



Leading Integrated Research for Agenda 2030 in Africa

A five-year programme of the International Council for Science (ICSU), implemented in partnership with the Network of African Science Academies (NASAC) and the International Social Science Council (ISSC), that aims to generate solutions-oriented knowledge required to address complex sustainability challenges in Africa and to increase participation of the African scientific community in the global research programmes Future Earth, Integrated Research on Disaster Risk, and Health and Wellbeing in the Changing Urban Environment.

Call for pre-proposals: Pathways towards Sustainable African Urban Development

Deadline: 14 May 2018 (18:00 CET)

Submission via <http://bit.ly/2GWhl6N>

ICSU in partnership with NASAC and the ISSC has opened a call for pre-proposals to identify collaborative research projects across Africa that explore integrated approaches for sustainable urban development in Africa. 35 pre-proposals will be selected to attend a training event on inter- and trans-disciplinary research, which will take place on 3-7 September 2018 (place tbc). Participants of the training will then be given about two and half months to submit full proposals. In February 2019 up to eleven collaborative research projects across Africa will be funded to the value of up to 90,000 Euro each over two years.

Issue of the call for pre-proposals	1 March 2018
Submission deadline for pre-proposal	14 May 2018 (18:00 CET)
Selection decision of pre-proposals	End of June 2018
Training on integrated research	3-7 September 2018 (place tbc)
Submission deadline for full proposals	23 November 2018 (18:00 CET)
Funding decision	February 2019

THEMATIC FOCUS OF THE CALL FOR PRE-PROPOSALS: PATHWAYS TOWARDS SUSTAINABLE AFRICA URBAN DEVELOPMENT

We are inviting African early career scientists to submit research proposals that apply a systems approach to analyzing urban processes in Africa. These projects are expected to examine the inherent complexity of cities, to explore the interconnections, trade-offs and synergies between different dimensions of urban systems, e.g. governance, human and social capital, environment, economic systems and infrastructure.

African cities present some of the region's greatest development challenges, but also offer tremendous opportunities for advancing sustainable development - on the continent and for the globe.

At COP 21, a strong case was made that cities are uniquely equipped to address climate change; and the New Urban Agenda. The Sustainable Development Goals (SDGs) emphasize the need to create inclusive cities and localize development agendas for enhanced implementation outcomes. As cities simultaneously accelerate economic, social and environmental development they are therefore seen as priority sites and key pathways of 2030 sustainable development agenda.

While in large parts of the world the bulk of urbanisation has already taken place and is embodied in city forms and existing infrastructures, cities in Africa currently have an unprecedented opportunity to shape their urban futures in a more inclusive, sustainable and resilient manner. The decisions taken by governments at national, sub-national and city levels now will have consequences for the functioning, liveability and environmental sustainability of their cities for decades to come. The next decades offer an opportunity to address urban poverty and inequality and shape development priorities to ensure that urbanisation helps foster well-functioning, liveable and sustainable cities.

Making a meaningful contribution to the sustainable development vision requires inclusive, place-based and holistic policies. To create governance mechanisms and the multi-scalar institutions that will help to move African towards a green economy and more sustainable development trajectory demands understanding how the urban system and its decision making function. Furthermore, knowledge of how neighbourhood and city regional dynamics and processes connect to a larger world (national, transnational or global) is fundamental.

The urban form and built environments shapes how cities function, so making sure that hard infrastructure and the layout of African cities becomes more productive, efficient and resilient is as important as promoting institutional or governance change. Urban infrastructure systems are interconnected, complex and encompass adaptive components that exchange material, information and energy among themselves and to and from the environment. Therefore, urban infrastructure systems need to be designed, built and managed to work as an interconnected entity rather than designing and optimising individual infrastructure components. Analysing the interaction of the parts of the urban system provides a better understanding about their

dynamics and enables system-level optimisation. This also allows avoiding the unintended consequences of compartmental optimisation¹.

To stimulate the generation of integrated knowledge on sustainable urban development, LIRA 2030 Africa will support up to 11 collaborative research projects across Africa. We are particularly interested in research projects that are alert to multiple dimensions of complexity and scale.

