

The Dynamics of Youth Employment and Empowerment in Agriculture and Rural Development in South Africa: A Scoping Review

Supplementary Information



Figure S1: NVivo search query results for the 20 most common words in the data set. This figure provides a snapshot of broad focused themes within the data set.

Table S1: Characteristics of studies included in the review

Author and year	Title	Location of the study	Study aims	Context	Sample size	Main occupation of the study participants	Study outcomes
Cheteni (2016)	Youth Participation in Agriculture in the Nkonkobe District Municipality, South Africa	Nkonkobe Municipality, Eastern Cape	To assess factors influencing the participation of youth in Agriculture in Nkonkobe District Municipality in the Eastern Cape Province, South Africa.	Rural area	140	Secondary school students (73 percent) and temporary employed	The findings from the survey highlighted that youth are not participating in farming as highlighted by a number of research articles in South Africa. Many young people still view agriculture as working in farms physical
Dube & Nicholson (2018)	Youth in agriculture: securing the future of sugarcane farming in south Africa	KwaZulu-Natal	Aims to provide the benefits of promoting youth participation in the South African sugar industry; it also aims to identify existing programmes to support youth in agriculture in South Africa, while assessing the extent to which youth in agriculture programs promote future	Rural and urban	24	Students, farmers and professionals in the agriculture industry	Most of the young people who participated in the survey were not aware of most of the initiatives available for them both at a National and Provincial level. Access to information, land and funding remains a barrier for young people to start and maintain agricultural enterprises.

			sugarcane farming in South Africa.				
Kgopolo, et.al (2020)	Youth Participation in Farming Information related Activities in Mahikeng Local Municipality, North West province South Africa	Mahikeng Local Municipality, North West province	investigating youth participation in farming related activities in Mahikeng North west province of South Africa.	Mainly rural	120	Not mentioned	The findings of the study revealed that young people hold a positive view about agriculture and agricultural careers. The respondents were able to indicate the role that agriculture play in their life, in the community and in the country
Leshilo & Lethoko (2017)	The contribution of youth in Local Economic Development and entrepreneurship in Polokwane Municipality, Limpopo Province	Polokwane Municipality, Limpopo Province	to investigate the contribution of the youth to local economic development and entrepreneurship	Mainly rural	50	entrepreneurs	The findings revealed that a lack of access to finance, entrepreneurship education and training, market opportunities and an awareness of the initiatives offered by government all pose significant obstacles to young entrepreneurs, who are additionally constrained by stringent government policies and regulations

Liddicoat et.al, (2007)	Sharing Programs across Cultures: Lessons from Garden Mosaics in South Africa	Durban, KwaZulu-Natal	Garden Mosaics is a U.S.-based youth and community program that incorporates youth participation and engages young people in learning from elders, many of whom are immigrants, about growing food in urban gardens. In 2005, we adapted the Garden Mosaics activities for learners in two South African township schools.	Townships	86	Primary and secondary school students	It became clear that although Garden Mosaics is designed for use in multicultural settings, incorporates intergenerational learning, draws on local knowledge, addresses a widely relevant issue, and was intended to be adapted, it was not fully usable in a new context.
Maele et.al, (2015)	Characterization of Youth Agricultural Projects in Limpopo Province of South Africa	Limpopo Province	This study was done with the purpose of characterizing participants in youth agricultural projects and subsequently proposing strategies for increasing their productivity. It focused on youth agricultural projects supported by the Limpopo Department of Agriculture	Mainly rural	50	youth agricultural project beneficiaries	Important constraints faced by youth agricultural projects included (1) weak relationship between youth projects and other stakeholders resulting in limited access to information, (2) lack of access to funding, and (3) poor land tenure. Youth projects had strong relationships with youth cooperatives, and those should be used to

							disseminate information to the projects.
Magagula & Tsvakirai (2020)	Youth perceptions of agriculture: influence of cognitive processes on participation in agripreneurship	Mpumalanga Province	Examining the nature and key indicators that inform the perceptions of the youth towards the agricultural industry, and investigating the effects of these perceptions, as well as other socio-economic factors impacting on the intentions of youth towards participating in agricultural business ventures.	Mainly rural	120	Students	The societal embeddedness of the agricultural industry is an equally important guide to people's intention to start businesses, in addition to the profit maximisation aspirations.
Matli & Ngoepe (2019)	Capitalizing on digital literacy skills for capacity development of people who are not in education, employment or training in South Africa	Gauteng province	The general purpose of the study was to explore how digital literacy skills can capacitate people who are NEET.	townships and urban areas	9	NEET youth ( not in education, employment or training)	The results indicate that digital literacy skills are essential when looking for employment opportunities. it is equally important for government to work collectively with non-governmental organizations (NGOs) and other stakeholders to establish policies that drive the development of NEET people in literacy skills.

