

UDK: 005.321-055.2:331.5  
502.12:330  
JEL: B54, J16  
COBISS.SR-ID: 222332940

POSITION PAPER

# Women in the Green Economy



---

Petrović Nevena<sup>1</sup>  
Beogradska bankarska akademija, Belgrade, Serbia

---

## ABSTRACT

*Women all over the world are engaged in different activities from providing basic necessities for their families to running businesses and countries. However, their contribution to societies and economic growth is unrecognized and undervalued. The green economy presents new opportunities for women but there is a possibility that they will be deprived from the potential benefits arising from the green economy especially in developing countries, unless the governments act and initiate structural reforms which will reduce gender inequality in labor markets.*

**KEY WORDS:** *women, green economy, sustainable development, gender inequality*

## INTRODUCTION

The global society today is committed to the implementation of the sustainable development strategy. Sustainable development incorporates not only economic and environmental sustainability, but also social

---

<sup>1</sup> phd student, email: Jovanovicnevena989@gmail.com

sustainability. Social sustainability largely depends on the way societies ensure protection of human rights and well-being of all citizens equally.

The new approach to global economy, so called green economy, “is one that ends extreme poverty, improves human wellbeing and enhances social equity while reducing carbon dependency and ecosystem degradation and furthering sustainable and inclusive growth” (UNEP, 2011). This definition corresponds to the definition of sustainable development and its three dimensions, being economic, social and environmental.

Despite the fact that throughout the world women are engaged in activities ranging from providing basic necessities for their families to running businesses and countries, in many countries, due to gender inequality, their contributions to societies and growth remains unrecognized and undervalued. Consequently, there is a possibility that women will be deprived from the potential benefits arising from the green economy in developing countries, unless the governments act and initiate structural reforms which will bring about gender equality in labor markets. The research objective is to describe the opportunities for women in the green economy.

### **Theoretical Background: The Role of Women in Society and Economy**

Although there is no clear relationship between gender equality and sustainability, both relate to the economic development. For example, there are aspects of gender equality, such as female education and women's share of employment, which have a positive impact on economic growth, depending on the „nature of growth strategies, the structure of the economy, the sectoral composition of women's employment and labour market segregation, among other factors“ (Kabeer & Natali, 2013).

One of the major obstacles in recognition of women contribution to the economy is the fact that they are engaged in so called non market activities. Despite the fact that policymakers rarely consider the impact of the unpaid and often invisible work, which is typically conducted by women in the developing countries, these “non-market activities” are especially important in the times of environmental stress and poor infrastructure (UNRISD, 2010). These non market activities are not paid, and the difference between them and the other paid activities serves as a basis of gender inequality.

On the other hand, these unpaid activities are the building bricks of societies – women are in charge of bringing up the children, keeping the families together and preservation of the basic traditions and moral values. Often, women are also responsible for providing the basic necessities for their families, more than often work and contribute to the household budget, and are increasingly involved in other areas of business and social life.

In developing and emerging markets, women are secondary earners within their households (Chen and others, 2005). Besides doing the unpaid work, due to the unsustainable economic models which promote gender-based discrimination and segregation in labour markets, women are usually confined to jobs that are low-paid and of poor quality in terms of working conditions and access to social protection (United Nations, 2014).

## **Green Economy and Gender Inequality**

Despite the huge impact of the technology development and climate change has on women, only recently, more limited attention has been given to the gender perspectives of the sustainable development (Schalatek, 2013). The changes in the social and natural environment have brought about different forms of gender inequality. As consequences of climate change, natural disasters disproportionately affect poor women (Neumayer & Plümper, 2007). In the rural areas, where households depend on women, they are marginalized and displaced as the limited resources such as land, forest and water are privatized by foreign investors (Levien, 2012).

The question of gender equality is insufficiently reflected in national adaptation or low-carbon development plans (Otzelberger, 2011). As a result, policy makers focus on financial effects rather than on the more structural political and economic changes needed for implementation of the sustainable development strategies, including gender equality as important element of the social sustainability.

The participation of women in the policy making is vital. However, in order for their involvement to result in greater gender equality, the structural foundations of gender inequality has to be changed. Therefore, implementation of the international norms and standards on women's human rights and gender equality is needed to strengthen the role of women in achieving sustainable development (United Nations, 2014).