Proposals might (please note that these are just examples):

- Explore integrated approaches of managing resources and material flows within cities, for instance through approaches like urban metabolism, infrastructure ecology, infrastructural symbiosis, the system dynamics, etc.;
- Explore how ecosystems can support sustainable human and natural processes in cities and how to maximize ecosystems abilities to do so;
- Synergize engineered and ecological systems within cities to enhance the ecological services and increase the resilience of the urban infrastructure systems;
- Explore approaches of integrating risk management in urban development;
- Analyse the relationships between infrastructure provision, inequality and resilience;
- Examine how cities can stimulate shifting to a green growth and greener methods of production;
- Improve availability, the coverage, quality, resolution and reliability of urban data, especially data on informal settlements;
- Examine how integrated city-level data can improve urban management, planning, and governance and increase the efficiency of urban systems;
- Analyse how the built environment, urban management, and urban identity interface with the experiences of, or responses to poverty;
- Examine how decentralization of urban infrastructure system can improve access to services (water supply and sanitation, waste management, energy supply, etc) and increase resilience.

We are looking for collaborative projects that:

- Are in line with the thematic focus of the call;
- foster collaboration between early career scientists in Africa across scientific disciplines (**research teams should be inter-disciplinary in that they should involve at least one social and one natural scientist in a formative role in the project**);
- bring together key stakeholders (e.g. local authorities, policy makers, built environment professionals, the private sector, civil society and citizens) in research co-design and co-production. Research questions should be co-designed with key stakeholders at the earliest stages of research process. Each pre-proposal should explain and illustrate the steps toward co-design with key stakeholders to date and indicate the further steps toward research co-design and co-production. See [this article](#), for further details about trans-disciplinary research.
- foster research collaboration across Africa (each project should involve 2² African countries). This call is not limited to, but strongly encourages applications led by early

¹ Arka Pandit et al., 2017, Infrastructure ecology : an evolving paradigm for sustainable urban development

career scientists from West and North Africa. Ideally at least one member of the research team should be based in a low income country ([based on OECD ODA's ranking](#)) or the inclusion of collaborators from the poorest parts of middle income nations should be demonstrated.

In exceptional cases, applications from current LIRA projects will also be considered for a seed funding. These applications should focus on activities that consolidate impact of their research (e.g. research uptake and upscale, publishing in peer-reviewed journals, etc.)

TWO-PHASE APPLICATION PROCESS

The LIRA 2030 Africa programme has a two-phase application process. The first phase is a call for pre-proposals which aims to identify early career researchers in Africa interested to undertake integrated (inter- and trans-disciplinary) research on advancing sustainable urban development the in Africa. Principal Investigators of successful pre-proposals will be invited to attend a **5-day training event on integrated research** which will take place on 3-7 September 2018 (place tbc). This training aims to strengthen scientific capacity to undertake this form of research, to enable researchers to build meaningful inter- and trans-disciplinary projects, to support the development of full proposals and to strengthen science communication skills. The programme will cover associated travel and subsistence costs.

In the second phase, which will be launched following the training (in September 2018), the programme will offer up to **eleven grants, each up to 90000 Euro over 2 years**, for integrated research projects. Only participants of the training event will be eligible to apply for these grants. They will be given about two and half months to develop full proposals and submit them by **20 November 2017**.

! As soon as applicants are aware that their pre- proposals have been selected, they are encouraged to start the development of full proposals (see a [template for full proposals](#)). Full proposals can be further developed following the training event.

Please note that this document relates to the first phase only. Further details about the process for applying for funding in the second phase will be made available in September 2018.

Successful projects will be announced in February 2019. The research projects funded by the programme will become part of the LIRA 2030 Africa network and will be connected with global research projects of Future Earth, Integrated Research on Disaster Risk, and Urban Health and Well-being.