Metelerkamp et.al, (2019)	We're ready, the system's not – youth perspectives on agricultural careers in South Africa	the Western Cape, KwaZulu-Natal and Limpopo Province	this paper seeks to provide an empirical foundation for understanding youth attitudes towards agriculture in South Africa	rural areas	573	Fifty four per cent had never been employed or run their own business.	Results showed that attitudes towards careers in agriculture varied greatly. While a set of negative perceptions emerged from the narratives as anticipated, over one third of respondents expressed a clear interest and passion for agriculture. This interest persisted in spite of a range of pervasive social norms and stigmas. This raises the need to begin questioning the commonly accepted truth that youth are not interested in agriculture.
Mmbengwa et al., (2021)	Determinants of youth entrepreneurial success in agribusiness sector: the case of Vhembe district municipality	Vhembe district, Limpopo province	To identify the factors influencing youth agricultural entrepreneurship success in South Africa to reduce the ever-growing youth unemployment in South Africa with a particular reference to youth in Vhembe District Municipality.	Rural area	325	youth entrepreneurs who are smallholder farmers	Evidence from the study suggests that perseverance and personal motivation have the most significant influence, followed by creativity and a positive attitude. Secondly, South Africa's youth in general and in Vhembe, particularly, associate agricultural enterprises as

	of South Africa						poor man's business and thus see it as unattractive.
Mudau & Kruger (2014)	Students Perception on the Entrepreneurship Curriculum at the University of South Africa's Department of Agriculture and Animal Health	The study comprised all nine provinces in South Africa.	This study proposes the following research questions: (1) How do Unisa's agricultural students perceive entrepreneurship curriculum towards their post graduate innovation and work platforms?; (2) Does entrepreneurship curriculum have an impact on students?; (3) How can the College of Agriculture and Environmental Sciences be more effective in their provision training and assessment towards students entrepreneurship skills?	Mainly rural	200	agri-entrepreneurs and post graduate students	In the context of this study, it is clear that the curriculum presented at Unisa's CAES: Department of Agriculture and Animal Health is not appropriately developed to prepare students for entrepreneurship as a career option.
Owen & Goldin (2015)	Assessing the relationship between youth capabilities and food security: a	Mpumalanga Province	The research aimed to determine the capabilities that exist amongst the youth, the state of food security in the villages, whether there is a relationship between food security	rural villages	199	Not mentioned	The critical point of this paper is that youth have enormous potential to do and be more than they are actually doing and being in relation to food and water resources management – and that

	case study of a rainwater harvesting project in South Africa		and youth capabilities, and which capabilities of youth would best promote food security, and to better understand the differences that emerge among the youth around issues of food security and capabilities in the two villages.				engaging them in food and water security projects more deliberately would provide them with more freedoms to be and to do what they value to be or to do.
Ramohale & Rachidi (2019)	Involvement of Unemployed Graduate Youth in SMME Support Programmes : The Case of Mankweng Area, Limpopo Province	Capricorn District Municipality in the Limpopo Province	This article presents data on the rate of youth unemployment in South Africa, the role that SMMEs can play in alleviating unemployment, and the support measures that are available for youth-owned SMMEs.	township	15	graduates, unemployed and looking for work	The results indicated that youth are not aware of the support programmes, and they have no intention of starting their own businesses. The lack of awareness of support programmes suggests that these programmes are not visible enough, especially to youth in rural areas, in this case, Mankweng area, who may need them the most.
Zantsi (2021)	Why do agricultural co-operatives fail to attract youth and create rural	Butterworth, Eastern Cape	This article attempts to give insight into why the Zanokhanyo Food Security agricultural cooperative has failed to provide employment and attract youth.	rural villages	18	Seeking employment	With cooperatives such as ZFSC, the idea of attracting youth and increasing rural income will hardly be achieved unless intensive production measures are

employment ? Evidence from a case study of Zanokhanyo in Butterworth, Eastern Cape					implemented, and competent training is given to the members.
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Table S2: Strategies, reports and policy documents included in the review

