

Innovation Policies for Inclusiveness – Policy Cases

Thuthuka Programme

Country: South Africa

1. Short Description

The **“Thuthuka” programme** aims to **address the under-representation of researchers from historically disadvantaged groups in South Africa** (black, coloured,¹ Indian, women and people with disabilities). The programme offers grants for research projects conducted by researchers that hold a Doctoral degree or are currently pursuing Doctoral studies, with explicit gender and race targets. Such grants aim to develop human capital and to improve the research capacities of designated researchers.

This policy profile is part of a [policy toolkit on innovation policies for inclusiveness](#). It is relevant for social inclusiveness.

2. Policy Characteristics

Basic Information

Country and implementing institution(s):	Timeline:
South Africa The National Research Foundation (NRF) reports to the Minister of Science and Technology through its Board. The Department of Science and Technology (DST) is the line department.	2001 to the present (as of December 2016)
Target group	Size and budget:
Groups (women and others): Researchers from designated groups (black, coloured, Indian, women and people with disabilities)	205 grant recipients in 2013-2014 (up from 130 in 2010/2011) with an average individual grant of ZAR 152 997 (USD 28 400, PPP) (33% increase since 2010/2011). Budget: ZAR 45 939 976 in fiscal year 2013/2014 (approx. USD 8.5 million, PPP) Based on applications received, typically, the PhD Track is allocated 40% of the overall budget and the Post-PhD Track and the NRF Rating Track are each allocated 30%. The budget of the

¹ The term “coloured” is used in South Africa to refer to populations of mixed race persons, who possess ancestry from European, African (Khoisan and Bantu) and Asian (Austronesian and South Asian) ethnic groups.



	Thuthuka Research Grant has increased significantly since 2010 (year-on-year increases of 60%, 99% and 88% for the financial years 2011/2012, 2012/2013 and 2013/2014, respectively).
Type of policy instrument(s)	Inclusiveness focus
Direct financial support: grant	Social inclusiveness

Policy objectives

The primary purpose of the Thuthuka programme is to **promote the professional development of researchers from historically disadvantaged population groups**. The scope of this support ranges from formal postgraduate qualifications (PhD and Post-PhD) to National Research Foundation Rating (a system evaluating and rating researchers to recognise outstanding researchers and support their work). It also seeks to support a culture of research excellence through its promotion of expanded research outputs and human capital development. Overall, the policy aims to redress historical imbalances in terms of the demographic composition of the research community in South Africa.

Rationale

Historically disadvantaged populations in South African society (black, coloured, Indian, women and people with disabilities) are under-represented in the research system, largely as a result of the acute scarcity of highly skilled individuals from these under-represented populations. The programme was developed to redress such historical imbalances.

Policy target recipient and selection mechanism

The programme seeks to support researchers from historically disadvantaged populations (black, women and people with disabilities) at different stage of their career by funding specific research projects led by individual researchers. The Thuthuka Funding Instrument has three tracks:

- **The PhD Track** targets Master's degree holders seeking to obtain a PhD.
- **The Post-PhD Track** supports recent PhD graduates (less than five years).
- **The NRF Rating Track** targets researchers aiming to obtain an NRF rating (a system evaluating and rating researchers to recognise outstanding researchers and support their work).

The programme is open to applicants from all race and gender groups with **the following targets for allocation of grants**:

- PhD Track: 80% of all funded grant holders must be black and up to 60% of all funded grant holders must be female.



- Post-PhD Track: 80% of all funded grant holders must be black and 50% of all funded grant holders must be female.
- NRF Rating Track: 80% of all funded grant holders must be black and 50% of all funded grant holders must be female.

The programme supports pre-competitive research. Research proposals for each track must undergo a two-tiered review process (postal review and panel review). Applications are evaluated on several criteria including quality and scientific contribution and human capital development. The panel also takes into account the budget proposal of applicants and the equity targets. Funding is granted for three years conditional on a satisfactory annual progress report.

Applicants must be full-time employees at a South African public higher education institution or a South African public research organisation and be South African citizens (permanent residents may apply to the NRF Rating Track only). The requested budget must be greater than ZAR 25 000 (USD 4 270, PPP).

Policy instrument(s)

Direct financial support (grant): Successful applicants receive funding for three years. The funding is disbursed annually subject to a satisfactory annual progress report. The average individual grant for the 2013-2014 fiscal year was ZAR 152 997 (USD 28 400, PPP) (representing a 33% increase since 2010/2011). The running expenses component of the Thuthuka grant must be matched by funding from the applicant's employing institution on a 1:1 ratio. Applicants can receive funding for a maximum period of two three-year cycles within all tracks.

