



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Policy Assessment for the Economic Empowerment of Women in Green Industry

Country Report: South Africa



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Department:
Trade, Industry and Competition
REPUBLIC OF SOUTH AFRICA



**women, youth &
persons with disabilities**

Department:
Women, Youth and Persons with Disabilities
REPUBLIC OF SOUTH AFRICA



A close-up, warm-toned photograph of a smiling woman with dark skin and short hair, wearing a light-colored lace top. She is looking slightly to the left. The background is blurred, showing other people in a workshop or office setting.

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Acknowledgements

This research study is produced by the Materials and Chemicals Management Division of UNIDO's Department of Environment, under the overall guidance of Dr Ozunimi Lilian Iti, Industrial Development Officer, with key contributions provided by Includovate Inc. within the global programme Economic Empowerment of Women in Green Industry. We especially acknowledge and appreciate Includovate's leadership and coordination of this research by Dr Kristie Drucza, Dr Katie Tavenner and Dr Sujata Ganguly.

This assessment would not have been possible without the research participants (individuals and organizations) who generously shared their time, experience and insights with us.

We would like to thank the National Steering Committee of the project, comprising members from key South African Government Ministries including the Departments of Trade, Industry and Competition, Women, Youth and Persons with Disabilities, Mineral Resources and Energy, Environment, Forestry and Fisheries, Small Business Development, Science and Innovation and the Department of Planning, Monitoring and Evaluation. In addition we acknowledge other members of the National Steering Committee, including, Dr Linda Godfrey from the CSIR, Mr Ndivhuho Raphulu, Director of the National Cleaner Production Centre at the CSIR, Dr Achieng Ojwang from Global Compact South Africa, Ms Jarredine Morris representing Business Unity South Africa, Ms Ndivile Mokoena from Gender CC, Ms Agnes Phiri from the South African UN Women Office and Dr Marie Blanche Ting from the South African Regional Office of UNIDO, whose inputs and guidance helped ensure that this research was inclusive, comprehensive and technically sound. We are deeply indebted to the Chair of the National Steering Committee, Dr Anneline Chetty, Acting Deputy Director General for Industrial Competitiveness and Growth at the Department of Trade Industry and Competition for her unwavering commitment to the EEWiG project and her leadership of the National Steering Committee. We are also grateful for the support given by the UN Representative, Mr Khaled El Mekwad and Ms Petro De Wet from the South African Regional Office. A special word of gratitude also goes to the programme focal points, Department of Trade, Industry and Competition and the Department of Women, Youth and Persons with Disabilities and their teams with special thanks to Ms Ilse Baron, Director of Green Industries for her technical and coordination support.

The Includovate Inc. research team received significant technical and coordination guidance from, Eliana Gutierrez-Amo as the Chief Technical Advisor and Valerie Geen as the National Coordinator. Thanks also goes to, Guillaume Cazor, and Hoa Lai for their inputs, and the valuable comments made by the UN Women colleagues, Venge Nyirongo, Michael Stewart-Evans and Carla Kay Kraft.

We are particularly thankful to the Federal Ministry of Economic Cooperation and Development (BMZ) of Germany for their financial support in producing this publication.

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Cover photo - Courtesy of the National Cleaner Production Centre, South Africa

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List of acronyms and abbreviations

AIDS	Acquired Immunodeficiency Syndrome
B-BBEE	Broad-based Black Economic Empowerment
CEDAW	The Convention on the Elimination of all Forms of Discrimination Against Women
CEO	Chief Executive Officer
CFO	Chief Financial Officer
DBSA	Development Bank of Southern Africa
DFIs	Development Finance Institutions
DMRE	Department of Mineral Resources and Energy
DTIC	Department of Trade Industry and Competition
EDD	Department of Economic Development
EEWiGI	Economic Empowerment of Women in Green Industry
EPWP	Expanded Public Works Programme
FGD	Focus Group Discussions
GDI	Gender Development Index
GEGA	Global Economic Governance Africa
GWEC	Global Wind Energy Council
GWNET	Global Women's Network for Energy Transition
HIV	Human Immunodeficiency Virus
ICRW	International Centre for Research on Women
IEA	International Energy Agency
ILO	International Labour Organisation
IPAP	Industrial Policy Action Plan
IPPs	Independent Power Providers
IRENA	International Renewable Energy Agency
IRP	Integrated Resource Plan
KII	Key Informant Individual Interviews
M&E	Monitoring and Evaluation
MDBs	Multilateral Development Banks
NGO	Non-Governmental Organisation
NGP	New Growth Plan
NSDS	National Skills Development Strategy
REEEP	Renewable Energy and Energy Efficiency Partnership
REIPPPP	The Renewable Energy Independent Power Producer Procurement Programme
SAFE	South African Females in Energy Efficiency
SALGA	South Africa Local Government Association
SANEDI	South African National Energy Development Institute
SAWEP	South African Wind Energy Programme
SGD	Sustainable Development Goal
STEM	Science, Technology, Engineering and Mathematics
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organisation
WEGE	Women, Empowerment and Gender Equality
WOESA	Women in Oil and Energy South Africa

Glossary

Circular economy: is an alternative to the traditional linear economic model where resources are kept in use for as long as possible, maximum value is extracted from them and waste is relocated from the end of the supply chain to the beginning, giving used materials a new life.¹

Conventional industry: an industry that promotes industrial production at the expense of the environment or at risk of harm to human health. Conventional industry promotes unsustainable patterns of production and consumption i.e. patterns that are resource and energy-inefficient, high carbon intensive, high waste, polluting and unsafe. Conventional industrial activities are not directed towards reducing greenhouse gas emissions and are generally reliant on fossil fuels. Also commonly referred to as “traditional industry,” “non-green” and/or “conventional industry.”

Engendering: refers to the incorporation of gender issues and concerns into a policy’s content.² Engendering applied to assess the quality criteria of policy content includes determining whether a policy aims for gender equality, includes sex-disaggregated data consistently, considers gender differences to create more equality, challenges gender stereotypes and mainstreams gender.³

Feminist policy: prioritises gender equality and enshrines the human rights of women and other traditionally marginalised groups, allocates significant resources to achieve that vision and seeks through its implementation to disrupt patriarchal and male-dominated power structures. Informed by the voices of feminist activists, groups and movements.⁴

Gender equality: refers to “the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men are the same, but rather, the rights, responsibilities and opportunities of women and men will not depend on sex or gender. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognising the diversity of different groups of women and men. Gender equality is not a women’s issue but should also concern and fully engage men. Equality between women and men is a human rights issue, as well as a precondition for, and indicator of, sustainable people-centred development.”⁵

Gender mainstreaming: the “process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s, as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal of gender mainstreaming is to achieve gender equality.”⁶

Green economy: an economy “that ends extreme poverty, improves human well-being and enhances social equity while reducing carbon dependency and ecosystem degradation and furthering sustainable and inclusive growth.” This definition corresponds to the definition of sustainable development and its three dimensions: economic, social and environmental.⁷

Green employment: a labour market in which all employment is decent and in which jobs contribute to a reduction of energy use and raw material consumption, limit greenhouse gas emissions, minimise waste and pollution, protect and restore ecosystems, and enable the adaptation of companies and communities to climate change.⁸

Green industry: an industry that promotes industrial production without expense to the environment or adverse impact on human health. Green industry promotes sustainable patterns of production and consumption i.e., patterns that are resource and energy-efficient, low-carbon and low waste, non-polluting and safe. Green industry is also related to sustainable industrialisation, an objective of Agenda 2030 as

1 <https://www.unido.org/unido-circular-economy>.

2 Krizsan, A. & Lombardo, E. (2013). The quality of gender equality policies: A discursive approach. *European Journal of Women’s Studies*, 20(1), 77-92.

3 Drucza, K. and Rodriguez, C.M. (2018). *Feminist policy analysis: implications for the agricultural sector in Ethiopia*. CIMMYT, Addis Ababa, Ethiopia.

4 Thompson, L. (2020). *Feminist Foreign Policy: A Framework*. Washington, DC: International Center for Research on Women.

5 UN Women (2012). Gender Equality Glossary. Available online: <https://trainingcentre.unwomen.org/mod/glossary/view.php?id=36&mode=letter&hook=G&sortkey=&sortorder=>.

6 This definition follows the UN Economic and Social Council Resolution 1997/2: Agreed Conclusions. See also UN Women: <https://www.unwomen.org/en/how-we-work/un-system-coordination/gender-mainstreaming>. Cited in GWNET (2019). Women for Sustainable Energy: Strategies to Foster Women’s Talent for Transformational Change, p.90.

7 Petrović, N. (2016). Women in the Green Economy. *Journal of Women’s Entrepreneurship and Education*, 1-2: 976-110.

8 UNIDO (2016). Practitioner’s Guide to Strategic Green Industrial Policy, Vienna, UNIDO/PAGE.

embodied in Sustainable Development Goal (SDG) 9.

Green industrial policy: an industrial policy that is meant to trigger and facilitate structural changes as entailed, or required, both to respond to environmental conditions or situations, and to develop a green, circular economy.⁹

Intersectionality: “a prism for seeing the way in which various forms of inequality often operate together and exacerbate each other”.¹⁰ This includes social variables such as age, ability, indigeneity, ethnicity, language group, religion, education, etc., that typically cause marginalisation from voice and agency in any context.¹¹

Women’s empowerment: is the process by which women who have been denied the ability to make strategic life choices acquire such an ability. The ability to exercise choice incorporates three interrelated dimensions: resources (defined broadly to include not only access, but also future claims, to both material and human and social resources); agency (including processes of decision-making as well as less measurable manifestations of agency such as negotiations); and achievements (well-being outcomes).¹²

Women’s economic empowerment: a woman is economically empowered when she has both the ability to succeed and advance economically and the power to make and act on economic decisions. To succeed and advance economically, women need the skills and resources to compete in markets, as well as fair and equal access to economic institutions. To have the power and agency to benefit from economic activities, women need to have the ability to make and act on decisions and control resources and profits.¹³

9 Ibid.

10 Crenshaw, K. (1989). Available online: <https://www.unwomen.org/en/news/stories/2020/6/explainer-intersectional-feminism-what-it-means-and-why-it-matters>.

11 GWNET (2019). Women for Sustainable Energy: Strategies to Foster Women’s Talent for Transformational Change, p.91.

12 Kabeer, N. (1999). Resources, Agency, Achievements: Reflections on the Measurements of Women’s Empowerment, *Development and Change* Vol. 30.

13 UNIDO (2014). Guide on Gender Mainstreaming Energy and Climate Change Projects, Vienna, UNIDO/UN Women, p.52.



1. Introduction

1.1 Background and rationale

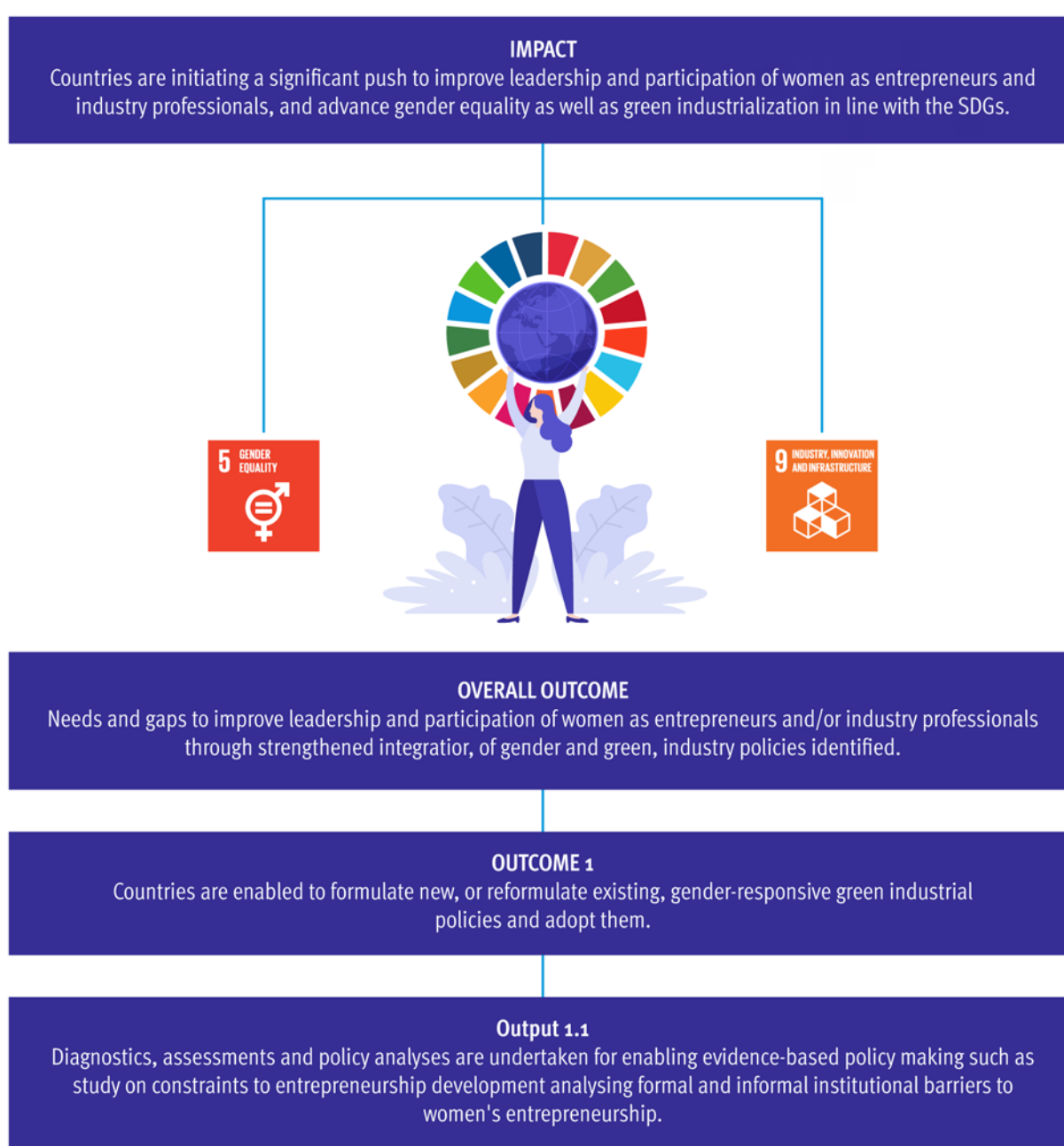
This South Africa country report is part of the larger global joint programme, “Economic Empowerment of Women in Green Industry” (EEWiGI). Its purpose is to advise policymakers and practitioners on the establishment and implementation of a policy framework to integrate gender into green industrial policies. The aim is to affect change and empower more women to take leadership roles and participate in green industries as entrepreneurs or industry professionals.¹⁴

The United Nations Industrial Development Organization (UNIDO) and the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) are working together to assess the need for gender-responsive green industrial policy actions in four participating countries: Cambodia, Peru, Senegal and South Africa.

The preparatory assistance project undertaken in 2017¹⁵ has led to a fully-fledged project to advise ministries of industry and women’s affairs, as well as private sector associations and enterprises, on the design and implementation of gender-responsive green industrial policies. This national report for South Africa is a component of Output 1.1. of Phase I of EEWiGI.

See Figure 1.1 on Output 1.1. within the EEWiGI framework.

Figure 1.1: Output 1.1. within the EEWiGI framework



¹⁴ UNIDO and UN Women (2019). Global programme: Economic empowerment of women in green industry Phase 1: Policy prioritization, pp 1-21.

¹⁵ UNIDO (2019). The economic empowerment of women in green industry: A synthesis report. Unpublished, pp 1-82.

1.2 Project objectives and expected outcomes

The objective of the project is to initiate a significant push to improve leadership and participation of women as entrepreneurs and industry professionals. Ultimately, the desired outcome is to prepare the ground for the advancement of gender equality and green industrialisation, in accordance with the SDGs, in four participating countries: Cambodia, Peru, Senegal and South Africa.

To this end, the South Africa project has conducted a detailed review, in order to identify needs, gaps and barriers to achieving higher levels of women as leaders, entrepreneurs and industry professionals. The project also identifies possible barriers to enhancing gender-responsive policy development in green industry.

This report aims to provide policymakers and practitioners with an evidence-base that will enable them to:

1. Establish and implement a policy framework to better integrate gender equality into green industrial policies;
2. Formulate new or reformulate existing gender-responsive green industrial policies and adopt them; and
3. Facilitate efforts to prioritise areas for work plan development.

In order to attain these objectives, the project undertakes further national gender and green industry diagnostics, technical assessments and policy analyses for evidence-based policymaking, including:

1. *Assessment of opportunities, constraints and possible measures to increase women's influence, leadership and participation in green industry and green entrepreneurship*, including:
 - General research on opportunities and synergies between green industry and gender mainstreaming; and
 - Detailed review of existing green industry gender mainstreaming action plans.
2. *Identification of recommendations and specific measures to redress gender imbalances in selected industrial sub-sectors where women have high impact*, including:
 - Identifying the needs of women development schemes;
 - Identifying the capacity building needs of government, civil society and private sector stakeholders; and
 - Identifying accountability, oversight and dissemination mechanisms for institutional gender mainstreaming initiatives.
3. *Study of constraints to entrepreneurship development; analysing formal and informal institutional barriers to female entrepreneurship*, including:
 - Analysis of institutional, cultural and societal inequalities.

1.3 Introducing South Africa as a target country

South Africa became a constitutional democracy in 1994 and was founded on the rule of law, the advancement of human rights and the principles of non-racialism and non-sexism. The Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) has been guided by a range of international and human rights instruments, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Beijing Declaration and its Platform for Action. The Bill of Rights in the Constitution ensures the foundation for a non-racist, non-sexist; and human rights-based society. Race, class, gender, sexual orientation, disability, diversity, age, social security and protection from harm are, among others, primary considerations. It forms the bedrock of the developmental state— especially with respect to legislation, governance, sustainable development considerations, and democratic institutions of the State. As of 2019, 47 % of parliamentary seats were held by women;¹⁶ and 75.0% of adult women had reached at least a secondary level of education compared to 78.2 % of their male counterparts.¹⁷

Since the adoption of the new constitution, several pieces of legislation have been reviewed, amended, or removed, if found to be discriminatory towards women and/or men on the basis of gender. The South African Government has adopted the Beijing Platform for Action, which indicates acceptance of gender mainstreaming into all government institutions and programmes as a strategy to achieve gender equality. The National Policy Framework for Women's Empowerment and Gender Equality was formulated by the former National Office on the Status of Women; which was located in the Presidency. This policy framework was adopted by Cabinet in 2000 and provides guidance to spheres of government with regards to the formulation of gender policies.

Legislative framework and instruments adopted and ratified in South Africa

International Instruments:

- Beijing Declaration and Platform for Action (1995);
- Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) ratified by South Africa in 1995;

¹⁶ <https://www.idea.int/data-tools/data/gender-quotas/country-view/310/35>.

¹⁷ UNDP (2019). Human Development Report 2019. Inequalities in human development in the 21st century, Briefing note for countries on the 2019 human development report.

- United Nations Millennium Development Goals (MDGs) of halving poverty and unemployment by 2015;
- 2030 Sustainable Development Goals (SDGs); and
- Paris Agreement on Climate (2015).

Regional Instruments:

- SADC Declaration on Gender and Development (ratified by South Africa in 2008) and amended in 2017/18; and
- Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa (ratified by South Africa in 2004).

National Instruments:

- Reconstruction and Development Programme (1994);
- Women's Charter for Effective Equality (1994);
- Constitution of the Republic of South Africa (Act No 108 of 1996);
- Batho Pele: White Paper on Transforming Public Service Delivery (1997);
- The White Paper on Local Government (1998); and
- South Africa's National Policy Framework for Women's Empowerment and Gender Equality (2000).

Local Government:

- Municipal Structures Act, 1998 (Act No. 117 of 1998);
- The Employment Equity Act (1999) and as amended in 2018;
- Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000);
- The Promotion of Equality and Prevention of Unfair Discrimination Act, 2000 (No 4 of 2000);
- Traditional Leadership and Governance Framework Act of 2003 (TLGFA); and
- The Communal Land Rights Act (CLRA) (2004).

Mechanism to advance gender equality

A number of processes and mechanisms were adopted to advance the country towards gender equality. The principal structures of the national gender equality policy framework are the Ministry for Women, Youth and Persons with Disabilities, Gender Focal Points (GFPs) in national departments, Commission for Gender Equality (CGE), National Parliament and other organs of civil society.

This institutional framework is in line with the South African National Policy Framework for Women's Empowerment and Gender Equality.

See Table 1.1. below for the components of the national gender equality policy framework.

Table 1.1: Components of the National Machinery

Government	Parliament	Independent bodies	Civil society
The presidency	Portfolio committees	Constitutional court	Non- governmental organisations
Cabinet	Parliamentary multi-party women's caucus	Other courts	Religious bodies
Former Office on the status of women and currently the Ministry for women, youth and persons with disabilities	Steering committee to women's caucus	Commission for Gender Equality	CONTROLESA
Provincial offices on the status of women	Provincial women's caucus group	Public Service Commission	SALGA BUSA NEDLAC
Gender units in line department	Women's empowerment unit	Human Rights Commission, SALRC, Office of the Public Protector, Land Commission, NYDA (National Youth Development Agency), IEC.	Black Business Forum
Gender units in local government structures			Trade Union Federations
National Departments			

The National Gender Policy proposes key approaches to evaluation and monitoring. These indicators serve as key performance indicators, which are helpful in ensuring movement towards gender equality. Some of the national primary indicators in the National Gender Policy Framework are:

- Women's enhanced access to resources for economic development;
- Women's earning power and their involvement in the economy;
- Reduction of women's vulnerability to social injustice such as poverty, HIV/AIDS and violence;
- The extent to which women participate in political decision-making;
- A change in attitude to women and enhanced recognition of the value they add to society; and
- Women's access to professional opportunities.

Following the 2019 National elections and the establishment of the 6th Administration, South Africa has prioritised addressing the triple challenge of poverty, inequality and unemployment. Towards this end, it has adopted 7 national priorities for the country, which are outlined in the Medium-Term Strategic Framework (MTSF) 2019-2024. Gender considerations have been effectively mainstreamed across the national priorities which are comprehensively reflected in the MTSF 2019-2024.¹⁸

For the next five years, South Africa commits to focus on, amongst other things:

- Equal representation;
- Women's economic empowerment;
- Financial inclusion and job creation; and
- Women's health and ending violence against women.

Two of South Africa's legislative mechanisms for equality and equity— the Promotion of Equality and Prevention of Unfair Discrimination Act and the Employment Equity Act— will be fully implemented to reach gender parity by 2030 in accordance with the UN Agenda 2030. This will include mandatory positive action; as well as the enforcement of a Code of Good Practice to ensure equal pay for work of equal value within the next five years.

The She Trades Invest initiative 2019 is a step towards connecting investors and women entrepreneurs in developing markets such as South Africa. Further measures to put women at the forefront include procurement changes, inclusion for women to reach universal financial access by 2020 and making budgets more gender-responsive at all levels. South Africa has set a five-year goal to concentrate efforts on achieving an HIV-free generation, with particular reference to girls and young women. The country will also prioritise the elimination of violence against women, including through national dialogues and a public awareness campaign aligned with UN Women's HeForShe initiative.

Incentives for green industry

The mandate for a Green Economy in South Africa derives from the South African constitution, which enshrines sustainable development in the Bill of Rights. However, the concept— along with the associated idea of “green jobs”— increased interest in green industry following the global financial crisis. In 2011 stakeholders in government, business, trade unions, and other civil society organisations, signed the Green Economy Accord. This endorsed a shift to a greener economy as a means for both improving the resilience of the economy against external shocks and as a driver for more job-intensive growth. Policies and strategies in green economy were initiated around 2008; following the publication of the Green Jobs Report by the ILO, UNEP, ITUC, IOE and leading green industry policy innovation in the region. Nonetheless, this report would benefit from the inclusion of sex-disaggregated data, in order to support equality of opportunity for women and men for green jobs.¹⁹

Sector approach- renewable energy

Excellent levels of natural wind and sun energy resources are present in South Africa. The benefits of a transition to renewable energy sources are clear. Renewables have considerably fewer carbon emissions, few external costs, especially with regard to the environment and health, and result in significantly less air and water pollution than coal. Compared to nuclear energy, renewable energy is significantly cheaper and safer and produces less waste. In addition, renewable energy reduces both carbon emissions and the environmental and social costs of electricity generation. If South Africa were to produce at least half its electricity from renewable sources in the next ten years, greenhouse gas emissions would be cut by at least a fifth. Indeed, natural resources are present in South Africa to produce all electricity from renewable sources by 2040. Moreover, a national energy strategy that is focussed on renewable energy and energy efficiency could lead to 27% more employment in the energy sector and create 76,000 jobs by 2030.

Globally, the energy sector has historically been a fossil fuel-based sector, dominated by male workers and a strongly gendered division of labour. The transition to renewable energy presents an opportunity for all countries to embrace a more inclusive culture and deconstruct structural barriers to gender equality in green industry. This is vital to avoid the deepening of gender inequalities.²⁰

Sector approach- land transport

The transport sector is a key driver of the economy and social activities in South Africa, but it is also the second largest sector (after energy) in terms of Greenhouse Gas (GHG) emissions. In the past few years, the government has directed public funds towards improving road transport, with the aim of reducing GHG emissions and road congestion; and encouraging the public to reduce private car use in favour of public transportation.

There have been a rollout of Bus Rapid Transit (BRT) systems in the country's major economic hubs, including Johannesburg, Cape Town, eThekweni, Tshwane and Nelson Mandela Bay. This has significantly changed attitudes towards public transport. However, despite the government spending around ZAR15 billion, the BRT systems have been less popular among the public than hoped. Instead, gaps in public transport coverage across the country encourage a preference for private car ownership. Plans are underway to promote electric vehicles (EVs), with government notably committing to convert 5% of its vehicle fleets to EVs.

¹⁸ https://www.dpme.gov.za/keyfocusareas/outcomesSite/MTSF_2019_2024/2019-2024%20MTSF%20Comprehensive%20Document.pdf.

¹⁹ https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_098504.pdf.

²⁰ Pearl-Martinez, R., Stephens, J. (2016). Toward a gender diverse workforce in the renewable energy transition.

An additional factor to consider is the absence of a clear government strategy to address safety concerns regarding public transport locations and public transport manufacturing sites. Access to clean transportation, perceptions of safety at bus stops and taxi ranks and personal safety on public transport are issues which are strongly marked by gender. Indeed, safety, long commuting times, expense and poor-quality transport services are among the disadvantages that weaken the appeal of urban public transport to South African women. In particular, women name personal safety and harassment on public transport as significant concerns.²¹

Furthermore, spatial planning policies established during apartheid have left a difficult legacy in accessing transport in traditionally Black residential areas. Therefore, Black people are more likely to find that public transport between home and areas of economic activity does not meet their needs.

Sector approach- waste management

The recycling industry in South Africa is relatively young. However, since 2000, the industry has witnessed impressive growth rates. There has been a rapid increase in solid waste in South Africa, particularly in urban areas, whilst the amount of available landfill space has decreased. This has led to rising waste management costs. Consequently, recycling is expected to thrive in the next decades.

Although South Africa is leading the waste management sector in Southern Africa, it still lags about 20-30 years behind most European countries.²² Nonetheless, according to the Pretoria-based Council for Scientific and Industrial Research, reclaimers in South Africa already recycle an estimated 80- 90% of plastic and packaging. This saves local authorities up to R750 million (USD 53 million) in landfill costs.²³

Thus far, there have not been any large-scale gender-specific reports on participation, barriers and opportunities for women in the green industry in South Africa. Data on the synergies between women's economic empowerment and the advancement of green industry is also lacking. This report contributes to addressing this gap by providing insights into the factors that affect the levels of women participating fully in the emerging green industry in South Africa. In particular, gender-specific findings will be shared on patterns in the renewable energy sector, waste management and land transport.

See Table 1.2 below for a list of the sectors and sub-sectors examined for the project.

Table 1.2: sectors and sub-sectors examined

Sectors	Sub-sector
Renewable energy	Wind and solar
Waste management	Plastics
Land transport	Road transport

The sectors for the project were identified through a co-operative process between the country coordinator and relevant South African government ministries. Namely: renewable energy, with a focus on wind and solar; waste management, with a focus on plastics; and land transport, with a focus on road transport. The selection criteria took into consideration the following factors (see appendix 1):

- *Gender*: for instance whether gender mainstreamed policies in this sector already exist; the existing and potential of the sector to offer jobs for women; whether family-friendly conditions in the workplace exist; and the percentage of women in decision-making positions in this sector;
- *Market size*, for example the number and size of businesses; industry growth in the last 10 years and industry growth potential in the next 10 years;
- *Entrepreneurship*, for example the percentage of SMMEs; percentage of women-owned businesses and potential for women entrepreneurship in the sector;
- *Environmental*, such as whether green policies exist in the sector; the energy-related Co2 emissions, energy consumption and energy efficiency of the sector;
- *Policy synergies*, for example, possible overlap with other projects in the country;
- Levels of *government engagement* and;
- The availability of *data*.

The impact of COVID-19 on women's economic empowerment in green industry in South Africa

Patterns of structural discrimination and socio-economic barriers reduce opportunities for women to earn independent income, save, hold secure jobs and secure formal employment. Their capacity to absorb economic shock is therefore weakened.²⁴ COVID-19 has exasperated socio-economic disparities between men and women across the globe and South Africa is no exception.

Women are disproportionately affected by COVID-19 because they are overrepresented in precarious employment, including in the informal sector, where access to social protection or benefits is inadequate. COVID-19 has negatively impacted women across entire supply chains,

²¹ Mathews (2017). Public Transport and the Safety of Women in South Africa: Lessons from around the World.

²² <https://averda.co.za/news/south-african-waste-management-sector-can-still-improve/>.

²³ <https://www.globalcitizen.org/en/content/south-africa-waste-pickers-plastic-recycling/>.

²⁴ United Nations (2020). Policy Brief: The Impact of COVID-19 on Women.

at all levels of seniority and across sectors. This includes women executives in large companies, in the service sector, in small and medium-sized enterprises (SMEs), in manufacturing, in the informal sector and women migrant workers. The unequal division of care and domestic responsibilities in the home add further strain to women and limits employment options.²⁵

Despite these challenges, the COVID-19 crisis also offers unique opportunities for empowering women, bringing the transformative changes needed to address the longstanding climate, social and environmental issues and inequalities that have contributed to the devastation of this pandemic. Prioritising women and economic recovery along more equitable lines is not just morally right; it is also an economic imperative. Women have long been seen as critical agents of post-crisis recovery, and investing in gender equality has the potential to stimulate the economy and reverse losses to global wealth.²⁶ Additionally, gender mainstreaming needs to be prioritised in all sectors to both help women entrepreneurs start green businesses and sustain their businesses. There is a relative lack of public familiarity with opportunities in the green industry; yet due to the fact that green industry is an innovative and growing market pushed by more conscious consumer, it offers many opportunities for women.

South Africa is part of the “*Just Transition*” countries transitioning to a climate-resilient and low carbon/carbon-neutral economy. Here, it is of paramount importance to maximise the benefits of climate action in equitable and socially inclusive ways; ensure gender equality; and secure inclusivity of other marginalised groups in green industry policy. Indeed, progression towards large-scale deployment of renewable energy sources and resources must involve assessments of socio-economic shifts. Particularly around employment and women’s economic empowerment, there are significant implications arising from the switch from coal-based to low-carbon-based energy sources.²⁷ In support of the “Just Transition” for South Africa, this report highlights the various gaps and opportunities for women’s economic empowerment in green industry and recommendations for the design and implementation of policies and strategies that advance gender equality.

The report is structured as follows:

- Conceptual and analytical frameworks;
- Data collection methods;
- Policy review and analyses;
- Assessing women’s engagement as entrepreneurs and professionals in green industries;
- Barriers;
- Opportunities;
- Recommendations for closing gender and green industry gaps; and
- Conclusion.

²⁵ Ibid.

²⁶ CARE (2020). COVID-19 Condemns Millions of Women to Poverty, When They Could be a Solution to Prosperity.

²⁷ Mapungubwe Institute for Strategic Reflection (MISTRA) (2018). Focus on Just Transition in South Africa Policy Brief, pp. 1-7.

A person is shown from the side, writing on a whiteboard with a blue pen. The whiteboard is covered with numerous colorful sticky notes (yellow, green, blue, pink) arranged in a structured manner. The image has a blue tint.

2. Conceptual and analytical frameworks

2.1 Understanding the problem in question

The Economic Empowerment of Women in Green Industry (EEWiGI) programme contributes towards the 2030 Agenda for Sustainable Development by championing the Sustainable Development Goals (SDGs), in particular: Sustainable Industrialisation (SDG 9) and Gender Equality (SDG 5).²⁸ It also contributes to a lesser extent to Decent Work and Economic Growth (SDG 8) and Responsible Consumption and Production (SDG 12).

Climate change, environmental degradation and the resultant loss of livelihoods have sex-differentiated impacts. Moreover, the over-exploitation of natural resources further exacerbates existing inequalities and social vulnerabilities. Transitioning to green industry promotes a future that supports environmental sustainability and gender equality by offering science-based solutions to climate change, and facilitating the systematic socio-political transformation needed to address social inequalities.

Transitioning to sustainable industrialisation and global gender equality requires inter-related action and coordination among diverse policy stakeholders. At present, the implementation of gender-responsive green industrial policies is a joint effort between the South African Ministry of Trade, Industry and Competition; and the Ministry of Women, Youth and Persons with Disabilities. Together they coordinate gender mainstreaming into industrial policies, strategies and action plans. For these ministries to create relevant and meaningful policies to integrate gender equity into green industrial issues; research studies and statistics are needed on the gender-specific realities of women working as entrepreneurs and professionals in green industry in low- and middle-income countries.

This project aims to address the gap in available research by providing an empirical baseline of gender-specific barriers and opportunities for women working as entrepreneurs and professionals in green industry in Cambodia, Peru, Senegal and South Africa. Studies conducted within the project will look into possibilities to meet the dual needs of alleviating environmental threats, whilst realising women's potential in green industry, green economy and entrepreneurship. The findings in this report will be available to policymakers and practitioners as a baseline to inform the effective development of gender-responsive green industrial policy in the future.

2.2 Research questions

In alignment with the aims and objectives of the broader EEWiGI project, this study addresses two main research questions:

- (1) What are the country specific needs, opportunities, specific drivers and constraints to women accessing and benefitting equally from the advancement of green industry:
 - As industry professionals?
 - As entrepreneurs?
- (2) How should countries develop or revise existing gender-responsive green industrial policies?

Alongside these main research questions; the analysis considered the following sub-questions in developing a suitable methodology, collecting data and reviewing policies. Therefore, the following elements also contributed to a holistic understanding of green industry, green economy and entrepreneurship:

- Are current policies delivering results in line with the promises on which they were initially formulated?
- Are current green industry policies gender-responsive?
- Are the policies having a positive/negative impact on women and/or their relations with others?
- Which policies are hindering gender equality and the inclusion of women?
- Which policies are helping? How are these implemented?

