Sustainable Consumption & Production

working paper

10 - 11 January 2019

Concept document to inform the 2019 Partnership for Action on the Green Economy (PAGE) Conference

By Ntombifuthi Ntuli and Stanley Semelane, CSIR Energy Centre

2019 MINISTERIAL CONFERENCE

PAGE PARTNERSHIP FOR ACTION ON GREEN ECONOMY

LIST OF ACRONYMS

10YFP	10-year Framework Programmes
BRT	Bus Rapid Transit
CSR	Corporate Social Responsibility
FAO	Food and Agriculture Organization of the United Nations
GEN	Global Ecolabelling Network
GRI	Global Reporting Initiative
JPOI	Johannesburg Plan of Implementation
NEM: WA	National Environmental Management: Waste Act No.59 of 2008
NEMA	National Environmental Management Act (Act 107 of 1998)
PAGE	Partnership for Action on Green Economy
SCP	Sustainable consumption and production
SDG	Sustainable Development Goal
UN	United Nations
UNEP	United Nations Environment Programme
VAT	Value Added Tax
WSSD	World Summit on Sustainable Development

Publication support
The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH provides support to the south African government's Department of Environmental Affairs in the field of the green economy. This support is funded through the International Climate Initiative (IKI) of the Federal Ministry of the Environment, Nature Conservation and Nuclear Safety (BMU) under the project "Green Economy Transformation in cooperation with the Partnership for Action on Green Economy (PAGE) – synergies between low-emission paths and the Sustainable Development Goals (SDGs)"

More on the IKI
The IKI finances climate and biodiversity projects in developing and newly industrialising countries, as well as in countries in transition. The initiative focuses on climate change mitigation, adapting to the impacts of climate change, conserving natural carbon sinks/REDD+ and protecting biological diversity. Priority is given to activities that support creating an international climate protection architecture, to transparency and to innovative and transferable solutions that have an impact beyond the individual project.

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
of the Federal Republic of Germany

KEY MESSAGES

- Countries have an option to develop stand-alone Sustainable Consumption and Production (SCP) frameworks or have the SCP principles embedded in existing policies
- Cleaner production is considered "low hanging fruit" in sustainable consumption and production as there are already several drivers, like climate change, global reporting initiative, etc. that drive the private sector towards sustainability
- Developing more environmentally sustainable consumption and production systems depends on consumers' willingness to engage in greener consumption behaviours with the help of government and business. Incentives and punitive measures can help influence consumer behaviour.
- Multi-stakeholder partnerships are a key driver in successfully formulating a more holistic development framework that will produce more sustainable and transformative outcomes for SCP.
- While the expectation to deal with global environmental issues was always placed on the developed nations, there is increasing pressure for the high performing developing economies such as China and Brazil to reduce their environmental impact. This is premised on the idea that these countries have an opportunity to leapfrog directly to environmentally and socially conscious production and consumption patterns thereby avoiding the resource intensive consumption styles of developed nations (schafer, et al., 2011)

1. INTRODUCTION

Sustainable consumption and production (SCP) gained prominence on the international agenda when Agenda 21 identified unsustainable patterns of production and consumption as a major cause of continued environmental degradation globally (Schafer, Jaeger-Erben, & dos Santos, 2011).

SCP is the use of products and services in a way that minimises the impact on the environment. The main objective of SCP is to promote social and economic development within the carrying capacity of ecosystems and the de-coupling of economic growth from environmental degradation in order to preserve the planet for the benefit of future generations. When sustainable consumption is practiced, resources are used efficiently and waste production is minimized. This is premised on idea that there are ways and means to meet society's current needs and desires without depleting the planet's finite natural resources.

The global 10-year Framework Programmes (10-YFP) on SCP adopted at the Rio+20 Conference in June 2012 aims to assist countries with tools and methodologies for developing national and local SCP action plans and programmes (United Nations, 2016).