KEY DATES

Issue of the call for pre-proposals	1 March 2018
Submission deadline for pre-proposal	14 May 2018 (18:00 CET)
Selection decision of pre-proposals	End of June 2018

² involvement of more countries maybe too difficult for this type of research

Training on integrated research	3-7 September 2018 (place tbc)
Submission deadline for full proposals	23 November 2018 (18:00 CET)
Funding decision	February 2019

ELIGIBILITY

- This call is open only to early career scientists who are nationals of an African country, and who are based at organisations in Africa. Applications led by early career scientists from West and North Africa are strongly encouraged.
- Applicants should have no more than 10 years work experience following their PhDs or equivalent research experience. If an applicant does not have a PhD, evidence proving research experience should be provided.
- The programme aims to foster research collaboration across Africa, therefore each project should involve 2 African countries. Ideally at least one member of the research team should be based in a low income country ([based on OECD ODA's ranking](#)) or the inclusion of collaborators from the poorest parts of middle income nations should be demonstrated.
- Each application should demonstrate its relevance to the thematic focus of the call.
- Each research team should include minimum one social and one natural scientists
- Pre-proposals should illustrate steps that were taken to co-design research questions with key stakeholders. Plans of engaging these stakeholders in knowledge co-production should also be outlined.
- Each application should include information about the Principal Investigator and should indicate the name of the collaborator(s) and attach a letter confirming his/her interest in research collaboration.
- The institution under which the project will take place should be based in an African country. This institution should provide a letter of support for the project, if it's successful. A senior scientist from this institution who will supervise the applicant should also provide a letter of support. Applications which do not include such letters will not be considered.
- All projects must include a university partner.
- Applications can be written in English or French. However, if the project is successful, all progress reporting will need to be done in English. However, it is not necessary that the research be conducted in English or published only in English.
- Applications which exceed the character limits (see below) will not be considered.

APPLICATION FORM FOR PRE-PROPOSALS

- Name and institutional affiliation of lead applicant and co-applicants.
- Proposed title of project
- A clear summary of project's relevance to the call (up to 1500 characters including spaces)
- Research questions your project will investigate (up to 1500 characters including spaces)

- A description of the integrated nature of the project, including the different academic disciplines and non-academic partners (e.g. local government and municipality representatives, policy makers, urban planners, health service providers, engineers, the private sector, and civil society organisations. Be specific and avoid using generic terms) who will be engaged in research co-design and co-production, and how (up to 1500 characters including spaces).
- Intended outcomes (max 2000 characters including spaces).
- Indication of research relevance to poverty reduction, and gender equity (max 1000 characters including spaces).
- Characteristics of the proposed team: short CVs of the Principle Investigator and members of the research team (each CV should be max 2 pages) should be attached (in PDF format). Diversity of the project team in terms of disciplines, countries involved, and experience, etc. should be indicated.

Submission of pre-proposals and relevant documents may only be made using the online form available at <http://bit.ly/2GWhl6N>

ASSESSMENT PROCESS OF PRE-PROPOSALS

All pre-proposals will undergo a three-stage assessment process:

1. Eligibility check of all applications by the programme's management team (see below) and exclusion of applications that do not meet the eligibility criteria
2. Scientific review of eligible pre-proposals
3. Final selection of pre-proposals by the LIRA Scientific Advisory Committee (see below)

ASSESSMENT CRITERIA FOR PRE-PROPOSALS

- Relevance to the call
- The project's scientific merit: originality, innovativeness, the potential of advancing understanding of the subject concerned, potential to produce high-quality scientific publications
- Potential research impact in addressing urban development challenges;
- Inter- disciplinary skills mix of projects teams
- Research collaboration at the regional level
- Adequacy of engagement approach with non-academic stakeholder groups
- Approach to integrating gender equity dimension in research content and/or research practice

PROGRAMME GOVERNANCE and MANAGEMENT

Programme Advisory Committee

The LIRA 2030 Africa programme is guided and overseen by an inter- and trans-disciplinary [programme advisory committee](#). In addition to its responsibilities for advising on strategy development and resource mobilisation and for overseeing programme management, the advisory committee makes final decisions on the selection of pre-proposals and full proposals and

the associated allocation of funds. In order to avoid conflicts of interest, Advisory Committee members cannot participate or serve in advisory functions to the applicants or funded projects. Funding organisations supporting the programme have observer status on the advisory committee.

Programme Management Team

The Programme will be run by a management team involving ICSU, ICSU ROA, NASAC and ISSC staff, coordinated from the ICSU Secretariat.

CONTACTS

Before making a direct inquiry, please read the call for pre-proposals carefully. For inquiries concerning the content of the call, please contact:

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