

Waste Research Development and Innovation Roadmap

Research, development and innovation (RDI) to advance the South African waste sector

GRANT CALL

SCIENCE REVIEW OF MARINE PLASTIC POLLUTION IN SOUTH AFRICA

The Department of Science and Technology (DST) is pleased to announce a **Targeted Call for academics to undertake a science review of marine plastic pollution in South Africa**. The Call is issued under the Waste Research, Development and Innovation Roadmap, and has been jointly scoped with the Department of Environmental Affairs, Sustainable Seas Trust (Africa Marine Waste Network) and the Water Research Commission. Applicants are requested to familiarise themselves with the information provided in this Call before preparing an application.

1. Background

Marine plastic pollution is considered an issue of global concern, in the league of climate change, ocean acidification and biodiversity loss (Secretariat of the Convention on Biological Diversity, 2016). While a fair amount of research has been conducted on the state and impact of micro-, meso- and macro-plastic in fresh and marine waters in South Africa, this research has not been consolidated and as such, has not been used to assess the current threat of waste plastic to ecosystems, human health and the South African economy.

It is therefore proposed that the existing South African research be consolidated and evaluated, and that the gaps in knowledge be identified. This will inform whether a specific research agenda for marine plastic pollution research in South Africa needs to be developed and implemented.

2. Scope of work

The following scope of work is outlined for this science review –

1. South African academics are invited to submit an expression of interest to prepare a short (10 page max) science review paper on the existing South African knowledge base, of one of the following topics (5 review papers will be produced) –
 - i. Sources and pathways of marine plastic litter (both inland and marine)^a
 - ii. Transport and fate of marine plastic litter^b
 - iii. Ecological impacts of marine plastic litter (biota and human health)^c
 - iv. Ecosystem service and economic impacts of marine plastic litter^c
 - v. Marine plastic litter monitoring and methods

^a Where is marine plastic litter coming from ^b Where is the marine plastic litter ^c What impact is marine plastic litter having

Each review paper must be structured around (as a minimum) –

- What do we know for South Africa (the status quo spatially and temporarily)? i.e. a consolidation of all existing research for micro-, meso- and macro-plastics for the specific topic
- What are the key uncertainties in the available South African research?
- What are the existing gaps in knowledge that need to be evidenced?
- What are the implications of those gaps if not addressed?
- Where there are gaps in local research, can data/information from other countries/regions be applied to South Africa to fill these gaps?
- Reference list

Following the preparation of the draft review papers, the lead academics and key stakeholders from government, academia and the plastics industry will convene for a 1-2 day workshop. The workshop will be used to critically evaluate (i) each draft science review paper, (ii) proposed uncertainties, and (iii) gaps in knowledge. The outcomes of the workshop will be used to assess whether a specific research agenda on marine plastics be developed for South Africa. If yes, the outcomes of the workshop will be used to draft this marine plastics research agenda.

To ensure that the final outcomes of the science review are widely distributed, the Waste Roadmap Implementation Unit will also engage with a targeted journal to have the five papers collectively published. In agreement with Sustainable Seas Trust, the outcomes of the science review may also be presented at the 2nd African Marine Waste Network Conference to be held from the 20-23 April 2020.

3. Grant Award Amount

The Department of Science and Technology has made funding available to cover the costs of this science review. Each academic lead will be provided with a R50,000 (excl VAT) research grant (per topic). This grant will be used to –

- undertake the science review
- prepare the draft paper (max 10 pages)
- attend the workshop
- incorporate workshop review comments
- finalise the paper as journal-ready

The running costs for each academic lead to attend the workshop will be covered by the Department of Science and Technology and will be in addition to the R50,000 allocated grant.

4. Time frames

To allow for the completion of deliverables in the 2019 calendar year, the following schedule is planned:

Activity	Timeframe
Closing date for applications	30 May 2019 (2 weeks)
Award review to each lead	6 June 2019
Contracting with institution	30 June 2019 (1 month)
Preparation of review papers	1 July – 30 Sept 2019 (3 months)
Workshop	Mid-October 2019
Finalise papers (print ready)	Mid-November 2019 (1 month)
Submission to journal	November 2019

An inception meeting will be held with all topic leads in early July 2019, to ensure that academics understand the intent of each science review paper and where the scope of their topic begins and ends.

5. Eligibility criteria

Researchers from South African Universities, Science Councils and other public research institutions, working in relevant disciplines, are invited to submit an Expression of Interest (Eoi) to undertake one of the Science Review Papers. Principal investigators (PI) must be qualified to undertake the proposed review and should be experts in the subject matter related to the specific topic.

One academic lead will be appointed per topic / science review paper, but academics may apply for multiple topics. If applicants are submitting proposals for multiple topics, they should submit each Expression of Interest as a separate document.

6. Evaluation criteria

All applications will undergo evaluation by an independent review panel, to assess the suitability of the applicant in terms of their expertise and experience.

All Expressions of Interest will be evaluated against the following criteria:

- i. **Expertise:** the lead researcher (applicant) must demonstrate their academic expertise aligned with the science review topic for which they are applying.
- ii. **Experience:** the lead researcher (applicant) must demonstrate their experience aligned with the science review topic for which they are applying.
- iii. **Understanding of the scope:** the lead researcher (applicant) must demonstrate a clear understanding of the scope of the specific topic for which they are applying.
- iv. **Institutional capacity:** the applicant should demonstrate sufficient institutional capacity to implement the project.

7. Submission of Expression of Interest

To be eligible for consideration, Expressions of Interest must be submitted on the template provided, and submitted in MSWord or PDF format. The Expression of Interest **must not exceed 3 pages** (at font Arial 10, line spacing 1.15). **Applications may be rejected prior to evaluation if they exceed the set length and if they do not make use of the template provided.** An abridged CV of the lead researcher should accompany the submission as a separate file.

8. Reservations

The DST expressly reserves the following rights:

- To reject all or any proposals
- To waive any or all irregularities in the proposals submitted
- To retain the right not to select any application/s even if meeting all the requirements

9. Contract negotiations

The successful applicant(s) will be required to enter into a written Agreement with the CSIR, who manages the Waste RDI Roadmap Grants on behalf of the DST.

10. Closing date

Applications must be submitted electronically via email to LGodfrey@csir.co.za in the prescribed format. The deadline for the submission of proposals is **Thursday, 30 May 2019 at 17:00**. All applicants will be notified about the outcome of their applications by the 6 June 2019.

11. Validity

All applications will be regarded as valid for 60 days from the 30 May 2016, whereafter the CSIR may request an updated application, should this become necessary.

For any queries relating to the call for proposals, contact:

Prof Linda Godfrey

Manager: Waste RDI Roadmap Implementation Unit

Telephone: 012 841 4801

Fax: 012 842 7687

E-mail: LGodfrey@csir.co.za