



Using the green economy and youth inclusion for sustainable development in South Africa

INTRODUCTION

South Africa's economic growth relies strongly on resource and energy-intensive sectors, which worsens the pressure on the environment and exacerbates the threat of climate change (Montmasson-Clair, 2012). The country is also grappling with high income inequality, unemployment and poverty levels. Economic growth has not been inclusive (Mayer et al, 2011). Related to this is the limited inclusion and participation of the youth, in the broader development of the country. Youth is defined in South Africa as people in the age category of 14 to 35 years (NYDA, 2011). The National Youth Development Agency (NYDA, 2011) highlighted the plight of the youth in South Africa as characterised by: low economic participation, low levels of education and skills development, poor health and well-being, and low levels of civic participation and social cohesion. Given this background, how can development be made inclusive? And how can the green economy be used for inclusion of youth and sustainable development, not only in South Africa but also in the rest of the continent.

Trade & Industrial Policy Strategies (TIPS) is a research organisation that facilitates policy development and dialogue across three focus areas: trade and industrial policy, inequality and economic inclusion, and sustainable growth

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YOUTH UNEMPLOYMENT IN SOUTH AFRICA

Youth unemployment is a formidable challenge for South Africa (Stats SA, 2011; Mayer et al, 2011; NYDA, 2011; UN, 2015). High youth unemployment implies that young people are not fully participating in growing the economy, which also compounds the burden on the government to provide social assistance (National Treasury, 2011). The cost to society entails the need to support the youth economically, socially and even psychologically, due to associated anxiety, depression, decreased self-esteem, and stress (Aceleanu, Serban, & Burghelea, 2015).

A concerted effort to reduce youth unemployment has been met with limited success (see Figure 1, page 2). The number of unemployed youth has generally remained unchanged, with the 2014 and 2015 period even showing a slight increase. The number of youth that are not economically active shows a similar trend.

Figure 2 (page 2) shows the disparity between unemployment rates for the youth

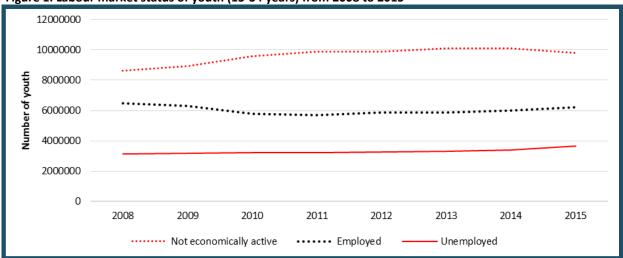
and for the adult population. While the unemployment rate for adults (35 to 64 years) tends to fluctuate around 15%, that for the youth tends to fluctuate around 35%, almost double the adult rate. Even if the relatively high youth unemployment could be attributed to factors related to the transition from schooling, the figures are still too high considering the large number of the economically inactive youth (working age who have not entered the labour force, voluntary or involuntary).

This implies that a significant number of youth who should be contributing to developing the country are not. Cassim and Oosthuizen (2014) observed that the lack of employability of youth has a number of causes, including low levels of education, skills, and work experience, as well as lack of networks or the social capital necessary to source job opportunities.

Work experience is a vital prerequisite for being hired; however, to get that experience people have to be hired first, which presents a dilemma for the youth (Aceleanu, Serban, & Burghelea, 2015).

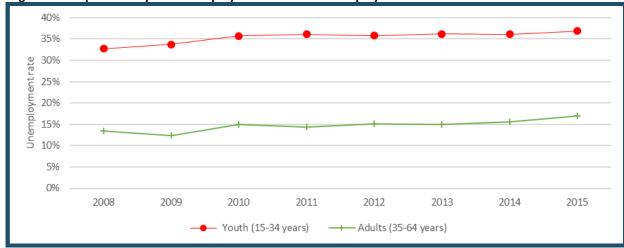
This brief draws on a paper presented by the author at the Pan African Youth Conference on Learning for Sustainability in 2013 in Kenya. The conference was organised by the World Wide Fund for Nature with support from the Swedish Agency for International Development Cooperation. At the, time the author was the country representative for South Africa for the Young Professionals for Agricultural Development (http://www.ypard.net)