The conceptual and analytical frameworks applied in the study were designed with these research questions in mind. A conceptual framework on women's economic empowerment was used to understand the root causes of barriers and gaps in gender equality in green industry; both for women entrepreneurs and women working as professionals in green industry.

2.3 Conceptual framework addressing research question 1: conceptualising women's economic empowerment

The project defines women's economic empowerment as the combination of women's ability to succeed and advance economically and the power to make and act on economic decisions. To succeed and advance economically, women need the skills and resources to compete in markets, as well as fair and equal access to economic institutions. In order to have the power and agency to benefit from economic activities, women need to have the ability to make and act on decisions and control resources and profits.²⁹

²⁸ SDG 9: to 'build resilient infrastructure, promote inclusive and sustainable industrialization' and SDG 5: to 'achieve gender equality and empower all women and girls'.

²⁹ Ibid.

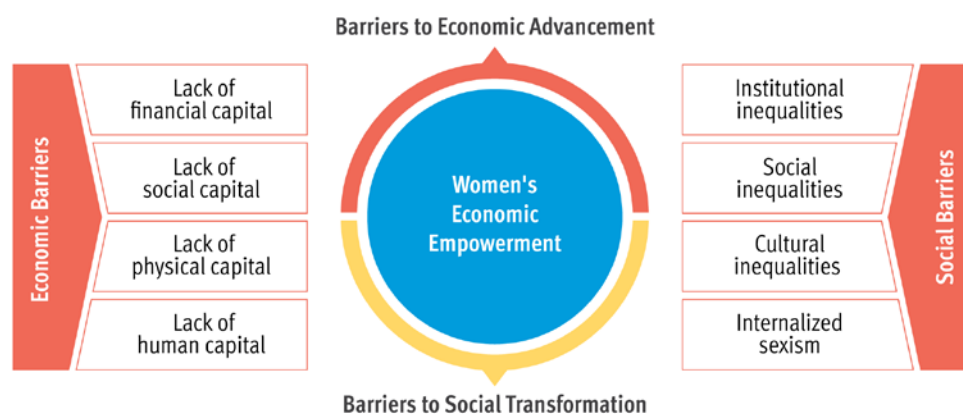
Taking these definitions as a starting point, the project conceptualises women's economic empowerment as requiring advancement and transformation:

- *Advancement*: includes increased resources including income, employment, human capital (education, skills, training), financial capital (loans, savings), social capital (networks, relationships, mentors), and physical capital (land, machinery, tools, inventory); and
- *Transformation*: necessitates women having the power and agency to make decisions over control and use of newly gained skills and resources.

Advancement and transformation require the disruption of accepted social norms and structural gender roles.³⁰

See Figure 2.1 for the EEWIGI conceptualisation of women's economic empowerment.

Figure 2.1: Study's conceptualisation of Women's Economic Empowerment



In order to understand factors related to women's economic advancement and women's economic transformation in green industry, this report analyses gendered norms, power relations and inequalities in the overlapping spheres of agency, structures and relationships (Figure 2.2).

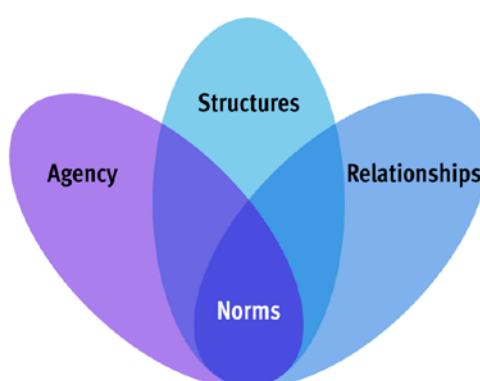
Empowerment requires:

- Agency: the ability to make choices and act upon them. This is similar to autonomy but more comprehensive;
- Structures: processes to enable change rather than resist change. This is also known as an enabling environment; and
- Equal relationships: assurance that power does not corrupt, exploit or block access to opportunities.

This conceptual framework facilitates an analysis of the institutional, cultural and societal inequalities causing barriers to women's economic advancements. These concepts also guide the transformation required to enable positive change towards gender equality. Approaching women's economic empowerment using this conceptual framework will enable policymakers and practitioners to better understand the causal pathways to advance gender equality and improving the leadership and participation of women as entrepreneurs and industry professionals in green industry in Cambodia, Peru, Senegal and South Africa, in line with the SDGs.

See Figure 2.2 for the relationship between norms and empowerment.

Figure 2.2: Relationship between norms and empowerment



³⁰ GWNET (2019). Women for Sustainable Energy: Strategies to Foster Women's Talent for Transformational Change, p.52.

2.4 Conceptual framework addressing research question 2: towards a gender-responsive green industrial policy framework

The purpose of EEWiGI is to advise policymakers and practitioners on the establishment and implementation of a policy framework to integrate gender and green industry policies. The aim is to affect change and empower more women to take leadership roles in green industry as entrepreneurs or industrial professionals. Based on the study's conceptualisation of women's economic empowerment applied in this project, gender-responsive green industrial policies must work to address both advancement and transformation.

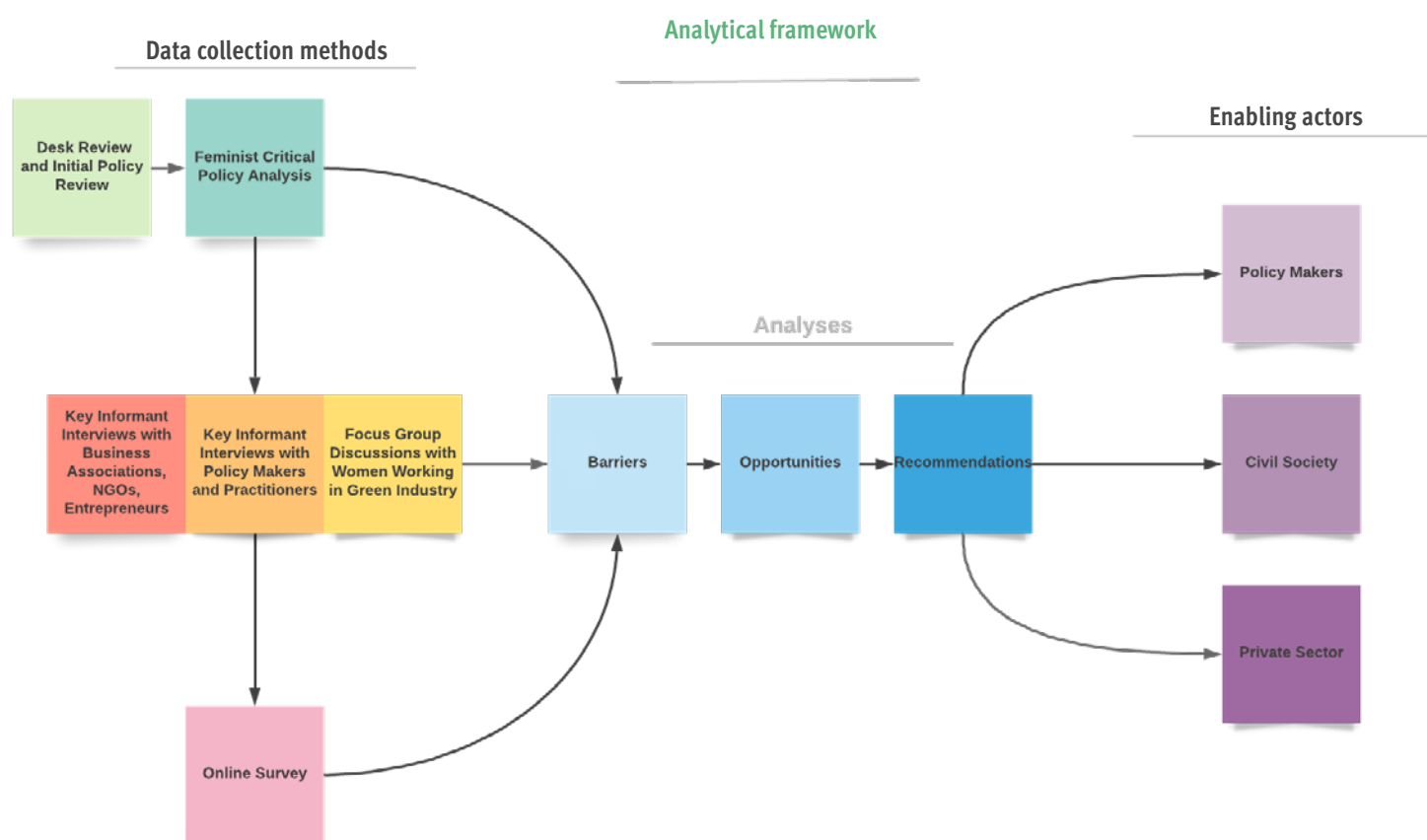
The qualitative and quantitative components of the study reveal key factors underpinning the barriers and opportunities women face in accessing economic empowerment in green industry. These findings, combined with critical feminist criteria, form the framework to assess the gender-responsiveness of current policies and their contents; policy process and adaptation. Furthermore, these policies will be evaluated on their commitments to gender equality.

2.5 Analytical framework

An overview of the applied analytical framework and data collection methods used in the study is covered in Figure 2.3.

See Figure 2.3 for the analytical framework of the study.

Figure 2.3: Analytical framework



A large, disorganized stack of white papers and documents, some with yellowed edges, is shown against a light blue background. A black magnifying glass is positioned in the lower right corner, focusing on the papers. The entire image has a light blue overlay.

3. Data collection methods

3.1 Research design

The process began with a preparatory assistance project, undertaken by UNIDO and UN Women in Cambodia, Peru, South Africa and Senegal in 2017. The objectives of this phase were to gain a better understanding of the challenges facing governments in coordinating gender-responsive green industry policy and identify the needs of female entrepreneurs in business development. The methodology of this research was shaped by the findings of the preparatory phase and inputs from UNIDO and UN Women in 2019-2020.

A mixed-methods approach has been applied, which combines qualitative and quantitative data collection methods. The research was collected in four phases:

- i. Phase 1: desk review and initial policy review;
- ii. Phase 2: feminist critical policy analysis;
- iii. Phase 3: qualitative data collection in the form of key informant individual interviews (KIIs) and focus group discussions; and
- iv. Phase 4: quantitative data collection in the form of an online survey.

The data collection phase took place in January 2020, the data cleaning, translation and analysis in February - April 2020, and the finalisation of individual country reports and a single synthesis report in April - May 2020.

In each of the four countries – Peru, Cambodia, South Africa and Senegal - key informant individual interviews took place in the capital cities (Lima, Phnom Penh, Pretoria and Dakar). In addition, focus group discussions took place in areas outside of the capitals (except Cambodia). Through this approach, it was possible to capture the heterogeneity of the baseline context for green industry and women's economic empowerment in each country.

3.2 Desk review and initial policy review

A desk review of current policies and projects was conducted with two components: one component focused on existing policies and projects promoting the advancement of green industry; the other component focused on the baseline situation in each country vis-à-vis women's economic empowerment. The desk review also identified research on successful women entrepreneurs operating in the green sector in each country.

The desk review and initial policy review served the following purposes:

- (1) Providing context for feminist critical policy analysis by presenting an overview of policies aimed at empowering women in each country, thereby identifying overlaps with green industry policy;
- (2) Building a network based on the case studies of successful women in green industry;
- (3) Identifying relevant gender and green industry policies that could be reviewed in-depth using the critical feminist policy analysis; and
- (4) Informing the development of qualitative and quantitative tools by identifying key themes to be explored further in key informant individual interviews and focus group discussions.

3.3 Feminist critical policy analysis

The feminist critical policy analysis exposes gender inequalities and power relations embedded in the policies of each country with the objective of addressing gender bias in existing and future policies (McPhail, 2003).

The feminist critical policy analysis herein is based on the work of Kanenberg et al. (2019),³¹ Drucza and Rodriguez (2018),³² Krizsan and Lombardo (2013)³³ and McPhail (2003)³⁴. The analysis is based on three steps: policy selection, assessment I and assessment II.

Policy selection criteria: a maximum of 10 policies were selected in consultation with the national coordinator (NC), national focal points and the respective UNIDO Country Representative; based on their relevancy to at least one of the following tiers:

- Tier 1: national laws, policies and strategies with “green”, “green industry”, “green economy”, “green jobs”, “entrepreneurship”, “low carbon”, identified in the title;
- Tier 2: national laws, policies and strategies that specifically address the sectors and sub-sectors identified and prioritised in this project in the title;
- Tier 3: national laws, policies and strategies with “climate change”, “adaptation”, and/or “environment” identified in the title, or “sustainable development”, “circular economy”, or “bio economy” and/or other type of green industry sector; and/or
- Tier 4: national laws, policies and strategies related to general industrial development and growth.

After the final list of policies was selected, three assessments were conducted.

³¹ Kanenberg, H. and Leal, R. (2019). Revising McPhail's Feminist Policy Analysis Framework. *Advances in social work*, 19(1), 1-22.

³² Drucza, K. and Rodriguez, C.M (2018). *Feminist Policy Analysis: Implications for the Agricultural Sector in Ethiopia*. CIMMYT, Addis Ababa, Ethiopia.

³³ Krizsan, A. and Lombardo, E. (2013). The Quality of Gender Equality Policies: A Discursive Approach. *European Journal of Women's Studies*. Vol 20, Issue 1: 77 – 92.

³⁴ McPhail, B. (2003). A Feminist Policy Analysis Framework. *The Social Policy Journal*, (2), 39-61.

The first assessment³⁵ depicted in Table 3.1, is an index for assessing the quality of policies using a ranking system. For each of the seven quality criteria categories, the research questions are scored on a scale of 0-1, whereby: 1 indicates that the criteria is met; 0.5 indicates that the policy meets the criteria to a certain extent; and 0 indicates that the policy poorly meets the criteria.

The first assessment used seven different criteria categories:

- (1) Gendering of the policy;
- (2) Structural understanding of gender equality;
- (3) Intersectionality;
- (4) Women's empowerment;
- (5) Incremental transformation;
- (6) Gender responsiveness; and
- (7) International and regional contextualisation.

Regarding the quality criteria categories, note that:

- Quality criteria categories 1-3 focus on policy content;
- Quality criteria categories 4-5 focus on the process to ensure women's participation and inclusion in the policy-making process; and
- Quality criteria categories 6-7 focus on the intersection of gender and green industry policies, and on how the national policies relate to regional and international gender frameworks.

Table 3.1: Feminist policy analysis criteria and research questions

Quality criteria categories	Research questions
1. Engendering of the policy (policy content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy consistently include sex-disaggregated data? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being an add-on to a separate section)?
2. Structural understanding of gender equality (policy content)	2.1 Does the policy consider structural factors that impact gender equality? Examples include historical, legal, socio-cultural, economic and political factors.
3. Intersectionality (policy content)	3.1. Does the policy incorporate the concept of "intersectionality"? (see definition of intersectionality in glossary).
4. Women's empowerment (policy process)	4.1 Does the word "empowerment" appear in the policy associated with women? 4.2 Does the policy refer to women's economic empowerment? 4.3 Does the policy refer to women's empowerment to increase women's agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women's civil society groups and associations during its development?
5. Incremental transformation (policy process)	5.1. Does the policy build on national previous gender-equality achievements/policies?
6. Gender-responsiveness (policy adapted to project context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs and women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women's involvement in green industry? 6.3 Does the policy address steps necessary to increase women's leadership roles in green industry?
7. Regional and international contextualisation (policy adapted to project context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments to safeguard women's rights? ³⁶

³⁵ The criteria and research questions for the first exercise are adapted from: Druza, K. and Rodriguez, C.M. 2018. Feminist Policy Analysis: Implications for the Agricultural Sector in Ethiopia. CIMMYT, Addis Ababa, Ethiopia.

³⁶ Criteria 7.1: The list of international and regional conventions will include the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), Sustainable Development Goal number 5, Protocol on Violence against Women, Beijing +25, and the Maputo Protocol, African Charter on Human and Peoples' Rights on the Rights of Women in Africa (not applicable to Peru/Cambodia).

Assessment II

The second assessment in the feminist critical policy analysis assesses the quality of the policy's conclusions on specific gender planning targets/commitments/indicators and/or "next steps". In order to ensure the accountability of gender targets/plans, these findings are rated based on the following criteria:

- (0)= No mention of gender in the conclusion;
- (1)= Irrelevant/tokenistic conclusion;
- (2)= Has some sex but not gender conclusions;³⁷
- (3)= Has some gender conclusions but basic or unhelpful; or
- (4)= Highly relevant gender-aware conclusion.

Lastly, the policies were assessed based on their level of implementation to date, as of April 2020. The results of the critical feminist policy analysis are presented further in detail in Section 4 of this report.

3.4 Key informant individual interviews

The two target groups for the Key Informant Individual Interviews (KIIs) were policymakers and practitioners (KII Type 1 – government actors) and entrepreneurs, members and/or leaders of a business organisation, NGO leader/management, or other persons of influence in green industry (KII Type 2 – business actors). KIIs with policymakers and practitioners were conducted to develop an in-depth understanding of government priorities, interests and incentives in the green economy, including current competing priorities and its effects of current policies on gender issues. The aim of KIIs with members and/or leaders in the industry was to understand specific barriers and constraints faced by women entrepreneurs, businesses, NGO and community leaders and influencers; and identify ways to change policies to better support women entrepreneurs.

In total, 30 interviews were conducted. 15 of these were interviews with industry professionals and entrepreneurs, while 15 interviews were policymakers and practitioners. The sample represents a good cross-section of leaders in the green industry. It included heads and deputy heads of departments, facilitators of green industry sector networks, entrepreneurs, business owners and employees. Respondents were enthusiastic and engaged. They answered questions in full and gave a deep level of insight into the subject matter.

3.5 Focus group discussions

Two focus group discussions were held with 13 women working in green industry in a professional role. The purpose of these FGDs was to get a more in-depth understanding of issues identified in the KIIs (e.g. specific barriers and constraints faced by women working in green industry). Two focus group discussions were conducted, one in Sandton and one in Pretoria.

The full sample details are listed in Table 3.2.

Table 3.2: Sample by instrument type

Instrument type	Total number of participants	Disaggregation
Key informant interviews: policymakers and practitioners	13	11 women, 2 men
Key informant interviews: business associations, NGOs, entrepreneurs	17	17 women
Focus group discussions	13	FGD 1 – 6 women Location: Sandton FGD 2 – 7 women Location: Pretoria
Online surveys	25	23 women green entrepreneurs 2 women conventional entrepreneurs

3.6 Online surveys

The last data collection method was the quantitative online survey, which was sent to women entrepreneurs in both green and conventional industry through the online platform SoGo Survey. The survey identified opportunities and challenges faced by women entrepreneurs in the green industry, and how these overlap with or differ from women entrepreneurs outside the green industry. The results of the survey were used to analyse the current situation experienced by women entrepreneurs in and outside green industry in each country. The survey included information on the type of enterprise (size, sector, number of employees, years in operation), linkage to green industry; identified opportunities; and identified constraints. A total 25 women entrepreneurs completed the survey. Of these, 23 were from green industry and

³⁷ "Sex" includes reference to "women" or "men". "Gender" refers to the relations, social norms and power dynamics between "women" and "men".

2 were from conventional industry. Due to this disparate sample size, only the results from the green entrepreneurs are included in this analysis. Where appropriate, the report draws on other contemporary studies of women's conventional entrepreneurship in South Africa as supplementary contextualisation.

3.7 Research limitations

Despite the best efforts of all contributors, the project has faced the following research limitations:

1. Lack of clarity on the term “green industry”: since the green industry is a new concept, there is a lack of clarity about the concept and what businesses require to be considered within the term “green”. Hence, it was difficult to segregate the sectors and sub-sectors into “green” versus “conventional”/ “non-green” industry;
2. Recruitment of key informants: the recruitment of the key informants started at the end of December 2019. Due to the Christmas and New Year holidays, it was difficult to recruit participants. For example, it was difficult to schedule interviews in January 2020 because either the key informants were still on leave or busy catching up on their work schedule.

The key informant individual interviews were mostly conducted in the capital cities. The inclusion of women entrepreneurs and policy influencers from other cities would have provided useful viewpoints.

3.8 Research strengths and advantages

Some of the strengths of the study include:

1. **A novel initiative:** this research is the first of its kind to investigate women's economic empowerment in green industry; as both entrepreneurs and industry professionals;
2. **Research across the globe:** the research has produced an impressive international dataset, with qualitative and quantitative data gathered in 4 countries on 3 different continents;
3. **Robust, gender-responsive policy analyses:** the bespoke critical feminist policy analyses used in the study is an innovation in international development research. While there are several policies in the countries on climate change and sustainable development; the extent to which these policies have been gender mainstreamed was previously unknown. Our analyses create a way forward for all the policies in this area to be revisited and strengthened in terms of their gender content and commitments;
4. **Involvement at the policy level:** Government stakeholders and policymakers are involved from the inception phase in evaluating the research findings;
5. **Bottom-up approach:** the study used a bottom-up approach to elicit the perceptions and everyday challenges of green industry women entrepreneurs and professionals. The data they shared will be used as a baseline and facilitate the design and revision of green industry policies according to the needs and priorities identified; and
6. **Bridging the green industry knowledge gap:** The study revealed a persistent knowledge gap of existing green industry policies in the country among entrepreneurs, professionals and policymakers themselves. By exposing this gap, this report proposes recommendations for raising awareness and exposing people to the opportunities present in green industry.

3.9 Research ethics

The research received ethical approval from the Internal Ethical Review Board of Includovate 6 January, 2020.³⁸

Participant recruitment

Individual participants were selected based on criteria (see Appendix 1) defined jointly by the national coordinator (NC) and in-country researchers, in close consultation with UNIDO. Together, the NC and researchers compiled individual lists of prospective interviewees. These lists emerged from desk-based reviews and in consultation with relevant stakeholders. Relevant stakeholders included ministries, industry institutions, and women's economic empowerment programme implementors. The final list of participants was made based on the selection criteria

Consent

Key informant individual interviews, focus group discussions and online quantitative surveys were subjected to two forms of consent from participants. In all three interactions, informed consent was obtained at the time and place of the interview by the enumerator or interviewer. Additionally, in the case of the online interviews, there was an explicit statement proceeding the questions advising participants that their participation was voluntary and could be withdrawn at any time. When the survey was considered completed and returned by the participant, their consent was implied.

³⁸ A full copy of the approved ethics application is available upon request via email: o.iti@unido.org.



4. Policy review and analyses

4.1 Policies promoting the advancement of green industry and gender equality in South Africa

Despite considerable progress made regarding the legal status of women, and despite gender equality being entrenched in the Bill of Rights of the Constitution of South Africa of 1996, South African women and men do not enjoy equal rights in practice. Unequal gender relations within the ambits of race, class, disability, religion and geographic location further complicate these disadvantages. South Africa has introduced a range of policies and programmes designed to facilitate women's economic empowerment. These range from providing business resources, information and opportunities for women entrepreneurs, as well as a range of interventions designed to achieve women's empowerment and gender equality. Success has been limited, partly as a result of weak economic growth, particularly since the economic crisis of 2007, and partly as a result of gendered barriers to entry into the formal sector. As a result, women are over-represented in informal and vulnerable employment.³⁹

Global Economic Governance Africa (GEG Africa) released a report in 2018 that highlighted the opportunities and challenges that currently exist for women in the renewable energy sector in South Africa.⁴⁰ Interviews revealed three fundamental factors driving the failure to include women in the renewable energy sector in South Africa:

- A lack of leadership by government at a policy level to mainstream gender throughout the renewable energy value-chain;
- An absence of appropriate financing mechanisms; and
- Insufficient entry-level gender-based initiatives.

South Africa is innovative in its national recognition of gender imbalances within national energy policy. The National Energy Policy declares a commitment to developing employment equity plans as part of an effort to attract appropriately skilled people and correct gender inequalities.⁴¹ Despite the historical gender imbalance; some large scale IPPs (Independent Power Providers) have reported recruiting a women workforce of 40%⁴² to over 50%; many into higher-level management structures.⁴³ Independent research reports an average 33% women participation within the utility-scale renewable energy value chain. One company reported up to 60% female participation. It appears that accountability for progress on gender equality starts and stops with compulsory top management quotas. However, usually, women CEOs, CFOs and directors often report to an all-male board.⁴⁴ It has been proven particularly hard to enhance women's participation through the inclusion of women business owners in the procurement.⁴⁵ Creating meaningful participation of women will require a multi-tiered approach across many levels.⁴⁶

Wind energy

Much like in the wider global context, the wind energy industry remains male-dominated. Together with the Global Women's Network for the Energy Transition (GWNET) and the Global Wind Energy Council (GWEC); the International Renewable Energy Agency (IRENA) conducted a global survey of 1,400 individuals and organisations, across 71 countries worldwide. This report, released in January 2020, examined gender-inclusive policies, female representation and perceptions of gender bias in the wind energy industry.⁴⁷

It found that:

- On average 21% of the wind energy workforce are women (35% administration, 20% non-STEM, 14% STEM, 13% management, 8% senior management), compared to 32% overall in renewables and 22% in traditional energy industries (such as gas and oil);
- Cultural-social norms and gender role perceptions form major barriers to gender equality; and
- Perceived wage inequalities are lower in wind energy. Of the women surveyed, 40% stated that they believed men were paid more than women than in the overall economy; indeed 68% of the women surveyed gave this response.

South Africa has made strong commitments to the growth of green industry and the encouragement of green jobs. However, it is simultaneously seeking to grow its fossil fuel sector, due to the reliance of citizens on this sector for employment. The South African government has renewed its commitment to green jobs and jobs for women in the Skills Development Strategy.

Waste management

Waste management is one of the most important green industry sectors for generating employment in South Africa. The prevention, reuse,

³⁹ https://www.uneca.org/sites/default/files/uploaded-documents/Beijing25/south_africa-beijing25_report.pdf.

⁴⁰ Parshotam, A. & Westhuizen, H., 2018. Women and The Energy Value Chain Opportunities for a More Inclusive Renewable Energy Sector in Africa. Discussion Paper. October 2018. Global Economic Governance Africa (GEGA).

⁴¹ Prebble, M. and Rojas, A. (2018). Energizing Equality: sub-Saharan Africa's integration of gender equality in national energy policies and frameworks. Washington, USA: IUCN, Power Africa and USAID.

⁴² BioTherm (2018). Women owned businesses in the renewable energy industry. Presentation, South African Department of Mineral Resources and Energy. Kimberley, Northern Cape: 29 May 2018.

⁴³ Mulilo Renewable Energy, 2018. Business Opportunities for Women: Presentation to Women Entrepreneurs. Presentation, South African Department of Mineral Resources and Energy. Kimberley, Northern Cape: 29 May 2018.

⁴⁴ Parshotam, A. & Westhuizen, H. 2018. Women and The Energy Value Chain Opportunities for a More Inclusive Renewable Energy Sector in Africa. Discussion Paper. October 2018. Global Economic Governance Africa (GEGA).

⁴⁵ In South Africa, only 3% of total spend was achieved across all IPPs in the utility-scale programme, with a minimum target of 5%; further, most businesses comprised of low-skilled services such as cleaning and administration. (Stuurman., N. F. (2018) Does the South African renewable energy programme exclude Black Woman owned businesses. Stellenbosch University, Master's Thesis).

⁴⁶ Parshotam, A. & Westhuizen, H., 2018. Women and The Energy Value Chain Opportunities for A More Inclusive Renewable Energy Sector in Africa. Discussion Paper. October 2018. Global Economic Governance Africa (GEGA).

⁴⁷ IRENA (2020), Wind Energy: A Gender Perspective. IRENA, Abu Dhabi.

recycling, and recovery of waste generates significant social, economic, and environmental opportunities for the country.⁴⁸ South Africa plans to transition to a circular economy that maximises the value extracted from resources; keeps them in use as long as possible, and regenerates products. This strategy has been concretised through collaboration with the governments of Rwanda and Nigeria in the African Circular Economy Alliance (ACEA).⁴⁹ ACEA aims to “*build a restorative African economy that generates well-being and prosperity inclusive of all its people through new forms of economic production and consumption which maintain and regenerate its environmental resources.*”⁵⁰ This transition to a circular economy is expected to generate new opportunities for professionals across the waste value chain, from waste prevention (cleaner production, e.g. design of new products to replace plastics/industrial processing), to advanced end-use markets in materials and energy recovery.⁵¹

Recycling will play a key role in poverty alleviation as the sector has the potential to provide an income for unskilled people. Currently, many of the waste management related jobs cannot be considered green as they do not match the basic requirements of decent work. Unacceptable practices; including child labour, occupational health and safety, social protection, and limitations on the freedom of association (such as unions, local associations, cooperatives etc.) must be addressed as employment in the recycling industry increases.⁵² Main issues and entry points for gender mainstreaming within waste management include:⁵³

1. Integrating a gender perspective in assessment studies, planning, implementation and monitoring of waste management projects. This should include a gender-specific analysis of how available waste and resources are valued and used;
2. Consultations prior to the introduction of new policies, procedures and technologies and equal representation of women and men in these consultations;
3. Creation of equal opportunities for men and women to benefit from the awareness-raising and training initiatives for waste management; and
4. Empowering women to move up the hierarchy of waste management, not just in unskilled collector roles, but also in management positions, as business entrepreneurs etc.

Women constitute the majority of informal workers dealing with waste collection, sorting, and recycling.⁵⁴ Hierarchical gender relations at home and in their respective communities are replicated in the workplace and add to the commonly precarious conditions related to their economic empowerment.⁵⁵

Transport

The development of transport infrastructure and services typically overlooks gender specific needs. For example, this gap is reflected in the lack of transport infrastructure, which has a disproportionately negative impact on women’s safety and increases the personal risk involved in accessing employment opportunities.⁵⁶ The transport sector needs to consider gender differentials not only for employees but also for women as end-users. Public transport in South Africa is notoriously unsafe for women, children, people living with disabilities and other vulnerable groups.⁵⁷ There is a lack of sex-disaggregated data and gender-specific analyses on the transport industry; therefore, the picture is incomplete.

There is little information to be found with regards to women’s economic empowerment in green industry in South Africa. Only the Industrial Development Corporation and the Department of Small Business Development have made specific reference to achievements, targets or commitments around women’s economic empowerment. A small minority of these initiatives focus on women in green industry.⁵⁸ Additionally, existing green initiatives such as the Low Carbon Transport Initiative are still male-dominated.⁵⁹ There is a clear implementation gap between the laws and policies intended to protect and promote the rights of women and realities on the ground. As summarised by Motara (2017), the lack of a gendered lens applied to transport policy frameworks, action plans and policies of South Africa may prove detrimental to women’s economic empowerment in the green economy.

Policies / Strategies in which gender is mainstreamed

Gender is currently mainstreamed in the National Skills Development Strategy III 2011-2020 (NSDS III), which prioritises the development of skills to support the green economy. The NSDSIII is measured and guided according to seven key developmental imperatives: gender, race, class, age, geography, disability and the HIV and AIDS pandemic. All institutions are required to measure their progress towards these priorities. Regarding the gender imperative, page 7 of the NDSIII states:

48 Green Fund, 2016. POLICY BRIEF 8: Transitioning South Africa to a Green Economy: Opportunities for Green Jobs in the Waste Sector, pp.1-8.

49 <https://www.acen.africa/>.

50 Ibid. Description under “Africa Circular Economy”.

51 Ibid. pp. 5.

52 Sustainlabour (2013). Green Jobs and Related Policy Frameworks: An Overview of South Africa.

53 Department of Environmental Affairs (2016). Strategy toward gender mainstreaming in the environment sector 2016 – 2021.

54 Muchangos and Vaughter (2019). Gender Mainstreaming in Waste Education Programs: A Conceptual Framework.

55 Ibid.

56 Mathews (2017). Public Transport and the Safety of Women in South Africa: Lessons from around the World.

57 See: <https://womenandtransportafrica.org>.

58 See: IDC Financial Results: 2018 annual report. Every Annual report includes a breakdown of B-BBEE (Broad-based Black Economic Empowerment), as well as investment in women-owned enterprises (R2.2 Billion in 2018) and corporate social-investment in marginalised communities. See pp.50-51 ‘transforming marginalised communities’ <https://www.idc.co.za/financial-results/2018-annual-report/>.

59 Motara, S. (2017): ‘Situational Analysis of Economic Empowerment of Women in Green Industries in South Africa’: p.26.

“Ours is still a society that reflects huge disparities between men and women, including access to skills for effective participation in the labour market and society. This calls for particular attention to be paid to women’s access to skills, especially black women, so that they can effectively participate in society as required by our constitution. In addition, all our skills development initiatives must contain within them specific programmes and strategies to promote gender equality in skills development, in employment and career development, and in our economy as a whole.”⁶⁰

The NSDS strategies will be replaced by the National Skills Development Plan 2030, which was announced March 2019. As distinct from the previous National Skills Development Strategies, the National Skills Development Plan (NSDP) has been crafted in a policy context of the National Development Plan (NDP) and the White Paper on Post School Education and Training (WP-PSET).

Gender is also mainstreamed in the core values of the NSDP 2030, which can be seen as follows:

- 5.3 advancing an equitable and integrated system; and
- 5.4 greater inclusivity and collaboration will be promoted.⁶¹

The NSDP supports the transformational and redress imperatives in SA through a strong focus on addressing equity in relation, amongst others, to class, gender, race, youth, geography and disability. The NSDP seeks to ensure that skills development interventions reach those already in employment and provides for opportunities for new entrants to the labour market to gain work experience.

The South African Department for Energy released a Draft Energy Gender Strategy in August 2017. This was presented at a ‘Women in Energy Dialogue’. Since the Energy Dialogue in 2016, South Africa’s Energy Policy has been approved and finalised. They have also developed and distributed a draft energy sector discussion paper on Women, Empowerment and Gender Equality (WEGE).

Furthermore, the “Women in Energy Electronic Business Director” has been established by the Department of Mineral Resources and Energy as a platform to catalogue women-owned businesses operating in the South African energy industry. This innovative approach will enable investors to find women-owned businesses easily.

Gender mainstreamed policies and strategies

The 2011-2020 Green Economy Accord, signed by the South African Government, civil society, labour and business, represented a major commitment to support the “New Growth Plan” “through the promotion of green jobs for the green economy”.⁶² The majority of Green Accord commitments had the target date of 2020, if not earlier. These commitments included investments in the green economy, procurement of renewable energy, promoting energy efficiency and recycling waste; as well as improving the mass-transport system, the electrification of poor communities and the reduction of fossil-fuel open-fire cooking and heating. However, at the time of launching, the synergies between the goals of the Accord and women’s economic empowerment were unclear. Looking beyond 2020, gender considerations and commitments must continue to be addressed.

The role of overseeing green economic growth in South Africa was a co-responsibility of the former Department of Economic Development (EDD) and the Department of Trade and Industry (DTI), which have now been merged into the Department of Trade, Industry and Competition (DTIC). As part of this project, the DTIC was approached for data on progress towards the commitments of the Green Accord; however, this data is not publicly available.