The emerging green technology economy is expected to be worth \$4.2 trillion annually by 2020 (United Nations, 2014). However, mainstream

approaches to green economy have paid no or little attention to its implications for women and men (Cela et al, 2013). Green economy is defined as a global economic model with focus on businesses and feasibility, with less attention to social inequalities (Schalatek, 2013). The prevailing approach to the green economy as a market-based model could lead to undermining livelihoods and dispossession of local peoples, especially women food producers (United Nations, 2014). On the other hand, gender equality requires recognition and value of unpaid care work in green economy debates (Mellor, 2009).

There are many aspects of the green economy that affect women. For example, the strict conservation of carbon sinks to mitigate global climate change could affect the way of life of households near forests and is expected to intensify women's unpaid care work. Carbon mitigation policies entail higher prices for consumers, and can have "a regressive impact on poorer households, particularly given that they spend a higher proportion of their overall income on electricity" (Gough, 2011). These and similar policies prevent environmental degradation and mitigate climate change but at the same time cause social problems.

In order to reduce such risks, global and national governance and regulatory policy frameworks are necessary (Unmüßig, 2014). This is, however, difficult when dominant model of green economy assumes enhanced market-led economic growth, through green business investments and innovations that increase energy and resource efficiency while preventing the loss of ecosystem services (United Nations, 2014). Therefore, this model does not involve social sustainability and therefore does not even tackle the question of gender equality. Market-based approaches to green economy often promote corporate interests, and thereby constrain the social and sustainable development (UNRISD, 2012).

"Recent research on consumption patterns in Europe shows that women on average generate fewer greenhouse gas emissions than men, as a result of their greater reliance on public transport, lower consumption of meat and higher levels of energy poverty", partly because of women's lower incomes (European Institute for Gender Equality, 2012). Also, women are more concerned about environmental, health and climate issues, compared with men. These findings provide new solutions for preservation of energy, such as sustainable and accessible public transport. For example, In France, transport policy measures based on women's needs are structurally

integrated in the public transport system and in territorial and mobility planning processes (European Parliament, 2012).

Focus on the economic development has different implications on the society, besides the desired positive impact on the economic growth. For example, restrictive monetary policy which is used to control inflation often has negative impact on women's employment. Fiscal constraints limit the capacity of the states to provide public goods which affects women in low-income households, "partly because of their status in the household and partly because the content of their work is so closely linked with the care economy" (Ortiz & Cummins, 2013). The fiscal austerity measures that were implemented in many countries during the past several years resulted in cuts in housing benefits, in child and family allowances, in old age benefits and in care services, which mostly affected women (UN-Women, 2014).

Additionally, fiscal austerity also means reducing labour in public sector which is traditionally an important source of better quality employment for women (UN, 2014). Therefore, public sector downsizing has led to "a disproportionate impact on formal employment opportunities for women and is likely to increase women's concentration in less formal, non-regular jobs" (Lee, 2005). This is opposite of what green economy agenda promotes, "where the greening of investment and public policy in both developing and developed countries is intended to enhance environmental protection while also creating jobs and stimulating economic growth" (UNCTAD, 2013).

## **Opportunities and Challenges of „Green Jobs”**

It is estimated that 80% of green jobs will be located in different industries including energy, construction, transportation and basic industries such as aluminium, iron and steel, since "small number of manufacturing industries are responsible for a large share of resource and energy use as well as greenhouse gas emissions and other pollutants" (International Labour Foundation for Sustainable Development, 2009). The major shift is therefore expected in activities in the use of renewable energy resources, production of fuel-efficient vehicles, clean processing techniques, waste management and recycling.

In developing and emerging economies, an estimated 15 to 20 million mostly women and children serve as waste pickers. Although they are driven into this work by poverty, they provide an essential environmental

service to societies (ILO, 2012). By legalizing their work, governments can increase their otherwise low and unstable earnings. Furthermore, by providing them with education and training, and by organizing them, governments can reduce the risks associated with the work in hazardous working conditions and prevent their harassment and violence against them (ILO, 2012). Including waste pickers into waste management and recycling value chains promotes zero waste strategies that maximize recycling and provide decent employment for the poor (ILO, 2012).