Preceding the adoption of Agenda 2030, in 2002, the Johannesburg Plan of Implementation (JPOI) of the World Summit on Sustainable Development (WSSD) recognised that SCP is an overarching objective for sustainable development. The SCP concept was introduced in the Sustainable Development Goals (Goal 12), which, according to the United Nations requires a strong national framework for sustainable consumption and production that is integrated into national and sectoral plans, sustainable business practices and consumer behaviour, together with adherence to international norms on the management of hazardous chemicals and wastes. (Fredrigo & Hontelez, 2010). SDG 12 covers:

- Efficiency in use and management of natural resources
- Environmental impacts such as waste management
- Release of contaminants, especially chemical substances
- All actors to contribute to sustainable development, including the private sector
- Consumer information and education for sustainable development and lifestyles
- Role of the public sector through sustainable public procurement
- The shifts towards SCP in the food system and the tourism sector
- Finance and capacity-building
- Implementation, including by addressing fossil fuel subsidies

Achieving the objectives of the SDG 12 requires a clear policy framework and commitment by all responsible stakeholders. Implementation can be achieved by rolling out national and regional plans aimed at promoting sustainable livelihoods, business practices, efficient resource utilisation as well as compliance with pollution management strategies. Food production and consumption, and housing and transportation generate the majority of the environmental impacts from economic activity, and so policies directly addressing these sectors are important (UNEP, 2015). This means that resource extraction and the related social and environmental consequences on land use and biodiversity loss, industrial pollution and the effects on water, air and soil quality, issues, which have long remained on the periphery because of administrative convenience, would rightfully have to be stopped (Akenji & Bengtsson, 2014).

The objective of this concept document is to take stock of the status quo of SCP implementation particularly in the PAGE countries. This concept document will review the global perspective focusing on SCP application in various segments of the economy. This will be followed by a review of the South African perspective of SCP implementation. Global best practise is then discussed, looking at successful strategies from developed countries. The document closes off with a discussion on challenges and recommendations.

2. GLOBAL PERSPECTIVE

The Partnership for Action on Green Economy (PAGE) member countries (Republic of South Africa, People's Republic of China, Kyrgyz Republic, Barbados, Federative Republic of Brazil, Burkina Faso, Co-operative Republic of Guyana, Oriental Republic of Uruguay, Republic of Mauritius, Mongolia, Republic of Peru, Republic of Senegal and Republic of Ghana) have been active in the development of frameworks and policies and the implementation of initiatives and projects that promote sustainable consumption and production. Below are some of the initiatives by PAGE countries towards SCP Implementation.

- Uruguay: National Action Plan in Sustainable Consumption and Production
- Peru: Eco-efficiency Programmes
- Brazil: National Action Plan in Sustainable Consumption and Production
- Burkina Faso: Promotion of best practices; conduct training on breeding sustainably; promotion of forage crop and production of food for livestock; development of pastoral hydraulic systems; formulate a law on effective guidance on pastoralism.
- Mauritius: Initiation of energy auditing system; energy efficient public procurement. Initiation of water sector codes and regulations, water audits, rain water harvesting systems. Guidelines and a rating system for sustainable buildings; amendment of building regulations, financial incentives.
- Ghana: Knowledge management of best practice, technology transfer in water and sanitation, regional awareness raising and education on SCP in water and sanitation, replication of successful experiences in safe reuse of waste water, promoting the implementation of integrated water resource management ensuring the inclusion of LCA and SCP.

Akenji & Bengtsson (Akenji & Bengtsson, 2014) argue that SCP frameworks can be promoted as stand-alone policies or goals or can be embedded in other policies. Of course there is no right or wrong approach, a decision would merely be based on advantages and disadvantages of each approach and what works for the country.

Several African countries have implemented SCP initiatives in line with the 10-year Framework Programme. Countries like Burkina Faso, Mauritius and Ghana have developed SCP Frameworks, which aim to promote CSP in their countries. The SCP programmes in these countries are based on an analysis of consumption and production patterns in key sectors of national economic activity and their impacts on ecosystems and their resources, pollution of the environment as well as in terms of energy consumption. The national SCP programmes will be anchored and integrated into existing policies and are communicated widely to ensure a long-term and sustained process.

While the expectation to deal with global environmental issues was always on the developed nations, there is increasing pressure for the high performing developing economies such as China and Brazil to reduce their environmental impact. This is premised on the idea that these countries have an opportunity to leapfrog directly to environmentally and socially conscious production and consumption patterns thereby avoiding the resource intensive consumption styles of developed nations (schafer, et al., 2011),

SCP implementation must be driven by the need to achieve economic, social and environmental sustainability.