Research has shown that donors, businesses, governments and DFIs/ MDBs in South Africa can be prone to tick-box, headcount approaches to female inclusion⁶³ or struggle to incorporate clearly defined gender mainstreaming targets in infrastructure projects. The absence of sex-disaggregated monitoring and evaluation (M&E) data can also result in insufficient follow-up and monitoring attempts to implement gender-based targets. As the GEGA (2018) report concludes; it is crucial that women-led inclusion be championed by the government and the management of IPP companies and financiers. In numerous government departments, policies are insufficient to support gender inclusivity, whilst mainstreaming fails to deliver results.⁶⁴

4.2 Government priorities and overview of green industry policies from key informant interviews

The top government green industry priorities highlighted in key informant individual interviews were:

- Renewable energy;
- A just transition away from coal while minimising structural unemployment;
- Waste management;
- Water sanitation;

⁶⁰ National Skills Development Strategy III 2011-2020 (NSDS III).

⁶¹ Government of South Africa, National planning commission (2013). National Skills Development Plan, 2030; page 19.

⁶² Department of Economic Development (2013). The 2011-2020 Green Economy Accord.

⁶³ SDSN (Sustainable Development Solutions Network) (2013). Women’s Role in Economic Development: Overcoming the Constraints. Available online: <http://unsdsn.org/resources/publications/womens-role-in-economic-development-overcoming-the-constraints/>, accessed 18 October 2018. 38 Grown C et al., ‘Aid. Cited from GEG, 2018, pp.13

⁶⁴ Parshotam, A. & Westhuizen, H. (2018). Women and The Energy Value Chain Opportunities for a More Inclusive Renewable Energy Sector in Africa. Discussion Paper. October 2018. Global Economic Governance Africa (GEGA).

- Low-carbon transport; and
- Energy efficiency.

Renewable energy

The Chief Director responsible for green industry in the Department of Trade, Industry and Competition highlighted that energy policy priorities were “solely focused on” or “very much limited to” renewable energy.⁶⁵ Within renewables, solar implementation and wind energy were highlighted as the top sectors of focus. Within the sub-sectors of solar and wind energy; priorities range from implementation and roll-out to its localisation and manufacturing. The expansion of renewables by small, independent providers is being implemented through the Renewable Energy Independent Power Procurement Programme (REIPPP), a shared responsibility between the Department of Trade, Industry and Competition and the Department of Mineral, Resources and Energy.

Multiple interviews conducted as part of this project referred to the South African energy monopoly by Eskom. Eskom is still largely dependent upon coal and seeking to invest in nuclear energy. In the mean time the Eskom Roadmap, released in October 2019, indicated that it should become easier for private renewable energy generators to supply the national grid; Eskom will still receive an additional ZAR 59bn (USD 4.2bn) from the government spread over the next two years. Some interviewees expressed the concern that this may send conflicting messages to the public; as the government is indicating that it is committed to green industry and renewables, whilst hindering diversification and continuing to protect Eskom.⁶⁶

The prevalence of coal and mining

Coal and mining remain vital contributors to the South African economy and labour market. Another government priority is minimising structural unemployment caused by the potential closure of coal mines as the country moves towards alternative sources of energy. As one interviewee for this project expressed *“One of South Africa’s chief economic areas is mining.”*⁶⁷

While the emerging renewable sector offers employment opportunities; green industry and job creation are still seen by some as conflicting, rather than complementary objectives. In communicating the potential growth opportunities in the green economy, job creation must continue to be highlighted. Participants interviewed stated that, despite environmental issues, such as poor water quality caused by acid mine drainage, the issues of women’s empowerment and greening the economy have been pushed down the political agenda. Participants also said that green industry incentives had been defunded due to government budget cuts.

The next most highlighted priorities in South Africa are water, sanitation⁶⁸ and waste management.⁶⁹ Food, water and energy are known as a thematic nexus within the Department of Mineral Resources and Energy because the three sub-sectors are so interdependent. Within waste management, maintaining decent working conditions and decent pay are key concerns, in addition to profitability, supply constraints and waste management. Challenges persist to improve working conditions and the effort to manage the impact of waste on air quality.

Several interviewees⁷⁰ were keen to highlight the holistic nature of green industry. It was described as an opportunity for all sectors to become more sustainable and collaborative: *“This is not just green machinery - we are talking about a fundamental change in the way that absolutely everything is done.”*⁷¹

4.3 The overlap between policies to empower women and green industry policy

This section highlights what the interviewees (policymakers, employees and entrepreneurs in green industry) had to say about specific policies aimed at empowering women in South Africa and their overlap with green industry policy. These overlaps present entry points to enhance gender-sensitive approaches to green industry policy development in South Africa. It has been observed that these overlaps tend to emerge organically. An analysis of the project interview material shows two important points: policy overlaps between gender equality and the empowerment of women policy; and green energy policy tend to emerge by coincidence.

According to KILLS, examples of this include:

- Renewable Energy Independent Power Producers Procurement Programme (2011);
- Policies and Programmes to reduce Violence Against Women; and
- Women’s Empowerment and Gender Equality (WEGE) Bill (2013).

⁶⁵ This was stated as a top priority on 15 occasions by five policy practitioners.

⁶⁶ Though the Integrated Resource Plan (IRP) 2019 outlines the IRP is an electricity infrastructure development plan based on least-cost electricity supply and demand balance, taking into account security of supply and the environment (minimize negative emissions and water usage).

⁶⁷ KILL, Woman, Policy maker, Ministry, Pretoria, South Africa.

⁶⁸ This was highlighted as a top priority on nine occasions by six practitioners: 23, 26, 10, 1, 12, 6.

⁶⁹ This was highlighted as a top priority on 5 occasions, by three practitioners: 6, 10, 23.

⁷⁰ Interviewees 6, 10, 12, 23.

⁷¹ KILL, Woman, Director, Ministry, Pretoria, South Africa.

Effects of policy

In order to identify the effectiveness of a policy related to gender equality in green industry; the following interview questions were asked:

- Are there any initiatives in place to promote the policy? If so, what is working? What is not?
- Do you think that policies related to the transition to green industry affect women and men differently? If so, how?
- Are there existing policies in place to support women in the transition to green industry? If so, what are they? How are they being implemented?
- Are policies related to the transition to green industry delivering results in line with the promises on which they were initially formulated? What are they doing differently than “conventional industry”?
- Are there any policies that are hindering women’s inclusion or women’s equality in green industry? If yes, could you list some of them?
- What is the best program you have seen in your country dedicated to women’s economic empowerment? Why was it the best?

Implementation of policy

Throughout the course of the interviews, interviewees reflected on existing green energy policy, highlighted shortfalls and identified implementation gaps.

The following questions were posed with regards to implementation:

- Do you think there are any gaps between official policy, the law and implementation in your country? If there are gaps, why do you think this is?
- What could be done to reduce those gaps? Who should do what?

Effects of existing policy

The Renewable Energy Independent Power Provider Procurement Programme (REIPPPP) was introduced in 2011. The context was one of broadly recognised institutional shortcomings in the South African energy sector. IPPs contracts were the responsibility of Eskom, supervised by government. However, efforts to implement REIPPPP failed, perhaps due to a lack of capacity or, according to critics, partly due to an unwillingness to weaken the Eskom monopoly on energy. REIPPPP represented a different approach because the Department of Mineral Resources and Energy (DMRE) managed the program. However, neither DOE, nor Eskom, had the institutional capacity to run such a sophisticated, multi-faceted and multibillion-dollar renewable energy project that required an international competitive bidding process. Consequently, DOE was assisted by the National Treasury’s Public-Private Partnership (PPP) Unit.

Renewable Energy Independent Power Provider Procurement Programme (REIPPPP)

As Green Cape, a research incubator based in the Western Cape, stated in their report: *“It makes engendering the energy sector more difficult if decision-makers and implementers do not support a transformation agenda.”*⁷²

To date, there has been only one female CEO of an IPP company (BioTherm Energy) in South Africa. Only three IPP companies interviewed had professional female employment levels of 40% or above. One respondent noted that low-level sexism against female professional staff was fuelled by the severe under-representation of women in technical expert roles. In South Africa’s independent power producer (IPP) companies, women are “mostly members of socio-economic development teams and environmental assessment experts,”⁷³ rather than leading entrepreneurs in the core business. Green Cape, found that across the entire renewable energy value chain, the women-to-men was an average 33%.⁷⁴

Currently, a “target” of 5% women-owned procurement of energy industry services for government projects has been set. However, there appears to be no minimum threshold, and no consequences should this target be missed. Moreover, the government earmarks 30% of the estimated budget in each tender for socio-economic development objectives; while 70% is allocated towards the bid tariff. As the REIPPPP progresses, tariffs are becoming increasingly competitive, with objectives and outcomes outlined in the tender becoming less of a priority. It is therefore increasingly important to make socio-economic development outcomes a higher priority in future bid windows as part of the competitive process. This potentially presents small-scale power producers, including women-led cooperatives, businesses and small enterprises with greater opportunities.

Commercial banks and DFIs have been criticised for not offering suitable financial services for small and women-owned businesses. The REIPPPP’s building process is large scale and complex. It involves a tender that incurs significant costs to cover feasibility studies, land permits and environmental studies. This administrative burden of this process is a clear barrier for smaller, independent South African energy suppliers that do not have access to the financing to prepare a bid.⁷⁵

Women who submit a bid to manage a renewable energy contract speak of being “outbid” because they “do not have the backing of big investors and the big companies are always trying to muscle them out”.⁷⁶ While finance is a key challenge for all SMEs regardless of gender,

⁷² Parshotam, A. & Westhuizen, H. (2018). Women and The Energy Value Chain Opportunities for A More Inclusive Renewable Energy Sector in Africa. Discussion Paper. October 2018. Global Economic Governance Africa (GEGA).

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Montmasson-Clair G & R Nair, op. cit.

⁷⁶ KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa

the strain of these challenges is compounded for women given their additional social capital deficits within the renewable energy sector. For example, because the renewable energy sector is new, women running businesses and competing for contracts tend to be inexperienced and new to the sector. They are competing against established companies who have moved from the traditional energy space to the renewable energy space. This creates a resource imbalance and makes it harder for newcomers to exploit opportunities. Established firms find it easier to outbid and secure contracts: *“Most of the newer women-run companies do not have that opportunity.”*⁷⁷

Table 4.1: Renewable Energy Independent Power Provider Procurement Programme

Renewable Energy Independent Power Provider Procurement Programme	
Effectiveness: What effects does the policy have on the targeted problem?	This is a competitive tender process that was launched to facilitate private sector investment into grid-connected renewable energy generation. The REIPPPP is globally regarded as a highly successful initiative for procuring renewable energy (RE). It has managed to attract investment into the RE sector worth more than ZAR 22 billion (USD 195 billion), with 73% (ZAR 141 billion [USD 10.03 billion]) from domestic and 27% (ZAR 53 billion [USD 3.97 billion]) from international investors.
Unintended effects	The unintended effects of this policy are that women are not benefitting and feel that they are being outbid.
Equity: What are the effects of this policy on different groups?	Women find it harder to access this programme because there is no actionable goal, quota or scheme to ensure that women have access to these contracts.

Violence against women policies and programmes

Dealing with femicide and violence against women is a key government objective, and it was highlighted that there is a need to create spaces where women can participate fully. Violence against women is a major barrier to women’s participation in green and conventional industry. Creating safe workplaces for women is not only important in green industry, but across all industries. The Global Peace Index statistics show that rates of gender-based violence in South Africa are **comparable to a country at war or in conflict**. In 2017-2018 alone, there were 2,930 known cases of femicide.

As one policymaker stated:

*“The most important thing in gender mainstreaming, is whether women are safe. Women will not do something if it will endanger them.... I mean if you build a post office over there and he is friendly and he will help you with a parcel, after hours you are dead. You are raped, you are dead. We have seen it. I think that the economic empowerment of women is a critical priority for the Department but superseding that is the non-violence against women. It is the underlying importance for us. The right to life, the right to security, the right to peace, the right to freedom, those are all those rights for women, that are being violated.”*⁷⁸

The government is taking positive steps to demonstrate its commitment towards preventing violence against women and femicide. However, women will continue to fear working in male-dominated settings and environments with no gender consideration until workplaces can ensure that they are safe.

Table 4.2: Violence against women policies and programmes

Related policies and programmes: - South Africa’s Domestic Violence Act (1998) - The 16 Days of Activism for No Violence against Women and Children (starting on the 25th of November to the 10th of Decembers each year) - National Strategic Plan on addressing gender-based violence and femicide (2020)	Effectiveness: What effect does the policy have on the targeted problem?	Despite the government trying to implement and raise awareness, violence against women and femicide persists. An estimated 60% of women and girls have been victims of physical and sexual abuse by an intimate partner.
	Unintended effects	Existing policies and programmes have been limited in their ability to curb gender-based violence.
	Equity: What are the effects of this policy on different groups?	Rural areas continue to lack empowerment services such as domestic violence awareness campaigns, counselling services and shelters (Vetten, 2005; Bower, 2014). The policy doesn’t focus on intersectional differences (e.g. poor black women more likely to be victims of crime).

⁷⁷ Ibid.

⁷⁸ KIII, Woman, Policy maker, Ministry, Pretoria, South Africa.

Women's Empowerment and Gender Equality Bill⁷⁹

Many interviewees highlighted that the current focus is on positive action through quotas. This practice was certainly a point of contention amongst interviewees. The key issues raised were as follows:

- Employers could feel obliged to hire women “just for the sake of it”;⁸⁰
- Women did not want to feel that they were only hired to fill a quota, not due to merit;
- Women want to be treated the same in the workforce, quotas could be perceived as “special treatment”⁸¹ which a perception that they believe exasperates, rather than eliminates gender inequalities;
- Participants stated that some male colleagues feel aggrieved that women are entering the workforce or given preferential treatment; but that male allies are needed to be supportive and contribute towards gender equality in the industry in future. They signposted the “He for She”⁸² campaign, launched by UN Women in South Africa to bring visibility to gender inequality initiatives; and
- Quotas can lead to women being hired as a token, without the intention to provide opportunities for them to progress. For example, in one large energy organisation, an interviewee stated that despite having 70% women and 30% men in their workforce: “women only truly get into middle management and no further”.⁸³

On the other hand, there were also some positive reflections on positive discrimination:

- Some participants felt that it helps to “correct the injustices of the past”;⁸⁴
- It encourages women to apply for positions because they know that they will be welcomed; and
- Women need the “opportunity and platform to allow them to get into these positions”.⁸⁵

Table 4.3: Quotas created through the Women's Empowerment and Gender Equality Bill

Quotas: created through the Women's Empowerment and Gender Equality Bill “WEGE”	
Effectiveness: What effects does the policy have on the targeted problem?	The aim of this policy is to create a 50/50 equal representation of women in decision-making roles, i.e., in parliament and local councils. It is effective for women in the public sector, as demonstrated by the graph below. In 2018, the female share of seats in national parliament had risen to 42.3% and the share of seats in ministerial level positions had risen to 48.6%. However, the percentage of women in leadership and middle-management positions is still low at 33.9%.
Unintended effects	This policy is harder to enforce in the private sector: <ul style="list-style-type: none"> - It has led to some men feeling aggrieved that women are being given “reserved” jobs in the public sector, and therefore “reserving” positions for men in the private sector; - Men find “loopholes” – e.g. putting their sister's name on the papers of their organization so that it is “woman-owned”; - It leads to a perpetuating cycle whereby men do not hire women on merit, but for points, therefore have lower estimations of the female staff that they do appoint. Women are hired into lower positions to make up quotas but struggle to progress into management and leadership.
Equity: What are the effects of this policy on different groups?	<ul style="list-style-type: none"> - Women who are hired feel that they are a “token” hire. Women are not given the responsibility they deserve. - Women want to be hired on merit and given leadership roles so that they can progress, but are denied this opportunity. - Intersectional differences are still not accounted for in the participation of women in the green and conventional industries as well as in the broader economy. For example, lower-income women and black women still occupy a smaller percentage of overall jobs and seats in national parliaments.

4.4 Summary results of the feminist critical policy analysis

This section provides a summary of the in-depth analyses of ten policies (listed in Table 4.5) used to review the inclusion of gender integration in policy content and formulation. As outlined in the methodology section (see section 3.3 Feminist critical policy analysis), set criteria were used to review each policy. Appendix 2 presents the full individualised analysis for each policy.

⁷⁹ This Bill lapsed in 2014 and is currently being relooked at by DWYPD.

⁸⁰ KIII, Woman, Manager, Sandton, South Africa.

⁸¹ Ibid.

⁸² United Nations. United: ‘He for She’ campaign.

⁸³ KIII, Woman, Regional Manager, Sandton, South Africa.

⁸⁴ Environmental Monitoring Lead, 37, FGD2.

⁸⁵ KIII, Woman, Project Officer, Cool Surfaces, SANEDI, clean energy technology sector, Sandton, South Africa.

Table 4.5 List of national laws, policies and strategies examined⁸⁶

No.	Name	Date	Criteria match
1	National Green Fund ⁸⁷	2012	Tier 1: green industry
2	Green Transport Strategy ⁸⁸	2018-2050	Tier 1: green industry and transport
3	Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) ⁸⁹	2017	Tier 2: renewable energy
4	The National Waste Management Strategy (NWMS) ⁹⁰	2011	Tier 2: waste management
5	Climate Change Bill ⁹¹	2018	Tier 3: climate change
6	Department of Environmental Affairs Strategic Plan ⁹²	2019/20 to 2023/24	Tier 3: environment
7	The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector ⁹³	2016-2021	Tier 3: environment
8	The Integrated Resource Plan (IRP) 2019 ⁹⁴	2010-2030	Tier 4: general industrial development
9	National Development Plan (NDP) 2030 ⁹⁵	2012-2030	Tier 4: general industrial development
10	Reimagining the Future Strategy (the DTI) ⁹⁶	2019	Tier 4: general industrial development

Assessment I (Table 4.6)

ENGENDERING OF THE POLICY

The policies of the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector, the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE), the Department of Environmental Affairs Strategic Plan, and the National Development Plan (NDP) 2030 are gender mainstreamed. The other policies that have limited mention of "gender" or "women" are the National Green Fund, Green Transport Strategy and the Integrated Resource Plan (IRP) 2019. Beyond this, all the policies have more room to address gender equality, gender stereotypes and include sex-disaggregated data.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

The policies do consider structural reasons beyond the individual level that impact gender equality, such as the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE), the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector, the National Waste Management Strategy (NWMS), and the National Development Plan (NDP) 2030. There is some structural understanding of gender equality in the National Green Fund, Green Transport Strategy, and Re-imagining the Future Strategy (the DTI).

⁸⁶ These policies were selected by the Project's Country Coordinator and National Focal Points using selection criteria listed on page 27 of this report (see appendix 1). Using these criteria, the Project Country Coordinator and National Focal Points narrowed their selection to 10 policies based on consultation with national stakeholders.

⁸⁷ Department of Environmental Affairs, Republic of South Africa. National Green Fund (2012). Pretoria, South Africa: Department of Environmental Affairs.

⁸⁸ Department of Transport, Republic of South Africa. (2018). Green Transport Strategy (2018-2050). Pretoria, South Africa: Department of Transport.

⁸⁹ Department of Mineral Resources and Energy, Republic of South Africa. Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) (2017).

⁹⁰ Department of Environment, Forestry, and Fisheries, Republic of South Africa. (2011). The National Waste Management Strategy (NWMS) (2011). Pretoria, South Africa.

⁹¹ Department of Environmental Affairs, Republic of South Africa. (2018). Climate Change Bill (2018). Pretoria, South Africa: Department of Environmental Affairs.

⁹² Department of Environment, Forestry, and Fisheries, Republic of South Africa. (2020). Department of Environmental Affairs Strategic Plan (2019/20 to 2023/24). Pretoria, South Africa.

⁹³ Department of Environmental Affairs, Republic of South Africa. The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector (2016-2021). Pretoria, South Africa.

⁹⁴ Department of Mineral Resources and Energy Republic of South Africa. (2019). The Integrated Resource Plan (IRP) 2019 (2010-2030). Pretoria, South Africa: Department of Mineral Resources and Energy.

⁹⁵ South African Government. National Development Plan (NDP) 2030 (2012-2030). Pretoria, South Africa.

⁹⁶ The DTIC (2019) Re-imagining the Future Strategy. Pretoria, South Africa.

INTERSECTIONALITY

Satisfactory consideration is given to the intersection of gender with other factors such as disability, race, youth and/or rurality in policies such as the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE), the Department of Environmental Affairs Strategic Plan, the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector, the National Development Plan (NDP) 2030, and Re-imagining the Future Strategy (the DTI). The aforementioned policies and strategies all address women and other vulnerable groups such as children, the elderly, and ethnic and religious minorities.

WOMEN'S EMPOWERMENT

The South African Government has committed itself to advocating for gender equality and the empowerment of women; however, consideration given to women's empowerment beyond strategic plans and programmes is still limited. For example the more notable policies include: the National Development Plan (NDP) 2030, the DMRE's policy on Women's Empowerment and Equality (WEGE); and the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector.

It is worth noting the following:

- The development of the Gender Mainstreaming Environment strategy included women's advocates in the formulation of policy, through the "Women in Environment Dialogue," hosted by the then Deputy Minister of the former Department of Environment Affairs. In the future, the "Re-imagining the Future Strategy," led by the DTIC, would present an additional opportunity to enhance gender mainstreaming in green energy policy.
- South African green industrial policy generally does not build on previous national gender-equality measures. This is a missed opportunity given the robust national framework in place to ensure gender equality.

INCREMENTAL TRANSFORMATION

Generally, the policies do not build on previous national gender-equality achievements and policies. Exemptions to this rule include policies enacted by the Department of Mineral Resources and Energy (DMRE) on Women's Empowerment and Gender Equality (WEGE), the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector, and the National Development Plan (NDP) 2030.

GENDER-RESPONSIVENESS

The policies that touch upon gender responsiveness are the National Green Fund, the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE), the National Development Plan (NDP) 2030, and the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector. The remaining policies consider ways to challenge and overcome gender norms and social traditions that impair women's involvement in the green industry.

REGIONAL AND INTERNATIONAL CONTEXTUALISATION

Policies and programmes such as the National Green Fund, the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE), the Climate Change Bill, the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector, and the National Development Plan (NDP) 2030 have regional and international contextualisation. For example, the National Development Plan (NDP) 2030 builds on foundational international normative frameworks, including the Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW); while the Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) builds upon the following international policies:

- CEDAW
- African Union Protocol to the Charter on Human and People's Rights on the Rights of Women in Africa
- 2030 Agenda for sustainable development
- The Beijing Platform for Action.

Table 4.6: Summary table of assessment I

National laws, policies and strategies assessed	Engendering of the policy	Structural understanding of gender equality	Intersectionality	Women's empowerment	Incremental transformation	Gender responsive industrial policies	Regional/ international context	Total Score
National Green Fund (2012)	3/5	0.5/1	0.5/1	2.5/4	0.5/1	2.5/3	1/1	10.5/16
Green Transport Strategy (2018-2050)	0.5/5	0.5/1	0.5/1	0.5/4	0/1	0.5/3	0.5/1	3/16
Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) (2017)	4.5/5	1/1	1/1	3.5/4	1/1	2.5/3	1/1	14.5/16
The National Waste Management Strategy (NWMS) (2011)	0/5	0/1	0/1	0/4	0/1	0/3	0/1	0/16
Climate Change Bill (2018)	0/5	0/1	0/1	0.5/4	0/1	0/3	1/1	1.5/16
Department of Environmental Affairs Strategic Plan (2019/20 to 2023/24)	4.5/5	0/1	1/1	1.5/4	0.5/1	1.5/3	0.5/1	9.5/16
The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector (2016-2021)	5/5	1/1	1/1	3.5/4	1/1	2/3	1/1	14.5/16
The Integrated Resource Plan (IRP) 2019 (2010-2030)	0.5/5	0/1	0/1	0/4	0.5/1	0/3	0.5/1	1.5/16
National Development Plan (NDP) 2030 (2012-2030)	4.5/5	1/1	1/1	2.5/4	1/1	2.5/3	1/1	13.5/16
Re-imagining the Future Strategy (The DTI) (2019)	0/5	0.5/1	1/1	2/4	0.5/1	0/3	0.5/1	4.5/16

Table Keys: 1=The policy meets the criteria; 0.5= The policy meets the criteria to a certain extent; 0= The policy poorly meets the criteria

Assessment II (Table 4.7)

Six of the policies do not mention “gender” in the conclusion as specific targets, commitments, indicators and/or “next steps” regarding gender planning. The Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) and the Framework and Strategy towards Gender Mainstreaming in the Environmental Sector have highly relevant gender-responsive conclusions; while the National Development Plan (NDP) 2030 has some basic gender conclusions.

Table 4.3: Summary table assessment II

No.	Name	Year	Score
1	National Green Fund	2012	2
2	Green Transport Strategy	2018-2050	0
3	Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE)	2017	4
4	National Waste Management Strategy	2011	0
5	National Climate Change Bill	2018	0
6	Department of Environmental Affairs Strategic Plan 2019/20 to 2023/24	2019/20 to 2023/24	0
7	The Framework and Strategy towards gender mainstreaming in the environmental sector	2016-2021	4
8	The Integrated Resource Plan	2010-2030	0
9	National Development Plan (NDP) 2030	2012-2030	3
10	Imagining the Future Strategy (DTIC)	2019	0

Table Keys: 0= No mention of gender in the conclusion; 1= Irrelevant/tokenistic conclusion; 2= Has some sex but not gender conclusions; 3= Has some gender conclusions but basic or unhelpful; 4= Highly relevant gender-responsive conclusion

Assessment III (Table 4.8)

The policies have solid implementation plans but there is limited documentation on the current level of implementation, with the exception of the National Green Fund. As a result, it is unclear the extent to which the policies have been implemented.

Table 4.8: Summary table of level of Implementation for each policy

Name	Level of Implementation	Score
1. National Green Fund	Has been fully implemented, as evidenced by the summary document of all projects that are already underway and the amount of employment resulting from these projects.	1.0
2. Green Transport Strategy	Has a good implementation plan, but due to the 2018-2050 implementation time frame, it is difficult to tell if it has been implemented yet. It has an implementation strategy, ranging from short term goals of 5-7 years to long-term goals of 11-20 years. The GTS will also implement an internal review period set to take place every three years in order to ensure that the strategic interventions within the strategy are being implemented judiciously.	0.5
3. Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE)	Has a good implementation plan, but no documents are available online regarding its proposed internal reviews. Only the draft document from 2017 is available online, making it difficult to tell if the policy has been implemented or whether or not it has even been formalised past the draft stage.	0.5
4. The National Waste Management Strategy (NWMS)	<p>The Minister of Environment, Forestry and Fisheries established the NWMS, which has been implemented since 2011. Section 6(5) of the Waste Act stipulates that the NWMS must be reviewed by the Minister at intervals of no more than 5 years. Since 2017, the Department of Environment, Forestry and Fisheries has conducted a comprehensive review of the existing National Waste Management Strategy, and an updated and revised National Waste Management Strategy draft has been developed.</p> <p>The revised and updated Strategy was published in the Government Gazette 42879 (Notice No. 1561) on 3 December 2019. It builds on the successes and lessons learned from the National Waste Management Strategy since its implementation in 2011.</p>	1.0
5. Climate Change Bill	<p>Implementation is moving slowly: the National Climate Change Bill has not yet been approved. The bill is currently being debated by the National Economic Development and Labour Council (Nedlac).</p> <p>Once the second draft of the bill leaves Nedlac, it will return to the department for input from social partners – business, government and labour – to be considered and incorporated into what will be a third and final draft of the bill. This will then be forwarded to Cabinet for approval before being tabled in Parliament.</p>	0
6. Department of Environment, Forestry and Fisheries Strategic Plan	With the implementation timeframe being from 2019/20 to 2023/24, it is too soon to ascertain how well this is being implemented. However, what can be said is that the DEFF publishes an Annual Performance Plan. This publicly available document demonstrates a commitment to public monitoring and evaluation. From the Annual Performance Plan 2019/2020 tables on strategic objectives; it includes Audited/ Actual performance in 2015/16, 2016/17 and 2017/18. It also includes estimated performance 2018/19 and medium-term targets for 2019-2022.	0.5
7. The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector	2018-2019 had a mid-term review of implementation progress, which is not publicly available but would shed light on the current level of implementation. 2019-2020 is the Impact evaluation stage and in 2020-2021, the sector gender strategy for 2021-2026 will be released.	0.5
8. The Integrated Resource Plan (IRP) 2019	<p>As this was only created in 2019, it is difficult to tell if it has been implemented yet. The 2018 policy draft was open for public comments, a summary of which stressed that “the IRP must be revised more regularly, at least every 2-3 years, due to technology advancements and changes in other assumptions.”⁹⁷ This suggests that currently the IRP is not revised regularly enough. It did not have a clear plan for monitoring, evaluation and implementation. However, it is possible to reflect on the implementation of the IRP from 2010 onwards. Since the promulgated IRP 2010–2030, the following capacity developments have taken place:</p> <ul style="list-style-type: none">- A total 6,422 MW under the Renewable Energy Independent Power Producers Programme (REIPPP) has been procured, with 3,876 MW operational and made available to the grid.- In addition, IPPs have commissioned 1,005 MW from two Open Cycle Gas Turbine (OCGT) peaking plants.- Under the Eskom built programme, the following capacity has been commissioned: 1,332 MW of Ingula pumped storage, 1 588 MW of Medupi, 800 MW of Kusile and 100 MW of Sere Wind Farm.- In total, 18,000 MW of new power generation capacity has been committed.	0.5

⁹⁷ Department of Mineral Resources and Energy, Republic of South Africa. (2019). The Integrated Resource Plan (IRP) 2019 (2010-2030). Pretoria, South Africa p56.

9. National Development Plan (NDP) 2030	In a study on governance in South Africa, released in 2019 the following comments were made with regards to the implementation of the NDP, by interviewing government, academics and practitioners: “There is also a proposal to create a forum focused on implementing the NDC so that for each of the flagship programmes there is a lead department that assembles and coordinates implementation teams.” ⁹⁸ “As South Africa moves to implement the NDCs, cities need to be part of a nationally coordinated approach and the national government should commit to interacting with local government representatives in a more structured and regular way.” ⁹⁹	0.5
10 Reimagining the Future Strategy (The DTI)	The overall progress of IDP implementation is on track. It is highlighted through achievements of the IDP’s three set targets and four key concrete measures. Close collaboration between relevant ministries, agencies and sub-national administrations; and effective use of resources are key to successful implementation.	0

Table Keys: 1=The policy has been fully implemented; 0.5= The policy has been partially implemented 0= The policy has not been implemented.

⁹⁸ Averchenkova A, Gannon KE, Patrick C (2019). Governance of climate change policy: A case study of South Africa. London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science.

⁹⁹ Ibid.



5. Assessing women's engagement as entrepreneurs and industry professionals in green industry

This section addresses research question 1: “*What are the key country specific drivers and engagements as entrepreneurs and industry professionals in green industry?*” using the collected primary quantitative and qualitative data. The key factors underpinning women’s economic empowerment in green industry are also identified and analysed.

5.1 Women's engagement in green industry as entrepreneurs

Waste management and agriculture were highlighted in key informant interviews as the sectors with the most potential for women entrepreneurs. It was emphasized that as women have traditionally played a role in these industries, they face fewer barriers in becoming entrepreneurs than they do in other sectors without a history of women's participation. As one female entrepreneur in the cleantech industry stated: *"I think there are a lot of opportunities there (in the waste management sector)".*¹⁰⁰

Renewable energy is also a growing sector with successful examples of female entrepreneurs. However, many interviewees also highlighted that in the energy space, roles that they referred to as "technical", such as those requiring advanced degrees in biological sciences, technology, engineering and math, are dominated by men.

While funds exist that are aimed at investing in women-owned businesses, women interviewees highlighted that they still lack access to networks, markets, technical skills and information. However, **more women are becoming entrepreneurs in green industry than in conventional industries and there is a strong perception that there are more opportunities for women to progress on an equal playing field in green industry:** *"In the sustainable space, it's levelled out because technology is doing much of the manual or the hard labour, so there isn't this expectation of men to be there, to do hard work while women do the soft-skilled work. Everybody is equally participating because technology is levelling the playing field".*¹⁰¹

Beyond these observations, the ability to assess women's participation in green industry is complicated by the lack of data – at any level (national, provincial, local) or sub-sector. The online survey we employed contributes to filling this gap, and the small but robust sample of 23 green entrepreneurs that completed the online survey sheds a light on the lives of women entrepreneurs operating in the green sector and provides an interesting baseline of characteristics, challenges and perspectives.

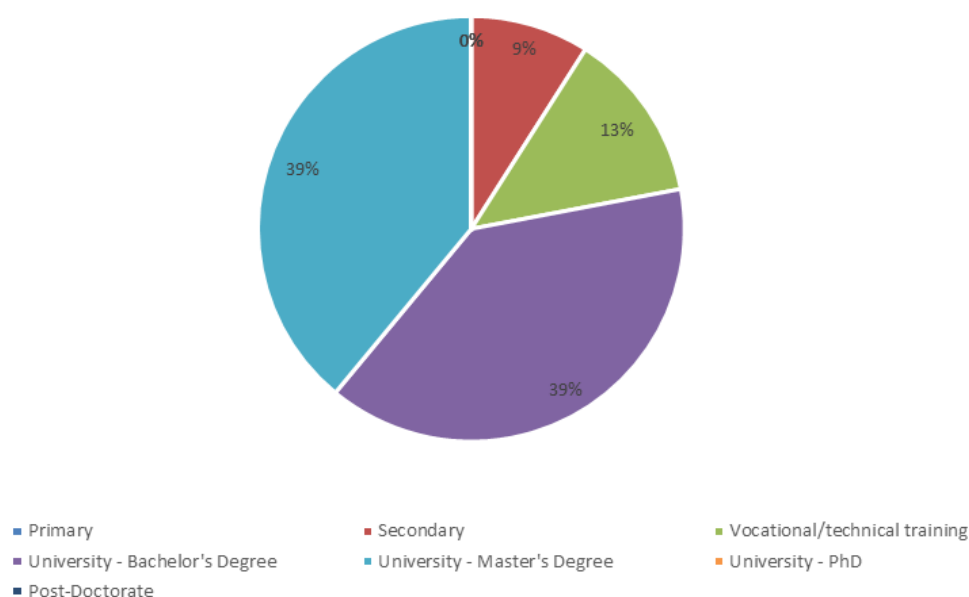
See Table 5.1 below for the basic demographic information of the sample survey population.

Table 5.1: Demographics of women entrepreneurs sampled

Demographics	
Average age	46
Age range	29-61
% Vocational training	13%
% Master's degree	39%
% Married	52%
% With children	78%

Survey participants were highly educated, with most holding a University – Bachelor's degree (39%) or a University-Master's degree (39%) (see Figure 5.1).

Figure 5.2: Highest level of education achieved among green entrepreneurs sampled (n=23)



¹⁰⁰ Woman, Business, KII, Executive Manager, Cleantech, Clean technology, East London, SA.

¹⁰¹ KIII, Woman, Programme Manager, Low Carbon Transport, UNIDO, Transport, Policy Maker, Pretoria.

The survey also captured general business information on women entrepreneurs, which is presented in Table 5.2. The survey participants overwhelmingly operated their businesses on a full-time basis (91%).