Figure 1: Labour market status of youth (15-34 years) from 2008 to 2015



Source: Author's composition, based on data from Stats SA (2015: 3)

Figure 2: Comparison of youth unemployment versus adult employment



Source: Author's composition, based on data from Stats SA (2015: 3)

THE OPPORTUNITY FOR YOUTH INCLUSION

Green economy is a strategy for promoting economic growth with the goal of adding an ecological quality to existing economic processes and creating additional jobs and income opportunities with a minimal environmental burden (GTZ, 2010). The Economic Development Department (2011) noted that if properly adopted, the green economy is envisaged to involve new economic activities, which can be an important entry-point for broad-based black economic empowerment, as well as addressing the needs of women and youth entrepreneurs.

The transition to a green economy is a possible pathway towards sustainable development, which centres on inter- and intra-generational equity. It is an opportunity to bridge the inequality gap and provide opportunities for the youth to actively participate in the development process. It is noteworthy to point out that the green economy is not a distinct sector. Rather it entails a shift in priorities and practices across all sectors, with great potential to

generate employment, transform work and production patterns, and achieve a sustainable economy (WWF-SA, 2011). With a proper enabling environment, green sectors have the potential to promote growth and employment, and also support the shift towards sustainable development (Montmasson-Clair, 2012).

The green economy can provide jobs across a multitude of sectors, and young people could be the segment of the labour market best positioned to access them (UN, 2010). The green economy already provides employment for many people in South Africa and has potential to further create new opportunities (Montmasson-Clair, 2012). While some sectors are more suited, it is possible to create green jobs in all sectors (Aceleanu, Serban, & Burghelea, 2015). Maia et al (2011) estimated a total of 462 567 long-term net direct jobs in South Africa, with the breakdown per sector as follows:

- Energy generation (130 023 jobs)
- Energy and resource efficiency (67 977 jobs)
- Emissions and pollution mitigation (31 641 jobs)
- Natural resource management (232 926)

GREEN ECONOMY ACCORD

The Green Economy Accord was signed in November 2011 by government, organised labour, business and communities (women, civic structures, youth, people with disabilities, and cooperatives) (EDD, 2011). One of the key commitments promotes economic development in the green economy through localisation, youth employment, cooperatives and skills development. The key messages in the accord are opportunity, innovation, responsibility, and partnership. In summary, the accord points to the need for an enabling environment, in which all stakeholders are responsible and do things differently, which would also require innovation to exploit opportunities presented by the green economy.

Even though the youth tend to be relatively inexperienced, they are better placed to participate as the green economy requires new skills. The youth have the capacity to adapt to change, they are willing to experiment and learn, and to accept jobs in new areas, thus can easily adapt to new "green" jobs requirements (Aceleanu, Serban, & Burghelea, 2015).

It is expected that when all population groups participate as creators and beneficiaries of development, that development will be sustainable in the long term. Including all stakeholders and equipping them with the necessary knowledge and skills can result in better outcomes (Mudombi et al., 2017), hence the need to enhance youth participation in finding solutions to development challenges that span within and across generations (Mudombi et al, 2011). There is a close and complementary link between youth development and sustainable development. Embracing youth development from a green economy perspective provides a strong platform for nurturing sustainable development.