Organization/ institution	Documents name	Policy aims and objectives
African Union	African Youth Charter	The aim of the African Youth Charter is to recall the historic injustices imposed to Africa such as slavery, colonization, depletion of natural resources, and considering the firm will of African people 's self-determination and the economic integration of Africa.
African Union	SADC Regional Agricultural Plan (RAP)	The primary aim of the policy is to document the objectives, support actions and desired outputs to achieve the SADC Common Agenda. The SADC Common Agenda seeks to stimulate equitable and sustainable economic growth whilst promoting socio-economic development at national and regional level, and consequently contributing towards regional integration.
Buffalo city Metropolitan municipality	Buffalo city metropolitan municipality child and youth development strategy 2017 - 2021	The aim of this policy is the development of children and youth aligning with Chapter 10 of the Constitution of the Republic of South Africa Act 108 of 1996 which promotes an integrated, cooperative, and developmental local government inclusive of children and youth in accordance

Organization/ institution	Documents name	Policy aims and objectives
		with the accompanying rights, responsibilities, and obligations
Department of Agriculture, 2001	Strategic plan for South African Agriculture	The vision for the strategic plan for South African Agriculture is to have a united and prosperous agricultural sector. The implications of this vision are there must be a sustained profitable participation in the South African agricultural economy by all stakeholders, recognising the need to maintain and increase commercial production, to build international competitiveness and to address the historical legacies and biases that resulted in skewed access and representation.
Department of Agriculture, 2004	Black Economic Empowerment framework for agriculture (AgriBEE)	To pursue Broad-based Black Economic Empowerment in support of a United and Prosperous Agricultural Sector
Department of Agriculture, Forestry and Fisheries	Comprehensive Agricultural Support Programme (CASP)	The aim of (CASP) is to enhance the provision of support services to promote and facilitate agricultural development targeting the beneficiaries of the land and agrarian reforms.
Department of Agriculture, Forestry and Fisheries (DAFF), 2014	Agricultural Policy Action Plan	The aim of the APAP is to address growing concentration within the market which impacts job creation, transversal action programmes seek to localise food networks, through infrastructure development, incentivising support for SMMEs and small-scale producers across agriculture, forestry and fisheries value chains.
Department of Agriculture, Land Reform and Rural Development	National Policy on Comprehensive Producer Development Support	The main objective of the Policy is to regulate and guide the provision of support measures to the various categories of producers, thereby contributing to the restoration of the

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		natural resources, a sustainable and competitive agricultural sector. It (StatsSA, 2021, Moher et al., 2015) aims to regulate and guide numerous interventions (support services) provided to the various categories of producers by government.
Department of Agriculture, Land Reform and Rural Development (DALRRD)	National Policy on Comprehensive Producer Development Support	To regulate and guide the provision of support measures to the various categories of producers, thereby contributing to the restoration of the natural resources, a sustainable and competitive agricultural sector.
Department of agriculture, land reform and rural development	The Micro Agricultural Financial Institutions of South Africa (MAFISA)	To facilitate the provision of equitable and large-scale access to financial services by economically active rural poor communities on an affordable, diversified, and sustainable basis
Department: Rural Development and Land Reform	National Rural Youth Service Corps (NARYSEC)	Is a youth flagship programme of the Department of Rural Development and Land Reform. It also provides character building programmes, soft and hard skills training and dispatch the youth to rural areas to undertake various rural infrastructure and other development projects.
FAO, 2020	Digital agriculture profile; South Africa	To incorporate digital solutions into the agriculture industry of South Africa as it has displayed potential of addressing issues faced by this industry in South Africa. Digital solutions have the potential to create more efficient agricultural value chains by decreasing costs, increasing decision support, reducing loss, and improving sustainable resource use efficiency.

Organization/ institution	Documents name	Policy aims and objectives
Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), 2012	Current and Emerging Youth Policies and Initiatives with a Special Focus on Links to Agriculture South African Case Study Draft Report	The aim of the policy is to conduct a Country Case Study (Literature Review) and present the findings of the current and emerging policies as well as related initiatives regarding the mainstreaming of youth development in the agricultural value chain in South Africa. Moreover, it is to identify space and opportunities for developing national 'youth and agriculture policies' within agricultural policies and make appropriate policy recommendations.
Mohokare local municipality	Draft youth development plan, Mohokare local municipality	To empower the youth of Mohokarane Local Municipality by constructing required and necessary interventions reduce the challenges that young people face such as unemployment.
National Youth Development Agency (NYDA)	Integrated youth development strategy (IYDS) (2021 – 2023)	An integrated, holistic, and sustainable approach towards youth development that contributes to the growth and development of South Africa's youth.
National Youth Development Agency (NYDA), 2011	The Integrated Youth Development Strategy (IYDS) of South Africa 2012- 2016	The Aim of the IYDS is to accelerate the attainment of sustainable livelihoods and global competitiveness through mainstreamed and integrated youth development in all spheres of government, the private sector and civil society.
NEPAD, 2003	Comprehensive Africa Agriculture Development Programme (CAADP)	To promote interventions that best respond to the widely recognised crisis of African agriculture. It aims to encourage African countries to pursue economic growth through agriculture-led development to reduce poverty and hunger on the continent.
Republic of South Africa Presidency, 2015	The National Youth Policy (NYP) for 2015–2020	The policy aims to create integrated, holistic, and sustainable youth development, conscious of the historical imbalances and current imbalances and current realities, to build a non-sexist, non-racist, democratic South Africa in which young people and their organizations not only enjoy and contribute