Table 5.2: General business information

General business information	
Average # of years in business in operation	8
Range # of years business in operation	1-24
Average # of men employed	2
Average # of women employed	3
Full time	91%
Leadership Positions	Average (range)
Average # women in leadership	1.52 (0-5)
Average # of men in leadership	1 (0-3)

In addition to multiple-choice and ranking questions in the survey, there were several open-ended questions where entrepreneurs could share their experiences more in-depth. We were particularly interested in how green entrepreneurs started their businesses, who influenced their decisions and where they obtained their skills. Figure 5.2 presents several stories of how these green entrepreneurs got their start:

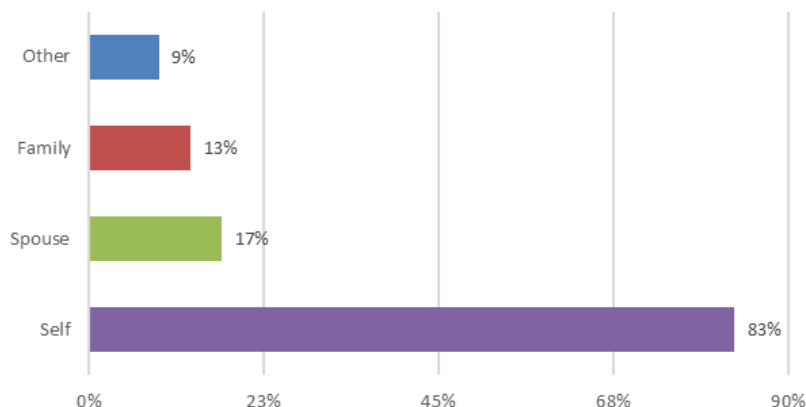
Figure 5.2: Green entrepreneurs and their stories of getting started

Why did you start your business?
<i>“I didn’t want to be boxed in as was the case in corporate. I wanted to solve problems, but most importantly use all my talents to make a difference to my country. I wanted to advise SMEs that it is possible to create sustainable enterprises that support sustainability irrespective of their size” (Respondent #3, South Africa).</i>
<i>“In order to make a difference and develop energy projects through Africa. I am passionate about energy, water and agriculture and using opportunities to drive economic development and business resilience” (Respondent #7, South Africa).</i>
<i>“I saw a need for the services - there was a definite gap in the market for a go between with waste generators and waste management companies. I also wanted to spend more time with my son and have flexibility to be available for him when he went to school” (Respondent #12, South Africa).</i>
<i>“To be able to pursue my dreams, make an impact and provide a legacy for my family. Starting the business was also to help me take control over my time and mobility when I became a mom” (Respondent #16, South Africa).</i>
<i>“In order to breastfeed my son” (Respondent #19, South Africa).</i>
<i>“Working for corporate did not allow me to follow my passions. I recognized that there was a gap between Government and “green” imperatives and the implementation thereof. My company fills the gap between goal and action” (Respondent #22, South Africa).</i>
<i>“To take control of my time and the things that are important to me. To take part in matters that are in line with my interests” (Respondent #23, South Africa).</i>

These narratives capture several important themes. These green entrepreneurs were following their passions, maximizing their skill sets outside of traditional corporate environments, and also creating opportunities that are aligned with their diverse roles as caregivers. These themes were also evident in the key informant interviews with green entrepreneurs. Most respondents (83%) identified as “self-starters” in that they decided to start their business on their own initiative (Figure 5.3).

It is interesting that while gender norms and sexist stereotypes were frequently highlighted in interviews as barriers, only 17% of respondents considered whether they would be judged negatively by their family when starting their businesses. Among other motivations, 87% of entrepreneurs reported their concern for the environment had a bearing on them starting their business.

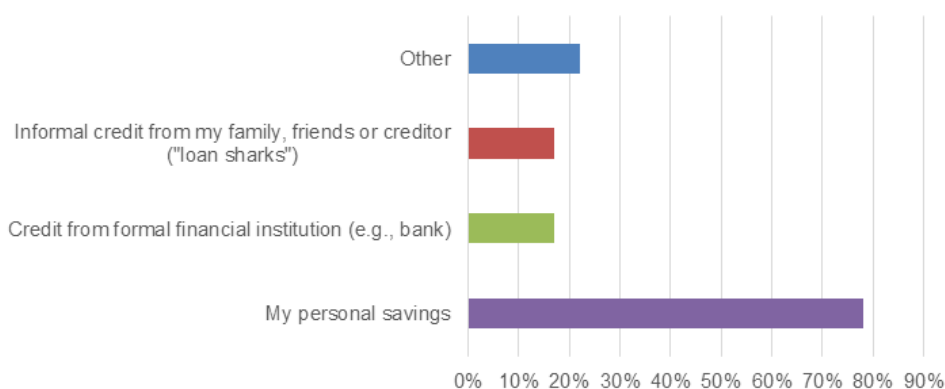
Figure 5.3: Who influenced your decision to start your business? (n=23)



Funding emerged as a key barrier in both the surveys and interviews to starting and maintaining businesses. This is covered more in-depth in the next section, but some statistics are provided here to contextualise the start-up phase for entrepreneurs’ operations. For example, 78% of participants reported their seed money/start-up capital as derived from their personal savings (Figure 5.4).

See Fig. 5.4. for responses to, “When you decided to start your business, where did you find seed funding and start-up capital?”

Figure 5.4: When you decided to start your business, where did you find the seed money/start-up capital? (n=23)



In acquiring the technical knowledge to start their businesses and managerial skills to turn their businesses, participants also predominately listed themselves as self-taught (Figures 5.5 and 5.6, respectively). This was followed by formal training at an educational institution, with a mix of personal mentors and internet resources also used.

Figure 5.5: Where did you acquire the technical knowledge to start your business? (n=23)

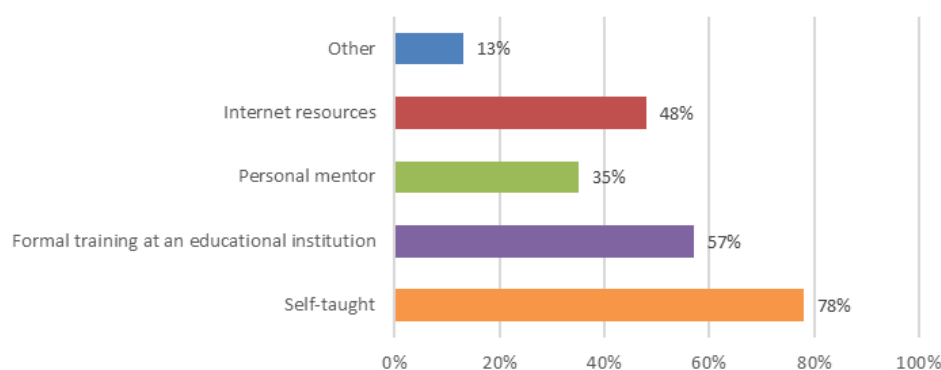
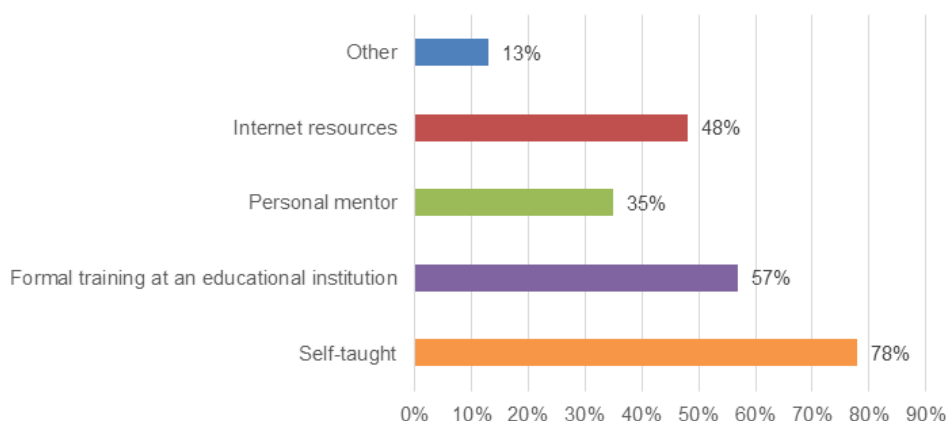


Figure 5.6: Where did you acquire the managerial skills to run your business? (n=23)



Additional reporting on the barriers and opportunities facing green entrepreneurs are included in the next two sections of the report.

5.2 Assessing women's engagement as green industry professionals

Participants in focus group discussions shared the perception that women are entering the green industry because they want to make a positive difference. *"I am seeing a lot of women who are interested, willing to learn and willing to have careers in the green industry space. I think the reason is that everyone wants to have a sense of having contributed. Most women inherently want to do just that, they want to contribute to the growth of the economy and the solutions to the energy issues in our country."*¹⁰²

Some women also stated that as women, they feel more connected to the green industry, due to a feeling of connection to nature.¹⁰³ Reasons given for this feeling of connection were articulated as being part of women's traditional or historical roles that involve the lived environment, including but not limited to natural resource management, subsistence farming and "nurturing" roles.

In terms of green industry working culture, women green industry entrepreneurs frequently stated that they found men in green industry to be more supportive and easier to work with than in traditional industries.

Those interviewed outlined some of the positive skills that women bring to green industry as:

- The ability to look at problems more holistically and think outside of silos;
- The desire to make the world a better place;
- Emotional intelligence;
- Strong interpersonal skills and conflict management skills;
- Problem-solving and critical thinking skills;
- Teaching and leadership skills;
- Community mobilization skills; and
- Determination and commitment.

On multiple occasions, women respondents highlighted that they did not believe they need to become like men in order to succeed, but instead should celebrate their differences and the positive attributes that women can bring: "You don't need to be as strong, vocally as a

¹⁰² KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa.

¹⁰³ Woman, Focus group participant, Pretoria, South Africa.

man... and all as authoritative, to be a good leader. You can be a good leader that listens. In fact, the best leaders are the ones that listen.”¹⁰⁴

Gendered division of labour in green industry among professionals

The energy sector has been highlighted¹⁰⁵ as a sector with entrenched gender inequalities:

*“It’s still pretty old and male-dominated, and white for that matter.”*¹⁰⁶ In contrast, agriculture is perceived as a sector in which women have always been involved informally as small-scale subsistence crop growers: *“In our country women are more engaged in agriculture as a whole.”*¹⁰⁷

Interviewees highlighted that they are seeing more women innovating in the waste management sector. Whilst this is a sector that has not historically excluded women, some participants noted a segregation between the roles of men and women, with women primarily responsible for sorting rubbish and men for collecting it. These differences are said to have naturally formed over time with nobody knowing where they came from, rather than being based on local beliefs that men and women are inherently suited to these different roles. There was optimism that these roles could change as women become entrepreneurs and leaders in the sector.

There is also a division according to technical and top management jobs, as opposed to “lower” roles, which were defined as middle-management, administrative or secretarial jobs.¹⁰⁸ There were also said to be persisting inequalities in terms of more women being in the informal sector and more men in the formal sector. This is in line with the statistics for Sub-Saharan Africa, in which 74% of women work in the informal sector. Most interviewees concluded that in terms of public-sector environmental roles, women’s participation was higher than in the private sector, where inequalities persisted. Participants attributed this to various reasons, including the following: private companies may hold meetings at unsociable hours for mothers; there is more of a sexist culture that persists in certain private industry sectors whereby expectations of the roles of women have not changed; the private sector may be more likely to discriminate based on a woman’s potential to take maternity leave because profit is their bottom line; and finally, private companies are not subject to as much scrutiny as government and are not held as accountable: *“[Company name redacted] is a private enterprise, so they are not subject to the same censure that the government is. They just did as they pleased.”* These barriers, among others, are discussed in greater detail in the following section.

¹⁰⁴ KIII, Woman, Executive Manager, East London, SA.

¹⁰⁵ Highlighted by participants: 19, 3, 6, 12, 17, 22.

¹⁰⁶ KIII, Woman, Vice Chair and Regional Project Manager, Energy, Pretoria, SA.

¹⁰⁷ KIII, Woman, Regional Manager, Sandton, South Africa.

¹⁰⁸ This division between ‘lower’ and higher positions was mentioned on 43 occasions by 19 participants.

The background is a photograph of a road with a dashed white center line, flanked by green grass and trees, all under a blue tint. In the foreground, a circular road sign with a red border and a white center is visible. Below the sign is a white and red striped barrier.

6. Barriers

The next two sections address research question 1 *“What are the key country specific needs, specific drivers and constraints to women accessing and benefitting equally from the advancement of green industry as industry professionals and as entrepreneurs?”* using the primary quantitative and qualitative data collected. The key factors underpinning women’s economic empowerment in green industry are also identified and analysed.

6.1 Online survey findings

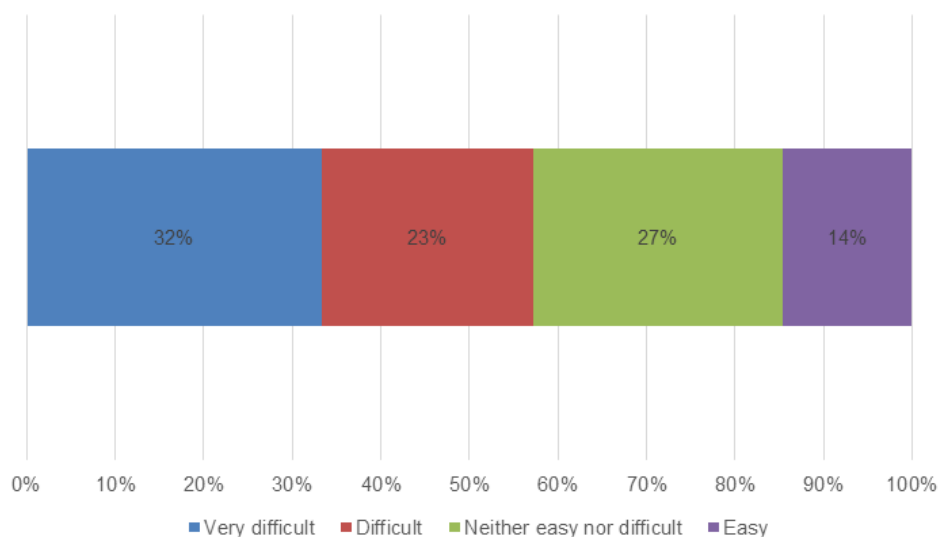
As depicted in Figure 6.1, green entrepreneurs reported the lack of access to markets at which they could sell products as the biggest barrier (50%) to business as a female entrepreneur. This was followed by sexual harassment and access to basic supplies for a business to operate (32%), kickbacks¹⁰⁹ and training courses (27%), obtaining a license to run a business (23%), and dealing with law enforcement officials (14%).

Figure 6.1: Based on your experiences as a female entrepreneur, have you ever faced any barriers in the following areas? (n=22)



In a separate question, 55% of female green entrepreneurs were asked if it is more difficult or much more difficult to identify new markets compared to men (Figure 6.2).

Figure 6.2: How easy is it to identify and access new markets for your business compared to men? (n=22)



When asked to explain their answers more fully in regards to identifying and accessing new markets, several participants shared their perspectives (see Figure 6.3 Barriers in identifying and accessing new markets).

Figure 6.3 Respondents further explained their answers to identifying and accessing new markets:

*“Men still prefer to do business with other men especially in the technical environment”
(Respondent #3, South Africa).*

¹⁰⁹ Kickbacks' defined in the survey as a percentage of income given to a person in a position of power or influence as payment for having made the income.

“The energy industry is very male dominated, and they often meet socially - ‘old boys club’ mentality. If you don’t want to participate in this, then you are often excluded from business deals” (Respondent #7, South Africa).

“When dealing with Industrial Manufacturing and selling your service in Energy Management and Energy Management Systems, dealing with mainly male engineers, they tend to have more confidence in fellow MALE Engineers!” (Respondent #2, South Africa)

“The renewable sector is very much a “white male” dominated space, they have created their own cliques and only work amongst themselves, and that create a very big stumbling block to operate a successful business. It’s even worse working with government because of corruption and kickbacks expected to entrepreneurs for new information” (Respondent #9, South Africa).

“Men are more established in other built environment markets. Their connections cross over and it makes business sense for them to trade with people they have done business with than new female entrance. Even if females have proven themselves to be great, there’s other market barriers that they confront (Respondent #14, South Africa).

“Engineering is a male dominated field. Few women are invited or accepted as peers” (Respondent #15, South Africa).

“The industry is white male dominated. There’s still a stereotype that men are better than women in manufacturing” (Respondent #18, South Africa).

A series of questions related to credit and growth shed light on how the financial burdens related to increasing production are diversified. One-third of entrepreneurs reported growing their business primarily through their personal savings as opposed to using formal or informal modes of credit lines (Figure 6.4 and Figure 6.5).

Figure 6.4: If you wanted to increase production by 25%, what would be the main source of capital you would use? (n=22)

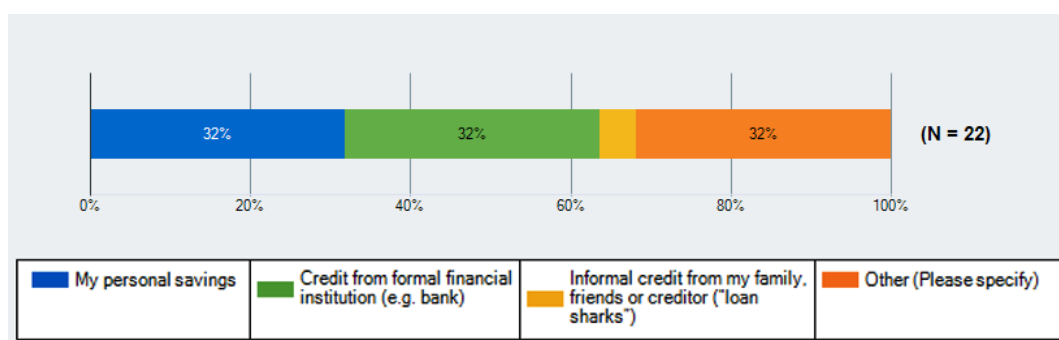
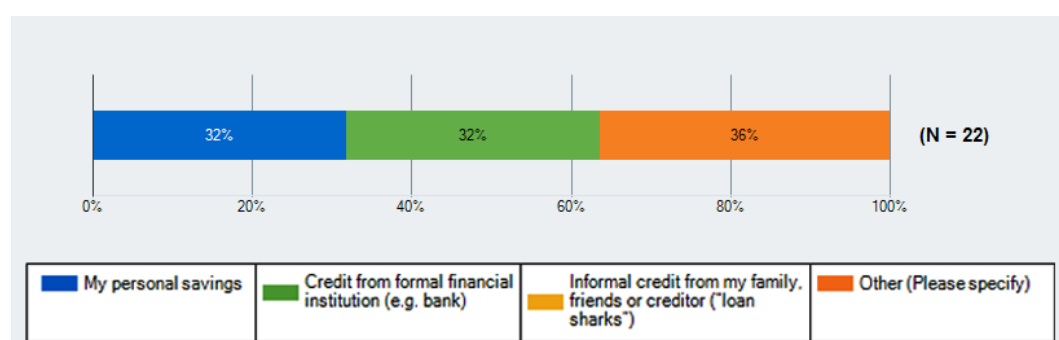


Figure 6.5: If you wanted to increase production by 50%, what would be the main source of capital you would use? (n=22)



Awareness barriers

Barriers to awareness were considerable among women entrepreneurs. For example, only 27% of entrepreneurs reported that they are aware of any policies or programmes that encourage women to start businesses (73% reported no). The names of the policies/programmes they listed were as follows: Ken Morka Foundation, DTIC Women in Industry led by Dr Anneline Chetty, Black Umbrellas, Women in manufacturing, and FEMTECH; the Isivande Women's Fund (IWF); and the Absa empowerment fund. Only 23% of respondents were aware of any policies or programmes encouraging women to start businesses in green industry (77% were not). The names of the policies/programmes they listed were: NCPC, WOESA, and Waste to Wing. Slightly more promising, 55% of entrepreneurs were aware of international green agreements/conventions, while 45% were not. The names of the international green agreements and conventions were as follows: Montreal Protocol, Paris Agreement, Paris Declaration on Electro Mobility & Climate Change COP21| Katowice COP 23 Partnership for e-Mobility | Shared Mobility Principles for Liveable Cities, IPCC, SDGs, UNEP, Global Climate Change Convention, Paris Agreement, PSI, Rotterdam convention; Bemako and Basel conventions, COP27, and the Kyoto protocol.

The main barriers listed for businesses from becoming greener were affordability (50%), current work burden prevents investing in additional labour (36%), lack of access to technology (32%), and lack of awareness on how to make changes (14%) (Figure 6.6).

Figure 6.6: What are the main barriers to your business from becoming greener?

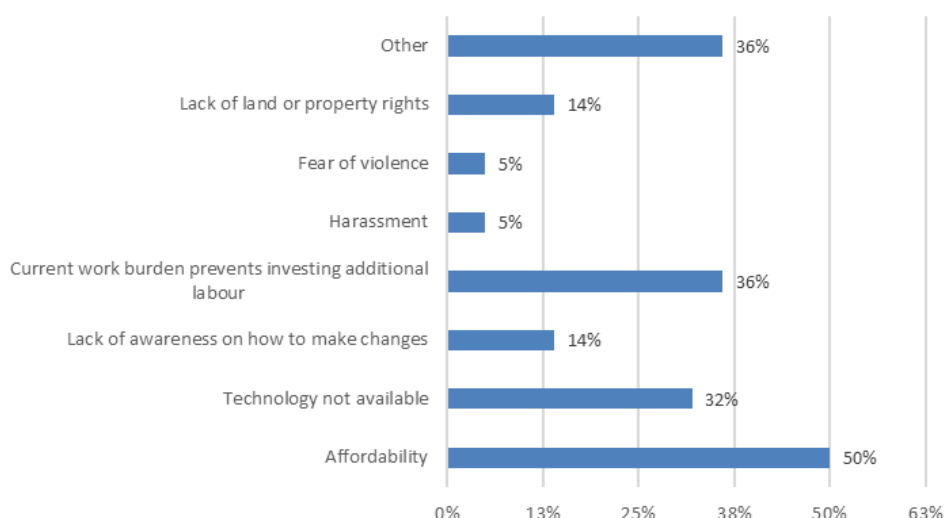


Figure 6.7 presents the open-ended responses to the question, “what other barriers have you faced?”

Figure 6.7: What other barriers have you faced?

“Funding is almost reserved for people with the networks and friendships in the impact investment space, and for a limited range of project types. The current industry trend really stifles growth” (Respondent #20, South Africa).

“The old boys club do open doors for their buddies (who can follow in their tracks). Women have to be trailblazers (and nurturers). Whilst we pay the same as men for whatever the necessities of life, we have to put a lot more effort in “earning” business opportunities” (Respondent #5, South Africa).

“As a woman I need to ‘over perform’, demonstrate, experience, knowledge and industry specific depth in order for suppliers, project owners, government and other players in the energy ecosystem to take me seriously. My male business partners get a significantly warmer reception, but I can’t carry them with me wherever I go; so, I am forced to lead each new encounter with a type of hyper competence. It’s exhausting” (Respondent #20, South Africa).

“Defying social expectations, as a woman I feel as though I need to adopt a stereotypical “male” attitude towards business. Sometimes it’s difficult to remain calm and finding your own voice above preconceived expectations. 1. Dealing with limited or no access to funding and training, 2. Struggling to be taken seriously, 3. Balancing business and family life as a single parent, 4. Coping with failure and fear” (Respondent #9, South Africa).

“Sexual bribery for tenders which I have opted out. Another hindering factor that female entrepreneurs are seen as sex objects” (Respondent #14, South Africa).

“The Transport Sector as a whole / generally speaking in South Africa is hugely male-dominated. The EV sector is no different. Men predominate as researchers and suppliers and more often than not have little understanding of- and compassion for women’s mobility plights... Research is also mostly technically focused and driven at the expense of social factors such as sexism and classism - issues directly affecting women” (Respondent #6, South Africa).

6.2 Findings from the interviews and focus group discussions

Do the barriers in green industry differ from those in conventional industry?

While some interviewees highlighted that the barriers in the emerging green industry shared similarities with the barriers faced by women in conventional industry, there were certain areas of divergence. These can be split into the barriers faced by women as entrepreneurs and as professionals in green industry, and can be split further into the following categories:

1. The barriers faced in sustainable industry are less pronounced than in traditional industry;
2. There are new and different barriers faced in green industry;
3. Some barriers affect women in both green and conventional industry;
4. Some barriers are the same for both women and men but are specific to green industry;
5. Some issues are applicable to women as entrepreneurs and women as professionals in green industry; and
6. Some barriers exist specifically for women as entrepreneurs in green industry.

Barriers faced by women as professionals in green industry

1. The barriers faced in green industry are less pronounced than in conventional industry

1.1 Different skill set required in green industry

One woman¹¹⁰ highlighted that while the conventional transport industry is male-dominated, the green transport industry is not. **This is because the sustainable transport industry requires a new skill set – it requires employees to consider social aspects of transport and socio-economics.** Social sciences are typically more popular with women than with men, and therefore this interviewee spoke of how, in her personal experience, there were more women participating in the sustainable energy space.

One further participant in the same focus group confirmed that the green space requires a different skill set. She stated that it requires “gathering information in a logical way”, but also required employees to “network and have a holistic approach.”¹¹¹ Such a **“holistic” approach was broadly considered by respondents to be something that women excel at, in comparison to men.**

2. *There are new and different barriers faced in green industry*

The barrier highlighted the most times for women in green industry was **education**, whether that be access to specific skills and training, or expert knowledge, because the emerging green industry sectors are new and constantly evolving.¹¹²

¹¹⁰ Woman, Focus group participant, Pretoria, South Africa.

¹¹¹ Woman, Focus group participant, Sandton, South Africa.

¹¹² 16 participants mentioned issues to do with skills, training or education on 52 occasions.

2.1 Technical skills

Green industry requires very specific technical skills. One woman spoke of it being even more difficult in these emerging industries to **gain the correct skills** or to “see where things are shifting”¹¹³, meaning it is difficult to know in which direction the industry will go. If women need to train themselves adequately for the jobs on offer, they need to know which skillset to acquire, and this is difficult in a new and evolving sector.¹¹⁴ This also poses a problem for women as entrepreneurs.

2.2 Specialised knowledge

One woman¹¹⁵ mentioned that in order to participate in green industry, people need to almost be “an expert” in their given field. Because this knowledge is very industry-specific, a higher level of specific knowledge is required than in the conventional industries to “convince” people that you are knowledgeable in the field. This could work to women’s disadvantage if they do not have the specific knowledge required, perhaps due to a lack of opportunities or experience.

2.3 Bias in privileging traditional STEM subjects

One barrier specific to green industry is that new qualifications might not be understood and therefore be considered less important than traditional STEM qualifications. The value of green industry-specific qualifications is not recognised and they are thus deemed less valuable:

*“I am a transport economist and every time I say that to some people, they say wow what’s that because we are used to engineering or these traditional standing qualifications that you would study to go into industry. So, my first internship that I did, even the person who was mentoring me had no idea what I was studying, because he was an engineer and most of the students under him were engineers building roads. I was a transport economist who wanted to make sense out of a lot of things not just economics but also social economics and connecting issues especially transport integration, but I had experienced a lot of young men growing faster than me and so I felt misunderstood. I left that particular department because I had a different qualification that no one could understand - besides being a woman and maybe even introducing the perspective to a superior was even made it worse because I was a young woman, and he wasn’t sure on how to take that approach.”*¹¹⁶

2.4 Women unaware of opportunities

One woman mentioned that she did not have the “luxury” of applying for a green industry job; she was just grateful for any job. She was not aware of the fact that there were and are opportunities to gain employment in a male-dominated sector: *“I didn’t have the opportunity to not work for a company that’s dirty I didn’t have that luxury, and back when I studied, it wasn’t even mentioned, it wasn’t even a consideration.”*¹¹⁷

3. Some barriers are the same for women in green and conventional industry

3.1 Institutionalised racism and sexism

One woman stated that she believed the barriers to be the same in green and conventional industry. These are problems related to men, and white men in particular, wielding the most power: *“Look, I don’t think the challenges faced by women in this industry are that different to any other industry. Honestly, I think it’s pretty much the same; it’s just different layers of white and male.”*¹¹⁸

3.2 Women feel they are in competition instead of collaboration

A lack of solidarity and support between women acts as a barrier to progress for women’s economic empowerment. The fierce competition between women for positions in both the green and conventional industries combined with the scarcity of women in top management positions creates a hostile environment where some women stated that they felt that women were pitted against each other, rather than working together: *“I will either try and isolate her or not fully support her, that happens a lot amongst women.”*¹¹⁹

3.3 Reputational risk

There is a reputational risk associated with working late or travelling and working with men. If they are married women, working away from home for days with another man can be frowned upon: *“In any situation where a married woman must leave with males especially the fact that you are working in a male dominated environment it is bound to create some uneasiness from the partner. For instance, you’ve got a jealous husband obviously the first thing he would say if you will be going out for 5 days with men, is that anything could happen.”*¹²⁰

3.4 Overt discrimination

Despite strong policy against discrimination in the workplace, women still are not being hired if they are of child-bearing age due to a reluctance to hire someone who will go on maternity leave.

113 KIII, Woman, Programme Manager, Pretoria, South Africa

114 KIII, Woman, Programme Manager, Pretoria, South Africa.

115 KIII, Woman, Programme Manager, Pretoria, South Africa.

116 Woman, Focus group participant, Pretoria, South Africa.

117 Woman, Focus group participant, Pretoria, South Africa.

118 KIII, Woman, Energy Analyst, Pretoria, South Africa.

119 Woman, Focus group participant, Pretoria, South Africa.

120 KIII, Woman, Corporate Specialist, Pretoria, South Africa

3.5 Covert discrimination

Some participants believed it was more difficult for them to be taken seriously and that there were not being respected in the workplace. An example is routinely underestimating the capabilities of women: *“One woman who is an engineer and she was on a construction site and a lot of the males were you know, no sit down, you don’t have to do anything, you don’t have to carry anything, we’ll do all the hard work. She said she didn’t feel like it was chivalry, she felt excluded. They end up excluding you from a real learning and work experience because of your gender.”*¹²¹

3.6 Travel commitments

Some participants highlighted that there are often hidden barriers that males in management would not take into consideration. These involved travel commitments or holding events after hours: *“I had to travel too much that I stopped. There were like three trips in a week.”*¹²²

4. Some barriers exist specifically in green industry, but for both women and men. These barriers, however, apply mostly to women as entrepreneurs and leaders in green industry:

4.1 A lack of knowledge regarding the benefits of “greening” business

*“Sometimes, the barrier is that people don’t realize that greening your processes is actually optimal to ensuring that your production and, your business is sustainable in the long run.”*¹²³

4.2 Increased risk

One woman stated that because of the rapidly changing nature of the sector, and the rapidly changing technology and sustainability solutions, the *“risk factor is larger.”*¹²⁴

4.3 Pushback from conventional industry

One problem comes from the conventional industry lobbyists: *“There is a lot of pushback from the coal sector towards green energy because they want to continue existing.”*¹²⁵

4.4 Procurement of technology

*“The government does not have solid legislation frameworks to promote procurement of innovation in general and that affects green technology specifically and so you will find all this promising technology that are developed by entrepreneurs with challenges in accessing the markets.”*¹²⁶

5. Some issues are applicable to women as entrepreneurs and women as professionals in green industry:

5.1 One woman mentioned that whilst women are increasingly going into fields such as engineering, they are not yet aware of the opportunities available to them in the emerging green industry. This could pose a problem for women both as workers and as entrepreneurs: *“They are still fewer than they should be - maybe they don’t fully understand, or still see more opportunities in the conventional industry.”*¹²⁷

5.2 Violence against women is prevalent across all industries in South Africa

*“So it’s not just about Green Industries - unfortunately the reality is that women are not safe at all places in the country.”*¹²⁸

5.3 Limited access to technology

One woman mentioned that the technology required in the new green industry might be a barrier to women, especially those without access to technology, internet or electricity in rural areas. One analogy that she gave was with smartphone technology: *“If you talk about women and access - they have learned in many countries, including in this country, that if you compare who has the smartphone technologies and who hasn’t, women come last.”*¹²⁹

5.4 Women lacking self-confidence

Participants stated that they often saw women lacking confidence in their own abilities. They stated that women may not be assertive enough to be taken seriously in male-dominated settings. A more welcoming culture would encourage more women to feel comfortable to speak up when working as professionals and enable them to progress in their careers. Self-confidence is imperative for women entrepreneurs; calculated risk-taking and confidence in their business are necessary for success.

5.5 Care responsibilities

In the private sphere, women have significant unpaid responsibilities due to cultural expectations. When women work for them-

121 KIII, Women, Policymaker, Programme Manager, Pretoria, South Africa.

122 Woman, Focus group participant, Sandton, South Africa.

123 KIII, Woman, Engineer, Pretoria, South Africa.

124 KIII, Woman, Policy Maker, Johannesburg, South Africa.

125 KIII, Woman, CEO, Pretoria, South Africa.

126 KIII, Woman, General Manager, Pretoria, South Africa.

127 KIII, Woman, Chief Director, Ministry, Pretoria, South Africa.

128 KIII, Woman, Deputy Director, Ministry, Pretoria, South Africa.

129 KIII, Woman, Executive Director, Pretoria, South Africa.

selves, they have no labour protections such as paid maternity leave and cannot take sick leave. This is where a lack of support for care responsibilities at home can make or break a business: *“I saw a cartoon that was very visually accurate. It had a racetrack and there were men and women at the starting line, starting at the same place. Along the female’s path there was an ironing board and children and on the men’s side there was nothing except cheering.”*¹³⁰

6. Some barriers exist specifically for women as entrepreneurs in green industry

6.1 The private sector can be worse for women leaders

Some women split green industry into the public and private sector.¹³¹ One woman stated that in the environmental public sector, there are more women in leadership positions, whereas in the energy private sector, there are more men in leadership positions. This could be a disadvantage to women seeking to be entrepreneurs, as entrepreneurship is not protected by any kind of quota.