ADDRESSING THE CHALLENGES CONFRONTING THE YOUTH AND THE GREEN ECONOMY

Much has been done at both the international and national level to formulate strategies and legislation that seek to enhance youth inclusion in development processes. At the continental level, efforts are also being directed at promoting youth inclusion in the green economy. An important milestone was the formulation of the Pan African Youth Strategy on Learning for Sustainability¹, this was led by the World Wide Fund for Nature (WWF). As part of the process, youth consultation through national consultative workshops were convened in various African countries including Rwanda, Uganda, Kenya,

Tanzania, Madagascar, Cameroon, Gabon, Central African Republic (CAR) and Democratic Republic of Congo (DRC). Subsequently, a conference that led to the finalisation of the strategy was held in Nairobi, Kenya in 2013. It brought together more than 100 youth representatives from about 35 African countries. The goal of the strategy is to "equip and support youth of Africa with knowledge, skills, and opportunities to build social, environmental and economic prosperity through mainstreaming green economies approach based on equity, rights, and stewardship of resources" (WWF, 2013:15).

At the national level, the South African government is highly committed to mainstreaming the green economy (Maia et al, 2011). From a policy perspective, the National Strategy for Sustainable Development and Action Plan (NSSD), the New Growth Path (NGP) framework, the Green Economy Accord (see box) and the Youth Employment Accord (see box) enunciate the importance of youth and the green economy. One NSSD goal is to implement skills development in this sector, especially for the youth. The NSSD outlines that this goal should be supported by a well-maintained, resourced training academy that produces quality graduates with relevant skills. This should help create permanent jobs in green industries for the youth, as well as incubating them in community development projects (DEA, 2011). The NGP sets out key policy measures and how they are going to be implemented. The framework focuses on specific areas outlined in various accords, namely: national skills, basic education and partnerships with schools, local procurement, green economy, and youth employment.

¹ See ://wwf.panda.org/who_we_are/wwf_offices/ tanzania/?212519/Learning-for-Sustainability---Launch-of-PanAfrican-Youth-Strategy

YOUTH EMPLOYMENT ACCORD

The Youth Employment accord was signed by the government together with various social partners in April 2013 (EDD, 2013). The accord states that a comprehensive strategy on youth employment, as part of a broader focus on expanding employment in the country, is necessary. The strategy focuses on the following six areas: education and training; work exposure; public sector measures; private sector measures; youth target set-asides; and youth entrepreneurship and cooperatives. The youth target set-asides target new industries in which young people can be drawn in large numbers, of which the green economy presents that opportunity.

While the various government efforts are commendable, little progress has been made in tackling the unemployment challenge.

In addition to these policies, various initiatives are being implemented to improve the conditions of the youth. The Employment Tax Incentive scheme encourages employing youth, especially those with low work experience. The Youth Development Strategy seeks to enhance the economic participation of youth. Public sector measures such as the Youth Brigade programme, the National Youth Service Programme, the Expanded Public Works Programme (EPWP) and the Community Work Programme aim to increase the number of young people employed in the public sector.

The EPWP has been noted globally as one of the greatest efforts in addressing youth unemployment (Lieuw-Kie-Song, 2009; IRIN, 2009; UN, 2010; Lolwana 2014). Various brigades have also been set up. In the context of the green economy, the relevant brigade is the Green Brigade, which includes Working for Water, Working for Energy, Working on Fire, and other environmental programmes. The National LandCare Programme funded under the EPWP seeks to conserve and promote sustainable management of natural resources and improve livelihoods though natural resource rehabilitation and conservation projects (GCIS, 2016).

The South African government, mainly through the Department of Science and Technology, has also been promoting the active participation of youth in science, technology and innovation activities.

The National Youth Policy stipulates that young people are key agents for social change, economic expansion and innovation. Their imagination, creativity, ideals, energy and vision are heralded as important for the development of the country (Presidency and NYDA, 2015). The Youth into Science strategy focuses on identifying and nurturing young people to become well-trained engineers, researchers and scientists. The Youth Technology Innovation Fund (YTIF), set up by the Technology Innovation Agency (TIA), aims to promote and stimulate a culture of innovation and entrepreneurship among the youth by providing access to financial and business support resources. This funding instrument targets people between the ages of 18 to 30 (TIA, 2013).