Lack of access to certain types of infrastructure services (e.g., water, sanitation, fuel and transport) negatively affects women more than men and can act as a drain on economic growth in a community (World Bank, n.d.). Access to basic electricity services is a prerequisite for gender equality (UN, 2014). Electricity allows women to read and watch television thus contribute to their education prospects (Pereira et al, 2011). Access to electricity improves health-care infrastructure and allows development of women as entrepreneurs. However, providing access to electricity requires huge investments, and developing countries are often unable to finance such projects on their own.

Most developing and emerging markets are small and capital cost considerations and low prospects for revenue recovery are the main obstacles for the private sector to offer energy services. The role of the governments is in implementing attractive incentives for private investors in this sector. Strict monitoring is however required to ensure provision of services to an extremely poor user base and guarantee of environmental integrity.

Green jobs in general medium skill jobs (UN, 2014). Therefore they present an opportunity for women to enter non-traditional, more highly paid industry sectors (International Labour Foundation for Sustainable Development, 2009). This opportunity requires government attention and consideration in order to be used efficiently, given the extent of gender segregation in most labour markets.

Women constitute only 30 % of the global workforce, so there is a strong chance that they will be bypassed or marginalized when adopting the green economy model (UN, 2014). For this to be avoided, governments have to ensure implementation of the mechanisms that will include women into new structures.

Sectors where green employment expansion is expected are traditionally male dominated, with sectoral segregation increasing (UN,

2014). Additionally, the share of women in the existing green jobs is low - in OECD countries, where “women earn more than half of university degrees, only 30 % of degrees in science and technology, being key areas of study for green jobs go to women” (ILO, 2011). For example, in developing economies, women are employed in the low value-added green jobs, such as informal workers in waste collection and recycling (ILO, 2011).

The government also has a crucial role in removing gender stereotypes which usually result from attitudes formed in an early age and are dominant at home, in schools, in the media and in all interactions embedded in and reinforced by the society. Stereotypes shape education choices, both in secondary school and higher education and further in occupational choices. It is very important to remove all which favors occupational segregation between women and men, since the studies clearly show that “the low representation of women in science, technology, engineering and mathematics is related to attitudes rather than ability”. Even if women choose science, technology, engineering and mathematics as subjects, they are less likely than men to pursue a career in science, although there is no gender difference in performance (Organization for Economic Cooperation and Development, 2012).

Although it is certain that deeper reforms are needed in order to include gender equality into new green economy, all activities that can help in the promotion of women human rights are important. There are several examples of encouraging practice all over the world which show that people are becoming more aware of the importance of women in the economy.

For example, in the “Working for Water” project in South Africa, women, youth and people with disabilities were recruited (ILO, 2011). Installing solar home systems in rural areas in Bangladesh required training of women who serve as “rural electricians” (ILO, 2012). In the United States of America, a number of programmes encourage women into green jobs through skill development and networking (UN, 2014).

“Women’s seclusion from the public arena, higher time poverty, and lack of mobility limit their access to markets in various ways” (World Bank, n.d.). For instance, women usually have less information about prices, rules and rights to basic services. In Uganda, this type of inefficiency has been tackled by *Ideas for Earning Money*, software for women who wish to develop new business skills (World Bank, n.d.).

Additionally, in 2015, more than 70 world leaders made commitments to overcome gender equality gaps during the Global Leaders’ Meeting on

Gender Equality and Women's Empowerment. The new sustainable development agenda which builds on the Millennium Development Goals from 2000 goes further in addressing the causes of inequality (UN Women, 2015). This is the first time that such initiative was considered on a high level meeting.

### **Women and Sustainable Energy Policies**

As said before, women in most developing countries experience energy poverty more severely than men, since they are more associated with household activities and are responsible for household and community energy provision. Without access to modern energy services, women spend most of their day performing basic subsistence tasks, and both time-consuming and difficult tasks of collecting biomass fuels. This often constrains them from searching for employment and educational opportunities, and limits their options for inclusion into social and political interaction outside the household (Danielsen, 2012).