- Economic factors should take into account the costs of goods and services over their entire life cycle, i.e. acquisition, maintenance, operations and end-of-life management costs (including waste disposal) in line with good financial management.
- Social factors consist of social justice and equity; safety and security; human rights and employment conditions.;
- Environmental factors include emissions to air, land and water, climate change, biodiversity, natural resource use and water scarcity over the whole product life cycle.

SCP is widely acknowledged as a cross-cutting domain that is broad in scope. It mainly cuts across these thematic areas: energy production, agricultural practises, manufacturing and industrial pollution, biodiversity loss due to land use, forestry and mining as it is related to land degradation and depletion of resources.

2.1 Sustainable consumption and production in manufacturing: cleaner production

In the productive sectors such as mining, mineral processing, manufacturing, etc, organisations use technical, economic, and environmental strategies to reduce their impact on the environment. This is not only beneficial for the environment but it has often proven to have financial and economic benefits for the companies involved. These strategies include efficiency in the use of raw materials (like using equipment that optimises the quantity of primary raw material used), water efficiency and recycling, transitioning from coal to renewable energy for enery production, implementation of energy efficiency strategies to reduce energy demand, minimisation and recycling of waste and reduction of air emissions. All of these strategies make up what is termed cleaner production, which is one of the key strategies in sustainable production. Technologies that reduce the generation of waste at the source need to be put in place as well as waste treatment in all sectors (Caetano, et al., 2017). Transfer of clean technology (including hardware, know-how and knowledge) to energy-intensive industrial sectors is one key approach to facilitating a shift to SCP. Emerging economies, such as the People's Republic of China, India, Brazil, Mexico and South Africa have a high potential for sustainability improvements given their opportunity to leapfrog. Such a shift could be facilitated through international cooperation, foreign direct investment and global supply chains, and technology improvements.

2.2 Sustainable consumption and production in water resources management

In the context of sustainable consumption and production, the production sectors that stimulate economic growth need to conserve water. SCP offers water recycling opportunities that all production sectors globally can implement. Water repair systems and water treatment technologies requirements are essential for the guarantee of sustainable usage of water. Water pollution arising from economic activities, including domestic use, has resulted in a decline in the quality of surface water resources posing direct and indirect threats to humans as well as ecological functioning. Governments may introduces incentives (for sustainable usage) or penalties (for unstainable usage) to drive sustainable water consumption.

2.3 Corporate environmental and social responsibility and accountability (CSR)

Corporate Social Responsibility has largely been framed in developed countries. Through global supply chains, international trade and investment, CSR practices are gradually being adopted by companies in developing countries. In many developing countries, such as China, India, the Philippines and Brazilthe main driver for CSR commitments and reporting are the UN Global Compact and the Global Reporting Initiative (GRI). In 2013, the Global Compact had more than 3 000 companies and stakeholders from approximately 100 countries, while nearly 1000 organisations from around the world were already using the GRI guidelines as the basis for reporting. In high income countries, CSR reporting is increasing rapidly and follows largely voluntary guidelines, but in middle and low-income countries like South Africa CSR reporting generally remains low (GRI, 2013).

2.4 Sustainable consumption and production in the agricultural sector

Setting up sustainable agriculture will ensure that the world's basic nutritional requirements are met, while providing a range of economic, social and environmental benefits. This approach will provide employment opportunities, sufficient income, and decent living and working conditions for all those engaged in agricultural value chains (United Nations, 2017). The circular economy enhances the productive capacity of the natural resource base and the regenerative capacity of sustainable farming, without disrupting the functioning of basic ecological cycles and natural balances, destroying the socio-cultural attributes of rural communities, or causing contamination of the environment.

The Food and Agriculture Organisation of the United Nations (FAO) and United Nations Environmental Programme (UNEP) have formed a joint Sustainable Food Systems Programme to improve the efficiency of resource use and reduce the intensity of pollution in food systems from production right through to consumption value chains (FOA & UNEP, 2014). Ministries of agriculture and other relevant ministries should drive the implementation of SCP for food producers. This approach should bring together a broad partnership of concerned stakeholders, including governments, food and fish producers, agro-industry, retailers and consumers etc. Relevant stakeholders responsible for financing have a role to play in reducing the cost of sustainable food production, through financial instruments such as incentives and subsidies.