Another initiative, driven by the South African Agency for Science and Technology Advancement (SAASTA), seeks to advance public awareness, appreciation and engagement of science, engineering and technology in the country. Its activities include supporting schools through educator and learner

programmes, career advice to learners, and providing science resources such as supporting the school science curriculum, enrichment materials, web-based materials, and online learning. Such initiatives aim to equip young people with the necessary skills to be active participants in the national system of innovation and the green economy.

The various government initiatives are also complemented by initiatives that include partnering with private and non-governmental sectors, including active citizenry. For example, the Green Youth Indaba explores opportunities for youth within the green economy, including formulating strategies to support and fund green innovations and careers, as well as empowering youth with the information and skills transfer (Green Youth Indaba 2016a, 2016b).

POLICY IMPLICATIONS

While the various government efforts commendable, little progress has been made in tackling the unemployment challenge (see Figure 1, page 2). Graham and Mlatsheni (2015) highlight that, despite the various policy measures and interventions, the situation for young people in the country has not improved. Graham and Mlatsheni argue that this is because the targets set in the policies are usually over-inflated and no proper guidance is provided on how to implement them across departments and sectors in a coordinated way. The challenge also relates to the scalability of interventions; many have been too small or too localised, while the supply-side initiatives addressing structural issues are insufficient (Cassim and Oosthuizen 2014).

South Africa needs a multi-pronged strategy to create employment, and support inclusion and social cohesion (National Treasury, 2011). The youth unemployment challenge manifests both as quality related (i.e. work being available but of poor quality) or quantity related (fewer work opportunities) (AfDB et al, 2012), hence the need to ensure that enough good quality jobs are created. However, as unemployment is such a pressing problem for the country, in the short term, the employment creation focus can be more targeted at increasing the quantity of jobs, then the medium to long-term focus should ensure that the quality of those jobs is improved.

A significant proportion of young people in South Africa are not in education, employment or training, with some not having the requisite skills to participate

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in the knowledge economy (Presidency and NYDA, 2015). Hence, in terms of employability, there is need to equip the youth with the right skills to overcome the common skills mismatch problem (AfDB et al, 2012; Lolwana 2014; Graham and Mlatsheni 2015). The South African government managed to improve the Technical, Vocational and Skills Development (TVSD) sector, though more needs to be done, particularly in covering not only traditional trades but also newer forms of occupations (Lolwana, 2014), especially those needed in the green economy.

Access to labour market information by the youth is not adequate (Lolwana, 2014) and it affects their ability to participate. This can be attributed to community factors (e.g. high transport costs to seek work, high internet costs), and other household and personal factors that limit their ability to access information (Graham and Mlatsheni Furthermore, social norms that treat political and economic participation as reserved for older people hinder the inclusion of the youth (Presidency and NYDA 2015). These limitations should be tackled at both the national level and community level, especially in ensuring better access to information on learning, socio-economic news, and opportunities.

There are uncertainties about the long-term effects of green growth policies on employment. This is because green jobs will provide new opportunities for some workers, while some existing jobs will be eliminated, and others will be transformed (UNEP, 2010; OECD, 2013). A key challenge is the substantial unemployment that might arise as a result of advancement and adoption of green technologies that substitute labour, even though they contribute to the desired green objectives. In this context, Montmasson-Clair (2012:13) asserts that, by "looking at main current and potential employment, it is clear that not only the green economy is likely to create more new work opportunities (formal and informal) than the work that it would replace (in the 'brown economy'), but it is also expected and intended to play a role in safeguarding existing jobs from the impacts of environmentally-related pressures, like rising commodity prices (especially for food and energy)".

There should be enhanced possibilities and opportunities for all; or at least, outcomes within and across generations should not negatively impact on others as espoused by the sustainable development paradigm. It is essential that green growth pathways

focus on maximising "winners" and minimising possible "losers" (Bass et al, 2013), thus attention should be paid to social issues and equity concerns that can arise as a direct result of greening the economy (OECD, 2013). Applying a "youth lens" (i.e. considering youth issues) to policy formulation and implementation will enhance the expansion of opportunities and capabilities for the youth (NPC, n.d.), and minimise the likelihood of their exclusion.

