

Promoting Sustainable Consumption and Production Patterns in Kenya for Development

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Abstract

This paper discusses how Kenya can achieve sustainable consumption and production patterns as envisaged under the United Nations 2030 Agenda for Sustainable Development Goal 12. The paper identifies the challenges that still make it difficult to achieve this goal and offers solutions based on the same. The solutions range from social, economic, political and environmental in nature and also require the participation of all stakeholders.

1. Introduction

The world is faced with dwindling environmental and natural resources attributable to a myriad of reasons which include but are not limited to climate change, environmental degradation due to pollution and other unsustainable consumption and production practices by the human race.¹ The potential for human kind to destroy the environment was indeed acknowledged in 1972 when the UN Conference on the Human Environment stated: “In our time, man’s capability to transform his surroundings, if used wisely, can bring to all peoples the benefit of development and the opportunity to enhance the quality of life. Wrongly or heedlessly applied, the

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¹ ‘1.4 The Environmental Crisis’ <https://www.soas.ac.uk/cedep-demos/000_P500_ESM_K3736-Demo/unit1/page_11.htm> accessed 6 November 2020; ‘Sustainable Consumption and Production Global Edition. A Handbook for Policymakers: Sustainable Development Knowledge Platform’ <<https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=1951&menu=35>> accessed 6 November 2020; see also Magnus Bengtsson and others, ‘Transforming Systems of Consumption and Production for Achieving the Sustainable Development Goals: Moving beyond Efficiency’ (2018) 13 Sustainability Science 1533.

same power can do incalculable harm to human beings and human environment”.² Undoubtedly, this human power has been used wrongly through unsustainable consumption and production patterns, and the results have been devastating, the world over, including in Kenya where there have been rampant cases of environmental degradation.³ The United Nations argues that the human population is currently consuming more resources than ever, exceeding the planet’s capacity for generation.⁴

As a way of addressing this challenge, the United Nations 2030 Agenda on Sustainable Development Goals⁵ (SDGs) dedicates SDG Goal 12 to ensuring sustainable consumption and production patterns by all countries.⁶ It has

² ‘What Is Sustainable Consumption and Production?’ (*One Planet Network*, 13 September 2016) <<https://www.oneplanetnetwork.org/about/what-Sustainable-Consumption-Production>> accessed 6 November 2020.

³ Adam Lampert, ‘Over-Exploitation of Natural Resources Is Followed by Inevitable Declines in Economic Growth and Discount Rate’ (2019) 10 *Nature Communications* 1419; *Global Environment Outlook: GEO4: Environment for Development* (United Nations Environment Programme [host 2007] 93; Washington Odongo Ochola and others (eds), *Managing Natural Resources for Development in Africa: A Resource Book* (co-published by University of Nairobi Press in association with International Development Research Centre, International Institute of Rural Reconstruction, Regional Universities Forum for Capacity Building in Agriculture 2010).

⁴ UN Environment, ‘Sustainable Consumption and Production Policies’ (*UNEP - UN Environment Programme*, 2 October 2017) <<http://www.unenvironment.org/explore-topics/resource-efficiency/what-we-do/sustainable-consumption-and-production-policies>> accessed 7 November 2020.

⁵ UN General Assembly, *Transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1.

⁶ **Goal 12. Ensure sustainable consumption and production patterns**

12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air,

been observed that although consumption and production are at the core of the global economy, the current unsustainable production and consumption patterns lead to deforestation, water scarcity, food waste, and high carbon emissions, and cause the degradation of key ecosystems.⁷

Sustainable Consumption and Production (SCP) can be defined as: *“the use of services and related products which respond to basic needs and bring a better quality of life while minimising the use of natural resources and toxic materials as well as the emission of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future*

water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

⁷ United Nations, ‘Goal 12—Ensuring Sustainable Consumption and Production Patterns: An Essential Requirement for Sustainable Development’ (*United Nations*) <<https://www.un.org/en/chronicle/article/goal-12-ensuring-sustainable-consumption-and-production-patterns-essential-requirement-sustainable>> accessed 6 November 2020.

generations".⁸ It has also been defined as: *a holistic approach to minimising the negative environmental impacts from consumption and production systems while promoting quality of life for all*".⁹

