



Framework Document

**Innovation, NRF Freestanding (local and abroad) and Scarce Skills
Development Fund Postdoctoral Fellowships**

Directorate: Human and Infrastructure Capacity Development

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Contents

| | |
|--|----|
| 1. Purpose..... | 3 |
| 2. Background and Rationale..... | 3 |
| 3. Objectives..... | 4 |
| 3.1 Innovation Postdoctoral Fellowship | 4 |
| 3.2 NRF Free-standing Postdoctoral Fellowship (Local and abroad)..... | 5 |
| 3.3 Scarce Skills Development Fund Postdoctoral Fellowship: | 5 |
| 4. Areas of Support..... | 5 |
| 4.1 Innovation Postdoctoral Fellowship | 5 |
| 4.2 NRF Free-standing Postdoctoral Fellowship | 6 |
| 4.3 Scarce Skills Development Fund Postdoctoral Fellowships..... | 6 |
| 5. Eligibility..... | 7 |
| 5.1 General eligibility criteria for all Postdoctoral Fellowships | 7 |
| 5.2 Innovation Postdoctoral Fellowship: | 8 |
| 5.3 NRF Free-standing Postdoctoral Fellowship(South Africa and Abroad).8 | |
| 5.4 Scarce Skills Development Fund Postdoctoral Fellowships..... | 8 |
| 6. Application Requirements..... | 8 |
| 7. Value of the Postdoctoral Fellowships | 9 |
| 7.1 Postdoctoral Fellowships in South Africa..... | 9 |
| 7.2 Postdoctoral Fellowships Abroad Awards. | 11 |
| 8. Conditions of the Fellowship..... | 11 |
| 9. Equity and Redress..... | 11 |
| 9.1 Innovation Postdoctoral Fellowship | 12 |
| 9.2 NRF Free-standing Postdoctoral Fellowship | 12 |
| 9.3 Scarce Skills Development Fund Postdoctoral Fellowships..... | 12 |
| 10. Application Process..... | 12 |
| 11. Review Process..... | 13 |
| 12. Reporting..... | 15 |

1. Purpose

The purpose of this framework document is to outline the funding principles and implementation of three funding instruments, namely, (i) Innovation Postdoctoral Fellowship, (ii) NRF Free-standing Postdoctoral Fellowship for research in South Africa and abroad and (iii) Scarce Skills Development Fund (SSDF) Postdoctoral Fellowship. The innovation and NRF Free-standing Fellowships are funded by the Department of Science and Technology (DST) while the SSDF Fellowships are financed by the National Skills Fund (NSF) through the Department of Higher Education and Training (DHET). Specifically, this document outlines the objectives of the funding instruments, eligibility criteria, funding principles, application process and governance including management of the funding instruments.

2. Background and Rationale

The National Research Foundation (NRF) is an agency mandated by an act of Parliament (Act no 23 of 1998), for the implementation of human capital development initiatives, knowledge production and the provisioning of research infrastructure.

The National Research and Development Strategy of 2002 identified the need for a new generation of scientists to underpin the central thrust of innovation. The South African research and academic system is faced with a challenge of having an ageing productive scientific population. Strategic interventions are needed to reverse these trends in order to ensure correct positioning of the country for competing in the global research and innovation arena. In response to this need, the DST commits an annual investment for the DST-NRF Innovation and Free-standing Postdoctoral Fellows through a contractual agreement between the DST and the NRF, in order to promote research and research capacity development in all knowledge fields, including innovation and technology.

In addition, the South African government passed the Skills Development Act (Act no. 97 of 1998), which provides a framework for addressing the severe

shortage of skills in the country. The legislation provides guidelines on how to increase the overall level of skills in the country and to improve access to quality learning, especially for the previously disadvantaged sectors of the population. It also aims to ensure that the learning system is more responsive to the skills requirements and needs of industry. Emanating from the above mentioned Act, the Departments of Labour (DoL), Education (DoE) and the DST were mandated to ensure training in scarce skills at higher education and training institutions. In response to this mandate, the DoL, allocated funding from the NSF, and entered into a contractual agreement with the NRF for management of the SSDF postgraduate and postdoctoral funding. The SSDF supports students at the Honours', Masters and Doctoral levels and, Postdoctoral Fellows. The NSF has since migrated to the DHET and funding for postgraduate and Postdoctoral training is made available to the NRF through annual proposals submitted to the DHET.