2.5 Sustainable consumption and production in infrastructure development

Sustainable urban development is essential for infrastructure maintenance, climate change adaptation, renewal, and the development of cities. The urban environment and infrastructure, as well as its economic base needs to be structured in a manner that uses minimal resources with minimal adverse impact on the natural environment. Governments need to play a critical role in enabling efficient infrastructure development. This includes public transport infrastructure, which is an important indicator of urban sustainability. The use of car pooling and public transport such as trains, buses and taxis makes cities more accessible and reduces the need for private transport. The opportunities that the circular economy can offer in transport infrastructure are important. For example, infrastructure for charging electric buses, fuel switching for taxis to biomethane and compressed natural gas, as well as solar-powered infrastructure for trains. This also includes the rollout of fast trains and rapid bus transit systems (BRT) infrastructure in some cities.

Sustainable infrastructure enables society to rethink its way of living, consumption patterns and how everyday life is organised. It is also about altering how we socialise, exchange, share, educate and build identities. It is about transforming societies and living in balance with the natural environment, through efficient use of energy, water and built infrastructure (UNEP, 2014).

2.6 Sustainable consumption and production in procurement

Sustainable procurement is about buying goods and services that do not negatively impact on the environment. Green procurement seeks to achieve value for money thus generating benefits not only to the service suppliers, but also to society, producers and the economy, whilst minimising damage to the environment. Sustainable procurement should be implemented to achieve the appropriate balance between the economic, social and environmental pillars of sustainable development.

Green procurement processes should be the basis of procuring goods and services for all sectors in South Africa, this shift could trigger a long-term sustainable production and consumption culture whereby producers and consumers take into account environmental elements when procuring or producing goods and services. Governments needs to implement sustainable public procurement policies and strategies in order to achieve value for money while impacting positively on the environment.

2.7 Eco-labelling as a way to promote sustainable consumption

Labels serve as an external source of information and communicate product characteristics, attributes, operation instructions, price and value to consumers. The information provided through labelling assists consumers to understand different products during the pre-purchase phase.
Eco-label information programmes are a common tool that aims to fulfil the need of successful market communication pertaining to sustainable consumption. The Global Ecolabelling Network (GEN) highlights three core goals of eco-label information programmes to:

- Safeguard the environment
- Support environmentally sound innovation and leadership
- Enhance and build consumers' consciousness of environmental issues (Dreyer, 2014).

3. SOUTH AFRICA'S PERSPECTIVE

The South African economy is historically carbon intensive and resource intensive as a result of the interdependencies between the mining and energy sector dating back to the industrial revolution. This interdependency, otherwise known as the "mineral energy complex", came about as a result of the abundance and low cost of coal in the country and the historical dominance of primary sectoral activities such as mining, mineral processing, metal smelting and synthetic fuel production. The use of coal in energy production has rendered South Africa one of the top 20 carbon intensive economies globally (World Resources Institute, 2018). Clean energy production and energy efficiency plays a significant role in decarbonising the energy sector in South Africa, thus promoting the objectives of the SCP.

Approaching economic development from a sustainability perspective helps developing economies secure the benefits offered by the green economy, such as carbon emission reduction, training and skills development, green jobs it can also reduce poverty and social inequality. This offers a unique opportunity to leapfrog from traditional development pathways to more innovative and sustainable development pathways.

There is significant effort required to ensure that economic growth and improved quality of life in South Africa does not come at the expense of the environment. Through circular economy practices, South Africa will be able to lay the basis for sustainable, equitable growth, and to alleviate poverty while stimulating economic development. A good example of this is the renewable energy programme, which attracted over R193 billion in investment, with a net benefit to the economy of up to R4 billion and contributed significantly to developing the local economy and addressing socio-economic challenges (Department of Energy, 2015, p. 97).