Thus, while Sustainable Consumption and Production (SCP) may mean different things to different people, it can generally be agreed that SCP is about systemic change, decoupling economic growth from environmental degradation and applying a lifecycle thinking approach, taking into account all phases of resource use in order to do more and better with less.¹⁰

2. Sustainable Consumption and Production Patterns in Kenya: Challenges

It has rightly been pointed out that a major challenge in environmental policymaking is determining whether and how fast our society should adopt sustainable management methods as these decisions may have long lasting effects on the environment.¹¹

2.1. Excessive Use of agrochemicals and Overreliance on Agriculture

It has rightly been pointed out that commercialization of horticulture farming, expansion of farms, and the practice of monoculture favour the proliferation of pests, which in turn increases the need for pesticides.¹²

⁸ 'What Is Sustainable Consumption and Production?' (*One Planet Network*, 13 September 2016) <<https://www.oneplanetnetwork.org/about/what-Sustainable-Consumption-Production>> accessed 6 November 2020.

⁹ Lewis Akenji, Emily Briggs, and United Nations Environment Programme, *Sustainable Consumption and Production: A Handbook for Policymakers* (2015), 10.

¹⁰ Ibid.

¹¹ Adam Lampert, 'Over-Exploitation of Natural Resources Is Followed by Inevitable Declines in Economic Growth and Discount Rate' (2019) 10 *Nature Communications* 1419, 1.

¹² Aliyu Ahmad Warra and Majeti Narasimha Vara Prasad, 'Chapter 16 - African Perspective of Chemical Usage in Agriculture and Horticulture—Their Impact on Human Health and Environment' in Majeti Narasimha Vara Prasad (ed), *Agrochemicals Detection, Treatment and Remediation* (Butterworth-Heinemann 2020)

<<http://www.sciencedirect.com/science/article/pii/B9780081030172000167>>

accessed 7 November 2020; Binoy Sarkar and others, 'Chapter 8 - Sorption and Desorption of Agro-Pesticides in Soils' in Majeti Narasimha Vara Prasad (ed), *Agrochemicals Detection, Treatment and Remediation* (Butterworth-Heinemann 2020)

Currently, due to agricultural industrialization, more and more farmers in Kenya and indeed globally, are using agro-chemicals (fertilizers and pesticides) in their farms to deal with pests and all other destructive insects as well as increasing productivity.¹³ The need for increased food production is occasioned by the growing population thus making it imperative to ensure food security by increasing crop production.¹⁴ Some commentators have argued that application of excessive fertilizers and pesticides to improve crop production has negative environmental implications, including soil degradation, enhanced greenhouse gas emissions, accumulation of pesticides, and decline in the availability and quality of water.¹⁵ Indeed, indiscriminate use of chemical pesticides not only affects the texture and productivity of soil but also affects the environment, health-related issues, and the non-target microorganism.¹⁶

2.2. High Levels of Abject Poverty

Arguably, environmental unsustainability is due to both structural features and historically specific characteristics of industrial capitalism resulting in specific patterns of production and consumption, as well as population growth.¹⁷ Poverty has often contributed to unsustainable production and consumption patterns and ultimately to environmental degradation in the country.¹⁸ It has been observed that the objective of SCP is to: conserve

<<http://www.sciencedirect.com/science/article/pii/B9780081030172000088>>
accessed 7 November 2020.

¹³ Ibid.

¹⁴ Sachchidanand Tripathi and others, 'Chapter 2 - Influence of Synthetic Fertilizers and Pesticides on Soil Health and Soil Microbiology' in Majeti Narasimha Vara Prasad (ed), *Agrochemicals Detection, Treatment and Remediation* (Butterworth-Heinemann 2020)

<<http://www.sciencedirect.com/science/article/pii/B9780081030172000027>>
accessed 7 November 2020.

¹⁵ Ibid.

¹⁶ Vipin Kumar Singh and others, 'Chapter 10 - Impact of Pesticides Applications on the Growth and Function of Cyanobacteria' in Prashant Kumar Singh and others (eds), *Advances in Cyanobacterial Biology* (Academic Press 2020)
<<http://www.sciencedirect.com/science/article/pii/B9780128193112000103>>
accessed 7 November 2020.