Energy poverty is expected to further in the future, without government commitment and investment. Access to energy is critical for economic and social development in terms of cleaner natural environment and more income generating opportunities. Promotion of the use of renewable energy sources and technologies increases access to modern energy services in rural areas that currently have no access to electricity and pay higher prices for energy service delivery because of the transportation costs and inefficiency of traditional energy forms (UNIDO, n.d.).

Additionally, for women, access to sustainable energy will reduce the time and efforts needed for performance of everyday tasks. This will consequently improve their health, and leave them more time to engage in social interactions or entrepreneurship. Since women are the main individual users of energy on global level, women's needs should be taken into account in energy interventions and their participation in sustainable energy solutions is critical in the transition to sustainable energy. Therefore, involving women in the various steps of the energy value chain can expand both the scale and the quality of sustainable energy initiatives (UNIDO, n.d.).

However, women are underrepresented in the energy industry work force, and are rarely considered as stakeholders for energy initiatives. Even more, women's economic contribution to the energy sector, such as fuel

collection, is unpaid, unrecognized and undervalued and their activities of energy use are often not reflected in national statistics. As a result, energy planners are unaware of women's energy demands, and less attention is paid to technology development and investments aimed at improving women's work in comparison to men's (UNIDO, n.d.).

Policymakers need to recognize the potential of women in the energy sector, as well as the value of their work, in order to design gender - equitable energy policies and legal frameworks that support green employment creation. Recent experiences from South Africa and Guatemala show that electrification has resulted in a 9% increase in female employment, and in Nicaragua electricity has increased the propensity of rural women to work outside the home by about 23% (UNIDO, n.d.).

At the same time, access to energy-based technologies, such as low-cost domestic appliances or power water wells, improves productivity and increases the time available for engaging in activities outside the household.

Governments play crucial roles in promoting and enforcing gender equality, through setting standards and regulations for resource use and providing public services and investments for sustainable development (UN, 2014).

Numerous traditional and non-traditional sources of financing energy services exist and can be redirected towards sustainability and gender equality through government actions such as domestic resource mobilization through taxation methods or incentives to private sector in implementation of any new socially responsible projects enforcing gender equality. Local and municipal government financing, as well as public and international development financing should be partly redirected toward green microfinance leading to sustainability and gender equality.

According to the United Nations World Survey (2014) there are three criteria to assess whether sustainable development is in line with gender equality and women's human rights. The first one is compliance with human rights standards and the realization of women's capabilities. The second one is attention to the unpaid care work of women and girls, especially those in poor and marginalized households and communities. The third is ensuring full and equal participation by women and girls in all aspects of sustainable development.

International agreements such as Beijing Platform for Action and the Convention on the Elimination of All Forms of Discrimination against

Women serve as the basis for different actions among which are (UN, 2014):

- Promotion of transitions to sustainable low carbon, climate-resilient consumption and production patterns while ensuring gender equality.
- Ensuring women's right to an adequate standard of living, through increasing access to decent work and providing gender-responsive, universally accessible and high quality services, social protection measures and infrastructure, including education, health, water and sanitation, and energy.
- Recognition, reduction and redistribution unpaid care work between women and men within households, and between households and the state by expanding basic services and infrastructure that are accessible to all.

Developing countries are also encouraged to apply for both financial and technical help in the development and implementation of the institutional solution and realization of various programs that aim to reduce gender inequality, and thus contribute to the sustainable growth.

## **Conclusion**

Governments play important role in adopting policies that ensure the full and equal participation of women in sustainable development initiatives as actors, leaders and decision makers. States are also responsible for adopting green growth policies which allow women an access to high quality jobs in sustainable and low-carbon industries. This also requires investment in women's skills development and education, and breaking down the stereotypes that are particularly strong in the developing nations.

Implementation of labour market regulations and employment policies that guarantee decent employment conditions for all and prevent discrimination against women are precondition for economic development and growth of both developing and developed countries.

Investment into initiatives which provide basic and affordable energy access to all citizens, particularly in rural areas, serves as the basis for balanced regional development and economic growth, while at the same time reduces gender inequality. The use of the renewable energy sources contributes to achievement of both environmental and social goals of the

sustainable growth strategies, since it improves access to health-care, education, and income generation opportunities. At the same time, it reduces women's unpaid care work, enabling them to engage more actively in other areas of social and political life.