While recognising the importance of other sectors, it is crucial to include the informal and rural sectors as they are important for creating decent jobs, and providing entrepreneurial (AfDB et al, 2012; Lolwana 2014) and green opportunities. Entrepreneurship training for those in the informal sector is needed (Graham and Mlatsheni, 2015). This necessitates a localisation strategy that enhances local industrial capacity, local jobs, and local technological innovation (EDD, 2011), through the use of existing and new production capacity (Maia et al, 2011), while prioritising youth needs and capabilities.

The inclusion of the youth should not be token. Youth participation should go beyond mere inclusion, and should be embraced as vital and necessary. There is a need to enhance information, knowledge, attitudes, and behaviour change towards responsible and sustainable producers and consumers. Programmes and policies that are based on a better understanding of human behaviour can help leverage the green economy and youth development by shifting many of the small decisions and actions that are made by people every day, thereby ultimately contributing to a more sustainable future (UNEP, 2016). Embracing social learning is required to promote learning and finding solutions (Mudombi et al., 2017). In this context, both formal and informal education and training, including awareness campaigns are crucial.

There should be increased efforts² to promote education for sustainable development, which seeks to transform societies through five pillars of learning, namely: learning to know, learning to do, learning to live together, learning to be, and learning to transform oneself and society (UNESCO and UNEP, 2011). An informed, educated youth can use their power as citizens, consumers, campaigners and change-makers to champion alternative ways of living (UNESCO and UNEP, 2011).

²This should be done by stakeholders from government and nongovernment sectors that deal with education, environment, youth, information and communication. Mainstream media should also play a role especially when targeting the general public. Drawing from the Pan African Youth Strategy on Learning for Sustainability (WWF, 2013) there are crucial areas that need to be enhanced:

Youth as change agents: Using their social networking skills and habits to promote a cross-sectoral approach to sustainability issues.

Youth engagement in improved governance: Ensuring that youth have a voice in decision-making to improve governance and leadership.

Livelihoods / career building: Stimulating the shift towards green economy options while building their careers so that they contribute productively and sustainably in all sectors of the economy.

Knowledge and skills building: Mobilising youth energy and enthusiasm for action towards environmental, social, and economic productivity, based on well-grounded awareness and knowledge of sustainability issues and skills to address them; and tapping their creativity and openness to change through support for innovation.

CONCLUSION

Achieving sustainable development requires inclusive innovation to deal with challenges as well as taking advantage of opportunities that arise. The youth have the potential to come up with innovative, sustainable solutions, provided an enabling environment is created for them to experiment, learn, teach, adopt, adapt, own, and lead. In sum, the youth can contribute to the transition to a green economy and sustainable development as responsible consumers, producers, workers, innovators, and change agents. Nevertheless, the inclusion of the youth should not be token. Youth participation should go beyond mere inclusion, i.e. just mentioning their importance in policy documents. Aceleanu, Serban, and Burghelea (2015) proposed the following to promote the development of green jobs and reduce youth unemployment:

- Developing educational programmes in compliance with the green economy.
- Supporting youth entrepreneurship, especially those who develop businesses in the green economy.
- Reducing taxation of green activities.
- Facilitating youth access to finance, particularly for green activities.
- Developing a legislative framework to enable a better correlation between environmental and employment policies.
- Developing joint projects between universities, vocational schools and businesses in green areas.

Policy should have a holistic quintuple-focused approach targeting the development of green

conscious or green-minded (1) consumers, (2) workers, (3) entrepreneurs, (4) innovators, and (5) custodians³. In all these, the youth should be central. The crucial ingredients for this to happen are empowering people with the necessary information (awareness), skills development (empowerment), and stimulating behaviour change (transformation).

Expanding education and training opportunities for the youth should be supported by expanding employment and entrepreneurial opportunities, and ensuring that the youth are well integrated to benefit from such opportunities. The youth should be embraced as important and necessary change agents, who together with other age groups can co-learn and co-produce solutions to the various development challenges. This will help to create a critical mass of green citizens necessary for and capable of sustaining and further growing the green economy and attaining sustainable development for South Africa and beyond.