¹⁷ Helen Kopnina, 'The Victims of Unsustainability: A Challenge to Sustainable Development Goals' (2016) 23 *International Journal of Sustainable Development & World Ecology* 113.

¹⁸ Lewis Akenji, Emily Briggs, and United Nations Environment Programme, *Sustainable Consumption and Production: A Handbook for Policymakers* (2015).

natural resources through more efficient use so that human needs can be satisfied without exhausting the world's finite supply of such resources, leaving behind enough for future generations; and ensure that the goods and services we produce and consume and the manner in which they are produced, used and discarded does not pollute the planet.¹⁹

The poor depend much more on nature for their livelihoods than the rich. Thus "natural" changes – for instance those brought about by climate change due to man-made activities – are likely to hit the poor much harder than the rich, although ultimately they will affect all.²⁰ Thus, poverty may make communities more susceptible to environmental degradation or contribute to the same.

2.3. Food Wastage and losses at Consumer and Production Levels

It has been noted that although Sub-Saharan Africa faces severe food shortages, on one hand, it experiences high rates of postharvest loss on the other, with an estimation that about 50% of fruits and vegetables, 20% of cereals, pulses and legumes and 40% of roots and tubers are lost before they reach the consumer.²¹ Thus, such wastage and loss not only leaves the people hungry with inadequate food to consume but also exerts undue pressure on the lands for higher production of food to feed the ever growing population.

3. Promoting Sustainable Consumption and Production Patterns in Kenya for Sustainable Development: Prospects

It has been observed that although environment does not feature in Vision 2030 as a pillar, there has been a wide range of policy, institutional and legislative frameworks by the Government aimed at addressing the major

¹⁹ Ibid.

²⁰ Ibid; Jeremy Millard and others, 'Social Innovation for Poverty Reduction and Sustainable Development: Some Governance and Policy Perspectives', *Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance - ICEGOV '15-16* (ACM Press 2016) <<http://dl.acm.org/citation.cfm?doid=2910019.2910079>> accessed 8 November 2020; United Nations Environment Programme (ed), *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication* (UNEP 2011).

²¹ Huho, Julius M. "Reducing food loss and waste through innovative food preservation technologies applied by women in rural areas in Kenya." *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)* Vol 3, no. 1 (2020): 76-82.

causes of environmental degradation and negative impacts on ecosystems emanating from industrial and economic development programmes.²²

As already pointed out, SDG 12 requires countries around the globe to work towards the following: implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries; by 2030, achieve the sustainable management and efficient use of natural resources; by 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses; by 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment; by 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse; encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle; promote public procurement practices that are sustainable, in accordance with national policies and priorities; by 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature; support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production; develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products; and rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the

²² United Nations, 'Sustainable Development in Kenya: Stocktaking in the run up to Rio+20'(2012) Nairobi: United Nations, 3.

poor and the affected communities.²³ Banking on these SDG obligations, Kenya can take up and implement a number of measures that can inch it closer to achieving sustainable consumption and production patterns.

3.1. Tackling Food Wastage at Consumer and Production Levels

There is a need to address the challenge of food wastage and loss during harvesting, transportation, storage as well as at the consumption stage in order to ensure that there is enough for local consumption as well as possible sale of the excess as a way of improving the livelihoods of farmers.²⁴

Locally produced food and other potential income earners natural resources could undergo local value addition and be exported either within African region markets or out of Africa. This would have a positive effect on the economic wellbeing of all persons starting from the grassroots levels.²⁵

3.2. Promoting Environmental Ethics

Environmental ethics is a term used to refer to the moral relationship between the status of the land (from the perspective of the human being) and the use of the land by humans and other living species.²⁶ Environmental ethics has also been defined as a set of expectations, rules of behaviour, of how we treat the planet's inhabitants, human and nonhuman.²⁷ Environmental ethics dictate that one should base their behaviour on a set of ethical values that

²³ SDG Goal 12, *Transforming our world: the 2030 Agenda for Sustainable Development*.

