number of people in urban city want to protect themselves from environmental hazards such as air pollution, water pollution and malignant viruses by consuming herbal medicine it means that there is also a growing number supplement segment needed by the society.

The concept of home herbal garden is not a relatively new concept; other countries such as India and Thailand have been practicing this to develop mutually relationship between local community and business entities (Torri, 2012; Chaityakot & Visuthismajarn 2012). Nonetheless the concept is somehow a new idea to be implemented in Indonesia. This implementation requires a great deal of works to be fully operating and generating income to Indonesian society particularly women. It ranges from providing relevant training and education, maintaining the stability of women organization as it is described in family welfare movement to ensure that each member comprehends the concept completely to forming partnership with local cooperative and marketing the product through an established chain channel allowing big corporations to be involved in the running system.

Environmental studies offer a promising dialogue via its in-depth and ever evolving understanding of nature's complexities as a bio-geophysical system. Environmental perspectives on this issue can be addressed into several different areas. The first would be specifically based on the condition of soil in Indonesia. Below is the percentage of arable land in Indonesia.

Table 6
Arable Agricultural Land

Year	1999-2003	2004-2008	2009-2013
Indonesia	29.6%	30,1%	30,1%

Source: World Bank

According to the data above, we conclude that we see little change in a percentage of arable land available in Indonesia, with only a minor change took place in several years, it means that Indonesian people can make use of the land almost one third of total arable agriculture land. This data present a great opportunity since the percentage covers lands as defined by FAO as land under temporary crop, temporary meadows for moving, Kitchen garden and land temporarily fallow.

The second issue on environmental context would be underlain on the condition of weather. Lying along the equator, Indonesia has a tropical climate, with two distinct seasons, wet and dry seasons. For most part of the country, the rainfall has been high and the humidity stands at the figure of 80% which perfectly make the agriculture practice possible. As a result of this climate, Indonesia offers unique formative conditions to unparalleled breeding for one of the world's largest biologically diverse environment. It has been found that the Indonesian archipelago contains at least 30,000 species of medical plant. Below is the statistic of some of herbal plants production in Indonesia.

Table 7
Herbal Production in Indonesia, 2008

Regions	Plant Type			
	Ginger (Kg)	Greater Galangal (K)	Aromatic Ginger (K)	Tumeric (Kg)
NAD	362,973	84,645	30,309	153,247
North Sumatra	5,820,524	1,248,436	939,603	4,081,089
West Sumatra	4,301,846	1,966,027	142,875	1,361,007
Bengkulu	2,470,868	607,506	364,598	2,296,729
South Sumatra	1,180,462	1,043,383	352,216	1,152,540
Lampung	5,550,661	2,216,497	2,474,436	2,157,294
Riau	921,323	861,487	416,132	816,355
Riau Island	42,701	60,554	11,002	34,447
Jambi	1,803,066	602,764	178,807	523,417
Bangka Belitung	280,582	553,639	267,844	435,618
Banten	1,625,095	2,320,358	5,655,532	1,709,811
Jakarta	15,029	17,334	11,459	5,794
West Java	48,077,529	12,756,936	6,380,980	18,626,055
Central Java	30,181,984	9,690,084	14,146,547	24,489,124
Yogyakarta	1,311,288	3,006,452	954,624	4,968,299
East Java	33,766,394	6,342,341	3,201,660	38,254,373
East Kalimantan	2,804,685	1,992,987	445,515	913,081
West Kalimantan	838,068	546,436	279,822	1,586,404
South Kalimantan	2,283,872	196,016	1,012,177	1,526,862
Central Kalimantan	437,432	744,124	207,617	551,162
Bali	785,550	159,901	69,023	339,920
West Nusa Tenggara	242,432	225,269	68,991	156,937
East Nusa Tenggara	4,231,902	1,372,031	381,989	2,294,750
West Sulawesi	183,567	192,650	164,786	173,366
Central Sulawesi	348,362	132,501	65,866	165,945
South Sulawesi	1,873,268	619,400	177,581	670,829
Southeast Sulawesi	1,649,526	44,675	50,945	11,134
Gorontalo	52,878	13,389	4,220	39,869
North Sulawesi	1,419,250	334,913	28,411	1,028,908
Maluku	40	108	36	67,349
West Papua	4,839	15,367	1,070	658,196
Papua	17,215	16,936	5,508	14,946
Total Production	153,573,923	49,985,146	38,492,181	110,958,929

Source: Ministry of Trade

Based on the data above, we can assert that herbal plant is viewed as the hot commodity in the future, weighing up to almost 153,573,923 kilogram for ginger commodity, 49,985,146 for Greater Galangal, 38,492,181 for Aromatic ginger and 110,958,929 for Tumeric commodity. Moreover the highlands of west java province have been the ideal grown for growing various medicinal herb. Other major herbal ingredient bases in Indonesia include the province of lampung, North and West Sumatra, Yogyakarta and Some regions of Nusa Tenggara.