3. Objectives

The objectives for these postdoctoral fellowships supported by the NRF are listed below.

3.1 Innovation Postdoctoral Fellowship:

- Leverage innovation in universities and the implementation of science and related skills development;
- Expand transformation initiatives through equity and career growth opportunities for designated groups;
- Enable young scientists and professionals to access world class strategic and applied research opportunities in a university environment and thereby strengthen their research profiles and consequently improve their prospects of permanent employment in the national system of innovation;
- Attract young scientists and professionals of the highest calibre, in order to complement senior researchers influence on innovation through research; and
- Support young scientists and professional in strategic, basic and applied research with the intention to promote innovation.

3.2 NRF Free-standing Postdoctoral Fellowship (in South Africa and abroad):

- Increase the number and quality of Postdoctoral Research Fellows in South Africa;
- Enable South African Postdoctoral Fellows to obtain international research exposure;
- Encourage outstanding international Postdoctoral Research Fellows to undertake research in South Africa.

3.3 Scarce Skills Development Fund Postdoctoral Fellowship:

- To increase the number and quality of South African postdoctoral researchers in specified scarce skills areas; and
- To increase the race and gender representation and, in conjunction with the higher education sector and industry, to support the development of research to meet specific needs of the country.

4. Areas of Support

Applications from candidates intending to pursue postdoctoral research in the specific areas listed below will be considered for the respective fellowships.

4.1 Innovation Postdoctoral Fellowship

- Biotechnology;
- Cellular and Molecular Biology;
- Engineering;
- Computer science;
- Physics;
- Astronomy;
- Mathematical Sciences;
- Nanotechnology;
- Chemistry;
- Earth Science;

- Ecology;
- Medical sciences;
- Social Sciences; and
- Humanities

4.2 NRF Free-standing Postdoctoral Fellowship

- Natural Sciences;
- Engineering;
- Technology;
- Social Sciences; and
- Humanities.

In allocating funds for Postdoctoral Fellowships at South African public research institutions, priority will be given to Science, Engineering and Technology (SET) disciplines. The percentage of Fellowships awarded towards the SET domain will be between 70 – 80%; and between 20 – 30% for the Social Sciences and Humanities (SSH).

Grant allocation for Postdoctoral Fellowships abroad will give preference to applications aiming to undertake postdoctoral research in a vulnerable discipline, emerging research area or where there exists a paucity of research infrastructure and/or suitably qualified research experts in South Africa.

4.3 Scarce Skills Development Fund Postdoctoral Fellowships

- **Management:**
 - Financial Management
- **Financial sector:**
 - Accounting, Auditing, Statistics, Actuarial Science
- **Biological sciences:**
 - Biotechnology
- **Physical sciences:**
 - Mathematical Sciences, Physics, Geology, Computer Science, Information systems, Chemistry

- **Engineering:**
 - All fields of Engineering
- **Sector specific:**
 - Agricultural Sciences, Transportation Studies, Tourism, Demography

5. Eligibility

The eligibility criteria applicable to all the Postdoctoral Fellowships supported by the NRF are listed in section 5.1. In addition sections 5.2, 5.3 and 5.4 list eligibility criteria for each category of fellowships relating to citizenship requirements.

5.1 General eligibility criteria for all Postdoctoral Fellowships

- Applicants must have obtained their Doctoral degree within five (5) years of submitting an application to the NRF;
- Applicants who are currently completing their Doctoral dissertation for submission may apply however, they should complete their Doctoral degree by 31 December 2017, as **awards that are not taken up by 30 June 2018 will be cancelled by the NRF;**
- Applicants who are applying for a second NRF Postdoctoral research placement to continue with research on the same project are not eligible;
- Applicants who are applying for a second NRF Postdoctoral research placement will be eligible if they intend undertaking research on a new project; and
- Applicants who are applying for a third NRF Postdoctoral research placement **are not** eligible; and
- Full-time employees of Higher Education Institutions (HEI's) or other research institutions are only eligible to apply **if they intend to take unpaid leave for the duration of the postdoctoral fellowship.**

5.2 Innovation Postdoctoral Fellowship:

Fellowships are open to South African citizens or permanent residents and foreign citizens, from the African continent and other countries, intending to undertake postdoctoral research in South Africa;

5.3 NRF Free-standing Postdoctoral Fellowship in South Africa and Abroad

The eligibility criteria listed below apply to applicants who wish to apply for this funding instrument, irrespective of where the postdoctoral research will be conducted. Eligibility related to citizenship is listed in 5.3.1 for fellowships in South Africa and 5.3.2 for fellowships where research will be conducted abroad.