REFERENCES

Aceleanu, MI, Serban, AC and Burghelea, C. 2015. "Greening" the youth employment — a chance for sustainable development. Sustainability, 7, 2623–2643.

AfDB, OECD, UNDP, & UNECA, 2012. African Economic Outlook 2012: Special Theme: Promoting Youth Employment. African Development Bank, Organisation for Economic Co-operation and Development, United Nations Development Programme, United Nations Economic Commission for Africa.

Bass, S, Wang, S, Ferede, T and Fikreyesus, D. 2013, Making Growth Green and Inclusive: The Case of Ethiopia. OECD Green Growth Papers, 2013-07, OECD Publishing, Paris. doi: 10.1787/5k46dbzhrkhl-en.

Cassim, A, and Oosthuizen M. 2014. The State of Youth Unemployment in South Africa. *Africa in Focus*. https://www.brookings.edu/blog/africa-in-focus/2014/08/15/the-state-of-youth-unemployment-in-south-africa/. Accessed 24 February 2017.

DEA, 2011. National Strategy for Sustainable Development and Action Plan (NSSD 1) 2011–2014. Pretoria: Department of Environmental Affairs, Republic of South Africa.

UNEP. 2016. Consuming Differently, Consuming Sustainably: Behavioural Insights for Policymaking. United Nations Environment Programme.

GCIS. 2016. South Africa Yearbook 2015/16'. Pretoria: Government Communications, Republic of South Africa.

Graham, L and Mlatsheni, C. 2015. Youth Unemployment in South Africa: Understanding the Challenge and Working on Solutions. South African Child Gauge. http://www.ci.org.za/depts/ci/pubs/pdf/general/gauge2015/Child_Gauge_2015-Unemployment.pdf.

Green Youth Indaba. 2016a. About Green Youth Indaba. http://www.greenyouthindaba.co.za/. Accessed 24 February 2017.

Green Youth Indaba. 2016b. Green Innovations and Sustainable Skills Development for Inclusive Growth. The 3rd Annual Green Youth Indaba 2016. http://

³Custodians of natural capital and other resources with the aim of bequeathing them to future generations.

GTZ, 2010. Discussion paper— Green growth. http://www.enterprise-development.org/page/download?id=1544. Accessed 6 July 2013.

IRIN, 2009. South Africa: Need to create more jobs for the youth. http://www.irinnews.org/Report/82782/SOUTH-AFRICA-Need-to-create-more-jobs-for-the-youth. Accessed 15 January 2013.

Lieuw-Kie-Song, MR. 2009. Green jobs for the poor: a public employment approach. United Nations Development Programme Discussion Paper. http://mdgpolicynet.undg.org/ext/economic_crisis/PG-2009-002-discussion-paper-green-jobs.pdf. Accessed 14 January 2013.

Lolwana, P. 2014. South Africa Country Report for the 2014 Ministerial Conference on Youth Employment. Inter-Country Reports of ICQN/TVSD on youth employment in Africa. Abidjan, Côte d'Ivoire, 21-23 July, 2014

Maia, J, Giordano, T, Kelder, N, Bardien, G, Bodibe, M, Du Plooy, P, Jafta, X. 2011. Green Jobs: An Estimate of the Direct Employment Potential of a Greening South African Economy'. Industrial Development Corporation, Development Bank of Southern Africa, Trade and Industrial Policy Strategies.

Mayer, MJ, Gordhan, S, Manxeba, R, Hughes, C, Penny, FP, Maroc, C, Lolwana, P, and Nell, M. 2011. Towards a youth employment strategy for South Africa. Working Paper Series No. 28. Development Planning Division, Development Bank of Southern Africa, South Africa.

Montmasson-Clair, G. 2012. Green Economy Policy Framework and Employment Opportunity: A South African Case Study. TIPS Working Paper Series 2012-0 2. Pretoria: Trade and Industrial Policy Strategies.