7. Business and Cultural Perspectives on Developing Herbal Medicine Product As A Future Green Commodity

The intriguing idea of implementing this concept has sparked debate over how to manage the whole system within the corridor of government policy on green job sector. Herbal medicine indeed possess unique attribute to them, not to mention its potential to generate income for house but herbal medicine would also be able to serve as supplemental medical treatment for those who long for herbal-based medical treatment. Family Welfare Movement will play as a vanguard to promote these activities in producing herbal medicine, while local cooperatives will function as supportive forces to bolster the sustainability of this business concept. Similarly, big corporations will provide a modern and sophisticated packaging process and distribute the products in a bigger scale.

To successfully implement the concept, we should define a collaborative framework between concerned parties that include Family Welfare Movement organization, local cooperative, government institutions and big corporations. Although no definitive instructions have been found to be successful strategies in doing so, through this paper, we offer some solutions that might work properly.

Specific learning module is required to understand the concept of herbal medicine hence relevant course must be clearly defined that will encompass the main function of herbal medicine in a conventional treatment, the principle of herbal plant, the quality assurance of herbal medicine, the economic potential of herbal medicine, the bridge of a changing lifestyle and the women and children's disease.

The syllabus of the training program is not limited to the basic understanding of herbal plant itself, but should cover larger disciplines that includes marketing program (Networking, Setting up marketing campaign, advertising and product positioning), human resource planning (Managing workforce, time management, waste management and store management), Financial aspect (Basic accounting, balance sheet, financial planning and reporting). Since the training will give a pivotal insight to the concept of herbal medicine, upon the completion of the course, the trainee is expected to enroll additional course about maintaining a high productive organization. This training ensures and enables them to comprehend the working pattern of the organization in generating income as well as empowering its member.

The training and course are designed specifically to enable women and youth understanding the concept of herbal medicine. The expected project will be led by experts in herbal based medicine along with management experts, the targeted area are likely to receive both practical knowledge on how to organize and select specific specimen based on soil condition, weather condition, water availability and some other technical things and also theoretical knowledge in management practices in order to be able to market their products, forming partnership and maintaining organization stability.

On the other hand, local cooperatives as stated before will also play a key role in sustaining the designed program to be able to simultaneously run for a long period of time. Accordingly the existence of cooperative is extremely needed, while the Family Welfare Movement began to produce these herbal plants and transform the raw material into a package, these local cooperatives will actively gather the product from the related organization or individual. Despite the local cooperatives are actively gathering the herbal medicine product, Family Welfare Movement and individual are not dependent to local cooperative. They may sell the product to anyone interested in herbal product and perhaps forming a partnership with other institution that will expand their business networks and therefore creating new supply chain in this business.

Considering the fact that this could be an innovative idea to involve women, local community and youth to take part in this green job sector through using herbal medicine as a way to improve their economic condition, we also believe and fully aware that such a complex system needs to adapt gradually to be well-fitted into local community. A collaborative effort between government officials, related organizations, distributors, local cooperatives, policy makers and all business entities need to address this matter seriously as a master-plan for future possibilities.

8. The Indonesian Government General Policies on Green Jobs

One of the many supports to implement the concept of green jobs is the creation of government policies. There are many government policies that concern about the environmental sustainability. In June 2011, at International Conference on Labor, Indonesian President, Susilo Bambang Yudoyono, proposed strategies to developing skilled jobs in green economy by giving opportunity for youth to take part in an internship on green jobs as well as encouraging entrepreneurs to invest in green jobs.

To be precise, there are nine sectors that are related to *green jobs*: agriculture, forestry, fishery, mining and energy, manufacture, infrastructure, transportation, tourist, and waste industries. A study estimated that in 2008 there was around 8.7 million or 8.5 per cent works that were considered as friendly working environments and 3.9 million or 3.8 per cent of those works were part of green jobs. As estimated in Table 8, it is clearly seen that the majority of green jobs came from agriculture, transportation and manufacture sector.