The funding covers **human capacity development** and **operating costs**. Human capacity development also extends to the researcher's team through staff development grants, students assistantships and post-graduate bursaries. The number of students a grant holder can mentor and supervise depends on the track, and participation targets apply (e.g. 50% or more of black students for assistantships). Staff development grants cover expenses such as attendance to conferences and workshops. Operating costs also cover research-related material infrastructure, such as equipment for the research project and updating facilities of the host institution relevant to the research area.

Policy challenges

According to a review that compared the achievements of the programme with the stated targets for the period 2011-2014 (NRF, 2014), several challenges reduced the effectiveness of the Thuthuka programme over that period:

- The programme did not attract enough applications from black researchers, which rendered the race target almost impossible to meet. In addition, black applicants were significantly less likely to survive the peer review phase of the review process.
- Around 16% of rejected applications during the initial screening process were due to the applicant's employment contract.



- Thuthuka's funding pattern was biased towards urban areas of the country, as well as certain geographical areas (the provinces of Gauteng and the Western Cape). This is explained by the high concentration of research-intensive universities in these provinces.
- About 80% of the grants' value was used for grant-holder-linked capital development, leaving less than 20% for actual research activities, thereby undermining the programme's efficiency as a source of research grants.

Actions undertaken to address challenges

Measures to improve the programme's effectiveness included opening applications to non-permanent employees (16% of applications were rejected based on this criterion), designing a marketing campaign targeting specifically black researchers, and offering application assistance to support participation from disadvantaged institutions.

Evaluation and outcomes of the scheme

The programme's success is measured by its success in meeting its representation targets. A 2014 report assessed results relating to gender and race targets for the 2009-2014 period. It examined applications received, selected candidates and reasons for rejected applications. The report aimed to identify relevant interventions that the NRF could introduce to effectively and sustainably increase the participation rates of researchers from disadvantaged groups.

The programme reached its gender target for female grant recipients (60%) every fiscal year between 2010/2011 and 2013/2014, however the race target for black grant holders (80%) was not met. The share of black recipients varied from a maximum of 72% in 2010/2011 to a minimum of 44% in 2011/2012. A major factor is that the programme does not attract enough applications from black researchers. From 2011 to 2014, out of 1 518 applications for the Thuthuka Research Grant, 56% came from black researchers and 62% from female applicants. Black applicants also have a higher failure rate at the peer review stage, with only a 52% chance of passing this phase, while white applicants have a 73% success rate. The success of the gender target may be attributable to a high number of white female applicants.

Overall participation of historically disadvantaged groups in public research is also monitored. However, there are no evaluation measures in place to isolate the impacts of the Thuthuka programme from those of complementary programmes with similar aims. The Thuthuka programme, along with other policies, has contributed to the proportion of black NRF-rated researchers rising from 15% to 17% between 2008 and 2010, and the proportion of female NRF-rated researchers rising from 25% to 27% during the same time.



Sources

EC/OECD (2014), *International Science, Technology and Innovation Policy (STIP) Survey and Database*, edition 2014, www.innovationpolicyplatform.org/sti-policy-database.

NRF (2016), *Thuthuka*, National Research Foundation, Pretoria, <http://hicd.nrf.ac.za/?q=node/15>.

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NRF (2014), *Thuthuka Interventions – Towards Increased Participation*, National Research Foundation, Pretoria, www.nrf.ac.za/sites/default/files/documents/Thuthuka%20Interventions-Increased%20Participation%202014.pdf.

NRF (2010), *Thuthuka programme policy framework*, National Research Foundation, Pretoria, www.nrf.ac.za/sites/default/files/documents/Thuthuka%20Policy%20Framework%202010%20.pdf.

Background

This document is part of a repository of examples of **innovation policies that have for explicit aim to contribute to territorial, industrial and social inclusiveness**. The repository is part of an innovation policy toolkit developed for the **Innovation for Inclusive Growth** project and gathers national innovation policy programmes that:

- A.** Explicitly target **lagging and less innovative regions** (outside of regions that are highly innovative) or by design are more likely to support these lagging / less innovative regions.
- B.** Explicitly aim to include in innovation activities **individuals and groups that are not usually participating** in those activities and in support of broadening the group of innovators.
- C.** Explicitly aim to foster innovation activities in non-innovative firms, in particular by targeting **non-innovative sectors and non-innovative Small and Medium-sized Enterprises (SMEs)**.

Policies are searchable by inclusiveness type, objective and implementation challenge on: <https://innovationpolicyplatform.org/inclusivetoolkit>