5.3.1 NRF Free-standing Postdoctoral Fellowship in South Africa:

Fellowships are open to **South African citizens and permanent residents as well as international candidates** who intend to undertake research at a public research institution in South Africa.

5.3.2 DST-NRF Free-standing Postdoctoral Fellowships abroad:

Fellowships are open to **South African citizens and permanent residents only.**

5.4 Scarce Skills Development Fund Postdoctoral Fellowships

Fellowships are open to **South African citizens and permanent residents only.**

6. Application Requirements

- Applicants should apply to undertake postdoctoral research (i) on a research project that is different from the Doctoral research; (ii) located in a different department from that where the Doctoral training was undertaken; or (iii) at a different institution to that where the previous study was undertaken, as fellowships will preferably be awarded to individuals that will be expanding their research training on a new project and/or institution;

- Special consideration will be given to applicants who are applying for a first NRF Postdoctoral research placement where the individual's research training and outputs may be enhanced by continuing with Postdoctoral research at the same institution; department; or under the same mentor. In such instances the applicant must provide a **strong motivation** describing the benefits to the applicant and for advancing research and innovation. **Failure to provide a motivation will result in a rejection without review;**
- Applicants must attach certified copies of their Identity Document or passport as well as proof of their Masters and Doctoral qualification to their application. For those who are still in the process of completing their doctoral degree, a letter of confirmation from their current institution must be attached to the application;
- Requested information that is not included in the appropriate section of the Online application form, but is submitted as an attachment instead, will render the application incomplete resulting in a rejection without review.

7. Value of the Postdoctoral Fellowships

7.1 Postdoctoral Fellowships in South Africa

Successful applicants will receive funding for a maximum period of two (2) years based on the initial commencement date of the project. Female Postdoctoral Fellows that take maternity leave during the tenure of the fellowship, are eligible for an additional four (4) months of support beyond the two (2) year fellowship period.

The local Postdoctoral Fellowship packages for 2018 are broken down as follows:

| Value per annum (Rand) | Category |
|---------------------------|---------------------------------------|
| Innovation | |
| 255 000 | non-taxable stipend |
| 50 000 | contribution towards research costs |
| 15 000 | compulsory institutional contribution |

| NRF Free-standing (local) | |
|---------------------------------------|---------------------------------------|
| 155 000 | non-taxable stipend |
| 45 000 | contribution towards research costs |
| 15 000 | compulsory institutional contribution |
| Scarce Skills Development Fund | |
| 255 000 | non-taxable stipend |
| 50 000 | contribution towards research costs |
| 15 000 | compulsory institutional contribution |

Host institutions will be expected to supplement the fellowship with a minimum of R15 000.00 per annum as part of the institutional commitment. In addition, the host institutions will ensure the provision of an enabling environment for Fellows' research training and skills development.

Successful candidates for Innovation and Scarce Skills Postdoctoral Fellowships are also eligible for a travel grant of up to R25 000, for local travel, and up to R50 000, for international travel while successful candidates for DST-NRF Free-standing (local) postdoctoral fellowship are eligible for a travel grant of up to R15 000, for local travel, and up to R45 000, for international travel . The travel grants may be used to contribute towards the costs of attending local or international conferences; workshops; visiting a laboratory or; any other activity that supports the beneficiaries' research training. This is the maximum amount permitted over the tenure of the fellowship. Postdoctoral Fellows who wish to access the travel grant must complete a travel grant application form for submission and approval by the institution and the NRF. The travel application form can be accessed on NRF Online Submissions (<https://nrfsubmission.nrf.ac.za>) and should be submitted three (3) months prior to travelling.

7.2 Postdoctoral Fellowships Abroad Awards:

The value of the award will be calculated as the equivalent of the United States Dollar (USD) of 26 000 per annum, for a maximum of two (2) years, and will be paid out in the currency of the country in which the postdoctoral research will be undertaken.

In addition, the NRF will cover the cost of:

- A single economy airfare for travel to the country in which the postdoctoral research will be undertaken; and
- A single economy airfare to return to South Africa upon completion of the postdoctoral research abroad.

The NRF **will not** cover any costs for accompanying family members or any other costs associated with the postdoctoral research training. The applicant will be responsible for securing additional funding to cover any shortfall in funding required to undertake his/her postdoctoral research abroad.