²⁴ Timmermans, A. J. M., J. Ambuko, W. Belik, and Jikun Huang. *Food losses and waste in the context of sustainable food systems*. No. 8. CFS Committee on World Food Security HLPE, 2014; Kimiywe, J. "Food and nutrition security: challenges of post-harvest handling in Kenya." *Proceedings of the Nutrition Society* 74, no. 4 (2015): 487-495; Huho, Julius M. "Reducing Food Loss and Waste through Innovative Food Preservation Technologies Applied by Women in Rural Areas in Kenya." *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)* Vol 3, no. 1 (2020): 76-82.

²⁵ Muigua, K., Utilizing Africa's Natural Resources to Fight Poverty, available at <http://www.kmco.co.ke/attachments/article/121/Utilizing%20Africa's%20Natural%20Resources%20to%20Fight%20Poverty-26th%20March,2014.pdf>

²⁶ Donald L Grebner, Pete Bettinger and Jacek P Siry, *Introduction to Forestry and Natural Resources* (First edition, Academic Press 2013).

²⁷ Daniel A Vallerio, *Paradigms Lost: Learning from Environmental Mistakes, Mishaps, and Misdeeds* (Butterworth-Heinemann 2006) ch 1.

guide our approach toward the other living beings in nature.²⁸ In addition, it has been argued that since sustainability makes us consider what we do in light of future consequences, good and bad, our contemporary environmental ethic stretches environmental awareness in space and time.²⁹ Environmental ethicists advocate the need for change in consciousness, attitudes, thoughts, models, beliefs and world view.³⁰

As a way of ensuring that the general populace in Kenya is aware of the impact of all their actions on their surroundings, there is a need for promoting an approach to production and consumption that incorporates both anthropocentrism and ecocentrism.³¹ Ecocentrism finds inherent (intrinsic) value in all of nature. It takes a much wider view of the world than does anthropocentrism, which sees individual humans and the human species as more valuable than all other organisms.³²

²⁸ IV Muralikrishna and Valli Manickam, *Environmental Management: Science and Engineering for Industry* (Butterworth-Heinemann, an imprint of Elsevier 2017) ch 4.

²⁹ Daniel A Vallerio, *Paradigms Lost: Learning from Environmental Mistakes, Mishaps, and Misdeeds* (Butterworth-Heinemann 2006) ch 1.

³⁰ S Morand and Claire Lajaunie, *Biodiversity and Health: Linking Life, Ecosystems and Societies* (ISTE Press ; Elsevier 2018) ch 12.

³¹ Sabine Lenore Müller and Tina-Karen Pusse (eds), *From Ego to Eco: Mapping Shifts from Anthropocentrism to Ecocentrism* (Brill 2018); Muigua, Kariuki. "Achieving Environmental Security in Kenya." *E. Afr. LJ* (2018): 1; 'Why Ecocentrism Is the Key Pathway to Sustainability' (*MAHB*, 4 July 2017) <<https://mahb.stanford.edu/blog/statement-ecocentrism/>> accessed 8 November 2020; Noel E Boulting and The Society for Philosophy in the Contemporary World, 'Between Anthropocentrism and Ecocentrism': (1995) 2 *Philosophy in the Contemporary World* 1; Muigua, Kariuki. *Nurturing Our Environment for Sustainable Development*. Glenwood Publishers Limited, 2016; Karataş, Assist Prof Dr Abdullah. "The Role of Environmental Education in Transition from Anthropocentrism to Ecocentrism." *International Journal of Business and Social Science* 7, no. 1 (2016); Jana Rülke and others, 'How Ecocentrism and Anthropocentrism Influence Human–Environment Relationships in a Kenyan Biodiversity Hotspot' (2020) 12 *Sustainability* 8213.

³² 'Why Ecocentrism Is the Key Pathway to Sustainability' (*MAHB*, 4 July 2017) <<https://mahb.stanford.edu/blog/statement-ecocentrism/>> accessed 8 November 2020.