Full and equal participation of women in decision making processes at all levels contributes to the efficiency of the chosen strategies, since the women are the main consumers and providers for the households. Governments are responsible for ensuring the gender balance at all management boards, panels and advisory groups related to the sustainable growth in the green economy.

## References

- [1] **Cela, B., Dankelman, I., Stern, J.** 2013. *Powerful Synergies: Gender Equality, Economic Development and Environmental Sustainability*. New York: United Nations Development Programme.
- [2] **Chen, M., Vanek, J., Lund, F., Heintz, J., Jhabvala, R., Bonner, C.** 2005. *Progress of the World's Women 2005: Women, Work and Poverty*. New York: United Nations Development Fund for Women.
- [3] **Danielsen, K.** 2012. *Gender equality, women's rights and access to energy services*, Available from: <http://eu2012.dk/en/Meetings/Other-Meetings/Apr/~~/media/Files/Other%20meetings/April/EU%20Sustainable%20Energy%20for%20All%20Summit/Gender%20Energy%20Report.pdf>. [Date of access 10<sup>th</sup> February 2016]
- [4] **European Institute for Gender Equality 2012.** *Review of the Implementation in the EU of Area K of the Beijing Platform for Action: Women and the Environment — Gender Equality and Climate Change*. Luxembourg: Publications Office of the European Union. Available from: <http://eige.europa.eu/sites/default/files/documents/Gender-Equality-and-Climate-Change-Report.pdf> [Date of access 8<sup>th</sup> February 2016]
- [5] **European Parliament (2012) THE ROLE OF WOMEN IN THE GREEN ECONOMY - The issue of mobility.** Available from: [http://www.europarl.europa.eu/RegData/etudes/note/join/2012/462453/IPOL-FEMM\\_NT%282012%29462453\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/note/join/2012/462453/IPOL-FEMM_NT%282012%29462453_EN.pdf)[Date of access 10<sup>th</sup> February 2016]
- [6] **Gough, I.** 2011. *Climate Change, Double Injustice and Social Policy: A Case Study of the United Kingdom*. Available from: <http://www.unrisd.org/80256B3C005BCCF9/httpNetITFramePDF?ReadForm&parentunid=2C2C37BEB8A50F08C125797B00651177&parentdoctype=paper&netitpath=80256B3C005BCCF9/%28httpAuxPages%29/2C2C37BE>

- B8A50F08C125797B00651177/\$file/1%20Gough%20%28with%20cover%29%20Small.pdf [Date of access 8<sup>th</sup> February 2016]
- [7] **ILO: International Labour Office.** 2011. *Skills for Green Jobs: A Global View — Synthesis Report Based on 21 Country Studies*. Geneva: International Labour Office.
- [8] **ILO: International Labour Office.** 2012. *Working Towards Sustainable Development: Opportunities for Decent Work and Social Inclusion in a Green Economy*. Geneva: International Labour Office.
- [9] **International Labour Foundation for Sustainable Development.** (2009). *Green jobs and women workers: employment, equity, equality — draft report*.
- [10] **Kabeer, N., Natali, L.** 2013. “Gender quality and economic growth: is there a win-win?” *IDS Working Paper*, 417.
- [11] **Lee, C. K.** 2005. “Livelihood Struggles and Market Reform: (Un)making Chinese Labour after State Socialism.” *Occasional Paper*, 2. Geneva: United Nations Research Institute for Social Development.
- [12] **Levien, M.** 2012. “The land question: special economic zones and the political economy of dispossession in India.” *Journal of Peasant Studies*, 39(3-4):. 933-969.
- [13] **Mellor, M.** 2009. “Ecofeminist political economy and the politics of money.” In *Eco Sufficiency and Global Justice: Women Write Political Ecology*, ed. A. Salleh, 251-267. London: Pluto Press.
- [14] **Neumayer, E., Plümper, T.** 2007. “The gendered nature of natural disasters: the impact of catastrophic events on the gender gap in life expectancy, 1981-2002.” *Annals of the Association of American Geographers*, 97(3): 551-566.
- [15] **Ortiz, I., Cummins, M.** 2013. *The age of austerity: a review of public expenditures and adjustment measures in 181 countries*. Available from: [http://policydialogue.org/files/publications/Age\\_of\\_Austerity\\_Ortiz\\_and\\_Cummins.pdf](http://policydialogue.org/files/publications/Age_of_Austerity_Ortiz_and_Cummins.pdf) [Date of access 10<sup>th</sup> February 2016]
- [16] **Otzelberger, A.** 2011. *Gender-responsive strategies on climate change: recent progress and ways forward for donors*. Brighton: Institute of Development Studies, BRIDGE.
- [17] **Pereira, M. G., and others.** 2011. “Evaluation of the impact of access to electricity: a comparative analysis of South Africa, China, India and Brazil.” *Renewable and Sustainable Energy Reviews*, 15(3): 1427-1441.
- [18] **Schalatek, L.** 2013. *The post-2015 framework: merging care and green economy approaches to finance gender-equitable sustainable development*. Available from: <http://www2.unwomen.org/~media/headquarters/attachments/sections/csw/58/ep8-lianeschalatek%20pdf.pdf?v=1&d=20140917T100713> [Date of access 9<sup>th</sup> February 2016]

