

## Call for Participation

### Southern African Systems Analysis Centre (SASAC)

---

## 2017 Emerging Researchers Programme

Closing date: 30 June 2017

## Background

---

The integrated approach of systems analysis allows investigation at the nexus of global challenges, enabling synergies and trade-offs among potential solutions to be considered and implemented. Applied systems analysis takes into account the interconnectedness of multiple development goals. It offers our best chance of overcoming the substantial barriers to sustainability, now and for future generations<sup>1</sup>.

South Africa joined the [International Institute for Applied Systems Analysis \(IIASA\)](#) in 2007 as its National Member Organisation (NMO) through the [National Research Foundation \(NRF\)](#), supported by the [Department of Science and Technology \(DST\)](#). Since becoming a member, a range of research and capacity building activities have been developed by South African research partners and IIASA. The most notable activity is the [Southern African Young Scientists Summer Programme \(SA-YSSP\)](#) that was launched by the Minister of Science and Technology in November 2011 and hosted at the University of the Free State during 2012-2015.

Building on the successes of the SA-YSSP, the DST and NRF took a strategic decision to continue investing in and expanding activities around systems analysis under the [Southern African Systems Analysis Centre \(SASAC\)](#) initiative. In 2015, a consortium of four universities, namely the [University of the Western Cape](#), the Universities' of [Limpopo](#) and the [Witwatersrand](#), and [Stellenbosch University](#) was competitively selected to host SASAC during 2016 and 2018. The SASAC model takes cognisance of a wider framework of engagement, additional and multi-level systems analysis capacity interventions, and a comprehensive approach to policy related activities in South- and Southern Africa. The SASAC initiative is focused in the following areas:

- A dedicated bursary programme for South African PhD students based at South African universities to complete their studies with a supervisor experienced in systems analysis. For the 2017 intake, a total of 20 PhD students have enrolled;
- A two-month Systems Analysis Capacity Development Programme for these early stage PhD students hosted at the University of the Western Cape and Stellenbosch University;
- **A high-level capacity strengthening programme for emerging researchers;**
- An Early Postgraduate Education Programme aimed at developing a systems analysis component or module into selected Honour's-level programmes at selected institutions in South Africa.

## Call to participate in a three-week “High-level Capacity Strengthening Programme”

---

As part of the SASAC initiative, the NRF is pleased to announce a Call for Participation in the second three-week **High-level Capacity Strengthening Programme** to be held in South Africa at the Universities of the Witwatersrand (Johannesburg) and Limpopo (Polokwane) during **20 August – 8 September 2017**.

---

<sup>1</sup> <http://www.iiasa.ac.at/web/home/about/whatisiiasa/research/what-is-systems-analysis.html>

Participants from South Africa, Southern Africa and other [NMO countries](#) are targeted in this call. The concept of Systems Analysis for this programme is broad and not discipline specific. It aims at developing thinking in which a range of disciplines can be positioned within a system e.g. a health system, a socio-economic system, a governance system, a mathematical and social system, an ecosystem services system and an engineering system. The key is to be transdisciplinary and to think across sectors. Applicants should be:

- Early-career supervisors, or/and
- Early-career academics, or/and
- Postdoctoral Fellows.

A target of **30 participants** will be selected to attend this programme. The programme will include high-level lectures and research development seminars, computer modeling sessions and workshops covering themes in both the social and natural sciences, including policy dimensions, to broaden the participants' perspectives on systems analysis. Keynote lectures will be delivered by national and international leaders in their respective research fields, partly drawn from IIASA's widespread network of alumni and collaborators, as well as from the NRF's extensive international networks of excellence. The programme will be enhanced with cultural excursions, and may involve networking with national research programmes. Significant amounts of time will be allocated to writing research papers on research which the applicants have completed.

To ensure a rich international mix of participants and allow for exchanges and collaboration on projects that address global and regional challenges, the principal intake for the programme from South Africa (50%) and Southern Africa (25%) will be complemented with 25% of placements reserved for young scientists from other IIASA member countries.

It is anticipated that the programme will create an intellectual space in which the participants will embrace the broadest concepts associated with Systems Analysis. Outcomes will include:

- Building a new cohort of systems thinkers with the capacity to initiate new projects and supervise postgraduate students.
- Strengthening and extending collaborative links between the South African research community and IIASA NMO countries.
- Allowing all collaborating scientists, and especially the participating scientists, to learn from the experience of their colleagues.
- Fostering innovative systems analysis research in South Africa and Africa.
- Publication of manuscripts on the research of the participants.

### Eligibility criteria

---

Applications meeting the following criteria will be prioritised:

- All applicants must hold a PhD
- All applicants must have a manuscript which is almost ready for publication; all the data must have been collected;
- Illustrated value to be derived from participation in the programme and the potential of new initiatives;

- The applicant must have the ability to work independently and to interact with other scientists;
- The applicant must be fluent in English and have the ability to communicate in a scientific environment;
- The applicant must have the willingness to participate in a range of scientific approaches related to systems analysis;
- The applicant must have completed research which is in a near-ready state for publication.