There is therefore a need for environmental education in order to supply the general public with the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

3.3. Investing in Scientific and Technological Capacity

The Constitution obligates the State to recognise the role of science and indigenous technologies in the development of the nation.³³ There is a need for the country to invest in and adopt scientific knowledge especially locally for eliminating unsustainable and harmful practices that adversely affect realization right to clean and healthy environment for all as well as the sustainable development agenda. This may be aimed at achieving, inter alia, use of science and technology in industrial waste management, adoption of green and clean technologies, climate change mitigation measures, food production and preservation measures, among others.³⁴

3.4. Addressing Poverty Levels in Kenya

A poverty stricken population is more likely to disregard sustainable production and consumption of environmental resources for lack of resources to explore possible alternatives to get their livelihoods and thus they end up overexploiting environmental resources and lands. It is therefore important for the stakeholders and policymakers to ensure that they support efforts towards addressing poverty levels as a prerequisite in achieving sustainability.

3.5. Pollution Prevention and Control

There is a need for stakeholders to identify opportunities and explore the same in order to reduce the production of wastes and the use of toxic materials, to prevent soil, water, and air pollution and to conserve and reuse resources.³⁵ The Constitution of Kenya guarantees the right of every person to a clean and healthy environment including the right to have the environment protected for the benefit of present and future generations

³³ Constitution of Kenya, Art. 11(2) (b).

³⁴ Muigua, K., Utilising Science and Technology for Environmental Management in Kenya, available at <http://kmco.co.ke/wp-content/uploads/2020/04/Utilising-Science-and-Technology-for-Environmental-Management-in-Kenya.pdf>

³⁵ Boubaker Elleuch and others, 'Environmental Sustainability and Pollution Prevention' (2018) 25 *Environmental Science and Pollution Research* 18223.

through legislative and other measures, particularly those contemplated in Article 69.³⁶

Pollution may be as a result of, inter alia, waste by-products emanating from industrialization of our society, the introduction of motorized vehicles, and the explosion of the human population, leading to an exponential growth in the production of goods and services.³⁷ Combating pollution in all its forms is thus critical if the sustainable development agenda is to be achieved and this calls for concerted efforts from all stakeholders including state organs, private sector and individuals.³⁸

3.6. Agricultural Diversification and Diversification of Livelihood Sources in Kenya

Agricultural diversification is considered to be an important mechanism for economic growth. Agricultural diversification can be facilitated by technological breaks-through, by changes in consumer demand or in government policy or in trade arrangements, and by development of irrigation, roads, and other infrastructures.³⁹ It has been argued that the policy frameworks of government for rural infrastructure transport, irrigation, storage facilities, processing, and providing incentives to the farmers encourages agricultural diversification.⁴⁰

A research targeting Southern Nakuru County on ‘Sustainable food systems through diversification and indigenous vegetables’ found that one way to

³⁶ Art. 42; Art. 70(1) of the Constitution states that if a person alleges that a right to a clean and healthy environment recognised and protected under Art. 42 has been, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress in addition to any other legal remedies that are available in respect to the same matter. See the case of Peter K. Waweru vs R, Misc civ application no. 118 of 2004

³⁷ See Muigua, K., ‘Safeguarding the Environment through Effective Pollution Control in Kenya’, September 2019, available at <http://kmco.co.ke/wp-content/uploads/2019/09/Safeguarding-the-Environment-through-Effective-Pollution-Control-in-Kenya-Kariuki-Muigua-28th-SEPT-2019.pdf>

³⁸ Muigua, K., ‘Safeguarding the Environment through Effective Pollution Control in Kenya’, 26-27.

³⁹ ‘IV. Agricultural Diversification on Small Farms’

<<http://www.fao.org/3/ac484e/ac484e06.htm>> accessed 8 November 2020.