Importantly, implementing SCP as a goal would require nothing short of a critical review of the culture of consumerism that has become predominant through mass media and advertisements to millions of consumers across South Africa and indeed around the world. This has come to define modern macro-economic thinking and the existing economic system (Akenji & Bengtsson, 2014). In a society with high income inequality, like South Africa, challenges are bound to be experienced in achieving sustainable consumption, due to the cost associated with green products, such as solar panels, use of sustainable transport options (electric cars and efficient trains), organic food, etc. Therefore, for sustainable consumption to be achieved across the board, incentives that will reduce the high cost of these green products will have to be introduced. These incentives may be in the form of monetary grants or fiscal incentives in the form of tax reductions for targeted products. This can also be used as a punitive measure to discourage the use of unsustainable products by raising prices to influence consumer behaviour towards sustainability.

3.1 Sustainable consumption and production policy framework in South Africa

South Africa has not developed a separate SCP framework/policy as provision is made for member countries to choose whether to have a separate framework for sustainable consumption and production or have its objectives embedded in various other policies, as outlined in section 2.

Any SCP framework should be overarching and include economy-wide policies, plans and programmes that set the scene for sustainability with a view of transitioning towards a green economy. A green economy is defined as an economy that aims to reduce environmental risks and ecological scarcities, and that aims for sustainable development without degrading the environment. The framework should also identify policies addressing specific phases of the production-consumption lifecycle, and the types of instruments that can be used to effect change.

Within this context South Africa's SCP initiatives have been found to be applicable mainly in the following sectors:agriculture sector, energy, housing (green building), transport, minerals and resources, water and sanitation, infrastructure and development, manufacturing as well as science, engineering and technology. South Africa has a wide range of policies and frameworks that facilitate sustainable consumption and production in these sectors. (Table 1).

Table 1: South African policies promoting SCP

Category	Policy	Objective
Economic development	*Green Economy Accord*	The Green Economy Accord is aimed at growing economic activity (which leads to investment, jobs and competitiveness) in the green industry sector. It promotes the decoupling of environmental damage from economic growth.
Environmental management	*National Environmental Management Act 107 of 1998 (NEMA).*	NEMA, provides for environmental management principles including resource efficiency, waste minimisation and sustainable procurement, vital from the SCP perspective.
Energy	*White Paper on the Renewable Energy Policy (2004)*	The White Paper on Renewable energy recognises the medium and long-term potential of renewable energy. The policy's targets 10 000GWh by 2013.
	The Energy Efficiency Strategy (2005)	The strategy proposes a final energy demand reduction of 12% by 2015.
	Integrated Resource Plan (2010)	The Integrated Resource Plan has a target of 17. 8 GW of renewable energy by contributed to final energy supply mix by 2030.
Water management	*National Water Act 36 of 1998*	Ensures that the nation's water resources are protected, used, developed, conserved, managed and controlled.
	2004 National Water Resource Strategy	Sets out mechanisms to manage South Africa's water resources in an integrated manner.
Green procurement	*Green Paper on Public Sector Procurement Reform released in 1997*	Organs of State can encourage their suppliers, service providers and contractors to behave in an environmentally-friendly manner.
Climate change	*National Climate Change Response Strategy*	Sets greenhouse gas emission reduction and limits, builds on strengthening and/or scaling up current initiatives, implementing the business unusual call for action, preparing for the future, vulnerability and adaptation and alignment coordination and cooperation.
Waste management	*The National NEM: WA*	Provides for the introduction of Extended Producer Responsibility (EPR) as a mechanism for bringing about waste reduction in South Africa, through the minimisation, reuse and recycling of waste products.

These policies will drive South Africa towards attaining the objectives of the SCP. The business community needs to respond positively to sustainability challenges by providing sustainable products as well as new sustainable business models. This requires innovative solutions through research and development to make productive sectors more efficient while improving their competitiveness. Consumers can contribute by exercising sustainable choices, this can be achieved through capacity building and informational campaigns targeted at consumers. Civil society plays an important part in promoting sustainability to society. They also have a responsibility to the public by acting as policy overseers for government and industry. South African civil society have continued to play an advocacy role for sustainability, however, further support for behavioural change on consumption patterns needs to drive SCP implementation.

Different countries are explicit on how SCP should be implemented, although pursuing somewhat different approaches towards systems change within their environmental and SCP policies. The systems change is still in the early stages in South Africa and as with any policy innovation, there is uncertainty in the application of SCP in some sectors like green procurement, agriculture and infrastructure development. However, the energy sector has applied best practice in developing renewable energy. Sectors still lagging behind can draw lessons on how to finance SCP initiatives from the South African renewable energy procurement programme.