8. Conditions of the Fellowship

- The fellowship shall be held as the primary funding for the Postdoctoral research training;
- Fellowships may not be held simultaneously with another fellowship from any other government or NRF source or NRF administered source;
- Postdoctoral Fellows are permitted to spend a maximum of 20% of their time undertaking lecturing and student supervision;
- Postdoctoral Fellows may not concurrently hold the fellowship with any full-time salaried employment position; and
- Postdoctoral Fellows may hold non-binding supplementary grants or emoluments to the institutional capped value.

9. Equity and Redress

In line with the national imperative of equity and redress, the fellowship prioritises support for appropriately qualified applicants from designated groups viz. black (African, Indian, Coloured), female and persons with disabilities, while ensuring that only applications that meet the NRF merit review and selection criteria are supported.

The set equity targets for these Postdoctoral Fellowships supported by the NRF are listed below.

9.1 Innovation Postdoctoral Fellowship

The set equity targets are 80% blacks, 55% women and 4% persons with disabilities.

With respect to citizenship of successful applicants, the awards will be allocated in line with the following targets:

- 70% to South African citizens and permanent residents; and
- 30% to citizens from other countries including Southern African Development Community (SADC).

9.2 NRF Free-standing Postdoctoral Fellowship

The set equity targets are 80% blacks, 50% women and 4% persons with disabilities.

With respect to citizenship of successful applicants, the awards will be allocated in line with the following percentages:

- 87% to South African citizens and permanent residents;
- 5% SADC countries;
- 4% Other African countries; and
- 4% Non-African.

9.3 Scarce Skills Development Fund Postdoctoral Fellowships

Only South African citizens and permanent residents will be supported and the set equity targets are 85% blacks, 54% women and 4% persons with disabilities.

10. Application Process

The NRF will invite applications from all candidates who wish to pursue Postdoctoral training at any South African public university or research

institution and, South Africans who intend to undertake Postdoctoral research training abroad. All candidates must apply through the NRF Online Submissions system. Further instructions on the application process will be made available in the **2018 Postdoctoral Fellowships Application and Funding Guide for DST-NRF Free-standing, DST-NRF Innovation, DST-NRF-DHET Scarce Skills Development Fund.**

11. Review Process

All applications will be screened based on the eligibility criteria and application requirements. Should an application not be eligible it will be rejected without review. All eligible and appropriately completed applications are subjected to a competitive merit review process. The reviewers are selected by the NRF from existing reviewer databases and other sources and may include reviewers suggested by the applicant. In assessing the proposals, the reviewers' reports are referred to and, agreed assessment criteria are applied in the form of a scorecard during the panel review process.

The purpose of the scoring system is to evaluate applications in order to determine applicants that are most deserving of the limited number of Postdoctoral Fellowships available. All research proposals submitted to the NRF for funding are evaluated according to the pre-determined criteria. Each area is given a weighting to indicate its relative importance as indicated in the table that follows:

Scorecard for the Assessment of Proposals for Postdoctoral fellowships

| Criteria | Sub-Criteria | Weight (Total = 100%) |
|--|---|--------------------------|
| Track Record of Applicant | Applicant expertise/training that will enable the applicant to successfully undertake the proposed research. | 10% |
| | The applicant's research track record which could include peer reviewed publications, conference proceedings, research prizes and awards. | 10% |
| Scientific and Technical quality of proposed research | Literature review with citations, significance of the research in terms of the problem statement, aims and objectives. Scientific contribution; originality and new knowledge to be generated. | 20% |
| | Research design, methodology developed to address aims of the research. Provision of a work plan and feasible timelines and milestones for the research. | 20% |
| | Alignment with national and institutional research priorities. | 5% |
| Institutional Support | Institutional support for the Postdoctoral fellowship through infrastructure and facilities for an enabling environment. | 10% |
| Potential Research Outputs and Impact of the research | Details of envisaged realistic outputs of the research such as publications, conference proceedings, toolkits, policy documents. | 5% |
| | Contribution to Postdoctoral research skills development in a priority research area (human capacity development of the applicant) | 10% |
| | Potential for socio-economic impact of the research in South Africa | 10% |
| | | 100% |

12. Reporting

For continuous monitoring of progress, the awardees will be required to submit an Annual Progress Report (APR), in a format provided by the NRF, against deliverables as outlined in the application form and the signed Conditions of Grant.