⁴⁰ Donald L Sparks, *Advances in Agronomy. Volume 110* (Elsevier 2011) ch 4 <<http://site.ebrary.com/id/10444577>> accessed 8 November 2020.

improve sustainability of the local food system is diversification, starting with better integrating indigenous vegetables, into the food system.⁴¹ Overreliance on certain foods in the country such as maize and so the staple grains often leads to communities overexploiting their lands through farming. There is a need for continued campaigns for communities to change their attitudes towards other sources of food and embracing the same.⁴² The overreliance on certain foods is also what leads to excessive use of agrochemicals leading to environmental degradation. Thus, diversification of food sources and agricultural diversification may not only ensure that there is food security but also help in environmental conservation and restoration.⁴³

It is not only important to promote agricultural diversification but also livelihood diversification, where the latter means farming households engaging in multiple agricultural and nonagricultural activities. Both agricultural and livelihood diversification are ways of managing climate risk.⁴⁴ In addition, agricultural diversification can address poverty levels by increasing and stabilizing farmers' incomes and rural employment.⁴⁵

While some authors have conflicting opinion on the full effect of agrochemicals on the environment, there is a need for farmers to turn towards

⁴¹ Molina, P.B., D'Alessandro, C., Dekeyser, K. and Marson, M., "Sustainable food systems through diversification and indigenous vegetables." (2020), 104.

⁴² Muigua, K., 'Achieving the Right to Food for Sustainable Development in Kenya,' *Paper Presented at the Public Engagement Forum on the Right to Food Inception Meeting held on 24th July 2018 at the African Population and Health Research Center (APHRC) Campus* < <http://kmco.co.ke/wp-content/uploads/2018/08/Achieving-the-Right-to-Food-for-Sustainable-Development-in-Kenya-Presentation-African-Population-and-Health-Research-Center-APHRC-Campus-24th-July-2018.pdf>> Accessed 8 November 2020.

⁴³ Katharina Waha and others, 'Agricultural Diversification as an Important Strategy for Achieving Food Security in Africa' (2018) 24 *Global Change Biology* 3390.

⁴⁴ Clayton Campanhola and Shivaji Pandey, *Sustainable Food and Agriculture: An Integrated Approach* (2019) <<https://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=5611463>> accessed 8 November 2020.

⁴⁵ Chiara Mazzocchi and others, 'The Dimensions of Agricultural Diversification: A Spatial Analysis of Italian Municipalities' (2020) 85 *Rural Sociology* 316; Cristina Salvioni, Roberto Henke and Francesco Vanni, 'The Impact of Non-Agricultural Diversification on Financial Performance: Evidence from Family Farms in Italy' (2020) 12 *Sustainability* 486.

compost manure and treat their soils in attempts to reduce agrochemicals inputs for the sake of healthy environment and sustainability purposes.

3.7. Sustainable Public Procurement Practices and Green Economy Investments

It has been suggested that shifting public spending towards more sustainable goods and services can help drive markets in the direction of innovation and sustainability, thereby enabling the transition to a green economy.⁴⁶ Kenya's *Public Procurement and Asset Disposal Act, 2015*⁴⁷ was enacted to give effect to Article 227 of the Constitution; to provide procedures for efficient public procurement and for assets disposal by public entities; and for connected purposes.⁴⁸ The Act provides that public procurement and asset disposal by State organs and public entities shall be guided by, *inter alia*, the following values and principles of the Constitution and relevant legislation—the national values and principles provided for under Article 10; maximisation of value for money; and promotion of local industry, sustainable development and protection of the environment.⁴⁹ An accounting officer of a procuring entity is required to prepare specific requirements relating to the goods, works or services being procured that are clear, that give a correct and complete description of what is to be procured and that allow for fair and open competition among those who may wish to participate in the procurement proceedings. The specific requirements shall include all the procuring entity's technical requirements with respect to the goods, works or services being procured, and the technical requirements shall, where appropriate, *inter alia*: factor in the socio-economic impact of the item; be environment-friendly; and factor in the cost disposing the item.⁵⁰

Regarding disposal of assets, the Act provides that radioactive or electronic waste shall be disposed of only to persons licensed to handle the respective

⁴⁶ UN Environment, 'Sustainable Consumption and Production Policies' (*UNEP - UN Environment Programme*, 2 October 2017)

<<http://www.unenvironment.org/explore-topics/resource-efficiency/what-we-do/sustainable-consumption-and-production-policies>> accessed 7 November 2020.

⁴⁷ Public Procurement and Disposal Act, No. 33 of 2015, Laws of Kenya (Revised Edition 2016 [2015]).

⁴⁸ *Ibid*, Preamble.

⁴⁹ *Ibid*, s. 3.