6.2 Women lack exposure and experience in established networks

One problem that is specific to the renewable energy space has to do with “REIPPP” contracts or the “Renewable Energy Independent Power Procurement Programme.” For women who are bidding to run these renewable energy contracts, they speak of being outbid. This is because they *“do not have the backing of big investors and the big companies are always trying to muscle them out.”*¹³² The renewable energy sector is relatively new, therefore women running business and competing for contracts tend to be inexperienced and new to the sector. They are competing with established companies who have moved from the traditional energy space to the renewable space. This creates a power imbalance, with the established firms outbidding and winning the contracts: *“Most women, the female newer companies do not have that and if they have that they are already choked out by the big investors who are just trying to muscle them out and leave them with very little to make decisions.”*¹³³

Intersectional inequalities as barriers to advancement and transformation

Participants raised concerns that those who lie at the intersection of multiple axes of oppression, such as race and gender, will struggle more: *“Women of colour have greater challenges, they maybe have the greatest challenges, even if you look at your unemployment levels, women of colour are the ones experiencing the highest unemployment levels. In contrast, those that are employed would tend to be white men.”*¹³⁴

While employment levels appear to be improving for women, participants noted that this is mostly an improvement for white women. Whilst some participants spoke of Europeans getting high-up roles in international organisations in South Africa: *“you’d find most women that are working within this industry are expats,”*¹³⁵ others spoke of it being difficult for “non-indigenous” people to find work in South Africa.¹³⁶ The divide here might be due to the distinction between “expats” and immigration from other African nations. Finding employment in South Africa is especially difficult for those who are non-indigenous, non-white and female, with one participant stating that foreigners *“do not stand a chance.”*¹³⁷

One woman entrepreneur in green industry highlighted that things got so difficult that she had to create an alias, a fake white man to own her company, due to the amount of ingrained prejudice against women, particularly black women, in “technical” positions:

*“There are more men than women in this industry. I started the company with a friend. After a while I went off on my own. We struggled a lot even with convincing the clients. If you go into the technical space, there is a hesitance about whether women really know what they are doing. It was so bad I ended up having to create a man who was supposedly the owner. His name was John Adams or something. When we approach clients, we would refer to him, we came up with an email address and a physical address. Having a white man being the one that looks after the females, it gives men a sense of ease that it is not run by women and it worked, and we got business that way. It only became a problem when we wanted to run the business. It was dishonest but I felt that the ends justify the means.”*¹³⁸

The issue of white women occupying the higher roles was also raised:

*“You have people who are communicators and environmentalists, and there are quite a lot of women in the more support and environmental science areas. Many of the sustainability environmental jobs are tended to be filled by women, who were very senior. But they were occupied predominantly by white women. The strategy and management jobs were mostly women and more so white women.”*¹³⁹

Some women also highlighted the intersecting nature of gender with age. In general, participants highlighted that older women with years of experience in a sector tend to be more respected by men than younger women, who may still be treated as inferior or subject to low expectations. Young women often find it hard to be taken seriously, especially if their job role involves giving men instructions. Due to the ways in which patriarchy influences power relations between men and women, and hierarchies that exist between elders and young people, conflict may arise when an older man must follow instructions given by a younger woman. This may lead to feelings of resentment, disobedience or disrespect.

¹³⁰ Woman, Focus group participant, Sandton, South Africa.

¹³¹ KIII, Woman, General Manager, Pretoria, South Africa.

¹³² KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa

¹³³ KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa

¹³⁴ KIII, Woman, Programme Manager, Pretoria, South Africa.

¹³⁵ KIII, Woman, Engineer, Pretoria, South Africa

¹³⁶ KIII, Woman, Regional Manager, Sandton, South Africa

¹³⁷ KIII, Woman, Regional Manager, Sandton, South Africa

¹³⁸ KIII, Woman, MD and Board of Directors, Pretoria, South Africa.

¹³⁹ KIII, Woman, National Co-ordinator, Pretoria, South Africa

Intersections with class were also raised, more specifically the “rural/urban.” divide. In South Africa, class is very much linked to race, due to the history and legacy of the apartheid regime. Finally, whether or not a woman has family responsibilities is also an intersecting factor that accentuates the barriers faced.

To summarise, not all women face the same barriers. A single, older, white middle-class woman from an urban setting and with no childcare responsibilities will not face the same barriers as a young black woman with care responsibilities, from a rural township in South Africa. Disability is a further intersecting factor, though it is not represented in the findings of this study.

Policymakers listed the following barriers to women’s equal participation:

- Lack of access to information;
- Lack of access to facilities that can promote green industry;
- Lack of access to basic technology; and
- Lack of access to finance.

Many policy makers agreed that there needs to be more leadership opportunities for women. Without experience in leadership, when roles become available, women will not have the experience required to fill those roles.

Interviewees did not think that there was any specific policy that was having a negative effect on women’s participation. Policy makers believed both the constitution and policy are strong but there is a lack of implementation, especially in the private sector. Moreover, some good policies are not operationalised or funded. Interviewees were surprised to see the defunding over time of what appeared to be good policies.

Many policy makers voiced that the barriers which existed in green industry were applicable to both women and men. These are barriers related to:

- Green industry being a new and emerging industry;
- There are a number of levies that inflate the cost of doing business;
- The need to de-monopolise the sector or apply an open market approach;
- The industry needs deregulation to allow for the opening of the renewable space; and
- There is a need to formalise the waste economy, but it requires licensing and permits.

6.3 Synthesis: key factors undermining women’s economic empowerment in green industry

Table 6.1: Summary table of barriers to women’s economic empowerment in green industry

Barriers to advancement
Lack of awareness about policies and programmes designed to benefit women and/or encourage participation in green industry
<ul style="list-style-type: none"> - Only 27% of entrepreneurs reported that they are aware of any policies or programmes that encourage women to start businesses. - Only 23% of respondents were aware of any policies or programmes encouraging women to start businesses in green industry.
Green industry requires very specialised technical skills
<ul style="list-style-type: none"> - It is more difficult in these emerging industries to gain the correct skills or to “see where things are shifting,” meaning it is difficult to know in which direction the industry will go. - A more specialised level of knowledge is required compared to conventional industries. - There is a lack of young women taking up STEM subjects, they consequently might be under-qualified for jobs in green industry that require qualifications. - New qualifications in subjects relevant to green industry (e.g., in sustainable transport economics), might not be recognised by those in management and may be perceived as “less than” traditional subjects. - Disconnect between what is taught in school and the skills needed to go into entrepreneurship and green industry.
Lack of access to technology necessary to start green businesses or upscale existing businesses
<ul style="list-style-type: none"> - The technology required in the new green industry is a barrier to women, especially those without access to technology, internet or electricity in rural areas.
Women entrepreneurs have difficulty in finding and hiring skilled workers
<ul style="list-style-type: none"> - 55% reported it would be difficult or very difficult to find women workers with relevant skills.
Women entrepreneurs do not have “experience” aka the historical networks of influence that their male counterparts have, making them easily outbid by “experienced” green players
<ul style="list-style-type: none"> - When women entrepreneurs compete with established players from the conventional industry, they are often outbid or those with more experience are chosen; - Due to a general lack of experience; women do not win contracts for Renewable Energy Independent Power Provider Procurement. This currently has a target of 5% to procure women-owned service providers; a target which is not being met.

Women lack access to mentoring which impacts networks for investment funding and job opportunities
<ul style="list-style-type: none"> - The prevalence of “Boys Clubs” that women do not have access to effectively limits their networks in these industries and makes it difficult to compete with men who can access informal networks more easily gain first-hand access to investment funding and relations of power through these networks. - The industries are male-dominated and therefore men may find out about job opportunities via word of mouth, not online. - Women feel that they have less support and insider knowledge.
Women lack access to necessary capital, collateral and credit resources
<ul style="list-style-type: none"> - 65% of entrepreneurs surveyed think that men have more opportunities to obtain credit for their businesses than women. - Women struggle to provide collateral for loans, due to not owning land or property. - Interviewees felt that even before making it to the investor stage, they also lacked funding to develop their idea into a viable sustainable business.
Women lack access to markets to sell their products
<ul style="list-style-type: none"> - 50% of women entrepreneurs reported lack of access to markets to sell their products as being a key barrier.
Women face other value chain challenges and “hidden costs” of doing business (lack of social capital)
<ul style="list-style-type: none"> - Accessing basic supplies (32%), paying kickbacks (27%), obtaining a license (23%) and dealing with law enforcement (14%) were also listed by women entrepreneurs.

Barriers to transformation
Harmful social norms
<ul style="list-style-type: none"> - Social norms that discourage women from starting businesses - 77% of respondents reported that growing up, they did not feel girls were encouraged to pursue their own businesses; - Social norms that foster working environments of competition over collaboration; - Social norms that discourage women from pursuing careers in STEM and from being taken seriously in tech-focused careers; - Reputational risks associated with working late or traveling/working with men.
Institutionalised and internalised sexism
<ul style="list-style-type: none"> - Women entrepreneurs either lack self-confidence or are pressured to adopt a “hyper self-confidence”.
Caretaking responsibilities
<ul style="list-style-type: none"> - Domestic work burdens/family/caretaking obligations and lack of access to childcare providers - 63% of green entrepreneurs surveyed worry often or always about work-life balance; - Inflexible work schedules clash with childcare needs. 61% of green entrepreneurs worry often or always about childcare arrangements; - Women have had to leave their jobs because too much travel is expected.
Intersectional inequalities
<ul style="list-style-type: none"> - Race, rurality, poverty and gender intersect to create different and multi-faceted vulnerabilities; - Levels of unemployment are highest for black women and management in the energy sector is predominately white men; - Rural women are less likely to have access to technology, information, education and skills and more likely to have traditional home-based responsibilities; - Poor women do not have the “luxury” of applying only for ethical or sustainable jobs in green industry.
Violence and harassment
<ul style="list-style-type: none"> - Violence against women is pervasive. Femicide rates are 6 times the global average; - Only 13% of green businesses in the online survey have written policies preventing sexual harassment.
Discriminatory hiring practices and ineffective quota systems
<ul style="list-style-type: none"> - Not being hired based on the potential of taking maternity leave; - Prevalence of “boys clubs” and gatekeepers; - Current quotas for women often do not include leadership opportunities; - Organisations give women less-skilled positions just to meet gender quotas; - Quotas can lead to women being hired as a token, without the opportunity for them to progress.

7. Opportunities



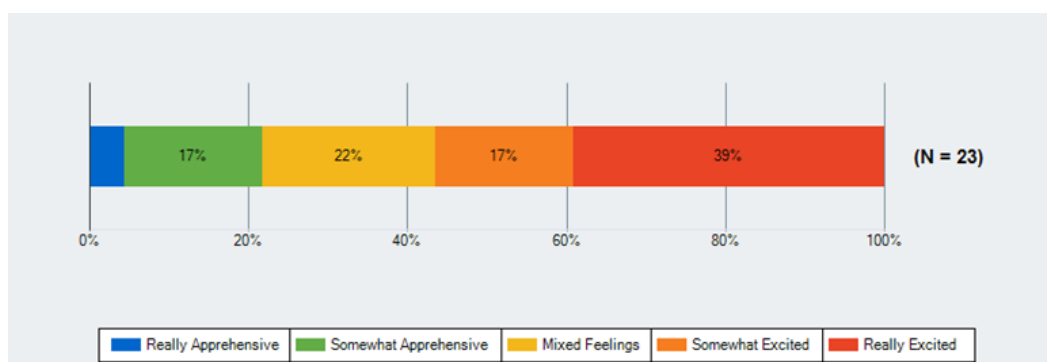
The next three sections address research question 1: *“What are the key country specific opportunities, specific drivers to women accessing and benefitting equally from the advancement of Green Industry as industry professionals and as entrepreneurs?”* using the primary quantitative and qualitative data collected.

7.1 Opportunities for women to advance as entrepreneurs, leaders and professionals in green industry

Data collected from the online surveys and interviews revealed that despite the multifaceted challenges faced by women entrepreneurs, there are also a host of opportunities and trends that can be capitalised on to advance women as entrepreneurs and leaders in green industry. It is quite telling that the majority of green entrepreneurs surveyed feel positive about the growth of their businesses.

Figure 7.1 shows that 56% of green entrepreneurs in South Africa reported being really or somewhat excited that their business will grow.

Figure 7.1: How excited or apprehensive do you feel that your business will grow?(n=23)



While it is clear that harmful social norms act as barriers to women's economic empowerment in green industry, there were also several key indicators that suggest a high potential for social transformation towards gender equality in green industry (Table 7.1).

Table 7.1: key social transformation indicators highlighted in online survey

Indicators green industry has high potential for gender equal social transformation
64% of entrepreneurs reported that they did not feel that family obligations have limited their opportunities today as an entrepreneur.
91% of businesses provide equal pay for equal work for women and men.
70% of entrepreneurs reported receiving "a lot of support" from their family since starting their business.
0% of respondents reported they need to consult with a man (spouse or family member, for example) before making decisions on how to spend the income from their business.

When discussing the opportunities available to women working in green industry as entrepreneurs and as professionals, interviewee answers often clustered around the idea that the innovation of green industry offers new opportunities:

1. One woman stated that one difference between green industry and traditional conventional industry is the type of person that the industry attracts. She believes that the green industry is occupied by people who are more sensitive to gender equality. This is a difference that could impact upon both employees and also entrepreneurs in the green industry: *"You'll find in just the nature of the people you engage with in the green economy, it's generally people who are passionate about cleaning the environment. People who worry about pollution, people who are worried about climate change, you know. That personality alone makes them slightly more sensitive to certain things, including women."*¹⁴⁰
2. Because the industry is relatively new, there is more room for growth and advancement than in the previous stagnating industries: *"I think that we have a lot more opportunity in the green industry because it's new and that's one of the biggest industries that allows for growth. My boss gives me as much responsibility as I'm willing to perform."*¹⁴¹
3. Because the green industry is still developing, it encourages both men and women from across disciplines to work together. As one participant put it: *"We need the silos to be done away with, we need to co-implement to get the work done"*.¹⁴²
4. One woman stated that because of the new and constantly changing nature of the sector, *"any expertise can fill this space"* and because of this; those who can make good decisions *"are being embraced."*¹⁴³
5. Multiple women mentioned that because green industry is new, it offers more opportunities for women. This was because there is a greater level of "uncertainty" with regards to who is best for the role; whereas in previous established industries, there are more strongly entrenched gender based assumptions¹⁴⁴ One point that was raised is that the green industry is *"not something that needs*

¹⁴⁰ KIII, Woman, Executive Manager, East London, SA.

¹⁴¹ Woman, Focus group participant, Sandton, South Africa.

¹⁴² Woman, Focus group participant, Pretoria, South Africa.

¹⁴³ KIII, Woman, KII, Policy Maker, Johannesburg Area, South Africa

¹⁴⁴ Woman, Focus group participants, Pretoria, South Africa.

masculinity” and is therefore, “*anyone’s game*.”¹⁴⁵

6. One woman mentioned that the green industry has the “*opportunity to start in the correct way*” because it is easier to start afresh than to challenge established power dynamics that favour men in power: “*In the conventional industry if you want to have a female CEO it means that the male CEO must move, but if he doesn’t want to there are no opportunities. But [in green industry] we have a chance to start off right*.”¹⁴⁶
7. New opportunities for free education and training for women in green industry: “*The way education happens with the green industry is quite different. You have the opportunity to learn every time, all the time with free courses online, workshops, with the different capacity building opportunities that are happening in the space because the solutions are new, the technology is new so. There’s a greater opportunity for people who can’t even afford to do technical courses in university via traditional, learning systems, to now participate and learn*.”¹⁴⁷
8. One woman highlighted that more companies are implementing quotas and seeking to hire a gender-balanced workforce: “*A lot more companies are starting to prioritise that they have, you know, 30-50% women, and not just in the workplace, but also in leadership roles*.”¹⁴⁸
9. Some women alluded to the synergies between the cultural or traditional roles of women, and the environmental sector. One woman stated that in her experience, “*women with their nurturing roles have been seen to grow much faster in environmentally focused areas, such as the green industry*.”¹⁴⁹

Measures to increase women’s entrepreneurship include training and capacity building for women-owned enterprises.

Existing programmes that may increase opportunities for women in green economy are:

- The National Green Fund, established in 2012. It has injected funding into women-headed green economy projects and directly employed 812 women. This has particularly helped women in rural areas;
- Women are the demographic that has benefitted the most from government initiatives around environmental conservation, such as the “Working for Water” initiative. The scheme now creates around 50,000 jobs every year, 52% of which are occupied by women. The programme also has ambitious quotas for disabled individuals, young people and those living with HIV/AIDS. Working for Water also provides employees with health and reproductive care, education and training, childcare services, HIV/AIDS awareness courses and savings programmes;¹⁵⁰
- SAFEE (South African Females in Energy Efficiency) provides mentoring and networking. SAFEE also holds breakfast workshops where men are free to attend because they feel that men also need to be a part of the solution; SAWEA, the South African Wind Energy Association, has a mentorship programme;
- A design bootcamp: *Imvelisi enviropreneurs* is a training intervention for aspiring young “environmental entrepreneurs.” The programme is aimed at young people who are considering starting businesses in the water and biodiversity sectors. The week-long bootcamp equips 50 future entrepreneurs with the knowledge to assess market potential, structure a business proposal and partnership; and test the viability of their ideas and concepts with guidance towards successful implementation. An opportunity to increase entrepreneurship among women in the green economy would be to launch a programme such as this specifically for women;
- The Global CleanTech Innovation programme is focusing on entrepreneurs and SMMEs; and
- The SANEDI (South African National Energy Development Institute) funds clean energy initiatives and has a green skills programme led by the University of Rhodes and Witwatersrand, who assist the government with initiatives on green skills.

Measures that interviewees suggest would assist girls in their career paths

Educational awareness at a younger age was one measure that was highlighted on multiple occasions by both male and female participants from across a broad range of positions and sectors.¹⁵¹

A lack of girls in STEM subjects at a tertiary level could be addressed by pro-active measures to demonstrate to girls at a younger age that these sectors are appropriate for them. Initiatives that were suggested included a “bring your daughter to work day”, class trips to green industry facilities and a chance for young children to see women in action. Talks could also be arranged at schools for women in green industry to demonstrate to children what is possible, and open days for young girls to see women in STEM at university.

Focus group participants who were working in the green industry identified a gap between what is being taught at university and the skills that are needed for jobs in the emerging green industry. It was highlighted that university does not prepare students for the real world through

¹⁴⁵ KIII, Woman, Chief Director, Ministry, Pretoria, South Africa.

¹⁴⁶ KIII, Woman, CEO, Pretoria, South Africa.

¹⁴⁷ Woman, Focus group participant, Sandton, South Africa.

¹⁴⁸ KIII, Woman, Chief Director, Ministry, Pretoria, South Africa.

¹⁴⁹ KIII, Woman, Chief Director, Ministry, Pretoria, South Africa.

¹⁵⁰ Working for Water Programme, Ministry of Environment, South Africa: <https://www.environment.gov.za/projectsprogrammes/wfw>.

¹⁵¹ By multiple participants in FGD 1 and FGD2; participants 14; 17; 19; 27; 29.

hands-on experience:

“There is such a huge gap. We have been working together, we do university road shows to try and bridge the gap and tell them about the world of work and the future world of work. They are very cocooned in the university world. University students are very cocooned and being in the workspace is quite daunting.”¹⁵²

Linked to this point is the lack of confidence that interviewees perceived women and girls to have. This lack of confidence was put forward as stemming from factors such as the current lack of women in the sector; the lack of networks and mentors; women doubting their own abilities; women not being assertive due to cultural norms; and a lack of leadership opportunities for girls from a young age.

Solutions proposed included confidence-building trainings for girls; more leadership opportunities in school; university and during work placements; mentorship by successful women so that they have positive role models and can imagine their own futures differently; and access to networks to help build their confidence, so that they do not feel alone and can turn to others for advice and guidance. This could also be done through strengthening and supporting women’s organisations in green industry for greater advocacy, networking and capacity support.

A lack of information about available opportunities was also a key theme that emerged from the interviews. Once women reach higher education, career fairs at university would enable women to know the options available to them, as would networks or a government information campaigns.

Further collaboration between the private and education sector could facilitate more specific skills being taught that will be required in emerging industries and make education more relevant to the jobs available.

In the online survey, participants were asked what legacy they would like to leave behind:

“I want to leave inspiring footprints that will drive the people I worked with, my family, and the community to strive to do even much better long after I’m gone into generational economic legacy. One of the challenges faced within the country and the continent as whole is that we don’t always inspire innovations and entrepreneurship amongst women. I want to inspire innovative thinkers, women that are daring and have the audacity to do that which most people would not do. Women who can contribute towards community development and economic growth. I want to show young women to understand what we mean by creating sustainable economies, sustainable growth and empowerment” (Survey respondent #30, South Africa).

“I am building a business that will drive the deployment of energy across the African continent. I want to meaningfully contribute to Africans having access to, affordable, clean energy and the improved quality of life that comes with access to affordable, stable energy.” (Survey respondent #67, South Africa).

7.2 Opportunities for women to advance as green industry professionals

More opportunity for growth

Women can advance from administrative roles into more technical or higher roles in green industry: *“Most women studied the admin supportive roles and qualifications, but now when you get into the office as administrators, they have the opportunities to be empowered, start doing courses on energy, start doing courses on food security, on green transport. There are all these opportunities as long as you have a computer and the Internet, you can pretty much expand and open yourself into a world of education that was never previously there.”¹⁵³*

There is a need to create further awareness about opportunities in the energy sector. Because it is a new and emerging sector it does not possess all of the characteristics of an “entrenched male establishment”. Therefore, participants believed there is plenty of space to innovate as a woman. It was highlighted that more research should go to exploring the reasons why women do not appear to be taking advantage of opportunities, and that these reasons needed to be acted upon.¹⁵⁴

Existing programmes include the following:

- South African Women in Science Awards: these awards recognise and reward excellence by women scientists and researchers, and profile them as role models for younger women;
- Mentorship sessions at universities: these are helpful in raising awareness for young women, demonstrating what jobs are available in this new and emerging sector;
- Networking: for instance, the International Solid Waste Association launched the “the Women of Waste” initiative to try and promote women in the waste sector;
- Gender awareness training, and green industry sector-specific training offered by UNIDO and UN Women; and
- The National Cleaner Production Centre’s Accredited Energy Training. In 2020, this was free to all women.

¹⁵² Woman, Technical Project Coordinator, Focus Group Discussion, South Africa.

¹⁵³ Woman, Focus group participant, Pretoria, South Africa.

¹⁵⁴ Highlighted on 19 occasions by 8 interviewees.

7.2 Policy makers and policy practitioners' perspectives of opportunities

Gender quotas are increasingly common. However, the interviewees had mixed feelings about the effectiveness of “positive discrimination” practices. Broad-based gender quotas can hide the realities of the underrepresentation of women in senior and decision-making roles.

Government support

The South African Government supports innovation in green industry through “roadmaps” where innovators work with academics and businesses to try out new technologies.

Real success will be measured by indicators of how many people feel supported, elevated and empowered. For this, more monitoring and evaluation of quotas and policy are needed. Both existing policy and the constitution make it clear that discrimination against women is illegal, however implementation and enforcement of this policy remain a challenge.

Although existing policy aims to make both discrimination and violence against women illegal across society; there no specific policy regarding women’s economic empowerment in green industry has been published: *“In the ten years I have worked in government I have never heard a single word on this topic in government.”*¹⁵⁵

Short-term

The government lays out its short-term priorities in its Annual Performance Plan.

Short-term goals include the implementation of government policy and planning,¹⁵⁶ monitoring and evaluation of the government goals, collecting sex-disaggregated data, and making this information public. It is recommended that a monitoring and evaluation system be developed with standard indicators, so that each intervention programme can be measured uniformly and aggregated across interventions. Consistency of measurement, standardisation of indicators and learning for improvement are key to effective monitoring, measuring and accountability. Furthermore, it is crucial to inform women about the opportunities available to them.

Medium-term

The government lays out its medium-term policy through the MTEF (Medium-term Expenditure framework). Medium-term goals include analysing the data gathered with regards to government targets and analysis for businesses to see how they can improve and become greener.

Long-term

These long-term goals are laid out through the National Development Plan and the 25-year plan.

Long-term, policy makers would like to see measures in place so that 50% representation quotas are not a tokenistic gesture, but benefit women in concrete ways by changing the structures and working cultures of companies.

In the online survey green entrepreneurs were asked, *“How should your country increase women’s leadership and participation as entrepreneurs in green industry? Please rank each of the government initiatives below from 1 to 5, where 1 is the most important and 5 is the least important”*. The respondents ranked increasing access to education the highest, followed by increasing access to finance, investment in women’s development schemes, changing inequitable laws and positive action strategies (Table 7.2).

Table 7.2: Green entrepreneurs’ priority ranking of government strategies for increasing women’s leadership and participation as entrepreneurs in green industry

Prioritized Strategy	Ranking
Increase access to education	1
Increase access to finance	2
Invest in women’s development schemes	3
Change inequitable laws	4
Positive action	5

¹⁵⁵ KIII, Woman, Director, Ministry, Pretoria, South Africa.

¹⁵⁶ KIII, Woman, General Manager, Pretoria, South Africa.



8. Recommendations for closing the gender gap in green industry

This section provides a synthesis of the identified gaps and solutions to promote women as green industry entrepreneurs and professionals; it addresses the study's second research question, *“How should countries formulate new or reformulate existing, gender-responsive green industrial policies?”*

8.1 Towards a gender-responsive green industry policy framework

The purpose of a gender-responsive green industry policy framework is to enable countries to develop new, or revise existing, gender-responsive green industry policies to adopt and implement. Based on the conceptualisation of women's economic empowerment in this project, gender-responsive green industry policies must work to address both advancement and transformation. The qualitative and quantitative components of the study have identified key factors underpinning women's economic empowerment in green industry that feed directly into the framework (Table 8.1).

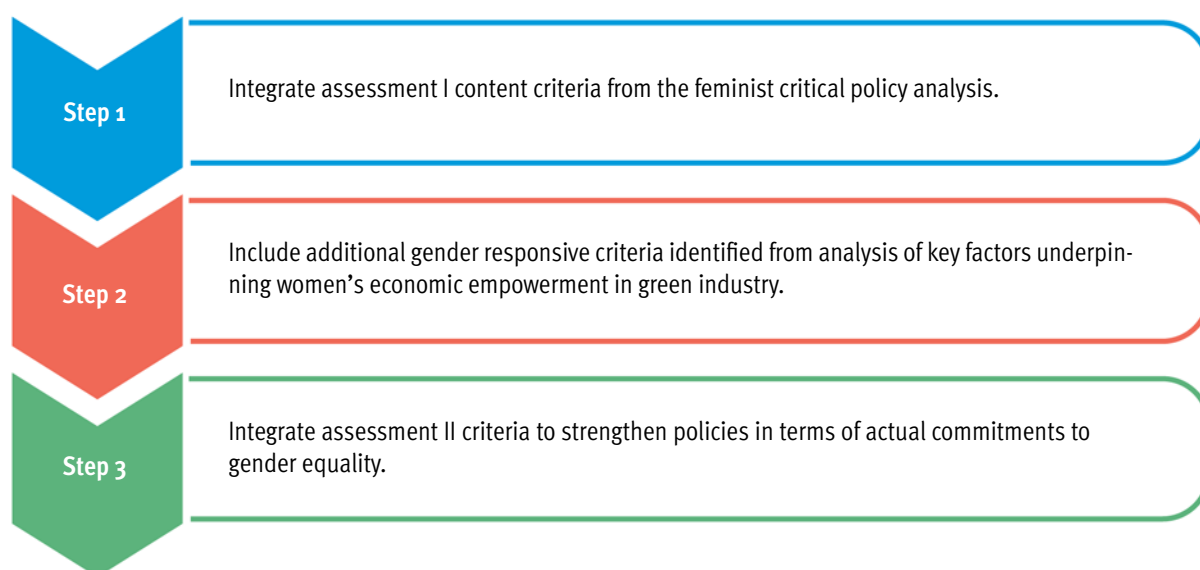
See Table 8.1 for key factors undermining women's economic empowerment in green industry.

Table 8.1: *Key factors undermining women's economic empowerment in green industry*

Barriers to advancement	Barriers to transformation
Lack of awareness about policies and programmes designed to benefit women and/or encourage their participation in green industry	Harmful social norms that discourage women from starting their own business
gGreen industry requires very specialised technical skills	Institutionalised and internalised sexism
Lack of access to technology to start green businesses or upscale existing businesses	Inequitable caretaking responsibilities
Difficulty in finding and hiring skilled workers	Intersectional inequalities
Women do not have the experience and/or historical networks of influence that men have, making them easily outbid by 'experienced' green players	Violence and harassment
Lack of access to mentoring impacts funding and job opportunities	Discriminatory hiring practices and ineffective quota systems
Lack of access to necessary capital, collateral and credit resources	
Women lack access to markets to sell their products	
Women face other value chain challenges and 'hidden costs' of doing business	

This report proposes using the following framework for formulating gender-responsive green industry policies (Figure 8.1):

Figure 8.1: Gender-responsive green industrial policy framework



- **Step 1:** this would include content criteria from assessment I of the feminist critical policy analysis to ensure the core characteristics are foundational to the policy. These elements of the feminist critical policy, include engendering of policy; structural perspectives of gender equality; intersectionality; women's empowerment; incremental transformation; and contextualisation.
- **Step 2:** gender-responsive criteria would be identified based on the key factors underpinning women's economic empowerment in green industry to ensure and include criteria to support women's advancement and transformation.
- **Step 3:** assessment II criteria would be integrated to improve policies' commitments to gender equality. This step is crucial; 8 out of 10 policies reviewed did not mention gender in their conclusions and did not have further plans or commitments for gender monitoring and evaluation.

In addition to these three steps, this report also encourages using the following general recommendations for proposing new gender-responsive green industry policies:

Table 8.2: General recommendations for proposing new gender-responsive green industry policies

General recommendations for proposing new gender-responsive green industry policies
Contents/topics to be covered in policy
- Include specific gender targets and indicators and collect sex-disaggregated data and gender statistics for monitoring and evaluation;
- Eliminate gendered language (e.g., Chairman to Chair);
- Generate S.M.A.R.T. indicators (specific, measurable, achievable, relevant and timely) using robust sex-disaggregated data.
Process
- Integrate women's agency; meaningful and equal participation and decision-making at all levels at home, in the economy and in government;
- Address the needs of women using an intersectional approach that takes into consideration the multiple and intersecting forms of discrimination based on gender, rurality, race, migration status, and poverty albeit others;
- Support education and awareness (e.g., knowledge and skills transfer, mentorship programmes, partnerships and networking platforms);
- Create and ensure access to financial products, services and information including through gender-responsive budgeting and gender-responsive procurement from women in green industry;
- Ensure the engagement of women at every stage of the planning and policy process including consultation, monitoring and evaluation;
- Conduct gender impact assessments and ensure consultation and dialogue with local women's groups and organised civil society;
- Diversify women's access to and source of start-up capital;
- Promote women's equal access to education and vocational studies to provide technical knowledge relevant to green industry;
- Identify strategies to root out institutionalised sexism/discrimination, especially in the private sector;
- Hold national and strategic dialogues – at the level of politicians and other leaders within society.

Regarding the existing green industry policies that were reviewed in-depth, specific recommendations are given for each in terms of improving

their quality and implementation (Table 8.3).

Table 8.3: Recommendations for improving gender integration in policies assessed

Existing national laws, policies and strategies assessed	Recommendations for improvement		
	In content	Conclusions	In implementation
Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE) (2017)	Go beyond the "business case" for gender equality. However, this framing of gender equality as good for business often falls short of the necessary steps that lead from employment to empowerment. This narrative operationalises women for the attainment of other goals, without focusing primarily on their empowerment.	An actionable plan to address inequalities in access to and use of energy from an intersectional approach.	Establish a process for internal review and make annual reports open access on the DMRE website for independent review.
The National Waste Management Strategy (NWMS) (2011)	While the 2011 NWMS was fully implemented, the updated 2019 policy should mainstream gender and follow steps 1-3 of the proposed framework.	Integrate with "Women of Waste" programme which is fully gender mainstreamed. Policy should demonstrate how it would aim for job opportunities for more vulnerable groups, such as women, disabled, youth, black or minority candidates.	An actionable plan to address inequalities in access to and use of energy from an intersectional approach
Climate Change Bill (2018)	This policy needs to ensure gender mainstreaming and illustrate gender responsiveness. Consider integrating gender equality and follow steps 1-3 of the proposed framework.	Use Step 3 to generate commitments to gender equality.	Follow through with the approval of the bill in Parliament.
Department of Environmental Affairs Strategic Plan (2019/20 to 2023/24)	Consider the structural gender issues, and intersectional inequalities by targeting and recruiting young women graduates for 2-year internship programme and bursaries. Currently uses quotas but does not support environment and build on international conventions for women's rights; focuses on women's empowerment but not leadership.	Use Step 3 to generate commitments to gender equality.	Follow through with transparent Annual Performance Plans.
The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector (2016-2021)	Enrich by including women in leadership positions beyond blanketed employment.	More robust M & E criteria needed. Advised to consider Steps 1-3 of framework	Increase transparency by making internal reviews publicly available
The Integrated Resource Plan (IRP) 2019 (2010-2030)	Despite the policy's desire to have a "strong gender dimension" this policy needs to follow steps 1-3 of the proposed framework.	Use Step 3 to generate commitments to gender equality.	Requires a clear plan for monitoring, evaluation, and implementation.
National Development Plan (NDP) 2030 (2012-2030)	Women's empowerment is only indirectly addressed, and the policy only promotes women's employment, but not leadership.	Mentions "role confusion" amongst policy stakeholders. The mandate of the Commission of Gender Equality overlaps with that of the Ministry of Women, Youth and Persons with Disabilities. For example, the M & E function is both the mandate of the ministry and the statutory mandate of the Commission for Gender Equality. This results in role confusion and political conflicts over authority.	Commit to interacting with local government representatives in a more structured way. Follow through with forums to identify lead departments that assemble and coordinate implementation teams to minimize role confusion.

Re-imagining the Future Strategy (The DTI) (2019)	This policy needs to assert gender equality and follow steps 1-3 of the proposed framework. Gender must be mainstreamed to ensure that female youth are also being targeted and trained. This is especially pertinent because these are all male-dominated sectors.	Use Step 3 to generate commitments to gender equality.	Follow through with existing framework for implementation and gender mainstreaming.
Green Transport Strategy (2018-2050)	<p>This policy should be gender mainstreamed and should follow steps 1-3 of the proposed framework. This would involve considering women as users and workers in the transport sector and gendered mobility requirements around women's mobility, accessibility, and safety.</p> <p>Collect sex-disaggregated data and gender statistics to understand female travel patterns as well as taking into consideration informal transport such as walking and cycling data in transport surveys; In formulating such a strategy, include specific questions on short, non-work-related trips and mobility of care in questionnaires.</p>	<p>Women/gender concerns are completely absent from the conclusions with no plans for implementation of gender equality goals.</p> <p>Developing reliable reporting mechanisms for sexual harassment and gender-based violence on public transport; designing open public areas with visibility, lighting and CCTV systems at stations; training public transport staff to deal with sexual harassment situations; increase security staff presence at night; ensuring a greater and gender-mixed staff presence at stations and in vehicles; evaluating the need for women and children-only services in public transport and ride hailing services; providing information on women/gender concerns are completely absent from the conclusions with no plans for implementation of gender equality goals.</p> <p>Developing reliable reporting mechanisms for sexual harassment and gender-based violence on public transport; designing open public areas with visibility, lighting and CCTV systems at stations; training public transport staff to deal with sexual harassment situations; increase security staff presence at night; ensuring a greater and gender-mixed staff presence at stations and in vehicles; evaluating the need for women and children-only services in public transport and ride hailing services; providing information on public transport schedules to avoid long waiting times which can be dangerous for lone women; rolling out "on demand" bus stops at night and in the early morning to reduce walking distances in the dark, which pose dangers to women; include security requirements in tendering documents and bonus- penalty clauses in contracts with operators; making cycling attractive for women by providing safe infrastructure and promoting cultural acceptance; use campaigns and social media to encourage a "culture of zero tolerance" against harassment and misbehaviour towards women; and reinforce/establish high fines for harassment and violence against women and communicate strongly against it (as we do now for alcohol and cigarettes in public transit).</p>	Follow through with the 3-year internal reviews in accordance with the established short term and long-term goals.