4. BEST PRACTICES

4.1 Initiatives in developed countries

Developed economies have been fore-runners in sustainable consumption and production. There are successful programmes that can be labelled as best practises which were documented by OECD (2005)

Multi-stakeholder engagement	Global: The One Planet network was formed to implement the 10-Year Framework of Programmes on sustainable consumption and production, to support the global shift to SCP and the achievement of SDG 12. This multi-stakeholder partnership implements six programmes in: public procurement, buildings and construction, tourism, food systems, consumer information and lifestyles and education. To date 239 projects have been implemented in 167 countries with 714 partners. The network has produced 396 resources and technical tools. The network has resulted in 88 changes to practices and production processes as well as 20 high-level resolutions, declarations and outcome documents.
Punitive Measures	Denmark: Household water consumption was greatly reduced by a 150% increase in the price of water through a combination of taxes, water supply tax (41%), VAT (20%), variable water taxes (12%), green taxes (14%), variable taxes (9%), fixed wastewater charge (2%), and state wastewater tax (2%). *www2.mst.dk/udgiv/Publications/2001/87-7944-519-5/html/app02_eng.htm*
Financial Incentives	Canada: Homeowners are encouraged to improve the energy efficiency of their homes through the Eco Energy Retrofit scheme, introduced in 2007, which grants a maximum of C$ 5 000 for this purpose. *www.oee.nrcan.gc.ca/corporate/retrofit-summary.cfm*
Voluntary Green Labelling	Germany: The Federal Environment Agency sponsored a consumer organisation to build a virtual platform on a broad range of labelling activities in Germany and Europe, where consumers get updated information on over 300 eco-labels and the certification systems behind every label. *www.label-online.de*
Corporate Reporting	France: With the Nouvelles Regulations Economiques of May 2001, France became the first country to mandate triple bottom line reporting for publicly-listed companies, including labour standards and the environmental consequences of their activities. *www.legifrance.gouv.fr/WAspad/UnTexte*
Public Procurement	Switzerland: Since 2002, sustainable procurement has been practiced in Switzerland, which leads the Marrakech Task Force on Sustainable Public Procurement, to shift public purchasing towards goods and services that meet high environmental, social and economic standards throughout their life-cycle. *www.un.org/esa/sustdev/sdissues/consumption/kopenhagen1.pdf*

4.2 Role of partnerships for advancing sustainable consumption and production

Multi-stakeholder partnerships are a key driver in successfully formulating a more holistic development framework that will produce more sustainable and transformative outcomes for SCP. Harnessing the full commitment of various actors, particularly engaging with civil society, the private sector and government is crucial in advancing the deliverability of resources and for increasing the effectiveness of existing and new development programmes. Expanding the role of the various actors engaging in partnerships is pivotal to promoting the exchange of ideas, technical expertise, and financial resources necessary for the overall success of the development agenda.

Coordinated stakeholder management plays a pivotal role in enabling an environment conducive for engagement with society and private sector. Governments should recognize the strategic benefits of partnering with civil society organisations, engaging local communities and increasing individual participation to better evaluate the local community's needs and better monitor the progress of development programmes.

Civil society organisations have played a key role in monitoring existing commitments, mobilising programmes, and providing input to bolster progress on attaining the internationally agreed development goals. The "World We Want 2015" campaign is an example in which partnering with individuals at the grassroots level has helped to bring the priorities of people to the fore and have further strengthened the unified vision for the new development agenda (UN Joint Thematic Debate/Forum on Partnerships, 2014, 9-10 April).

5. CHALLENGES AND RECOMMENDATIONS

5.1 Challenges

Developing more environmentally sustainable consumption and production systems depends on consumers' willingness to engage in greener consumption behaviours with the help of government and business. Research efforts have sought to identify a greener consumer, a consumer who is mindful of environment related issues and make their buying decisions with this awareness in mind. Much of the research has focused on areas with the greatest environmental impacts, namely consumer behaviour and household management, their food choices and behaviours and their transport behaviours for work, leisure and travel. Consumer behaviour is strongly influenced by norms, values and habits. Food production and consumption, and housing and transportation generate a majority of the environmental impacts from economic activity, and policies directly addressing these sectors are important for the green economy and SCP.