- 
- [19] **UN Women (2015)** The 2030 Agenda for Sustainable Development. Available from: <http://www.unwomen.org/en/what-we-do/post-2015> [Date of access 10<sup>th</sup> February 2016]
- [20] **UNCTAD (2013)**. *Trade and Development Report 2013: Adjusting to the Changing Dynamics of the World Economy*. Available from: <http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=600>. [Date of access 10<sup>th</sup> February 2016]
- [21] **UNIDO, n.d. Sustainable Energy for All: the gender dimensions**. Available from: [http://www.unido.org/fileadmin/user\\_media\\_upgrade/What\\_we\\_do/Topics/Women\\_and\\_Youth/GUIDANCENOTE\\_FINAL\\_WEB.pdf](http://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Women_and_Youth/GUIDANCENOTE_FINAL_WEB.pdf) [Date of access 10<sup>th</sup> February 2016]
- [22] **United Nations (2014)**. *The World Survey on the Role of Women in Development, on the theme of “gender equality and sustainable development*.
- [23] **United Nations Environment Programme (2011)**. *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication – A Synthesis for Policy Makers. Nairobi*.
- [24] **United Nations Research Institute for Social Development. (2010)**. *Combating Poverty and Inequality: Structural Change, Social Policy and Politics*.
- [25] **United Nations Research Institute for Social Development. (2012)**. “Social dimensions of green economy.” *Research and Policy Brief*, 12. Geneva.
- [26] **Unmüßig, B. (2014)**. *On the value of nature: the merits and perils of a new economy of nature*. Berlin: Heinrich Böll Stiftung.
- [27] **UN-Women (2014) Annual Report 2013-2014**. Available from: <http://www.unwomen.org/~media/58ED9AE6A3B544149C9DEFA302CC9884.ashx>. [Date of access 10<sup>th</sup> February 2016]
- [28] **World Bank, n.d. Key Issues on Gender and Development**. Available from: <http://go.worldbank.org/JY9AZO39Z0> [Date of access 10<sup>th</sup> February 2016]

## **Žene u “zelenoj ekonomiji”**

### **A P S T R A K T**

*Žene širom sveta su uključene u različite aktivnosti, od brige za porodicu do upravljanja preduzećima, pa i zemljama. Međutim, njihov doprinos društvu i ekonomskom rastu je nepriznat i potcenjen. Zelena ekonomija otvara nove mogućnosti za žene, ali postoji mogućnost da će one biti lišene potencijalnih koristi koje proističu iz zelene ekonomije, posebno u zemljama u razvoju, ukoliko vlade ovih zemalja ne pokrenu strukturne reforme koje će smanjiti rodnu nejednakost na tržištu rada*

**KLJUČNE REČI:** *žene, zelena ekonomija, održivi razvoj, rodna nejednakost*

Article history: Received: 1 February, 2016

Accepted: 7 March, 2016