National Green Fund (2012) <i>Note that this is not a policy but was reviewed as a case study. It must also be noted that Gender Mainstreaming was not prescribed in setting up this facility</i>	Improve women's empowerment through decent work; more attention should be given to social and structural barriers	Conduct a gender impact assessment comparable to the one applied to the Green Climate Fund.	Not applicable – fully implemented.
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8.2 Closing the gaps between policy and implementation on the ground

Moving on from the barriers highlighted in the previous section, many interview respondents stated that existing policy was supposed to be tackling those issues, but that there was a lack of implementation. Interviewees highlighted that the reasons women are not taking advantage of opportunities or filling quotas are likely due to insidious or hidden reasons. To improve policies in quality or implementation, these more covert forms of discrimination must be addressed.

Identified gap between policy and implementation	Solution to close gap
1. Hidden costs of training	Providing free trainings for women
2. Women are not aware of the opportunities available to them	Information campaign about the need for skills diversity
3. Lack of implementation plan with specific targets and timeframes	Increasing M&E and accountability
4. There is a need to integrate women across the value chain, not just to hire them for quotas	Ensuring that women are integrated across the value chain
5. Men find 'loopholes' around existing policy	Closing loopholes in policy
6. Women fear ostracization and/or risk of violence in accessing essential services	Zero tolerance policy towards gender-based violence
7. Quotas will not be useful unless women are skilled-up for the jobs on offer	Building capacity for women
8. Work culture of working late, travel and not enough flexible practices	Flexible working practices
9. Women receive less funding and start-up capital	Create funding calls for women
10. There is a lack of gender-mainstreamed green industry policy and confusion over with whom this responsibility lies	Streamlining gender mainstreaming implementation planning by using the gender-responsive green industry policy framework introduced herein

Gap 1: Hidden costs of training

One woman highlighted that gaining the relevant skills costs money: "It's not like there's a free government programme where you can get skills to participate in the renewable energy space. You have to pay for most sector-specific skills."¹⁵⁷

Existing training

Some DTIC (Department for Trade, Industry and Competition) developed initiatives now form part of the Department of Small Businesses Development. These include:

- Technology for Women in Business;
- The B'avumile Skills Development Initiative;
- The SEDA Technology Programme;
- Gender awareness training, and green industry sector-specific training offered by UNIDO; and
- The National Cleaner Production Centre's Accredited Energy Training. This is free for all women in August 2020.

While free courses are welcome, there are further costs such as the cost of travel, and the opportunity-cost of attending these courses when in poverty. Also, there is the time-cost of being away from home and potentially having to pay for childcare.

Most interviewees who were employees or entrepreneurs in green industry were educated at the bachelor's, master's or doctoral degree level. Many participants also highlighted that beyond university-level qualifications, further sector-specific knowledge was required. Accessing those extra courses costs more time, money and commitment. Whilst university-level courses are more likely to be attended by students who do not have work or care responsibilities, women retraining in short courses may not have the time or money available to attend further courses. In addition to this, many interviewees believed that the courses on offer at university are not relevant to the emerging new sectors, and the need for further courses becomes apparent. A variety of student loans and bursaries are available, from both the public and private sectors, for a university degree. However, these are not available for short, sector-specific courses. The percentage of women in tertiary-level

¹⁵⁷ KII, Woman, Business, Pretoria, South Africa.

education is higher than men in South Africa. Therefore, it is not simply access to education in general for women that is lacking. If women make up a high percentage of the total enrolled in university, then it demonstrates the need to address the gap between those enrolled in relevant subjects, and those who are applying for, or taking up jobs as engineers or technical workers in green industry.

Recommendation to fill gap 1: providing free trainings for women

Interviewees think that a “pipeline” should be developed between the private sector and the education sector so that appropriate skills are being developed. One example from another country is free technology training for girls, for instance: “Girls can code.”

Adequate training should be provided to assist women in local government to take up leadership and decision-making roles and thereby broaden the pool of candidates for such positions. Such training should further incorporate modules that will equip women leaders with the skills to develop strategies and action plans in the political arena.

Gap 2: women are not aware of the opportunities available to them

Existing awareness-raising campaigns:

South African Women in Science Awards: these awards recognise and reward excellence by women scientists and researchers, and profile them as role models for younger women.

Women in Energy: this network of women in the energy sector has an annual conference and hosts regular meetings and events.

Why are these not effective?

Reasons highlighted were: that there is too big of a gap between university and the skills needed; and that a “pipeline” needs to be developed from secondary and tertiary education, to the sectors that will be employing women in green industry in years to come. Soft skills are just as important as technical skills for certain roles in industry, therefore programmes aimed just at women in science miss the other roles that women could be filling. Finally, awareness of the jobs on offer is no substitute for leadership experience. Interviewees felt that women are not given enough opportunities for leadership experience.

Recommendation to fill gap 2: information campaign about the need for skills diversity

“It’s moving away from a labour-intensive space to a skills-intensive space.”¹⁵⁸ One woman highlighted that STEM is not always required for jobs in green industry. One key need was referred to as ‘developing a “pipeline for girls to become involved in the future of the industry”¹⁵⁹. This involves making girls aware of the opportunities available to them at a young age. At university, it is not clear what different roles exist in the green industry. Women need more access to leadership skills and experience from a younger age:

“For me it is all about developing a pipeline. It’s around investments in their skills at a postgrad level, let’s say masters and PhD, with the hope that they will go on and become entrepreneurs. It is about allowing them to see where the opportunities are and hoping they will run with it. It is around skilling them and allowing them to see where the opportunities are.”¹⁶⁰

Universities also need to provide more relevant information and training opportunities:

“The gap between what is available to study and what job is available on those qualifications is too wide. There isn’t a route we are forming and that is scary. Entrepreneurship takes self-confidence, our education is about obedience. Disruptive behaviour is not seen as brave.”¹⁶¹

Encouraging mentorship schemes:

Showcase positive role models for girls to aspire to:

- Girls can be exposed to women in the green industry;
- Programmes such as this do already exist within certain sectors such as wind power;
- Spread the information so that girls know about the opportunities available to them;
- This tackles the mentality that there is a ‘boys club’ and
- Gives aspirational young women a step into the industry.

One further recommendation related to raising awareness was: “citizen” science. One woman suggested that citizens can simultaneously learn more about the environment in which they live, while also participating and reporting on things that they see.¹⁶² Waste management was highlighted: “It might be that people, through awareness and understanding of their natural environments, also start to manage their spaces and try to make improvements or understand the impact of things like waste management and treatment of water.”

¹⁵⁸ KIII, Woman, Energy Analyst, Western Cape, South Africa.

¹⁵⁹ Mentioned 10 times by 6 participants.

¹⁶⁰ KIII, Woman, Principal Scientist, Pretoria, South Africa.

¹⁶¹ Woman, Technical Project Assistant, Electric Transport, FGD, South Africa.

¹⁶² KIII, Woman, Deputy Director, Pretoria, South Africa.

Gap 3: lack of implementation plan with specific targets and timeframes

As one policy maker put it: “we have very good policies, very clear, but we lack the strategic direction, or the strategic tools to be able to implement; and we also don’t have implementation plans with specific targets and timeframes”.

Recommendation to fill gap 3: increasing M&E and accountability

As one policy maker concedes, there are a lack of monitoring and evaluation practices in place:

“What remains of us as a Department is then to establish mechanisms: as in how are we going to monitor it? How as a Department are we going to make sure that where there are gaps, there are consequences that are going to persuade different government Departments to respond to this?”¹⁶³

One in-depth recommendation was given from an interview participant in government:

“We have recommended that we have what we call a ministerial council. The ministerial council would be made up of representatives from different energy sectors, and they will meet with the minister twice a year, at least once. And they will report to the minister what is happening in their sectors. So that minister takes accountability of that and we are also recommending that the minister, it becomes part of the minister’s compact agreement, where he has to say maybe 10% of his performance assessment talks to gender mainstreaming in the energy sector.

We have also recommended that every manager in the department has to have part of their performance agreement talking to gender mainstreaming and compliance. So that it is their bottom line. If we don’t do that, they will take it as a nice-to-have and do nothing about it. But if it goes to accountability and making sure it affects their performance and performance bonus, they are obliged to be able to tick. So, we have put that in our strategy and the implementation plan. Then, the last thing that we have done is that every five years, we need to have an independent audit of compliance, so that the reporting that we receive is then audited and reported and tabled in Parliament. That’s what we are recommending.”¹⁶⁴

Participants also highlighted that gender mainstreaming is a constant process, not something that can be achieved through a one-off gender awareness training. Furthermore, one policy maker highlighted that due to the 4-year tenures in office, there is a high turnover of staff. This means that efforts must be made to ensure consistency over time with regards to the level of training and awareness that politicians each have.

Gap 4: there is a need to integrate women across the value chain, not just to hire them to meet quotas

It was highlighted that women were being hired in a “tokenistic” way.

Recommendation to fill gap 4: ensuring that women are integrated across the value chain

As one woman recommended: “But we are also saying, from a supply point of view, if women are making millions of decisions on use on a daily basis, they need to be part of the value chain.”¹⁶⁵ There needs to be an explanation of the opportunities for women in energy (and transport and waste) across the value chain, and not just through quotas as directors of companies etc: “We want women to, not only work, but be investors in the energy space, entrepreneurs, company owners, business owners, to participate on the supply side of the value chain. Not just the consumption and the labour part.”¹⁶⁶

Gap 5: men find “loopholes” around existing policy

One entrepreneur stated that in her personal opinion, people are exploiting loopholes in the existing policy:

“For instance, a particular piece of work will be given to women because of government, I know that there are men who will create companies where they’ll give their sister 51% so there are ways to navigate policy that is meant to spur on women entrepreneurs. How do you stop someone from registering a company and they give 51% of their company? That limits a number of opportunities that we could get from public sectors because people have found loopholes to rig the system.”¹⁶⁷

Recommendation to fill gap 5: closing loopholes in policy

The government needs to ensure that loopholes are closed, such as those which enable men to set up companies in their sister or wife’s name just to meet the “women-owned business” criteria. Further loopholes include those which allow employers to hire women at a junior level in order to meet quotas, whilst blocking opportunities for women in leadership roles, and preventing women from growing in the business to reach their full potential. This could occur by requiring that gender quotas are met for leadership positions specifically.

¹⁶³ KIII, Woman, Deputy Director, Pretoria, South Africa.

¹⁶⁴ KIII, Woman, Chief Director, Pretoria, South Africa

¹⁶⁵ KIII, Woman, Chief Director, Pretoria, South Africa

¹⁶⁶ KIII, Woman, Chief Director, Pretoria, South Africa

¹⁶⁷ KIII, Woman, Entrepreneur, Pretoria, South Africa.

Gap 6: women fear ostracisation and/or risk of violence in accessing essential services

One recommendation at a local level was for women to have access to services that are not “prohibitively operated.” By this, the interviewed participant meant that it is important for women to feel that they can “query something at a police station, ask for something, phone their local representative and raise an issue, or participate in community meetings without fear or risk of violence or fear of ostracization”.¹⁶⁸

Recommendation to fill gap 6: zero-tolerance policy towards gender-based violence

There must be a clear zero-tolerance policy towards gender-based violence and harassment across all services. Safe spaces and perhaps women-only hours are essential, so that women can access essential services without fear of violence.

Gap 7: quotas will not be useful unless women are skilled-up for the jobs on offer

1. Women are not given enough opportunities for leadership skills;
2. Technical skills for women can be increased through bursaries, scholarships or industry-funded places in courses to gain the relevant skills;
3. In addition to qualifications, experience in the sector is essential; and
4. Finally, the skills that women already possess are very useful in green industry, but there is not enough awareness of their usefulness.

“If we could be as technically inclined or technically capable as our male counterparts we would participate more. But what we need more of, is leadership skills for women.”¹⁶⁹

Overcoming and dismantling the systemic obstacles that stand in the way of women gaining entrepreneurship and leadership skills at the same rate as men is crucial. Women will not be hired or become successful without experience and acquiring skills via an online course might not always be sufficient. The best way to learn is by doing: *“I need to be given the opportunity to work to fail and to pick up the pieces. I need to know the kind of leader I am, but I won’t know this outside of my workplace or outside of my organization.”¹⁷⁰*

Recommendation to fill gap 7: capacity building for women

One woman agreed that women need leadership skills so that they do not just “make up the numbers” in less-skilled positions in organisations but make an impact: *“I think that leadership skills would assist women to actually occupy these positions and actually carry out the responsibilities. It is not just about the numbers it is about women making an impact and I believe without a doubt that they are pretty capable of doing that. It is not just about numbers; it is about impact.”¹⁷¹*

While some programmes do exist to increase women’s skills, it was highlighted that women lack the funds to take advantage of these: *“there should be some mechanisms to make women more able to do these things such as funding for women to attend workshops or workshop training for upskilling. I suppose it would be short courses or workshop training.”¹⁷²*

One key recommendation was the formation of women’s networks. Ideally, these networks should consist of individual women and women active not only in civil society but in business as well. The government can help through encouraging networking for women at each event. One policy maker stated that she did this in the following way: *“we speak to different embassies in South Africa and we tell them that, when they bring businesspeople from overseas, and they invite me to come and talk to them: I don’t go there if they don’t give me 15 seats for women-owned companies to sit in that business forum and network. We need to expose a lot more women to such opportunities so that they begin to, not only network at a national-level, but at an international-level.”¹⁷³*

Gap 8: a culture of working late, travelling, and inflexible working practices

Participants highlighted that hidden barriers involve travel commitments or holding events after hours:

“I had to travel too much that I stopped. There were like three trips in a week.”¹⁷⁴

Working hours need to take into consideration the additional responsibilities such as care work and other ‘domestic’ unpaid tasks that disproportionately land on the shoulders of women in South Africa as in the rest of the world.

Existing policy to address working late: “Flexi-time” Flexi-time allows employees (men and women) a degree of flexibility in regards to their working hours. Flexi-time also allows men to be more involved and take more responsibility when it comes to looking after the family. The purpose of this policy is to help achieve a “work-life balance” for employees, allowing employees to vary their working hours according to their individual requirements whilst ensuring service standards are maintained and core working hours are adhered to.¹⁷⁵ Within the limits

168 KIII Woman, Manager, Pretoria, South Africa.

169 KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa.

170 KIII, Woman, Entrepreneur in Green Industry. MD of Genleg and Board of Directors for SAPVIA (SA Photovoltaic Industry Association).

171 KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa.

172 KIII, Woman, Vice Chair and Regional Project Manager, Pretoria, South Africa.

173 KIII, Woman, Chief Director, Pretoria, South Africa.

174 Woman, Focus group participant, Sandton, South Africa.

175 Carlson, D.S., Grywacz, J.G., & Kacmar, K.M. (2010). The relationship of schedule flexibility and outcomes via the work-family interface. *Journal of Managerial Psychology*, 25(4), 330–335.

of the working day and core working hours, employees have the discretion to choose and/or vary their start and finish times. However, this is subject to agreement with the line manager/employer, whose responsibility it is to see that each department is adequately staffed during normal hours.

Recommendation to fill gap 8: flexible working practices

This was recommended by many interviewees as a positive solution towards more women being able to participate in demanding jobs: *“I think flexi-work is actually such a fantastic tool, not something that is necessarily government policy tool, but businesses themselves can apply flexi-work time, to allow women who do have childcare responsibilities to incorporate that into their work and to find a different way of working.”*¹⁷⁶

To encourage businesses to pursue family-friendly working practices, capacity building for business could happen in two ways:

- Trainings for business owners to understand the business case for gender equality; and
- Trainings for business owners to understand the business case for green industry.

Businesses may feel that they *“cannot afford to go green”* or to pursue flexible working practices; but if they are made aware of the business case for doing so, their mindset might change.

Gap 9: women receive less funding and start-up capital

If women do not have access to financial resources, existing policies aimed at *“equality of opportunity”* are unlikely to lead to positive outcomes in terms of women becoming entrepreneurs. Women-owned businesses are less likely to receive financial investment. In South Africa, this was highlighted by survey participants, who highlight a lack of access to funding; as well as by interviewees who found it difficult to secure investment for women owned businesses.

Recommendation to fill gap 9: create funding calls especially for women

This could be done through the creation of hard targets in the REIPPP. The current provision of a limited goal of 5% women, for which there is no accountability, could be enhanced.

Gap 10: there is a lack of gender-mainstreamed green industry policy and confusion over with whom this responsibility lies

As one policy maker is quoted as saying, gender considerations with regards to green economy are currently *“very ad hoc”* and *“not structured”*. She stated that: *“policy needs to be properly mainstreamed with the issues of gender”* and that *“there needs to be an actual plan at the policy level.”* She stated that *“We need regulation on this issue.”*

Recommendation to fill gap 10: gender mainstreaming

In order to *“close the gap”* in national policy provision, gender considerations need to be mainstreamed more into green industry policies, strategies and programmes. Despite the strength of individual measures to enhance gender equality and the green industry these are separated. Existing legislation, policy, plans and incentives in green industry, do not currently include a gender-mainstreamed approach; nor are there any specific targets relating to women in green industry. Due to a lack of sex-disaggregated data, it is difficult to track women’s economic empowerment within green industry in South Africa.

The issues of gender equality and green industry should not operate in silos. The literature review of policy and the feminist policy analysis demonstrates which sector strategies currently lack a gender element. For example, the Green Transport Strategy for South Africa: (2018-2050) does not contain references to Gender/Woman/Women/Equal/Equity/Girl/Balance/Fair.

Confusion regarding with whom the responsibility lies

Many interviewees who were policy makers were of the opinion that gender equality and women’s empowerment was only the responsibility of the Department for Women. Closing this gap in perception requires co-ordination across departments and more clarity about how gender and green industry policies can take an integrated approach into all facets of government beyond one department.

Summary of gaps

- The largest gap identified was in the implementation of existing policies;¹⁷⁷
- Women need access to networks and mentorship;
- The government and private sector must crack down on unfair discrimination against women because of their potential to go on maternity leave;
- There is a lack of information and awareness by women of the opportunities available to them, leading to a low uptake of programmes

¹⁷⁶ KIII, Woman, Deputy Director, Pretoria, South Africa.

¹⁷⁷ Mentioned on 50 occasions by 15 respondents.

- that do exist;
- Women lack the necessary high technical qualifications and leadership experience; and
- Violence against women continues to be pervasive. Women need safe workplaces and safe means to get there.

Summary of strategies to close gaps

- If uptake of programmes tailored towards women is low, find out why to tailor them better to the target group. There are often invisible barriers such as training courses being held in the evenings when women have care responsibilities;
- An awareness-raising campaign could highlight the opportunities available to women in this emerging industry;
- The private sector needs to be encouraged and incentivised to provide women with leadership opportunities. Without access to leadership opportunities from a young age, women cannot climb the career ladder to management positions later in life; and
- Monitoring and evaluation of existing policies and programmes needs to happen in order to assess current participation of women in green industry and increase future empowerment. This includes measuring what is working, upscaling policies and programmes that are working, and learning and sharing findings across the private and other sectors, government departments and agencies.

Across the board, a lack of policy with regards to women's empowerment in green industry was highlighted. A specific action plan should be created regarding how women can be economically empowered in green industry moving forwards.

Strategies to close gaps

Coordination

Coordination between departments was highlighted multiple times. It should be prioritised in future, to ensure the sustained progress of green industry strategy.¹⁷⁸

*"Many departments understand the green economy and have a programme or are working in that area. Combining those efforts or at least understanding who should take what lead, or what role they play, is necessary, so coordination is a priority."*¹⁷⁹

Capacity building for policymakers

One male policy maker stated that although they are being required to do gender-based budgeting, he actually did not know what this meant or entailed:

*"It's not a structured thing its more information sharing and information sharing. I know it's very important we even now at this recent update where when we are doing our budgeting on our five-year strategy, we are asked to do gender-based budgeting. We don't know what that means exactly. Unfortunately I am told we have to do it, but it is something that is difficult to do when you don't know. Maybe that's one way to address gender inequality."*¹⁸⁰

Therefore, in terms of capacity building for government, more departments need to be made aware of and continuously trained on gender equal budgeting; consistent inclusion of gender concerns in existing policy development, and the need to integrate gender into new green industry policy.

One participant highlighted that capacity building in terms of the green economy and gender was not something that can be "done once" but was a continuous process:

*"What I've learned from my industry, for example, we work a lot with the energy transition and transportation, and we've been working on the project now for four years, and we have had to build capacity every single step of the way for that entire four years. So even with gender, it's not something you can just do once; it's a continuous process of learning."*¹⁸¹

Another participant highlighted that capacity building requires more than just a week training:

*"You can't just go for a one-week course. It's more than that. If you are thinking you want to build capacity for women in transport, road transport, then you need to be strategic with what exactly we want the women to do. Do we want them to be road sweepers, and all those things? Or to actually up scale the role for women entrepreneurs, in terms of buses in terms of taxis. And it is not just about driving and owning the taxi, but about having the taxi rank and what is happening in the taxi rank, what is being sold, is it healthy is it [inaudible] are you encouraging gender-based violence in the taxi rank because of the wage situation. There are so many jobs."*¹⁸²

One participant said that capacity building must be a challenge faced not only by the people in government at any given moment, but must last longer than individual terms:

"So, we have these rotations cycles where leaders change. So, you can have a new mayor, or a new president, or a new director or CEO come into office, you build capacity regarding matters of gender, they are for gender, they become the gender champions that you work with in a particular city, department, or government institution, and then within two years, four years, they change. And so, you have to go and build

¹⁷⁸ KIII, Woman, Deputy Director, Pretoria, South Africa.

¹⁷⁹ KIII, Woman, Deputy Director, Pretoria, South Africa.

¹⁸⁰ KIII, Man, Director, Ministry, Pretoria, South Africa.

¹⁸¹ KIII, Woman, Programme Manager, Pretoria, South Africa.

¹⁸² KIII, Woman, Manager, Pretoria, South Africa.

capacity again with the incoming leadership. And the risk there is that every time there is a change of political leadership, a different agenda is taken. So, you have to ensure that then, you build capacity again, so that, you know, gender issues are tied into that legacy or agenda of the new political leader. So that's the unique challenge that we face in South Africa.”¹⁸³

Another participant concurred that policy makers need capacity building so that they understand gender mainstreaming: “and capacity building for policy makers, so that the mainstreaming is making sense. But you will need capacity building in actual potential entrepreneurs. Green entrepreneurs. Capacity building will be important but cannot just be ad hoc you know, then we are training 10 people in DTI so what. It should be in contexts.”¹⁸⁴

Collect more sex-disaggregated data

One woman highlighted that there is a lack of statistics, which means that the problem is not being fully addressed: “I think for now I would say, in the absence of the stats, if they are alarming maybe there could be a campaign to raises awareness on those stats and that could get policy makers talking.”¹⁸⁵

Accountability, oversight and dissemination mechanisms for institutional gender mainstreaming initiatives

- Accountability through monitoring and evaluation, and transparency is needed;
- The first step is to collect sex-disaggregated data with regards to women's participation at all levels – including management, technical and decision-making levels in green industry;
- A safe mechanism for women to report harassment or discrimination in the workplace, and stricter repercussions for those that discriminate and perpetrate;
- Implementation plans for policies, with targets and timeframes;
- Performance assessments linked to gender mainstreaming targets, with an independent audit of compliance;
- Reviews are needed to see what has worked and not worked, to help improve in future;
- Parliamentary oversight to check to what extent each department is applying the principles of gender mainstreaming in green industry;
- The Ministry of Women could be empowered to monitor and report on the behaviour, attitudes and the level of compliance in government; and
- Equal gender representation in key government steering committees and cross-departmental committees.

It was also highlighted that there will be positive spill-over effects from taking action now. As one woman stated, the more women enter management positions in green industry, the more trickle-down effects will occur: “change would automatically come from having women in senior positions and increasing the numbers, then more organically the norms and culture are challenged.”¹⁸⁶

Specific recommendations for government, civil society, universities, private sector and

Government

- A specific gender-mainstreamed policy for green industry, outlining how women can be economically empowered in green industry;
- Facilitate and incentivise collaboration across departments and between the private and public sectors;
- A small fine for not adhering to quotas is not enough. Gender mainstreaming needs to be more than a tick-box activity;
- Address systemic discrimination, including racism and gender inequality. This will require an intersectional approach that considers the diverse social locations and identities of women, including gender, rurality, urban township economy, race and poverty, amongst others;
- Promote and incentivise fast-track programmes for women. If there are not enough women available for positions, think about supply-side factors as to why women may not be applying. These include investing in awareness, mentoring, networking and education opportunities for women;
- Due to prevailing gender norms, women disproportionately carry out unpaid care and domestic work in addition to paid work. These imbalances need to be addressed and alleviated with access to affordable childcare and parental leave for all workers. Actively acknowledging these additional responsibilities and offering workplace solutions to them encourages women's equal participation in income generation and a better work-life balance for women and men. When this is the norm, women will be less likely to suffer discrimination based on the expectation of being the primary care givers; and Policy formulation that does not sit alone in each government department but is cross-departmental.

Local Government

- **Consciousness raising:** women in local government need to be brought together for adequate women-only training. This must include capacity building until they feel confident, articulate, and empowered to be in mixed-gender meetings to convey their understanding and perspectives on economic empowerment alongside their male counterparts. This training should be provided to assist women in

¹⁸³ KIII, Woman, Chief Director, Pretoria, South Africa.

¹⁸⁴ KIII, Woman, Chief Director, Pretoria, South Africa.

¹⁸⁵ KIII, Woman, Chief Director, Pretoria, South Africa.

¹⁸⁶ KIII, Woman, Pretoria, South Africa.

taking up leadership and decision-making roles and thereby broaden the pool of candidates for such positions. Such training should further incorporate modules that will equip women leaders with the skills to develop strategies and action plans in the political arena;

- **Political buy-in:** throughout all three spheres of government, the transition to Economic Empowerment for Green Industry requires political buy-in and decisions that deliberately target women including developing consensus around a vision and milestones that are to be regulated and monitored by all spheres of government, citizens, and their stakeholders;
- **Gender responsive regulations and policies: more responsive, equitable and participatory actions to indicate how to synergize women's programmes in relation to policy and implementation in all three spheres of government. This will bring government and decision-making processes closer to the people, and thus speed up the policy processes and activities. Promoting environmental and social objectives can be achieved through gender-responsive financial services to women, industrial and technological regulations and policies. Examples include subsidies, incentives, use of local government investment, budgeting that incorporates economic empowerment revenues and costs, monitoring wasteful expenditure and the over-use of resources;**
- **Stakeholder engagement:** engage in stakeholder dialogues that include women in local communities “because women often show more concern for the environment, support pro-environmental policies, and vote for pro-environmental leaders, their greater involvement in politics and in non-governmental organizations could result in environmental gains with multiplier effects across the MDGs.”¹⁸⁷ These dialogues must address political questions of ownership and entitlement, community mapping and management of the public commons, as well as the economic and social value of environmental resources, infrastructure investments and terms of social investment policies at the local government level; particularly as set out by SALGA (South Africa Local Government Association) in line with the national government.

Recommendations for Civil Society

- Accountability and oversight for gender mainstreaming can be achieved through interest groups that hold those in power accountable;
- Advocacy groups for the demands of women in green industry, such as women's networks in the renewable energy sector, should be supported and encouraged;
- Promote collaboration among women's groups and solidarity movements;
- Women need to be targeted in a more specific way by programmes related to green industry from the government and from NGOs;
- Create role models of successful women entrepreneurs who can attract or persuade women/girls wanting to participate as entrepreneurs in the green industry;
- These role models would play a vital role in attracting more women business leaders by coaching them at an individual level and sharing their experiences at a collective level. Hence this would lead to a critical mass of women entrepreneurs active in the green industry, which will have an impact on their effectiveness to formulate their demands towards the government;
- Exchange and network more among each other – form a solid physical and/or digital platform of women entrepreneurs in green industry who can formulate recommendations and exigencies for the government; and
- Need to engage more men to be the “gatekeepers” to gender equality by encouraging them to help their female family members access resources that are essential to their economic empowerment, the start-up and growth of their businesses or to be the agents of change in challenging established gender norms.

Recommendations for private sector stakeholders

- For private sector actors to foster business practices that empower women, The Women's Empowerment Principles (WEPs)¹⁸⁸ can be used as a set of guiding principles to promote gender equality and women's empowerment in the workplace, marketplace, and community;
- The WEP principles include equal pay for work of equal value, gender-responsive supply chain practices and zero tolerance against sexual harassment in the workplace;
- Private actors with financial resources and capabilities should lead by example and assume the responsibility of trying out new ways of greening their business in ways that are gender-responsive and environmentally sustainable;
- Private sector stakeholders must work to create enabling environments for gender equality and women's economic advancement. This requires actively challenging structural and systematic discrimination against women. Mentoring and networking programmes for women in green industry are important tools to support women's career advancement and high-level corporate leadership;
- Invest in exchange visits with other companies in South Africa and abroad to learn from experiences and innovations in green industry;
- Ensure equal terms and conditions of work for men and women in terms of contract, salary and benefits, while addressing the particular needs of breastfeeding and pregnant women; and

¹⁸⁷ <https://unfccc.int/news/climate-action-needs-gender-action>.

¹⁸⁸ Established by UN Global Compact and UN Women, the WEPs are informed by international labour and human rights standards and grounded in the recognition that businesses have a stake in, and a responsibility for, gender equality and women's empowerment. For more information, see <https://www.weps.org/about>.

- Invest in training and capacity building of women workers to ensure equal access to promotions, management and leadership roles. Dismantling hierarchical ladders is equally suggested where women and men can more easily switch jobs between several (also male-dominated) disciplines and levels. In this way, women are exposed to a broader range of professional experiences which strengthens their abilities and competencies to handle jobs that are traditionally viewed as masculine (and the other way around: men doing more feminine jobs).

8.3 Future research questions

The four phases of this research study were comprehensive and included a wide range of information, data, and findings. However, there are questions that evolved during the research process that could be further explored in future studies to understand the advancement of gender equality and women's empowerment in green industry, namely:

1. What measures can be taken to ensure the success of **existing women-led green businesses and the promotion of new entrepreneurs and professionals in the context of the COVID-19 pandemic**?
2. What is the trend/pattern of **women's participation** across the **sectors' and the sub-sectors' value chains** in terms of the power relations, division of labour, decision making, and opportunities for women's participation, etc.?
3. Are there any **differences in economic empowerment** for women who are entrepreneurs by choice (i.e., to be economically independent) or by need (e.g., to add to family's meagre income) in the green industry?
4. How could **social media** be leveraged **to create awareness** among entrepreneurs, professionals and aspirants about **current policies and laws** that promote green industry opportunities and gender equality?
5. Emergent research suggests that the transition to **digital services** is a critical survival factor for businesses in the COVID-19 crisis and recovery. Owing to the digital gender divide, women are less likely to have access to digital resources and/or be employed in technology-oriented sectors. What **measures** can be taken to **encourage more women to pursue business and employment** in these sectors?
6. As an emerging industry, what can the green industry glean from other industries with **family-friendly policies** that have enabled more **equal sharing of care responsibilities** and facilitated more equal access to the labour market for women?
7. What are the implications of this research for **women occupying different intersectional positions and identities**?

9. Conclusion

This study has highlighted the many opportunities to advance gender equality and women's economic empowerment in the emerging green industry in South Africa. Participants from across government departments, as well as industry professionals and entrepreneurs in the sectors of renewable energy, waste management and clean transport, displayed optimism with regards to the opportunities for women.

In terms of policy, the South African government has made positive promises in its annual, mid-term and 25-year plans. South Africa has gender equality enshrined in law, and ambitious green industry plans situated within the broader framework for a "Just Transition". However, given that there is currently a limited focus on women's economic empowerment in green industry, existing policies should be revised where possible, and new policies should be developed that use the criteria developed in Assessments I and II of this report to ensure that quality gender content and commitments are included in new green industry policies.

Women's barriers to economic empowerment in green industry are multi-faceted and different based on race, rurality, and level of poverty. The barriers identified in this report included: lack of technical skills and specialised knowledge, lack of awareness about policies and programmes designed to benefit women and/or encourage participation in green industry, lack of access to technology necessary to start green businesses or upscale existing businesses, difficulty in finding and hiring skilled workers, lack of social capital, lack of access to necessary capital, collateral and credit resources, and lack of markets to sell their products. Furthermore, discriminatory norms and hiring practices, sexual harassment, and caretaking responsibilities also constrain women's economic empowerment in green industry.

The findings from this report, while specific to the South African context, also reflect the findings of other global studies. The recently released publication by the Global Women's Network for the Energy Transition (GWNET) and International Renewable Energy Agency (IRENA): 'Women for Sustainable Energy: Strategies to Foster Women's Talent for Transformational Change (2020)' demonstrates that many of the barriers faced by women in South Africa are shared by women at a global level.

However, there are many opportunities to advance women's economic empowerment. For example, the National Green Fund, SAFEE, SAWEA, SANEDI and similar programmes could act as catalysts for change. The EEWiGI can collaborate with these projects and programmes and build capacities of women and channel seed grants for startups to women in green industry.

Reflecting the recommendations of this study, the government of South Africa should seek to build increased transparency and accountability to overcome barriers to gender equality. Good monitoring and indicators, linking to targets with national and international data collection organisations (such as IRENA, ENERGIA, the ILO, the Sustainable Development Goals, the IEA) will enable the government to be held accountable on ambitious targets. Also, increasing communication and awareness on policies and gender mainstreaming amongst public sector employees should be prioritised.

In terms of eliminating violence against women and creating safe workplaces, the ILO and UN Women produced a *handbook* that provides practical guidance and examples of how to respond to and prevent violence and harassment against women in various workplaces. The WEPS Guidance Note on Tackling Sexual Harassment in the World of Work is an additional resource to guide gender-responsive business conduct in the private sector.

A stack of books with colorful tabs sticking out, set against a blue background. The tabs are in various colors including blue, yellow, red, and white. The books are stacked in a way that the edges of the pages are visible, creating a textured, layered effect. The background is a solid, deep blue.