Organization/ institution	Documents name	Policy aims and objectives
		to their full potential in the social, economic and political spheres of life but also recognize and develop their responsibilities to build a better life for all.
The Department of trade and industry	The National Youth Economic Empowerment Strategy and Implementation Framework Mainstreaming Youth in the South African Economy 2009 – 2019	The strategy aims to promote and accelerate youth economic empowerment in the economy by prioritising an approach that encourages mainstreaming of the youth in the already existing core programmes designed for industrial and enterprise development. It also encourages and allow the formulation of new economic development programmes uniquely designed to target the youth only in circumstances where such an approach will either effectively address the existing deficiency or may have a much higher impact in empowering young people.
The Department of trade and industry	Youth Enterprise Development Strategy 2013-2023	The vision of the YEDS is to create South Africa that has a dynamic youth entrepreneurship culture and developed youth-owned enterprises, operating in all sectors of the economy, which contribute to economic growth, poverty reduction and employment creation as well as assist in bringing about economic transformation and an equitable society.
The South African National Department of Agriculture in consultation with the The FAO, 2003	Agricultural Education and Training (AET) strategy for agriculture in rural development in South Africa	The aim of the AET strategy for Agriculture in Rural Development in South Africa is to address AET holistically in a manner that focuses all role players around three strategic goals. Moreover, it is to be accessible, responsive, quality Education and Training for Agriculture and Rural Development

Table S3: Reasons for exclusion for articles removed at full screening stage

Author and year	Title	Reasons for exclusion
Mayer et.al (2011)	Towards a youth employment strategy for South Africa	Literature review, very limited primary data.
Mtembu & Govender (2015)	Perceptions of employers and unemployed youth on the proposed youth employment wage subsidy incentive in South Africa: A KwaZulu-Natal study	The main aim of the study was to determine the perceptions of unemployed South African youth and employers on the proposed youth wage subsidy incentive scheme. This is not related to the scope of the study.
Ngubeni (2015)	Youth development performance management in municipalities: A Nkangala district municipality case study	Literature review, no primary data
Silliman et.al, (2020)	Long-term effects of youth work internship: The Project Youth Extension Service approach	This study examines long-term effects of a youth work internship on participants' current work performance. This is not related to the scope of the study.
Swarts & Aliber (2013)	The 'youth and agriculture' problem: implications for rangeland development	Literature review, no primary data
Trivelli & Jorge (2021)	Rural Youth Inclusion, Empowerment, and Participation	Literature review, no primary data
Wynveen & McMahan (2019)	Youth Engagement in Forest Planning: Fulfilling the 2012 Planning Rule	The study was conducted in the United States and is not relevant to the South Africa.
Wilkinson et.al, (2017)	The employment environment for youth in rural South Africa: A mixed-methods study	The aim of this study was to identify factors associated with employment for out-of-school youth in rural Mpumalanga, South Africa, and to help identify promising strategies to increase employment and reduce

Author and year	Title	Reasons for exclusion
		HIV vulnerability. This is not directly related to the scope of the study.
<b>Strategies, reports, and policy documents</b>		
Department of Public Works, 2017	Guidelines for the Implementation of the National Youth Service Programme under the Expanded Public Works Programme (EPWP)	The programme objectives are not directly related to the objectives of the study. Also, the document only includes the guidelines for implementation.
Department of Rural Development and Land Reform, n.d	National Rural Youth Service Corps programme	The full document of this policy is unavailable on the SA government website. A summary of the program is available at <a href="http://www.gov.za">www.gov.za</a> , <a href="http://www.publicsectorleaders.co.za">www.publicsectorleaders.co.za</a> . Authors made numerous unsuccessful attempts to contact the department to obtain the document with full details of the policy.
Department of Rural Development and Land Reform, n.d	Recapitalisation and Development Programme (RADP)	The full document of this policy is unavailable on the SA government website. Only the implementation evaluation report is available at <a href="https://evaluations.dpme.gov.za/evaluations/407">https://evaluations.dpme.gov.za/evaluations/407</a> . Authors made numerous unsuccessful attempts to contact the department to obtain the document with full details of the policy.