### Logistical Arrangements for Participants

---

Participants will be expected to fully participate in the three-week programme. The NRF will cover the financial costs to be incurred by the programme as follows:

- South African candidates: travel costs for one return trip to Johannesburg, accommodation and meals for the duration of the programme;
- Southern African candidates: travel costs for one return trip to Johannesburg, accommodation and meals for the duration of the programme;
- IIASA member-country candidates: accommodation and meals for the duration of the programme. Travel costs to and from Johannesburg must be covered by outside sources identified by the candidate. Some IIASA National Member Organizations (NMOs) will provide travel funds, and candidates will be apprised of those opportunities by IIASA.

### Application Procedure

---

- Applications must be submitted through an online application process to the National Research Foundation (NRF): <https://nrfsubmission.nrf.ac.za/>
- Register/Login using your ID/Passport number and password
- Select create new application from the list of existing calls
- Select the call for which you are applying for: **SASAC High-level System Analysis Capacity Strengthening Three Week Programme 2017**
- Remember to complete all sections of the application
- Please attach the necessary documents in PDF format
- Remember to **submit** your application upon completion
- Should you not follow the guidelines for attaching the necessary supporting documents, your application may not be considered
- Incomplete applications will not be considered
- Applications that do not meet the eligibility criteria will not be considered (please refer to the call document for details on eligibility)
- All applications for this call should be submitted by 30 June 2017. No application will be accepted beyond this date.
- The NRF will not be held liable for server/IT problems experienced by any institution for non-submission of applications.
- Applications submitted as hard copies or by email will not be accepted and will automatically be disqualified.

### Feedback to the applicants

---

The entire process of applications after the call closing date entails screening of all applications for eligibility, taking eligible applications to the review panel, announcing of the outcomes and notification of successful applicants.

### Contacts

---

All queries or comments about this call should be addressed to:

**Ms. Motsakwe Rakgoale**

Professional Officer: International relations and Cooperation

Phone: +27 12 481 4297

Email: [motsakwe@nrf.ac.za](mailto:motsakwe@nrf.ac.za)

### Host contacts

|   |   |
|---|---|
| Prof Mary Scholes<br>University of the Witwatersrand<br>Email: <a href="mailto:mary.scholes@wits.ac.za">mary.scholes@wits.ac.za</a> | Dr Thembinkosi Mabila<br>University of Limpopo<br>Email: <a href="mailto:Thembinkosi.Mabila@ul.ac.za">Thembinkosi.Mabila@ul.ac.za</a> |
|---|---|

## Annexure 1: DST Collaboration with IIASA

---

IIASA is an independent international non-governmental research organisation, headquartered in Laxenburg, Austria, that provides science-based insights into complex global, regional, and national problems. IIASA conducts policy-oriented scientific research in three global problem areas:

- (i) Energy and climate change
- (ii) Food and water
- (iii) Poverty and equity.

Its three cross-cutting research areas are:

- (i) Drivers of global transformations
- (ii) Advanced systems analysis
- (iii) Policy and governance.

The following are IIASA's current Research Programmes:

- (i) Advanced Systems Analysis
- (ii) Ecosystems Services and Management
- (iii) Energy
- (iv) Evolution and Ecology
- (v) Mitigation of Air Pollution and Greenhouse Gases
- (vi) Risk, Policy and Vulnerability
- (vii) Transitions to New Technologies
- (viii) World Population
- (ix) Water

South Africa's engagements with IIASA and specifically with regard to SASAC relate primarily to the DST's 'Ten-Year Innovation Plan,' which has identified five 'Grand Challenges' of which the latter three are particularly relevant for SASAC, serving as enhancements and being complementary to IIASA's research areas:

- (i) Farmer to Pharma
- (ii) Space Science
- (iii) The Global Change
- (iv) Energy
- (v) Human and Social Dynamics.

## Annexure 2: Schedule for the High-level Capacity Strengthening Programme

---

| Time frame     | Activity  |
|----------------|---|
| Day 1          | <b>Welcome</b> ceremony and orientation at the University of the Witwatersrand  |
| Day 2          | High level <b>Systems Analysis lectures and presentations</b> by international and national experts   |
| Day 3-4-5      | <b>Speed presentations</b> on proposed research to be conducted by participants   |
| Day 6          | <b>Seminars and Workshops:</b> Systems analysis and What does it mean to be a systems analysis scholar?   |
| Day 7-8        | <b>Excursion</b> in Johannesburg to the Origins Centre on the Wits Campus and a visit to Maropeng for a viewing of the recent find of Homo Naledi.  |
| Day 9 -10      | Leadership and mentoring: Tips for emerging researchers   |
| Day 11-13      | <b>Travel</b> to <a href="#">Wits Rural Facility</a> in Limpopo Province for an experiential learning and exposure to working with systems in conservation planning and public health policy. |
| Day 14-15 – 20 | <b>Field trips to local communities and the Kruger National Park</b>  |
| Day 16-20      | <b>Writing retreat to finish manuscript drafts</b>  |
| Day 21         | <b>Closing</b> ceremony and departures  |