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Appendixes

Appendix 1: Sub-Sector Selection Matrix for South Africa

Sector analysis (High: 3, Medium: 2, Low: 1, Non-Existent: 0)/ Textile Industry SUB SECTORS	Renewable Energy (Wind & Solar)	Waste management (Plastic)	Road Transport
Gender			
Gender mainstreamed policies exist (high = non-existent / low = exist)	1	1	1
Number of jobs currently	2	3	1
% women employed	2	2	1
Potential increase of number of jobs	3	3	3
Potential increase of number of women employed	3	3	3
Positive conditions for women formal employment (Family friendly conditions)	3	3	3
Share of women employed vs wage	1	1	1
% of women in decision-making positions	2	1	1
Potential for women to achieve decision-making positions	2	2	2
Market size			
Number of companies	3	2	2
Size of cies (high = small/ low = large)	3	2	1
Industry growth in the last 10 years	3	2	1
Industry potential growth next 10 years	3	3	3
% of industry that contributes towards GDP	3	3	3
Entrepreneurship			
% of SMMEs	3	3	3
% of women owned cies	2	1	1
% change in the last 5 years	3	2	1
Potential for women entrepreneurship	3	2	1
Environmental			
Green policies for the sector exist (high = exist / low = non-existent)	3	3	2
Industrial sector in transition/brown or green	3	3	2
Energy-related CO ₂ emissions	3	3	3
Intensity of energy related CO ₂ emissions	1	2	3
Energy consumption	2	2	3
Energy efficiency of manufacturing sector	3	2	3
Synergies			
Synergies exist with other PCP projects (high = exist / low = non-existent)	3	3	3
Synergies exist with other projects in country (high = exist / low = non-existent)	3	3	3
Other			
Prioritisation by Government	3	3	3
Availability of data	2	1	2
Level of innovation	3	2	2
Total	74	66	61

Appendix 2: Individual policy assessments

1 National Green Fund (NGF)

Assessment I

ENGENDERING OF THE POLICY

The NGF differentiates job creation according to sex but does not expand into further gender considerations. The policy document provides a figure for how many women have been hired as employees or entrepreneurs in total over the 17 NGF projects, but does not provide statistics for each individual project, with some being more targeted at women than others. It does not delve deeper into the different experiences that men and women may face in these job roles, or how these jobs may lead from employment to empowerment. Out of all the projects summarised in this document, only three of these mention the involvement of women.

There are likely to be unique opportunities and challenges for women gaining newfound employment in the green industry and these will intersect with additional factors, such as whether they have existing unpaid caring responsibilities. The specific factors that may impact women differently to men in these projects were not touched upon in the summary document. It is uncertain whether each individual project will have undergone a qualitative impact assessment for its impact upon factors such as gender equality and empowerment. The Green Climate Fund, an international investment fund that also contributes towards national projects such as those in South Africa's NGF, ensures that all projects undergo a strict gender impact assessment. This is something that could be emulated by the NGF.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

This policy focuses on employment as the key to women's empowerment as well as positing this employment as the solution to host of other development goals such as reduced poverty and reduced inequalities. The NGF policy therefore focuses on economic factors behind gender inequality but stops short of exploring further factors such as societal norms and expectations, religion, culture and politics. It focuses on individual-level solutions. For instance, the Camdeboo Satellite Aquaculture Project focuses on creating 'self-employment opportunities for women living in rural areas'. Self-employment is often informal work, with little security or job benefits. By positing employment as the route to gender equality, it misses the impact this may have on the important sphere of work: the typically unpaid socio-reproductive work that women do on a daily basis. Unpaid work might not be redistributed between the family unit as the women gain employment but may become a hidden 'second shift' in the home. However, the education and environmental management aspects of this project do contribute towards further benefits for women in the long-term, rather than just income-generation.

INTERSECTIONALITY

Some of the projects funded by the National Green Fund do acknowledge the intersection between gender, rurality and poverty. For instance, Edakeni Muthi Futhi, a natural resource management project in Edakeni, KwaZulu-Natal: 'supports the livelihoods of marginalised women living in rural areas'. It aims to create '30 sustainable jobs for women and contribute to the protection of biodiversity by reducing dependence on the wild harvesting of plants.'

Age differentials are also considered. Many of the projects aim to create employment for youth. Youth unemployment is extremely high in South Africa and is considered a key target of the existing government. Young people aged between 15–24 years old are the most vulnerable section of the South African labour market - the unemployment rate among this age group was 55,2% in the 1st quarter of 2019.¹⁸⁹ Many of the projects are specifically targeted at youth, for instance, the 'Jobs in Waste for Youth' project, which addresses the dual challenge of youth unemployment and the lack of capacity to deliver waste management services in municipalities in the Free State and the North West. It does this by placing young people as waste collection administrators, landfill site assistants and environmental awareness educators. (pp. 22). However, it does not make any reference to race, disability or caring responsibilities. There were no special considerations such as childcare arrangements.

WOMEN'S EMPOWERMENT

The primary way that empowerment is achieved through the NGF is through employment. It is highlighted that 812 women are employed in direct jobs. It states that as of end-2016, there were 19 active investment projects, addressing a wide range of localised and industry development needs, 'including empowering women and developing clean energy alternatives.' An example of one project that focuses on women's empowerment is as follows:

'The Camdeboo Satellite Aquaculture Project farms catfish to reduce reliance on overexploited and declining wild fish stocks. It simultaneously develops skills and creates self-employment opportunities for women living in rural areas, promotes pro-poor economic growth, increases food security and encourages social equity in Camdeboo. Skills training and empowering women is a key focus. The majority of employees are local women and youth, who receive training through the project's workforce development programme, which includes foundational learning and continuous skills development. Furthermore, the project provides support to small, medium and micro- sized enterprises (SMMEs).'

¹⁸⁹ <http://www.statssa.gov.za/?p=12121>

This policy includes direct quotes by a woman who works on one of the projects. This demonstrates that women are in management roles, not just in lower-level positions:

“This is a really wonderful opportunity. We are growing from strength to strength every day. The morale of the people who work here is just amazing. They come from very little or nothing and they’ve worked their way up. They are so proud of what we stand for here at Blue Karoo, and they are proud to be women in the community who are providing for their families.”

In this way, this project is challenging stereotypes, with women providing for their families and also becoming managers of the projects. The projects do not make any reference to encouraging women to campaign for their rights or to join a union. However, the jobs on offer do often include an education aspect, as well as the spill-over benefits of many of the green projects upon health, productivity and natural resource management. Self-income generation offers flexibility. It is impossible to tell from the short descriptions provided whether these projects do empower women beyond the economic level, but it is expected that more information will be made available about each individual project online. However, it appears that the NGF does not enforce strict quotas or gender equality and empowerment considerations at the organisation level of projects, but rather each project can choose to do this voluntarily, leading projects to incorporate women to different extents. Specific funds set aside for projects that are run by women or aim to empower women would ensure that more than 3 of the 19 projects have a specific women’s empowerment focus in the future.

INCREMENTAL TRANSFORMATION

The policy document states that there are several key strategies, policies and initiatives that provide a mandate for green economic development. The ones that it includes are as follows:

- The National Framework for Sustainable Development (2008), which outlines South Africa’s vision for sustainable development and identifies strategic interventions to transition to a sustainable development path;
- The New Growth Path (2010), which identifies the green economy as a key driver for job creation;
- The Green Economy Accord (2011), an agreement between government and the private sector, organised labour and civil society, that commits signatories to, among other things, promote green sectors of the economy to create jobs and to green other traditional sectors;
- The 2011 National Climate Change Response Strategy, which describes South Africa’s response to climate change, including a focus on creating jobs in green economy sectors and on promoting investment in human, natural and capital resources to grow the green economy;
- South Africa’s National Development Plan (2012), which mainstreams low-carbon and climate-resilient development; and
- The Industrial Policy Action Plan II (2010/11–2012/13), which outlines strategic initiatives to develop green industry.

GENDER-RESPONSIVENESS

To date, these projects have created about 2,355 direct jobs and 9,285 indirect jobs. It states that it has created only 812 direct jobs for women or 34% of the total jobs. The NGF is particularly of relevance to job creation for women in the green economy. It specifically seeks to economically empower women through access to paid work in green jobs. However, of 55 past and currently funded projects, only three were mentioned that targeted the training and employment of women.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

The NGF makes reference to the Sustainable Development Goals on multiple occasions. At the end of each project summary, it highlights which of the SDGs they are in line with. It mostly draws reference to Goal 1: Reduced Poverty; Goal 8: Decent Work and Economic Growth and Goal 11: Sustainable Cities and Municipalities. However, one project also states that it contributes towards Goal 5: Gender Equality (the Cambedoo Satellite Aquaculture Project; pp.10).

1. National Green Fund		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 0.5 1.2 = 0.5 1.3 = 0.5 1.4 = 1 1.5 = 0.5
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0.5
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 0.5
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1 = 1 4.2 = 1 4.3 = 0.5 4.4 = 0
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1 = 0.5
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1 = 1 6.2 = 0.5 6.3 = 1
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1 = 1

Assessment II

National Green Fund mentions women in its conclusion in the following way: ‘Related to job creation is the empowerment of women – iShack has trained female technicians; the Edakeni Muthi Futhi project is run by women living in KwaZulu-Natal; and the Camdeboo Satellite Aquaculture Project employs mostly women.’

This mentions sex by stating the number of women that have been employed and trained but fails to take gender relations into consideration. It relates job creation to employment opportunities for women, which they link to the empowerment of women. However, employment does not automatically lead to empowerment, an argument that Pearson (2006) raises¹⁹⁰: ‘We need to challenge the assumption that women can become empowered solely by selling their labour or products for money. [...] Earning money may extend women’s options but may also intensify their workload and responsibilities without necessarily increasing their autonomy’ (pp. 207).

For employment to lead to empowerment, it must be decent work and this link is not explored in the conclusion. The ways that employment may lead to women’s empowerment are not illustrated in the main body of the policy, but rather assumed. **A recommendation going forwards would therefore be to highlight how decent work provided by the NGF may lead to empowerment.**

Results of assessment II

No.	Name	Year	Score
1	National Green Fund	2018	2

¹⁹⁰ Pearson, R. (2007). 16 | Reassessing paid work and women’s empowerment: lessons from the global economy. *Feminisms in development: Contradictions, contestations and challenges*, 201.

Level of implementation

Implementation of the action plan is divided into two phases: for a short term from 2013-2017 and for a medium and long term from 2018-2030.

Name	Level of Implementation	Score
1. National Green Fund	Has been fully implemented, evidenced by the summary document of all projects that are already underway and the amount of employment resulting from these projects.	1.0

2 Green Transport Strategy

Assessment I

ENGENDERING OF THE POLICY

The only time gender was mentioned in this policy is in the following statement: ‘promoting access for all to safe, age- and gender- responsive, affordable, accessible and sustainable urban mobility and land and sea transport systems, enabling meaningful participation in social and economic activities in cities and human settlements, by integrating transport and mobility plans into overall urban and territorial plans and promoting wide range of transport and mobility options’.

To aim for gender equality, this policy should consider women both as users of transport and as workers within the transport sector. Gender differences however were not considered, such as how women’s mobility, accessibility and safety is limited or how as workers, they may struggle to succeed in what is a male-dominated sector. As is written by the Transformative Urban Mobility Initiative: *‘Women and men have different expectations, needs and constraints for using transport. Without considering these, planning and projects do not adequately meet the demands of a large part of their users. Thus, transport is neither efficient nor sustainable. In order to change this, the different mobility needs and requirements of women, female travel patterns as well as their safety and security constraints need to be better understood. Furthermore, transport systems can only become truly inclusive and gender-responsive if the voices, perspectives and experiences of women are reflected at all levels in the transport sector. Thus, as it is still a largely male-dominated field, it is imperative to focus on increasing the number of women working on transport.’*

The policy used gendered language which is focused upon men:

‘Planes, trains and automobiles, carriages, carts and coaches from history’s earliest to **modern man’s** most sophisticated, modes of transport have changed through the ages with little attention paid to **man’s first step** in mobility: walking. In South Africa walking is one of the most utilised forms of getting people from one place to another, but at enormous cost: financially, emotionally, morally and physically.’

The Green Transport Strategy could include gender considerations by adhering to the ‘5 principles to empower women in transport’ that was launched on International Women’s Day 2019 by the Transformative Urban Mobility Initiative (TUMI). These principles will be considered throughout the review of the Green Transport Strategy. Of particular relevance to the Engendering of the policy is principle one: **to study and understand women’s mobility and how this differs from men.** This involves considering whether transport systems that do not consider a gendered approach may be disadvantageous towards women.

Throughout the GTS, sex-disaggregated data was not collected or reflected upon. The document does not include any gender component neither does it consider the different challenges and opportunities for women as workers, entrepreneurs and end-users of green transport.

Some recommendations going forwards to gender the GTS:

- **Collect sex-disaggregated data to understand female travel patterns as well as taking into consideration informal transport such as walking and cycling data in transport surveys.**
- **In formulating such a strategy, include specific questions on short, non-work-related trips and mobility of care in questionnaires, learn from good global practice**
- **Conduct gender impact assessments: view the city ‘through the eyes of women’ by involving local women groups and organized civil society**
- **Ensure the engagement of women all along the planning and policy process including consultation, monitoring and evaluation**

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

A structural understanding of gender equality is one which goes beyond the individual level. Gender differentials in the transport sector should not merely be explained by individual preferences or motivations, but rather should focus upon the impact of structural factors such as violence against women and how having children impacts upon mobility. The report mentions briefly that it seeks to ‘promote access to age- and gender-responsive... sustainable urban mobility.’ However, the mobility of women will not increase automatically if policy is not gender mainstreamed. There are no specific plans in place to promote gender-responsive sustainable urban mobility that can be seen in this

report.

A structural understanding would ensure women's security in transport systems, through the following steps:

- Developing reliable reporting mechanisms for sexual harassment and gender-based violence on public transport;
- Designing open public areas with visibility, lighting and CCTV systems at stations;
- Training public transport staff to deal with sexual harassment situations;
- Ensuring a greater and gender-mixed staff presence at stations and in vehicles;
- Evaluating the need for women and children-only services in public transport and ride hailing services;
- Providing information on public transport schedules to avoid long waiting times which can be dangerous for lone women;
- Rolling out 'on demand' bus stops at night and in the early morning to reduce walking distances in the dark, which pose dangers to women;
- Include security requirements in tendering documents and bonus- penalty clauses in contracts with operators;
- Making cycling attractive for women by providing safe infrastructure and promoting cultural acceptance;
- Use campaigns and social media to encourage a "culture of zero tolerance" against harassment and misbehaviour towards women; and
- Conduct educational programmes at schools on gender roles and safe mobility.

INTERSECTIONALITY

While there was one paragraph in the policy that referred to the promotion of "age- and gender-responsive... sustainable urban mobility", there was not enough consideration given to the intersection of multiple factors that could impact on a person's mobility, such as disability, age, gender and childcare responsibilities.

Inclusive mobility for people with disabilities or children would consider the following factors:

- **A street network with large sidewalks, sufficient crossings and street signals;**
- **Barrier-free access to public transport without steps and with level boarding; and**
- **Provision of clean toilets and nursing rooms in highly frequented public transport stations.**

WOMEN'S EMPOWERMENT

The word empowerment is not included in the Green Transport Strategy in reference to women. The policy does not mention consulting women, or women's civil society groups and associations during its development. Stakeholders were consulted, but it is unclear from the policy document itself which stakeholders, whether these were women's groups or advocates. However, the document does state it is in line with the NDP, in which investments in transport will be made to 'empower South Africa and its people.'

The consultation process was as follows: primary research included gathering and collating information and inputs from an expert reference group, as well as inter-Governmental stakeholder and implementation workshops. Secondary research consisted of desktop research involving both national and international literature reviews, as well as extensive stakeholder consultations. The question we are left asking is whether any of these stakeholders represented women's interests.

INCREMENTAL TRANSFORMATION

This policy does build on previous national policies. It contains a three-page summary of all the previous policies and strategies that it has built upon. Many of these are irrelevant to gender, however some, such as the National Development Plan, do consider gender differences and aim for women's empowerment. It also builds upon the National Transport Master Plan (NATMAP 2016-2050), which is much longer and more extensive. This transport master plan perhaps contains more gender considerations than the specific green transport strategy, which focuses primarily on the mitigation of greenhouse gases.

GENDER-RESPONSIVENESS

An opportunity was missed in this document to capitalise on the benefits that the green transport sector offers for women's employment and empowerment. **To empower women as employees and leaders in the transport sector, the following factors could be considered:**

- **a gender-responsive work-culture that combats gender clichés in the transport sector;**
- **reducing entrance barriers to employment for women at all levels: drivers, planners, managers, entrepreneurs, decision-makers,**

female drivers and mechanics and ensure their retention through good working conditions and appropriate facilities;

- the adoption of parity representation policies in participatory and decision-making bodies;
- promoting women leaders in the transport sector as role models;
- the inclusion of gender and mobility in university curricula in transport planning and engineering; and
- to use gender-balanced public signage and employ gender-sensitive language.

One document of best practice that could be emulated is the “Remarkable Women in Transport” document: Female change-makers transforming mobility. This was launched on international women’s day 2019 and highlights women in the transport sector. Promoting women as role models in this way would encourage more girls to consider entering this male-dominated sector.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

While this policy did not build on specific international conventions, policies, laws or commitments that safeguard women’s rights such as CEDAW, it was contextualised with the UN Forum Convention on Climate Change, which has a Gender Action Plan.

Assessment I Total Score: 3/16 or 19%

2. Green Transport Strategy		
Quality Criteria Categories	Research Questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 0 1.2 = 0 1.3 = 0.5 1.4 = 0 1.5 = 0
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0.5
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (Intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1= 0.5
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1= 0 4.2= 0 4.3= 0 4.4= 0.5
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1= 0
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1= 0.5 6.2= 0 6.3= 0
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1= 0.5

Assessment II

Women are not mentioned in the conclusion at all, resulting in a score of 0.

Results of Assessment II

No.	Name	Year	Score
2	Green Transport Strategy	2018	0

Level of Implementation

Section 13.1 of the DoT document is an implementation plan, and 13.2 is Monitoring and Evaluation. The document provides a table with the specific actions required, the person responsible and a timeline. All interventions or measures need to be SMART (Specific, Measurable, Achievable, Realistic, Timely).

The timeline referred to in the Implementation Plan follows the following outline: Short-Term: (5 - 7 years); Medium-Term: (8 - 10 years) and Long-Term: (11 - 20 years). The GTS will also implement an internal review period, every three years to ensure that the strategic interventions within the strategy are being implemented judiciously.

The Green Transport Strategy has a strong framework for implementation, monitoring and evaluation. However, when internal reviews are not made public, they cannot be scrutinised in the public eye. This leads ambitious aims to fall short on implementation.

Name	Level of implementation	Score
2. Green Transport Strategy	Has a good implementation plan, but as it runs 2018-2050 is difficult to tell yet if it has been implemented. It has an implementation strategy, ranging from short term goals of 5-7 years to long-term goals of 11-20 years. The GTS will also implement an internal review period, every three years to ensure that the strategic interventions within the strategy are being implemented judiciously.	0.5

3 Department of Mineral Resources and Energy (DMRE) policy on Women's Empowerment and Gender Equality (WEGE)

Assessment I

ENGENDERING OF THE POLICY

This policy considers gender differentials throughout. It aims specifically for gender equality and women's empowerment. It encourages the gender mainstreaming of the DoE. It uses sex-disaggregated data, such as the inclusion of information from 'Statistics SA', such as the 'Gender Series Volume 1 on Economic Empowerment (2001-2014)'. Here it highlights the gender gap with respect to achieving gender equity and the gap in the labour force participation rate (pp.5). It also aims for equal participation of women and men in the Department of Mineral Resources and Energy (DMRE).

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

This policy considers structural factors, beyond the individual level, that contribute towards gender equality. It states that: 'Providing women and girls with equal access to education, health care, decent work, energy and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanities at large.'

INTERSECTIONALITY

This policy considers the intersection between gender, age and disability. This is illustrated on page 3, which states: "The DoE gender policy and this strategy promote and enshrine the equality of women and men in all areas, included but not limited to employment, work and pay and adoption of measures to provide specific advantages in favour of women, young women and women with disabilities." This is also highlighted on page 5, which states: "South African women continue to face serious inequality and disadvantage in a wide range of spheres: in business, in their communities and in their homes. These disadvantages are further complicated by unequal gender relations within the categories of race, class, disabilities, sexual orientation, religion and geographical location."

It is commendable that this policy acknowledges these intersections. **The next step is an actionable plan to tackle the disadvantages caused by these.** The policy states that women and youth participation must be at the heart of the growth and expansion of the energy sector. **A plan of action that encompasses the intersection between gender, race, disability and youth would benefit this policy.**

WOMEN'S EMPOWERMENT

This policy refers to women's empowerment and seeks this as a key aim. It primarily is focused upon economic empowerment, as demonstrated through posing the 'business case for gender equality' (pp.4). This makes the case that gender equality can add "\$12 trillion to global growth" operationalising gender equal employment for the secondary goal of growing GDP. However, this framing of gender equality as good for business often falls short of the necessary steps that lead from employment to empowerment. This narrative operationalises women for the attainment of other goals, without focusing primarily on their empowerment. **It is important not to simplify the link between energy access or paid work and women's empowerment, but to consider specifically how these can lead to an increase in agency and positive outcomes for women.**

It is positive to see that in other parts of this policy, it speaks not just of the economic case for equal employment, but also of "gender justice"

(pp.6). The framework is based on the WEGE vision to “create a transformed, inclusive energy sector that is free of discrimination, inequalities and barriers to self-reliance”

This policy not only speaks of “climate justice” and the dual nature of clean and accessible energy as a tool for women’s empowerment, but also gender equality as a tool for increased energy access for all.

INCREMENTAL TRANSFORMATION

On page 3, it states the previous national policies that this policy builds upon, particularly in reference to gender equality:

“The government has signed and ratified several sub-regional, regional and international instruments for which it has to report SA progress on their implementation... All these instruments seek to promote Women and Girl human rights, women’s empowerment and gender equality.”

“DoE has to take these regional and international instruments into account and include the provisions in the policy to mainstreaming gender issues in the energy sector.” (pp.3)

It builds upon the following national policies:

- South African policy framework for Women’s Empowerment and Gender equality
- Gender Equality Strategic Framework for the Public Service
- SADC declaration on Gender and Development
- SADC protocol on Gender and Development

GENDER-RESPONSIVENESS

In section 4.1, it addresses capacity building as a step that is necessary to increase entrepreneurship and leadership roles of women in the energy sector. The exact quote is: “Strengthening / building capacity of women, including women with disabilities and young women in order to render them independent, employable, skilled and able to take up positions in decision-making levels effectively and business opportunities as entrepreneurs in the energy sector, is one of the core objectives of the policy.”

The four strategic pillars, which are of relevance to women’s economic empowerment in green industry, are:

- An enabling environment
- Equity
- Gender Mainstreaming and
- A barrier free workplace

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

Builds upon the following international policy:

- CEDAW
- African Union Protocol to the Charter on Human and People’s Rights on the Rights of Women in Africa
- 2030 Agenda for sustainable development
- The Beijing Platform for action

Assessment I Total Score: 14.5/16 or 91%

3. Department of Mineral Resources and Energy (DMRE) policy on Women’s Empowerment and Gender Equality (WEGE)		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality?	1.1 = 1
	1.2. Does the policy include sex-disaggregated data consistently?	1.2 = 1
	1.3. Does the policy consider gender differences in order to create more equality?	1.3 = 1
	1.4. Are gender stereotypes challenged?	1.4 = 0.5
	1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.5 = 1
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 1

3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1= 1
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1= 1 4.2= 1 4.3= 1 4.4= 0.5
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1= 1
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1= 1 6.2= 0.5 6.3= 1
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1= 1

Assessment II

Score of 4: highly relevant gender aware conclusion.

This conclusion states clearly that “equality between women and men is a fundamental principle enshrined in the South African constitution, policies, laws and regulations.” It states that this strategy promotes and enshrines the equality of women and men in all areas including but not limited to employment, work and pay. Intersectionalities are also noted in the conclusion by stating the policy seeks to adopt measures to provide for “specific advantages in favour of women, young women and women with disabilities.” Not only does the conclusion make reference to the importance of “gender empowerment and gender equity” but it also includes a framework for implementation. It states that it expects the PPMO (Public Policy Monitoring Office) to prepare an annual report that presents progress towards achievement of the strategy’s expected results, includes changes in gender parity and enhances institutional effectiveness. It also states that an independent report should be conducted every five years to monitor the effectiveness of the strategy.

Results of Assessment II

No.	Name	Year	Score
3	Department of Mineral Resources and Energy (DMRE) policy on Women’s Empowerment and Gender Equality (WEGE)	2017	4

Level of Implementation

Page 12 Section 5. Titled “reporting on and evaluating the gender equality strateg.”

“PPMO will be required to prepare annual reports on the implementation of Gender Policy to the minister on implementation outcome and the report will cover progress in implementing the strategy results, including concrete examples and transformative stories based on the baseline developed.”

Independent reporting should be conducted every five years to monitor effectiveness of strategy. The first report was in 2017, so three years have passed. Therefore, there should be annual reports on progress. However, currently these cannot be found on Energy website.

If these results are collected, but not made public then the DoE cannot be held to account. Therefore, the recommendation would be to make these annual reports open access on the DoE website, under the Women’s Empowerment section, for ease of access. This will make things easier when the five-year independent review comes around.

Name	Level of implementation	Score
3. Department of Mineral Resources and Energy (DMRE) policy on Women’s Empowerment and Gender Equality (WEGE)	Has a good implementation plan, but no documents are available online regarding its proposed internal reviews. Only the draft document from 2017 is available online; therefore it is difficult to tell yet if this has been implemented or even formalised past the draft stage.	0.5

4 The National Waste Management Strategy (NWMS)

Assessment I

GENDERING OF THE POLICY

There is no mention of gender or women in the 2011 NWMS. In its introduction section, the policy states that, “Through the country’s commitment to sustainable development, South Africa aims to balance the broader economic and social challenges of a developing and unequal society while protecting our environmental resources” (p.10). However, these social challenges and inequalities are not discussed further in the NWMS, except for a brief mention of “inequalities in access to waste services” (p.24) and “income inequalities” (p.68). The NWMS states that it will contribute to “Decent Employment through Inclusive Economic Growth” (p.18), but not for whom. Although the policy calls for “sustainable and equitable provision of waste services and community awareness and participation in waste management,” under the goal that, “people are aware of the impact of waste on their health, well-being and the environment,” (p.28) these goals towards equitable provision of services do not include sex-disaggregated data.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

As gender equality is not mentioned at all in this document, there is no structural understanding demonstrated. However, the policy does refer to the current waste management system as shaped by historical inequalities. For example, the NWMS lists a key challenge to waste services as produced by, *“A historical backlog of waste services for, especially, urban informal areas, tribal areas and rural formal areas. Although 61% of all South African households had access to kerbside domestic waste collection services in 2007, this access remains highly skewed in favour of more affluent and urban communities”* (p.5).

INTERSECTIONALITY

While the NWMS does mention the historical intersectional inequalities in waste services provision based on geography and wealth status (p.5), these forms of inequality are never described as interacting with gender inequality.

EMPOWERMENT OF WOMEN

The NWMS does not include the word “empowerment” or refer to women’s economic empowerment. The document does not provide information on whether women or women’s civil society groups or associations were consulted during its development.

INCREMENTAL TRANSFORMATION

The NWMS does not build on previous national gender equality achievements/policies.

GENDER-RESPONSIVENESS

The NWMS does not address the specific needs and interests of women entrepreneurs/women working in green industry, it does not consider ways to overcome gender norms and social traditions that impair women’s involvement in green industry, nor address steps necessary to increase women’s leadership roles in green industry.

Recommendations: Integrate with the “Working for Waste” programme, which is fully gender mainstreamed. This strategy could specifically demonstrate how it would address systemic discrimination, including racism and gender inequalities, in creating job opportunities for vulnerable groups of women, such as rural women, women from urban townships, black women, women from minority ethnic communities and poor women.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

No international women’s policies such as CEDAW were mentioned. To conclude; there were many missed opportunities here to fully mainstream gender across this policy. It is recommended to take advice from the “Women of Waste” website, which provides comprehensive resources for a gender-mainstreamed waste management sector.¹⁹¹

¹⁹¹ <https://www.iswa.org/women-of-waste/>.

Assessment I Total Score: 0/16 or 0%

4. The National Waste Management Strategy 2011		
Quality criteria categories	Research questions	Score
1. Gendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 0 1.2 = 0 1.3 = 0 1.4 = 0 1.5 = 0
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 0
4. Empowerment of women (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1 = 0 4.2 = 0 4.3 = 0 4.4 = 0
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1 = 0
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industrial sector? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1 = 0 6.2 = 0 6.3 = 0
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1 = 0

Assessment II

In the conclusion there is no mention of gender, but it does generally refer to reducing inequalities. It is awarded a score of 0.

Results of Assessment II

No.	Name	Year	Score
4.	National Waste Management Strategy	2011	0

Level of Implementation

Name	Level of implementation	Score
4. The National Waste Management Strategy (NWMS)	<p>The Minister of Environment, Forestry and Fisheries established the NWMS, which has been implemented since 2011. Section 6(5) of the Waste Act stipulates that the NWMS must be reviewed by the Minister at intervals of no more than 5 years. Since 2017, the Department of Environmental Affairs has conducted a comprehensive review of the existing National Waste Management Strategy, and a draft revised and updated National Waste Management Strategy has been developed.</p> <p>The revised and updated Strategy was published in Government Gazette 42879 (Notice No. 1561) on 3 December 2019. It builds on the successes and lessons learnt from the implementation of the National Waste Management Strategy since 2011.</p>	1.0

5 Climate Change Bill (2018)

Assessment I

ENGENDERING OF THE POLICY

The only reference that this bill makes to ensuring equality for women is via the following sentence: *“The need to ensure a just transition for all towards an environmentally sustainable economy and society in the light of national circumstances and developmental goals.”*

A just transition includes the following, according to the ILO (2015), Principle 3:

‘Policies and programmes need to take into account the strong gender dimension of many environmental challenges and opportunities. Specific gender policies should be considered in order to promote equitable outcomes.’

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

As gender equality is not mentioned at all in this document, there is no structural understanding demonstrated.

INTERSECTIONALITY

There are no considerations of the intersection of gender with other factors such as disability, youth or rurality. However, the following statement was made which demonstrates an awareness of the intersection of race with poverty:

“It unfortunately remains true that in general poor, black South Africans remain more likely to live in communities in which human health and dignity are impaired by litter and illegal dumping and that the working conditions under which many waste pickers contribute to recycling often do not represent decent livelihoods. Integrating the informal sector into municipal waste collection services as part of systems for separating waste at source is therefore a key priority for the revised NWMS.” (pp. 9)

As women work disproportionately in the informal sector, this integration of the informal sector may indirectly impact upon women as well.

WOMEN’S EMPOWERMENT

Women’s empowerment is not mentioned in this bill. However, women stakeholders may have been consulted, and may still have the opportunity to comment.

INCREMENTAL TRANSFORMATION

The interpretation and application of this Act are guided by the National Environmental Management principles set out in section two of the National Environmental Management Act, principally that the climate system should be protected for the benefit of present and future generations of humankind; acknowledging international equity and each country’s common But differentiated responsibilities and respective capabilities, in light of different national circumstances; and the need to ensure a just transition for all towards an environmentally sustainable economy and society in the light of national circumstances.

GENDER-RESPONSIVENESS

The Climate Change Bill is not gender-responsive and does not encourage the participation of women in Green Industry.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

“Development goals” in this document refers to the SDGs, which include Goal 5: Gender Equality and the empowerment of women.

Assessment I Total Score: 1.5/16 or 9.4%

5. Climate Change Bill (2018)		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality?	1.1 = 0
	1.2. Does the policy include sex-disaggregated data consistently?	1.2 = 0
	1.3. Does the policy consider gender differences in order to create more equality?	1.3 = 0
	1.4. Are gender stereotypes challenged?	1.4 = 0
	1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.5 = 0

2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 0
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1 = 0 4.2 = 0 4.3 = 0 4.4 = 0.5 there are consultations with public but does not specify.
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1 = ?
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1 = 0 6.2 = 0 6.3 = 0
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1 = 1 (mentions the development goals)

Assessment II

There is no mention of gender in the conclusion. A score of 0 is given for the conclusion.

Results of Assessment II

No.	Name	Year	Score
5.	National Climate Change Bill	2018 (But not yet passed)	0

Level of Implementation

In terms of implementation, the following should be noted: As said by the climate scorecard: *“There seems to be no interest and a lack of urgency in the South African government’s actions to pass this bill.”*

The “activity rating” of the climate change bill is assessed as: “standing still”. The “Climate Scorecard” states: *“There has been a lot of input and recommendations from civil society, government structures and concerned individuals on the climate change bill; however it seems to be stuck in the final phases of being passed.”*¹⁹²

And as said in June 2019 (a year after the draft was released for public comment) by a report titled: “Governance of Climate Change Policy: A Case Study of South Africa:” *Closer integration between climate change and development strategies is already being implemented in the context of the National Climate Change Bill, the National Adaptation Strategy and the long-term adaptation scenarios; as well as through the national flagship programmes. However, implementation is moving slowly with neither the National Climate Change Bill nor the National Adaptation Strategy yet approved.*¹⁹³

¹⁹² <https://www.climatecard.org/2018/12/pass-the-south-african-climate-change-bill/>

¹⁹³ Governance of climate change policy: A case study of South Africa

Name	Level of implementation	Score
5. Climate Change Bill	<p>Implementation is moving slowly: The National Climate Change Bill is not yet approved. It is currently being debated by the National Economic Development and Labour Council (Nedlac).</p> <p>Once the second draft of the bill leaves Nedlac, it will return to the department for social partner inputs – business, government and labour – to be considered and incorporated into what will be a third and final draft of the bill. This will then be forwarded to Cabinet for approval before being tabled in Parliament.</p>	0

6. Department of Environmental Affairs Strategic Plan 2019/20 to 2023/24

Assessment I

ENGENDERING OF THE POLICY

This policy includes stratified percentages of women employed. For example, on page 5 one can find employment equity targets for 2019/20. It has a target 50% employment for women and demonstrates current percentage compliance to the Employment Equity targets. The policy stops at quotas for women rather than considering gender differences more broadly.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

This policy does not consider structural reasons, beyond the individual level, that impact upon gender equality. It does not include reference to historical, legal, socio-cultural factors. It does contribute towards economic and political factors, through encouraging women's 50% employment in the Department of Environment. However, a quota will not be enough to ensure equity and empowerment, if it does not consider building a pipeline for all women to benefit from this policy. For instance, it does not draw attention to how this policy may encourage women with children, women in rural areas with less access to education, or disabled women to also take up leadership positions.

INTERSECTIONALITY

This policy also includes a 2% target for persons with disabilities, in the employment in the Department of Environment. It states that: "The Five-Year Plan will mostly benefit our youth, women and people living with disabilities, while empowering Small, Medium and Micro Enterprises (SMMEs), particularly in the wildlife and ocean economies."

One of the strategic objectives is an adequate, appropriately skilled, transformed and **diverse workforce**.

The key focus is upon training up youth with the relevant skills, however it would be even better if this could be further mainstreamed so that young women are targeted:

"Build a transformed DEA which is representative of the country's demographics and ensure that there is a sufficient and capable pool of talent to implement the strategies and mandate of DEA. To this end the Department will recruit some 300 young graduates on a two-year internship programme and issue over 350 internal and external bursaries to staff and financially deserving young South Africans."

WOMEN'S EMPOWERMENT

Empowerment was only mentioned in terms of "Empowering Small, Medium and Micro Enterprises (SMMEs)" and BEE (Black Economic Empowerment) but not women's empowerment.