Table 8
Estimation of Green Jobs in Indonesia, 2008

Economy Sector	Environmentally friendly works	Green Jobs
Agriculture	4.809.0	2.434.0
Forestry	214.0	97.0
Fishery	550.0	242.0
Mining and Energy	7.0	5.0
Manufacture	1.063.0	331.0
Infrastructure	415.0	187.0
Transportation	1.659.0	603.0
Tourism	21.0	11.0
Total	8.738.0	3.911.0

Sources: UNDP 2013

Table 9
Sub Sector of Green Jobs

Economy Sector	Sub Sector of Green Jobs
Agriculture	Paddy, seeds, palm oil, organic, poultry breeders, and mix agriculture
Forestry	Natural sustainable forest concessions, collecting, harvesting, and planting of forest products rattan, instead of wood, and service, the protection and conservation of forests.
Fishery	Fishing environmentally friendly in economics formal for export, the cultivation of seaweed, the cultivation of seaweed, good practices in aquaculture.
Mining and Energy	geothermal energy, renewable energy, and biomass
Manufacture	cooking oil that is environmentally friendly, green manufacturing, agro-processing lean manufacturing of apparel, rattan, bamboo, manufacturing and material that promotes the preservation, production of chemical and organic fertilizers, organic SOAP, essential oils, green, eco-friendly cement, rickshaw and bicycle manufacturing, manufacturing steam engines, turbines, windmills, and the initiative on energy efficiency and recycling.
Infrastructure	green building, transportation infrastructure, labor-intensive irrigation and water management, and installation of renewable resources
Transportation	mass public transport, transport is not a motor vehicle and rail, and river and sea transport
Tourism	eco-friendly accommodation services, service tourism friendly environment management environmentally friendly, eco-friendly management of a tourist destination, and a green spa

Sources: UNDP 2013

The government of Indonesia has incorporated some policies regarding green job sector, here are some examples of those policies:

1. **Law of the Republic of Indonesia No.17/2017 on the Long Term National Plan 2005-2025.** This law promotes a green agenda through three sectors: climate change adaptation for food security, the development of alternative energy and disaster management.
2. **Presidential Regulation No. 16/2012 on Public Capital Investment Plan.** The regulation states that investors must follow the green economy policy in their investment plans. The economic development must be harmonious with environmental development goals such as climate change, the reduction of devastation of biodiversity and environmental pollution and the use of new and renewable energy.
3. **Presidential Regulation No. 41/2013 on Luxury Tax of Vehicles concerning with Low Cost Green Car (LCGC) and Low Emission Carbon (LEC)**
The regulation states that there will be no luxury taxes for petrol cars with maximum displacement 1,200cc (1,500cc for diesel car) and can drive minimal 20 kilometers/liter, 50% luxury tax for advanced technology cars (hybrid, gas, electric and others) with driving ability minimal 28 kilometers/liter, and 75% luxury tax for advanced technology car (hybrid, gas, electric and others) with driving ability between 20 to 28 kilometers/liter. These cars have to be assembled in Indonesia with a certain percentage of local components.
4. **Ministerial of Finance Regulation No 101/PMK.04/2007 on Tax Omissions for Environmental Pollution Preventions.**
This regulation grants omission on import taxes on tools and materials used to prevent and control environmental pollution. The tax omission applies to industrial (manufacturing) companies as well as waste processing companies.
5. **Green Building, Ministry of Public Works**
The Ministry of Public Works has produced a regulation related to green building, and applicable to all companies throughout the country. The local governments are expected to support with local regulations. The ministry itself been successful in implementing green building in its office, and has saved 35% electricity usage, 65%, water usage and reduced up to 1,650 tons of carbon per year.
6. **Green School Program, Ministry of Religion**
The Ministry of Religion has initiated the Green School Program on February 7, 2013 for schools under the coordination of the ministry. The program aims to deliver a generation of global citizens who are knowledgeable and inspired to take responsibility for the sustainability of the world. The school course curriculum focuses on a deep connection with the environment, arts, entrepreneurship, and experiential learning. It combines the talents of its staff, the needs of its students, and the special characteristics of the environment to implement in the curriculum

9. The Indonesian Government Policies on Women

- **1998-2004 Period**

Of the many government policies intended toward green job sector, there are some particular government policies that substantially promote women, youth and the disadvantage to for the most of the part actively involve develop and devise a grand master plan in green economy especially green job sector.