According to (Joshi & Rahman, 2015) major environmental problems and depletion of natural resources are forcing human civilisation to focus on environmentally responsible consumption. Increasingly, organisations are producing environmentally-friendly products and consumers are also showing increased willingness to purchase such products. Environmental concerns, product attributes, environmental knowledge and subjective norms emerged as major drivers whereas high price, low availability and lack of consumer trust in green products emerged as major barriers towards purchases of green products.

The high cost of green products is a hindrance to achieving consumer uptake. Although pricing might be reflective of cost, due to low economies of scale and new technology, companies offering green products seek assistance to reduce the cost of production. Average consumers consider expensive green products as luxuries reserved for those who can afford them. To some extent green consumers and industries can foster a transition towards a SCP as scarcity of resources and unsustainability problems continue to emerge. This provides an opportunity for incentives for 'dematerialisation' and 'resource efficiency' that influences consumption patterns directly and indirectly. South Africa has already introduced initiatives such as "sugar tax" that is aimed at reducing high levels of sugar consumption (National Treasury, 2016).

5.2 Recommendations

There are various implementation mechanisms that can be employed by member countries to achieve the objectives of SCP. The following actions are recommended:

- Policy frameworks: a significant focus must be placed on identification of policy frameworks for the promotion of SCP
- Identify priority areas: affirm priority areas that the SCP policies and frameworks should focus on.
- Policy development: mainstream CSP objectives into the design and implementation of state policies by integrating into national development plans, actions that promote SCP.
- Resource allocation: allocate resources including, and in addition to external financial support.
- Research: support the acceleration of research, innovation, and technological development, with the intention of increasing resource efficiency.
- Dialogues and communication: active communication of the SCP programme to decision makers, local and international stakeholders and development partners using various methods.
- Stakeholder cooperation: partnerships should be established to implement the SCP Programme in cooperation with other stakeholders e.g. business and civil society
- Effective institutional structures: ensure effective implementation with clear institutional structure and integrate the priorities of the SCP programme in the strategies and plans of other government departments and implementing agencies.
- Progress measurement: clear SCP action plans with a clear implementation and monitoring plan, this should include measurable indicators and the responsibility for who tracks these be clear.
- Capacity development: strengthen the capability of public authorities and institutions to implement SCP successfully.
- Policy instruments: align policy instruments that will advance the attainment of the SCP objectives, such as regulatory, economic, educational as well as cooperation instruments.

6. CONCLUSION

The implementation of SCP is broad and all sectors can contribute to sustainable development through the adoption of resource and energy efficiency. However, the improvement in the standard of living in South Africa may be contributing to increasingly unsustainable consumption patterns, which is counterproductive to achieving a sustainable society. Better living conditions and the increase in access to education should empower society to make better consumption choices, thus contributing to environmental sustainability.

The SCP framework should ensure that the Global Reporting Initiative (GRI) reporting uptake is strengthened. GRI reporting will attract investors that want to promote sustainability initiatives. In the context of global supply chains, South African companies need to build capacity in sustainable business models and management approaches. This approach will encourage progress towards producing and applying best practice SCP methodologies.
The continuing economic and social restructuring of development in emerging economies offers a unique opportunity to establish more resource efficient development options. While there is notable progress made in different spheres of the economy (particularly with regards to policies) towards achieving sustainability, there are several opportunities that can be exploited to drive these countries towards improving resource efficiency and decoupling of economic growth from environmental degradation.

Monitoring changes in SCP patterns requires a set of indicators that track the impact of policies and initiatives as well as the institutional capacity to implement them effectively. However, proposing appropriate indicators to track changes in consumption and production patterns, in the context of the SDG process, is only one of a number of challenges globally. This approach will assist in monitoring and measuring target across all sectors.

The objectives of SCP will not be achieved through applying low-carbon emission technologies alone, technologies only contribute a small fraction of achievements. Particular innovations that convert elements of production and consumption chains (e.g. employing a material recycling system for end of life vehicles or striving for a circular economy in general) may trigger improvements of 50% or 75% (Tukker, 2005). However, innovation at a system level will create large scope for change that can primarily reduce environmental pressure in manufacturing value chains. Emerging economies should apply a systematic approach for mainstreaming SCP in all sectors. Identifying the environmental impact of a single product, process or practice can only be understood through an appreciation of the wider systematic approach.