Instead of quotas which were criticised during the key informant interviews; the ability of this policy to empower women could be improved by considering the specific needs and interests of women; ways to overcome gender norms and social traditions that may impair women's involvement; and pathways to women's leadership positions. Quotas often may just lead to women being hired in lower positions and without the opportunity to progress to leadership.

INCREMENTAL TRANSFORMATION

This policy builds on the National Development Plan, which does incorporate gender considerations and women's empowerment.

GENDER-RESPONSIVENESS

The policy does not address the specific needs and interests of women entrepreneurs/ women working in green industry or consider ways to overcome gender norms and social traditions that impair women's involvement in the green industry. However, it does include a blanket gender quota that should increase women's participation in the public environmental sector.

The policy does not address steps necessary to increase women's leadership roles in green industry in the private sector, but indirectly through having more women in governance, this may encourage young girls through providing role models of women in positions of power in the public green sector.

It has quotas which is a way to counteract any impairment to women's involvement in the department of environmental affairs.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

The policy builds on the United Nations Framework Convention on Climate Change (UNFCCC) and one on the sustainable development goals. Both of these have gender considerations, but this policy doesn't build specifically on CEDAW or a women-specific convention for example.

Assessment I Total Score: 9.5/16 or 59%

Department of Environmental Affairs Strategic Plan 2019/20 to 2023/24		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 1 1.2 = 1 1.3 = 0.5 1.4 = 1 1.5 = 1
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of "intersectionality"? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women's lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 1
4. Women's empowerment (Policy Process)	4.1 Does the word 'empowerment' appear in the policy associated with women? 4.2 Does the policy refer to women's economic empowerment? 4.3 Does the policy refer to women's empowerment in terms of increasing women's agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women's civil society groups and associations during its development?	4.1 = 0.5 4.2 = 0 4.3 = 0.5 increasing their employment in the DoE 4.4 = 0.5 there is consultations with public but does not specify.
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1 = 0.5
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women's involvement in the green industry? 6.3 Does the policy address steps necessary to increase women's leadership roles in green industry?	6.1 = 0.5 needs and interests no but it does consider increasing their employment 6.2 = 0.5 it has quotas which is a way to counteract any impairment to women's involvement in the green industry. 6.3 = 0.5 not leadership roles – just employment in general
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women's rights?	7.1 = 0.5 Mentions one of the development goals, mentions United Nations Framework Convention on Climate Change (UNFCCC)

Assessment II

There is no mention of gender in the conclusion, resulting in a score of 0.

Results of Assessment II

No.	Name	Year	Score
6	Department of Environmental Affairs Strategic Plan 2019/20 to 2023/24	2018 (But not yet passed)	0

Level of Implementation

The performance indicators of this policy can be found on page 15 onwards.

Name	Level of implementation	Score
6. Department of Environmental Affairs Strategic Plan	This is from 2019/20 to 2023/24 so it is difficult to ascertain how well this is being implemented as its duration has only just begun. However, what can be said is that the DEFF releases an Annual Performance Plan every year in the public eye. This demonstrates a commitment to public monitoring and evaluation. From the Annual Performance Plan 2019/2020 tables on strategic objectives, it includes Audited/ Actual performance in 2015/16, 2016/17 and 2017/18. It also includes estimated performance 2018/19 and medium-term targets for 2019-2022.	0.5

7 The Framework and Strategy towards gender mainstreaming in the environmental sector

Assessment I

ENGENDERING OF THE POLICY

This policy is gender mainstreamed throughout. It has gender equality as its key aim. In the form of a Toolkit and Action Plan, this strategy outlines how the sector can and should “entrench values of gender mainstreaming and gender equality within the running of its environmental programmes to ensure equal access and participation in the sector by both men and women.” This is in the sectors of Oceans and Coasts Management, Climate Change, Waste Management, Biodiversity Management, Air Quality Management and the Green Economy.

Priorities toward gender mainstreaming within the environment sector were identified as follows:

- To ensure that policies accommodate gender mainstreaming and women issues;
- Education and awareness i.e., Knowledge and skills transfer, mentorship programmes, the forging of partnerships and networking platforms, the integration of an environment element within school curricula;
- To create empowerment programmes that start with capacity development and then eventually result in tangible projects at grass-roots;
- To create opportunities for women to showcase what they have achieved;
- To create and ensure access to financial assistance and technological advances;
- To focus on women in rural areas;
- To raise literacy levels of women involved in projects and ensure participation of women with disabilities and women with children with disabilities;
- To identify already existing projects and identify gaps while ensuring project sustainability for continuity; and
- To establish Gender Focal Points (GFP) at all departments which serve as nodal points for gender mainstreaming into the core of each department’s core functions and who’s location should ideally be in the Director-General’s office at Director level and upward to ensure uniformity.

This policy includes consistent sex-disaggregated data; for instance in the executive summary which provides the following figures:

- Women’s access to political power and decision-making has improved since the 1994 elections and there is a strong representation of women in the national, provincial and local legislative branches of government and in government departments;
- The representation of women vs. men in the Senior Management Services of the public service was 41% and 59% respectively, which implies that the decision-making roles of women have increased exponentially since 1994;

- In 2013 there were 35 (25%) of the 142 directors-general and 179 (35%) of the 515 deputy directors-general that were women;
- The 2008 Expanded Public Works Programme (EPWP) work opportunities data showed that women were important beneficiaries within the different sectors and accounted for 53% of jobs in the environment and culture sectors in 2014/2015;
- The EPWP environmental programmes contributed toward gender equality through the implementation of the following programmes which seek to draw unemployed, marginalised people into the productive sector of the economy;
- Working for Water (WfW) - has a target of women recruitment (60%), youth (20%) and disabled persons (5%). The programme has provided jobs and training to approximately 20,000 persons, 52% of which are women;
- Working for Land (WfL) project - has targets of women (60%), youth (20%) and disabled persons (5%); and

Working on Fire (WoF) - employs more than 5,000 men and women, 85% of whom are youth, 37% are women (the highest level in any comparable fire service in the world).

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

A structural understanding of gender equality is highlighted through the following definitions:

Gender refers to the roles and responsibilities of men and women that are created in our families, our societies and our cultures. The World Health Organization (WHO), (2001), definition refers to Gender as the “economic, social and cultural attributes and opportunities associated with being male or female at a particular point in time.” The concept of gender also includes the expectations held about the characteristics, aptitudes and likely behaviours of both women and men (femininity and masculinity). Gender roles and expectations are learned. They can change over time and they vary within and between cultures. Systems of social differentiation such as political status, class, ethnicity, physical and mental disability, age and more, modify gender roles (UNESCO, 2003). The concept of gender is vital because, applied to social analysis; it reveals how women’s subordination (or men’s domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever.

Gender Equality means that women and men have equal conditions for realising their full human rights and for contributing to, and benefiting from, economic, social, cultural and political development. Gender equality is therefore the equal valuing by society of the similarities and the differences of men and women, and the roles they play. It is based on women and men being full partners in their home, their community and their society.¹⁹⁴ Gender equity is the process of being fair to men and women. To ensure fairness, measures must often be put in place to compensate for the historical and social disadvantages that prevent women and men from operating on a level playing field. Equity is a means. Equality is the result.

Gender Equity is the process of being fair to men and women. To ensure fairness, measures must often be put in place to compensate for the historical and social disadvantages that prevent women and men from operating on a level playing field. Equity is a means. Equality is the result.

INTERSECTIONALITY

This strategy also integrates intersectional disadvantages, such as how gender intersects with rurality and disability. For example, it states that it will “focus on women in rural areas; raise literacy levels of women involved in projects; and ensure the participation of women with disabilities and women with children with disabilities.”

WOMEN’S EMPOWERMENT

This strategy refers repeatedly to women’s empowerment. It aims to “create empowerment programmes that start with capacity development and then eventually result in tangible projects at grassroots” This goes beyond just an economic understanding of empowerment and centres the importance of women’s agency and participation at the grassroots level.

It states that it is “very important that provincial and local government are the key drivers of this”. This eliminates concerns that empowerment might be used as a buzzword, as it encourages participation at the local level, tailored to context rather than top-down or blanket measures. In terms of economic empowerment, on page 11 this policy states that the Department for Environment has been “championing the advancement of women’s economic empowerment and participation in the sector.”

It also included women’s advocates in the formulation of the policy, through the “Women in Environment Dialogue,” which was hosted by the Deputy Minister of the Department of Environmental Affairs. This conference reflected on the environment sector’s gender mainstreaming progress, successes and challenges thus far and agreed on the priorities and opportunities for the next decade.

INCREMENTAL TRANSFORMATION

This strategy states that it builds upon the following national policies:

¹⁹⁴ UNESCO (2003).

- South Africa Beijing +20 Report (2015);
- The Status of Women in the South African Economy (2015);
- Towards an Enabling Environment for Women Economic Empowerment in South Africa – A Status Quo Report (2011);
- Department of Public Service and Administration (DPSA) reports;
- Expanded Public Works Programme (EPWP) reports;
- Millennium Development Goals Country Report (2013);
- MINTECH approved Sector Gender Framework for the Environment Sector;
- The Constitution (Act No. 108 of 1996);
- Women's Charter for Effective Equality (1994);
- National Framework for Women Empowerment and Gender Equality (2000); and
- Strategic Framework for Gender Equality within the Public Service (2006).

GENDER-RESPONSIVENESS

This strategy states that it contributes towards the women's economic empowerment in green industry. It states that it seeks to ensure "that women owned enterprises are integrated into the mainstream economic activity of South Africa" (pp.11).

The strategy addresses the specific needs and interests of women entrepreneurs and women working in green industries. It states on page 12: "Economic transformation is about broadening opportunities for all South Africans, but particularly for the historically disadvantaged. It is also about equity in life chances and encompasses an ethos of inclusiveness that is presently missing. Such opportunities and inclusiveness should also benefit women. The national strategy for sustainable development does require us to strengthen financial support and extend services to such women organisations."

It also has quotas which is a way to counteract any impairment to women's involvement in the green industry. However, it does not specify how it would encourage more women into leadership roles – just into employment in general.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

This strategy builds on the Convention on the Elimination of Discrimination Against Women (CEDAW) and the Beijing Declaration and Platform for Action.

Assessment I Total Score: Total: 14.5 / 16 or 91%

7. The Framework and Strategy towards gender mainstreaming in the environmental sector		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 1 1.2 = 1 1.3 = 1 1.4 = 1 1.5 = 1
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 1
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of "intersectionality"? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women's lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 1
4. Women's empowerment (Policy Process)	4.1 Does the word 'empowerment' appear in the policy associated with women? 4.2 Does the policy refer to women's economic empowerment? 4.3 Does the policy refer to women's empowerment in terms of increasing women's agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women's civil society groups and associations during its development?	4.1 = 1 4.2 = 1 4.3 = 1 4.4 = 0.5 there are consultations with public but does not specify with whom.

5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1= 1
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women's involvement in the green industry? 6.3 Does the policy address steps necessary to increase women's leadership roles in green industry?	6.1= 1 6.2= 0.5 6.3= 0.5
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women's rights?	7.1= 1

Assessment II

The conclusion focused mostly on the monitoring and evaluation of the strategy, which is excellent as it goes past 'tokenistic' mentions of gender and moves towards action and implementation.

Results of Assessment II

No.	Name	Year	Score
7	The Framework and Strategy towards gender mainstreaming in the environmental sector	2016-2050	4

Level of Implementation

In the stakeholder engagement processes that lead up to the creation of this policy; a key problem that was highlighted is: "the widening policy and implementation gap" (DEA, 2015). The following text summarises the steps that are being taken to address this:

"While there is general agreement that advocacy and means of implementation need to be strengthened to achieve all the legislative and policy commitments, there is an equal concern that there is no way of knowing the role and contribution of other role players in gender mainstreaming as there is no M&E currently in place to provide the data and evidence base for planning as well as informed, sound and meaningful decision making. Nationally there is realisation that "what gets measured, gets done", the Government Wide Monitoring and Evaluation System (National Treasury, 2007) recognises the logical model in the allocation, expenditure and reporting on resources outlining the required inputs and intended outputs, impacts and expected outcomes" (pp.18).

'In the response to the need to strengthen the means of implementation and account on the sector gender priorities a monitoring programme must be put in place to continually track progress made, review and refine measures put in place to achieve the intended outcomes of the strategy i.e., mainstreaming gender into environmental programmes so as to protect natural resources and enhance environmental assets' (pp. 18).

Name	Level of implementation	Score
7. The Framework and Strategy towards Gender Mainstreaming in the Environmental Sector	2018-2019 had a mid-term review of implementation progress, which is not publicly available but would shed light on the current level of implementation. 2019-2020 is the Impact evaluation stage and in 2020-2021 the sector gender strategy 2021-2026 will be released.	0.5

8. The Integrated Resource Plan (IRP) 2019

Assessment I

ENGENDERING OF THE POLICY

The only time that this policy mentions gender is through reference to a "Just transition" to the fourth industrial revolution. In 2015, the ILO Governing Body convened a panel of experts to develop non-binding guidelines for a just transition towards environmentally sustainable economies and societies for all. Among the guideline list of principles for the development of a just transition, is the following:

"Policies and programmes need to take into account the strong gender dimension of many environmental challenges and opportunities.

Specific gender policies should be considered in order to promote equitable outcomes.”¹⁹⁵

This is the only instance where gender was mentioned.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

This policy does not consider structural reasons beyond the individual level that impact upon gender equality. It does not include reference to historical, legal, socio-cultural factors.

INTERSECTIONALITY

There is no consideration given in this plan to the intersections between gender and other factors.

WOMEN'S EMPOWERMENT

This policy does not include reference to women's empowerment, economic or otherwise. It is not gender mainstreamed throughout. However, it may have included women's opinions in the consultations. There were consultations with the public, but it does not specify if this was with any women: “In August 2018 and following Cabinet approval, the Draft IRP 2018 report was published for public comment for a period of 60 days.” Public comments were taken on board for the IRP 2019 but none of the topics of consideration were regarding women:

“Submissions from the public regarding the draft IRP 2018 public varied from opinion statements to substantive inputs with supporting data. The number of submissions received was 5,929, of which 242 were substantive comments inclusive of discussions and at times supporting facts, data or references.

Key issues raised in the comments included among others: the assumptions regarding demand forecast; a substantial number of the comments questioned the projected growth in demand in the context of declining electricity intensity, low economic growth projections and increasing own generation installations made possible by alternative energy technology advancements.”

None of the comments provided were related to gender or women.

INCREMENTAL TRANSFORMATION

This policy states that it builds on the following:

- South Africa's National Development Plan (NDP) 2030, which offers a long-term plan for the country;
- The Integrated Resource Plan (IRP) 2010–2030 promulgated in March 2011; and
- The Renewable Energy Independent Power Provider Programme.

GENDER-RESPONSIVENESS

This policy does not address the specific needs and interests of women entrepreneurs or women working in green industry. This policy does not consider ways to overcome gender norms and social traditions that impair women's involvement in the green industry. It does not address steps necessary to increase women's leadership roles in green industry.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

It states in this policy that it builds upon the Paris Agreement on Climate Change, which South Africa has ratified. This policy is in line with the INDC (Intended Nationally Determined Contributions) of South Africa, submitted to the UNFCCC in November 2016.

Assessment I Total Score: 1.5 / 16 or 9.4%

8. The Integrated Resource Plan (IRP) 2019		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality?	1.1 = 0.5 aims for a 'just transition'.
	1.2. Does the policy include sex-disaggregated data consistently?	1.2 = 0
	1.3. Does the policy consider gender differences in order to create more equality?	1.3 = 0
	1.4. Are gender stereotypes challenged?	1.4 = 0
	1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.5 = 0

2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1= 0
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1= 0 4.2= 0 4.3= 0 4.4= 0
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1= 0.5
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1= 0 6.2= 0 6.3= 0
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1= 0.5

Assessment II

There is no mention of gender in the conclusion of this policy. It does not have a conclusion as such, but rather a “conclusion from the analysis of the scenarios,” which are forecast models of energy and resource capacity developments over the coming decade, until 2030. A score of 0 is given for the conclusion.

Results of Assessment II

No.	Name	Year	Score
8	The Integrated Resource Plan	2019	0

Level of Implementation

Name	Level of implementation	Score
8. The Integrated Resource Plan (IRP) 2019	<p>As this was only created in 2019, it is difficult to yet tell if it has been implemented. The draft 2018 policy was open for public comments; a summary of which stressed that “the IRP must be revised more regularly, at least every 2-3 years, due to technology advancements and changes in other assumptions.” This suggests that currently the IRP is not revised regularly enough. It did not have a clear plan for monitoring, evaluation and implementation. However, it is possible to reflect on the implementation of the IRP from 2010 onwards. Since the promulgated IRP 2010–2030, the following capacity developments have taken place:</p> <ul style="list-style-type: none"> - A total 6,422 MW under the Renewable Energy Independent Power Producers Programme (REIPPP) has been procured, with 3,876 MW operational and made available to the grid; - In addition, IPPs have commissioned 1,005 MW from two Open Cycle Gas Turbine (OCGT) peaking plants; - Under the Eskom build programme, the following capacity has been commissioned: 1,332 MW of Ingula pumped storage, 1 588 MW of Medupi, 800 MW of Kusile and 100 MW of Sere Wind Farm; and - In total, 18,000MW of new generation capacity has been committed. 	0.5

9. National Development Plan (NDP) 2030

Assessment I

ENGENDERING OF THE POLICY

South Africa's National Development Plan (NDP) 2030 offers a long-term plan for the country. It defines a desired destination *"where inequality and unemployment are reduced," (but does not say between whom) "...and poverty is eliminated so that all South Africans can attain a decent standard of living."*

This policy is very comprehensive. At 485 pages long, it encompasses every aspect of South Africa's development over the coming decade. It has a commitment to non-sexism:

"Gender discrimination remains a major problem in several social and economic settings, including the workplace, the family and educational institutions. This is despite a number of vibrant gender activists' organisations and a number of state institutions whose purpose is to promote gender equity – including a dedicated ministry and legislation devoted to ensuring women's equality."

The policy draws attention to the national rate of homicide of women as being six times the global average.

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

Structural causes for inequalities were highlighted throughout the NDP. For instance, a lack of access to nutrition, healthcare and early-years support for children are likely to lead to under-nutrition in pregnant and new mothers, premature deaths and the disempowerment of women. The document highlighted how 'poverty affects the health, dietary habits and health care of pregnant women' (pp.299).

One point was about structural factors beyond the individual level: it addresses this when it states as a priority, to address the **social determinants** that affect health and disease (pp. 335). The policy attempted to provide social services for parents such as:

- Childhood Education, early childhood development;
- Family planning, healthy pregnancies and postnatal care to give children an optimal start;
- Nutrition support for pregnant and breastfeeding women and young children;
- Birth registration, social security and other state provisions for the poorest families
- Support for parenting;
- Quality learning by young children at home and in groups, programmes and centres
- Preparation for formal schooling (pp.298); and
- It offers free health care for pregnant women and children under six (pp. 356).

Finally, in terms of social factors for inequality, it was highlighted that through cultural and religious practices "inequality and discrimination has become so pedestrian and institutionalised, that some women are unable to even imagine, much less expect, a different life. The policy also states that programmes to attain social cohesion in society should narrow the inequality divide between men and women with measures in place to ensure that women, girls, people with disabilities and any other group at risk of discrimination, are able to enjoy their rights enshrined in the Constitution."

INTERSECTIONALITY

The NDP considers intersectionalities. It states that: *"Young people, women, people with disabilities and people living in rural areas face the highest levels of unemployment and exclusion."* (Pp.465)

The intersection of gender with fertility rates and the intersection of gender with poverty were also both highlighted: *"High fertility rates are generally found in contexts of poverty and powerlessness, where the infant mortality rate is high, and opportunity and education for women is low. Health care, education, old-age security, women's empowerment, economic aspirations and urbanisation generally bring down fertility rates."*

The intersection of race with gender was highlighted, in that the life expectancy for white South African women is longer (by over 16 years) than black South African women (page 102).

The intersection of race with gender in the economic realm is further made clear: *"In the bottom 50 % of earners, the average earnings of African workers is one-quarter to one-fifth that of their white counterparts. With high dependency ratios in low-income households, the majority of working people live near or below the poverty line. Addressing this tension requires an appreciation of the multi-dimensional relationships among a variety of factors."*

The intersection of gender with rurality is also noted: *"under-development in the former homelands must be confronted through agricultural development, improved land management, infrastructure and targeted support to rural women."*

Finally, the NDP acknowledges intersectionalities in its education system: “the education system will play a greater role in building an inclusive society, providing equal opportunities and helping all South Africans to realise their full potential, in particular those previously disadvantaged by apartheid policies, namely black people, women and people with disabilities” (pp.296).

WOMEN’S EMPOWERMENT Women’s empowerment is not specifically mentioned, but many policies that benefit women are included. The words economic empowerment are only written in the context of the “Broad Based Black Economic Empowerment” policy which the participants of our interviews believe to be insufficient to be qualified as a gender mainstreamed policy.

Women’s empowerment could be said to be indirectly tackled through the NDC in the following ways:

- In chapter 12, it states that “all vulnerable groups including women, children and rural communities should enjoy equal protection and their fear of crime should be eradicated.”
- While it is not empowering to classify women as victims in need of saving, in the context of crime it is true that women are vulnerable to violence and femicide. The NDC concedes that gender-based violence in South Africa is unacceptably high (pp.395).

This is linked to women’s socioeconomic status, which is linked to economic empowerment: *“The socioeconomic status of women in urban and rural areas affects their experiences of their constitutional rights and their recourse to justice when those rights are infringed.”*

The NDP considers structural factors that contribute towards women’s safety: *“infrastructure and access to sustainable livelihoods are also related to the safety of women, especially in rural areas. Communal toilets, no toilets or open toilets provide an opportunity for gender-based crimes. Walking long distances through unsafe areas leaves rural women vulnerable to sexual offenders. The safety of communities should therefore be measured by the extent to which the most vulnerable in society, women in particular, feel and are safe from crime and the conditions that breed it.”*

Finally, in terms of the consultation process; there were consultations with public for the NDP but does not specify if these were with any women’s groups.

INCREMENTAL TRANSFORMATION

This policy builds on previous national policies and processes. The National Planning Commission was created in May 2010 to draft a vision for the national development plan. The Commission is an advisory body consisting of 26 people drawn largely from outside government, chosen for their expertise in key areas. The Commission’s Diagnostic Report, released in June 2011, set out South Africa’s achievements and shortcomings since 1994.

The NDC particularly pays heed to the constitution’s commitment to women, stating that: *“in particular, young people and women are denied the opportunities to lead the lives that they desire. Our Constitution obliges all of us to tackle these challenges.”*

GENDER-RESPONSIVENESS

This policy addresses the specific needs and interests of women entrepreneurs and women working in green industry. It considers ways to overcome gender norms and social traditions that impair women’s involvement in all sectors: “Women suffer from discrimination in both the education system and in the labour market. They are less likely to be able to access jobs that provide learning opportunities or personal growth. The net effect is that women are particularly likely to be locked in a cycle of poverty. There is evidence of increasing female participation in the labour force since 1994, but much more needs to be done to eradicate patterns of inequity” (pp.459).

In particular, it addresses the differences for women in green industry such as waste management. It addresses the steps needed to help women and especially rural women, to become entrepreneurs in the agricultural sector, which is part of green industry: “There needs to be a special focus to enhance skills and capabilities of rural women entrepreneurs with access to land and finance.”

It also seeks to develop a pipeline for green industrial jobs of the future through seeking to double the number of women science graduates.

The policy includes proposals for universities to increase women in STEM subjects and speaks of decreasing discrimination and encouraging sustainable livelihoods, which all will act indirectly to increase women’s leadership in green industry. It does not promote leadership, but does promote employment of women in the following ways:

- The fostering of Constitutional values through schools and the media should help create a tolerant and gender-sensitive South Africa. These institutions should empower people to challenge prejudice and discriminatory practices;
- Public employment should have a specific focus on women;
- The NDP seek to” initiate massive absorption of women and young people into economic activity;”¹⁹⁶
- Social, cultural, religious and educational barriers for women to enter the job market should be addressed; and
- Improved access to safe drinking water, electricity and quality early childhood education, could reduce the burden of domestic work and so make it easier for women to seek job opportunities. This is particularly so for rural women.

¹⁹⁶ pp.155-6

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

This policy builds on previous international policy: Convention for the Elimination of Discrimination Against Women and children (CEDAW) Pp.396.

Assessment I Total Score: 13.5 / 16 = 84.4%

9. National Development Plan (NDP) 2030		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 1 1.2 = 1 1.3 = 1 1.4 = 0.5 women were portrayed mostly as victims who needed help rather than as active agents. 1.5 = 1
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 1
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1 = 1
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1 = 1 4.2 = 0.5 4.3 = 0.5 indirectly yes 4.4 = 0.5
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1 = 1
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1 = 1 6.2 = 1 6.3 = 0.5
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1 = 1 Yes it specifically mentions CEDAW.

Assessment II

The conclusion speaks about reducing inequalities, active citizen participation and the need for an implementation plan moving forwards. Whilst it does not mention gender specifically in the final conclusion, there are 14 chapters each with their own conclusions, and some of these chapters speak in more depth about reducing inequalities. For instance, the conclusion of chapter 14 speaks of inclusion, social cohesion, empowerment and the imperative to reduce inequalities. It seeks to promote:

“meaningful inclusion, helping to overcome barriers associated with class, ethnicity, gender, disability and other factors of exclusion.”

Taking all of this into consideration, the NDP is given a score of 3 for its conclusion.

Results of Assessment II

No.	Name	Year	Score
9	National Development Plan (NDP) 2030	2012-2030	3

Level of Implementation

As stated by the NDP itself, the implementation of gender equitable policy was said to not be working effectively. The NDP stated that:

“The institutions dedicated to promoting gender equity have not been functioning optimally. The mandate of the Commission of Gender Equality overlaps with that of the Ministry of Women, People with Disabilities and Children. For example, the monitoring and evaluation function is both the mandate of the ministry and the statutory mandate of the Commission on Gender Equality. This results in role confusion and political conflicts over authority.”

Name	Level of implementation	Score
National Development Plan (NDP) 2030	In a study on governance in South Africa, released within the last year, the following comments were made with regards to implementation of the NDP, by interviewing government, academics and practitioners: “There is a proposal to create a forum focused on implementing the NDC so that for each of the flagship programmes there is a lead department that assembles and coordinates implementation teams.” “As South Africa moves to implement the NDCs, cities need to be part of a nationally coordinated approach and the national government should commit to interacting with local government representatives in a more structured and regular way.”	0.5

10. The Department of Trade and Industry and Competition (DTIC) Imagining the Future Strategy

Assessment I

ENGENDERING OF THE POLICY

Gender is not mainstreamed throughout this “Imagining the Future” strategy. The strategy mentions inequality in reference to the Gini coefficient, which measures the inequality in the income or wealth distribution but does not account for gender differentials.

It also includes reference to a need for: “Progressive policies which contribute to equity, social stability and cohesion’ as building blocks for sustainable growth” (slide 7).

It furthermore refers to the role of the state as a “redistributor”, ensuring that the most vulnerable in society are protected and given a chance to live up to their full potential. (Slide 6).

The strategy also states that it would like to be inclusive, and that to support an “Inclusive Industrial Policy,” additional areas of work will include:

- Policies to promote involvement of workers in company boards and employee ownership schemes, to develop greater partnerships between workers and owners to build these businesses;
- Establish a Sovereign Wealth Fund to support investment in strategic (national priority) sectors of the economy; and
- Prioritise projects through the Infrastructure Fund to finance key economic and social infrastructure projects that support the priority growth sectors, including public passenger transport system, water infrastructure and integrated communities.

There are no gender, disabled, rural or minority considerations in the strategy for an “inclusive” policy.

While it is clear that this policy is aiming for equity in general and protection of the most vulnerable in society, with increased employment for youth in particular, there is little to no mention of gender. **This policy could be improved by thinking about how the different aspects of its plan may impact upon men and women differently.**

STRUCTURAL UNDERSTANDING OF GENDER EQUALITY

This strategy does consider the structural factors (beyond the individual level) that may lead to lasting inequalities. It recommends supportive or “enabling” policies such as:

- Human Settlements;
- Public Transport;
- Basic Education;
- Criminal Justice system; and
- Social Security policies.

However, it does not link these to gender equality. The industrial strategy has the key aims of increasing growth (GDP) and employment. But growth in itself does not lead to improved outcomes for all unless its benefits are distributed in an inclusive manner. This policy does not

consider gender, which means that the job creation, education and training opportunities may not benefit women.

INTERSECTIONALITY

This strategy considers certain dimensions of exclusion and inequality such as ethnicity through the mention of the BBEEE policy, and age especially. However, there is no mention of other intersecting factors such as gender, religion, sexual identity or marital status.

This strategy highlights opportunities for young people and black people but not specifically for women.

One example of opportunities for youth employment:

1. Need to train thousands of youth as language interpreters in Mandarin and French (slide 35);
2. The potential for youth job creation is very high in ICT Production and SMMEs;
3. In referral to the Digital Economy, there are aims to scale-up skills development for the youth in data analytics, blockchain and machine learning, to enable training of young people to develop and operate new technologies (slide 38);
4. Step 11 on the same slide states the aim to: “Open opportunities for young people to develop new software and applications, devices and equipment through specialised start-up support programmes for use by all spheres of government and society. A digital innovation centre will be established for this purpose within the next three years;”
5. On Slide 57, it also states: “Many of the economic interventions will have an impact on youth unemployment, but it is clear the extent of the problem requires new approaches – as per the Manifesto;”
6. Finally, Smart Youth Hubs are encouraged, and 100 will be set up in the coming years.

Some factors were considered for youth that would also benefit women gaining employment in Green Industry. These are as follows:

- Building Capability: Train 1 million youth on 4IR skills (data science, 3D printing, AI, robotics, cloud computing, etc.);
- For those that are neither in Training or Employed -ICT SETA spend and Skills Levy to develop 4IR skills; and
- Basic Education: Curriculum Innovation at basic education, to include 4IR (Fourth Industrial Revolution)¹⁹⁷ skills.

These goals to develop the skills desirable for the green industry should be gender-mainstreamed to ensure that female youth are also being targeted and trained up, not just male youth. This is especially pertinent because these are male-dominated sectors.

WOMEN’S EMPOWERMENT

The only time that empowerment is mentioned in association with women is on slide 20, which mentions women’s empowerment under the “Five ‘I’s” of growth, the fifth of which is ‘Inclusion’. It states that this includes: “Revitalising Townships, boosting SMMEs, creating jobs, youth, BEE & women empowerment.”

Empowerment is also mentioned under the BBEEE (Slide 15). While this policy aims to include the empowerment of all those marginalised by the Apartheid regime, including women and those with disabilities, participants in the qualitative interviews that accompany this policy analysis did not believe that it was a policy that was beneficial to women.

INCREMENTAL TRANSFORMATION

This strategy builds on the National Development Plan, which as highlighted earlier, also includes gender considerations and steps towards women’s empowerment. (Slide 6) Mentions that: skills development not sufficiently linked to the economy’s needs and developing capabilities (Slide 8). This mirrors the outcomes of the interviews.

GENDER-RESPONSIVENESS

Slide 19 refers to a “social compact” as a policy lever – this includes adhering to human rights and decent work for employers. Slide 20 also refers to “supportive policies” that are required to achieve its goals, which demonstrates that it is looking at the wider context. Slide 28 refers to Renewables and Green Economy. This strategy speaks of the “Just transition.”

On Slide 49, it also states that it will “Promote diversity in high-level employment and ownership,” and this links to the economic empowerment of women as leaders and entrepreneurs.

REGIONAL AND INTERNATIONAL CONTEXTUALIZATION

This strategy did not state that it was building upon any previous international policies relating to the safeguarding of women’s rights.

¹⁹⁷ 4IR refers to the ‘Fourth Industrial Revolution’, which involves the change to a green and digital economy.

Assessment I Total Score: 4.5/ 16 or 28%

10. Imagining the Future Strategy		
Quality criteria categories	Research questions	Score
1. Engendering of the policy (Policy Content)	1.1. Does the policy aim for gender equality? 1.2. Does the policy include sex-disaggregated data consistently? 1.3. Does the policy consider gender differences in order to create more equality? 1.4. Are gender stereotypes challenged? 1.5. Is gender mainstreamed throughout the document (as opposed to being regulated to a separate section)?	1.1 = 0 1.2 = 0 1.3 = 0 1.4 = 0 1.5 = 0
2. Structural understanding of gender equality (Policy Content)	2.1 Does the policy consider the structural factors (beyond the individual level) that impact upon gender equality? Examples include historical, legal, socio-cultural, economic and political factors?	2.1 = 0.5
3. Intersectionality (Policy Content)	3.1. Does the policy incorporate the concept of “intersectionality”? (intersectionality defined as the multidimensional forms of exclusion and inequality that pattern women’s lives and experiences, for example, ethnicity, sexual identity, class, religion, marital status, disability or other identity criteria)?	3.1= 1
4. Women’s empowerment (Policy Process)	4.1 Does the word ‘empowerment’ appear in the policy associated with women? 4.2 Does the policy refer to women’s economic empowerment? 4.3 Does the policy refer to women’s empowerment in terms of increasing women’s agency, resources, and/or achievements? 4.4 Does the policy mention consulting women, or women’s civil society groups and associations during its development?	4.1= 1 4.2= 0.5 4.3= 0 4.4= 0.5
5. Incremental transformation (Policy Process)	5.1. Does the policy build on national previous gender-equality achievements/policies?	5.1=
6. Gender-responsiveness (Policy Adapted to Project Context)	6.1. Does the policy address the specific needs and interests of women entrepreneurs/ women working in green industry? 6.2. Does the policy consider ways to overcome gender norms and social traditions that impair women’s involvement in the green industry? 6.3 Does the policy address steps necessary to increase women’s leadership roles in green industry?	6.1= 0 6.2= 0 6.3= 0
7. Regional and international contextualization (Policy Adapted to Project Context)	7.1. Does the policy comply with international and regional conventions, policies, laws and commitments that safeguard women’s rights?	7.1= 0.5

Assessment II

There is no mention of gender in the conclusion. It is awarded a score of 0.

Results of Assessment II

No.	Name	Year	Score
10	Imagining the Future Strategy (DTI)	2019	0

Level of Implementation

The analysis on implementation is not applicable for this policy, due to the fact that it has not yet been released into the public domain, therefore not had a chance to be implemented. However, its framework for implementation is as follows: On Slide 50 it states that having clear-cut and targeted outcomes is essential. It states that ‘every sector is different and thus plans must be adaptable and changed if they do not work.’

Section 2 is also addressed on slide 65 which is ‘Re-imagining Industrial Strategy - Next Steps’.

These next steps include converting programmes into action plans: who, when, where, how and with what resources. It also includes immediate actions, from 0-3 months and 3-12 months (up to pp. 71).

Name	Level of implementation	Score
10 Reimagining the Future Strategy (The DTIC)	This is a future strategy that has not yet been implemented. It does however have a framework for implementation.	0



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