⁵⁰ Public Procurement and Disposal Act, s. 60.

waste under section 88 of the Environmental Management and Coordination Act, 1999.⁵¹

The *Public Procurement and Asset Disposal Regulations, 2020*⁵² provides that while the user department shall be submitting the requisition to the head of the procurement function for processing, it shall be accompanied by, *inter alia*, as applicable: environmental and social impact assessment reports.⁵³ Regulation 193(2) provides that the documents, procedures and approvals required for waste disposal management shall be obtained from the relevant public agencies allowing a procuring entity to dispose those items that are harmful and unfriendly to the environment.⁵⁴

There is a need for the public entities to uphold the foregoing provisions and work towards ensuring that both the processes of procurement of goods and disposal of waste are not only environmentally friendly but are also cost effective and contribute towards achieve the sustainable development agenda.

The public funds expenditure should be geared towards targeted green investments in a bid to develop green economy. A green economy is defined as ‘low carbon, resource efficient and socially inclusive, where growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.’⁵⁵

⁵¹ Ibid, s. 165(2).

⁵² Public Procurement and Asset Disposal Regulations, 2020, *Kenya Gazette Supplement No. 53 (Legislative Supplement No. 37)*, Legal Notice No. 69, Laws of Kenya.

⁵³ *Public Procurement and Asset Disposal Regulations, 2020*, Regulation 71(2)(c).

⁵⁴ Ibid, 2020, Regulation 193(2).

⁵⁵ UN Environment, ‘Green Economy’ (*UNEP - UN Environment Programme, 23 January 2018*) <<http://www.unenvironment.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy>> accessed 8 November 2020.

3.8. Promoting Gender Equity and Equality

Sustainable Development Goal 5 seeks to achieve gender equality and empower all women and girls. This is because gender equality is not only seen as a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world.⁵⁶

While there has been impressive progress in tackling gender discrimination over the years, there are still many challenges facing women such as: discriminatory laws and social norms which remain pervasive, women continue to be underrepresented at all levels of political leadership, and 1 in 5 women and girls between the ages of 15 and 49 report experiencing physical or sexual violence by an intimate partner within a 12-month period.⁵⁷ While these statistics are not specifically for Kenya, it does not mean that Kenya's situation is any better.⁵⁸ It has been argued that due to the different roles women and men play in households, the economy, and environmental sustainability in most societies, enhancing gender equality is integral to ensuring a balanced approach to the economic, social and environmental dimensions of sustainable development and to achieving all other SDGs.⁵⁹

Thus, efforts towards promoting sustainable consumption and production patterns in Kenya may not bear the desired results if they do not incorporate gender equality and equity measures.

4. Conclusion

Arguably, Sustainable Consumption and Production can contribute substantially to poverty alleviation and the transition towards low-carbon and green economies.⁶⁰ It is considered to be a holistic approach and is about

⁵⁶ 'Gender Equality and Women's Empowerment' (*United Nations Sustainable Development*) <<https://www.un.org/sustainabledevelopment/gender-equality/>> accessed 7 November 2020.

⁵⁷ Ibid.

⁵⁸ Muigua, K., "Actualising the National Policy on Gender and Development in Kenya." *Journal of cmsd Volume 5(2)* (2020).

⁵⁹ OECD, *Policy Coherence for Sustainable Development: Fostering an Integrated Policy Agenda* (OECD 2018).

⁶⁰ UN Environment, 'Sustainable Consumption and Production Policies' (*UNEP - UN Environment Programme*, 2 October 2017)

systemic change.⁶¹ It is indeed possible to improve production processes and consumption practices to reduce resource consumption, waste generation and emissions across the full life cycle of processes and products in the different sectors of the economy as a way to promote sustainable development agenda. Unless all stakeholders are brought on board and ensuring that there is a societal attitude and behavioural change as far as interactions with the environment are concerned, then realization of truly sustainable development practices remains a mirage. There is a need for a shift to a lifestyle that is geared towards achieving sustainability in all areas of economy. Promoting Sustainable Consumption and Production for Development may take a while to achieve, but it is worth pursuing.

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⁶¹ Ibid.

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