Process efficiency measures and industrial ecology, product life-cycle approaches, system changes characterise how SCP should be applied in all sectors. This systematic approach needs to develop gradually while improving the existing systems. Sustainable consumption should seek to find efficient ways to fulfil societal functions and human needs (e.g. mobility, food, housing, heating, lighting, etc.). Countries should apply policies to promote SCP, that will provide a stable foundation for government to orientate and co-ordinate activities of relevant sector groups to connect developments.

7. BIBLIOGRAPHY

Akenji, L. & Bengtsson, M., 2014. Making Sustainable Consumption and Production the Core of Sustainable Development Goals. sustainability, pp. 513-529.
Caetano, M. D. D. E., Depizzol, D. B. & De Oliveira Pereira dos Reis, A., 2017. Analysis Of Solid Waste Management And Improvement Proposal: A Case Study In Carpentry Of Cariacica-ES. Gestão & Produção, pp. 382-394.
DEFRA, 2008. The Feasibility of Systems Thinking in Sustainable Consumption and Production Policy, London: Department for Environment, Food and Rural Affairs.
Department of Energy, 2015, p. 97. State of Renewable Energy in South Africa, Pretoria: Department of Energy.
Dreyer, 2014. Consumers' Understanding And Utilisation Of Textile Eco-Labels When Making A Pre-Purchase Decision, Potchefstroom: Univeristy of North West.
FOA & UNEP, 2014. Agr-food Task Force on Sustainable Consumption and Production, Rome: Food and Agricultural Organisation.
Fredrigo, D. & Hontelez, J., 2010. Sustainable Consumption and Production An Agenda Beyond Sustainable Consumer Procurement. Journal of Industrial Ecology, pp. 10-12.
GRI, 2013. An Analysis of Policy References made by large EU Companies to Internationally Recognised CSR Guidelines and Principles, s.l.: Global lobal Reporting Initiative.
Joshi, Y. & Rahman, Z., 2015. Factors Affecting Green Purchase Behaviour and Future Research Direction. Inyernational Strategic Management Review, pp. 128 - 143.
National Planning Commission , 2011. The National Development Plan, Pretoria: Department: The Presidency .
National Treasury, 2016. Taxation of Sugar Sweetened Beverages, Pretoria: Department: National Treasury (South Africa).
Schafer, M., Jaeger-Erben, M. & dos Santos, A., 2011. Leapfrogging to Sustainable Consumption? An explorative Survey of Consumption Habits and Orientations in Southern Brazil. J Consum Policy, pp. 175 - 196.
Tukker, A., 2005. Leapfrogging Into The Future: Developing for Sustainability. International Journal Innovation and Sustainable Development, pp. 65-84.
Tukker, A. et al., 2008. Fostering Change to Sustainable Consumption and Production: An Evidence Based View. Journal of Cleaner Production, pp. 1218-1225.
UN Joint Thematic Debate/Forum on Partnerships, 2014, 9-10 April. The General Assembly and ECOSOC Joint Thematic Debate/Forum on Partnerships. The General Assembly and ECOSOC Joint Thematic Debate/Forum on Partnerships, 9-10 April, pp. 1-11.
UNEP, 2014. Sustainable Consumption and Production (SCP) Targets and Indicators, Clayton South: United Nations Environmental Programme.
UNEP, 2015. Sustainable Consumption and Production Policies and Initiatives in Eastern Europe and the Caucasus: Review of Progress and Way Forward, Nairobi: United Nations Environment Programme.
UNEP, 2017. UNECA. [Online]
Available at: https://www.uneca.org/publications/africa-review-report-sustainable-consumption-and-production
United Nations, 2016. Monitoring the Shift to Sustainable Consumption and Production Patterns in the context of the SDGs, s.l.: United Nations.
United Nations, 2017. www.un.org. [Online]
Available at: http://www.un.org/ga/search/view_doc.asp?symbol=E/2017/66&Lang=E
World Resources Institute, 2018. World Resources Institute. [Online].