The term women's empowerment is first appeared in a government master-plan in the second presidency of Soeharto era and gradually endured some changes within his presidency office term and post-Soeharto era. It was stated in (section (F) government's master-plan 1998-2004, in cultural social sector, number (3) the role and the position of women) where this policy emphasized the two directions on how women should position themselves as well as the key role attached to them. It is intended to:

1. Improve women's position and women's role in a life of the nation by any institutions capable of promoting gender equality.
2. Improve women's quality role and women's organizational independency by maintaining the value of unity and the historical value of women's struggle in a way to continue empowering women, family and society.

The term that refers to women's empowerment in government policy context has been assumed to be existed long before Soeharto's presidency. With no additional explanation on this matter, we assume that the term is considered important that the government decide to change its ministry of women to ministry of women's empowerment.

- **2005-2009 Period**

As the process of democracy began to mature in this stage, government policy toward women is still far from dramatic change compared to previous period. The issue of improving woman's life quality standard and nullifying any domestic abuses against women became our primary issue.

This is consistent to government plan analysis as stated in government mid-term plan (*Rencana Pembangunan Jangka Menengah*) 2005-2009 saying that 3 main issue concerning women's empowerment need to be addressed promptly, the three issue are as follows : (1) The low rate of women's participation in national economic building, (2) The discrimination acts are still ubiquitous among women and (3) there is a big gap in women's political participation marked by the imbalance and discrepancy of our society culture in understanding the role of women within religious context.

To tackle those difficulties, the ministry of women's empowerment instructed to every government officials to act according to the decree of women empowerment No.27/KEP/Men.PP/IV/2005 about the strategic implementation toward women's empowerment with its primary missions to:

1. Improve women's life quality
2. Enable women's maximum participation in politics and jobs related to it
3. Abolish any discrimination and act of forces against women
4. Improve children welfare and children protection
5. Improve the implementation of gender equality
6. Improve general participation

During this period, Indonesian government has also created some laws regarding to women's empowerment, some of them are:

1. Human Trafficking law (2007)
2. Anti-Pornography law (2009)
3. Health bill amendment (2009)

Some of the policies as stated previously are expected to meet the demand of women's empowerment. Indonesian government has framed those policies as a constructive and supportive government policy to advocate women's empowerment. However, there is still lot of problem remains waiting to be solved concerning women's empowerment. Perhaps, one of the weakest points in implementing this policy is to expand the capacity system developed by the government itself. The concept of women's empowerment is relatively new when it comes to its implementation, with so many gender based activities promoted by the Indonesia government, it could only be implemented with the help of various Non-Government Organizations (NGOs). The plan is not intended for long-term sustainable development thus vulnerable to rapid development and subject to a view that gender equality is a trivial thing in government policy. With many problem remains unsolved, passing a bill that fully supports women's empowerment become so much urgent these days. Unless, Indonesian government wants to deal with the worst scenario of falling behind to other ASEAN countries in achieving Millennium Development Goals (MDG) in ASEAN community in 2015.

10. Conclusions

Prior work has documented about the general issue of green economy in Indonesia but no records have shown that previous research stressed in the importance of implementing green jobs from a practical point of view especially on developing herbal medicine as an alternative solution to generate national income and promote women's participation in this sector.

However, the findings on other sectors in green jobs have expanded the field into more crucial matter than ever before, making it easier for policy makers and related stakeholder to establish a fine framework toward green economy. In this study, we found that the potential exposed by the existence of medical plants have not been fully investigated. Though some big corporations have been harnessing the potential presented by medical plants, local community and women in particular are still lag far behind in term of professional knowledge and practical implications.

In addition to this matter, some limitations of this paper are worth noting, although our analysis was supported by strong graphs and data, this paper do not elaborate with youth potential in term of promoting green job sector, further research should focus on how youth plays an important role in creating green job sector.

Most notably, this might be the first study to the writer's knowledge to investigate the importance of women in implementing green jobs in Indonesia, this papers provide compelling evidence that although number of policies have been introduced regarding green economy to the society, practical training related to home herbal garden has not been initiated by relevant stakeholder. Further work should therefore include a concise framework of women's empowerment through practical solution of utilizing herbal medicine as a future green commodity.

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