Mudombi, S, Fabricius, C, Patt, A, and Bulitta, VZ. 2017. The use of and obstacles to social learning in climate change adaptation initiatives in South Africa. Jàmbá: Journal of Disaster Risk Studies, 9(1). https://doi.org/https://doi.org/10.4102/jamba.v9i1.292.

Mudombi, S, Nzeyimana, E and Weisheit, A. 2011. A youth perspective on climate change opportunities and challenges for climate resilient development. Report from the AfricaAdapt Climate Change Symposium held in Addis Ababa, Ethiopia from the 9th to 12th March 2011. http://ypard.net/resources/youth-perspective-climate-change-opportunities-and-challenges-climate-resilient-developmen. Accessed: 28 January 2013.

National Treasury. 2011. Confronting Youth Unemployment: Policy Options for South Africa (Discussion Paper). Government of South Africa.

NPC. n.d. National Development Plan 2030: Our Future-Make It Work' National Planning Commission, Republic of South Africa.

NYDA, 2011. The Integrated Youth Development Strategy (IYDS) of South Africa 2012- 2016 (Draft). National Youth Development Agency (NYDA), Johannesburg, South Africa.

SA Government. 2009. National Youth Policy 2009 – 2014. http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Publications/YouthPublications NationalYouth PolicyPDF/NYP.pdf. Accessed 13 January 2013.

Stats SA (Statistics South Africa), 2011. Quarterly Labour Force Survey: Quarter 4 (QLFS4). Statistics South Africa, Pretoria.

Stats SA (Statistics South Africa). 2015. National and Provincial Labour Market: Youth. P0211.4.2. Statistical Release. Statistics South Africa.

The African Union. (n.d). The African youth charter. The African Union, Addis Ababa. http://www.africa-union.org/root/ua/conferences/mai/hrst/charter%20english.pdf. Accessed 13 January 2013.

The Economic Development Department. 2011. New Growth Path: Accord 4 Green Economy Accord. Republic of South Africa. Republic of South Africa, Pretoria. http://www.economic.gov.za/communications/publications/newgrowth-path-series/123-accord-4-green-economy-accord. Accessed 22 April 2013.

The Economic Development Department, 2013. New growth path: Accord 6 Youth Employment Accord. Republic of South Africa. Pretoria, South Africa. http://www.economic.gov.za/communications/publications/youth-employment-accord. Accessed 7 July 2013.

The Presidency and NYDA. 2015. National Youth Policy 2015 – 2020. Republic of South Africa.

TIA (Technology Innovation Agency). 2008-2013. YTIF (Youth Technology Innovation Fund). Technology Innovation Agency. http://www.tia.org.za/funding/YTIF+% 28YOUTH+TECHNOLOGY+INNOVATION+FUND%29. Accessed 28 January 2013.

UN. 2010. Youth and climate change (World Youth report). United Nations, New York.

UN. 2015. Transforming Our World: The 2030 Agenda for Sustainable Development'. A/RES/70/1. United Nations. https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable% 20Development%20web.pdf. Date accessed 9/01/2016.

UNEP. 2010. Green Economy: making it work. Our planet, magazine of the United Nations Environment Programme. United Nations Environment Programme (UNEP), Nairobi.

UNESCO and UNEP. 2011. Youth Xchange: Climate change and lifestyles guidebook. United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, and United Nations Environment Programme (UNEP), Nairobi.

WWF South Africa. 2011. Towards a green economy: envisaging success at COP 17. WWF-World Wide Fund for Nature, Cape Town.

WWF. 2013. Pan African youth strategy on learning for sustainability. World Wide Fund for Nature (WWF) Report, Nairobi. Available at: http://wwf.panda.org/who_we_are/wwf_offices/tanzania/?212519/Learning-for-Sustainability--Launch-of-PanAfrican-Youth-Strategy. Date accessed: 15 March 2014.

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