Call For Concept Papers on Open and Collaborative Science in Development Projects

1. Purpose of the Call

The "Open and Collaborative Science in Development Network" (OCSDNet) is a multi-year research and network building program funded by the International Development Research Centre (IDRC) of Canada. The broad aim of the program is to deepen our understanding of whether, and the conditions under which a converging set of open research practices based on networked collaboration, collectively called "Open and Collaborative Science" (OCS), could lead to development outcomes in the Global South.

Open and collaborative approaches to knowledge production[1] have the potential to radically increase the visibility, validation and relevance of scientific research, while expanding the opportunities for a broad range of actors to participate in the knowledge production process. However, little research has been conducted into these asserted benefits and in the contexts in which they might be realised. How is "openness" practiced by researchers in various institutional contexts? How can open science approaches benefit researchers in the global South? Can greater participation of citizens in the planning and conduct of scientific research increase its usefulness in addressing local development goals? How can the sharing of knowledge as a public good be weighed against protection of various forms of rights?

To begin to answer these and related questions, we are inviting applications on case studies that employ innovative and transformative open processes in generating knowledge and actions intended to address a range of development challenges in various Global South contexts. We expect that funding of these case studies will strengthen the empirical foundation on the diversity of OCS practices as well as knowledge on their common principles, actors, motivations, and their institutional contexts. In particular, the project is interested in exploring whether OCS could subsequently lead to innovative models of redistribution of access to knowledge, economic opportunities, social justice, individual freedom, and well-being, and the conditions that lead to both positive, negative and unanticipated outcomes.

We welcome a mix of projects that include actual scientific research in a specific domain, (e.g. food security, health equity, citizen empowerment, and climate change related impact) as well as critical research on ongoing initiatives, focusing on the behaviours,

[1] Open approaches to science include increased sharing of research plans and data, participatory citizen science, distributed "crowdsourced" forms of data collection and innovative models for global scientific collaborations, enabled by networked technologies. Examples include the Human Genome Project in which open and rapid sharing of gene and protein sequence data over the Internet greatly facilitated the completion of this mega-project in record time with multiple downstream impact. Similarly, crowdsourcing has been used to monitor deforestation in Brazil and Indonesia, political violence in Kenya, natural disasters in Haiti and Pakistan, and gender violence in Egypt.

contexts, challenges and opportunities enabled by OCS. The longer term goal is to construct a conceptual framework on how open science norms and practices could be further established in developing countries via a community-based and networked driven approach, while building on key lessons learned from the funded case studies as well as existing related Open initiatives. As such, OCSDNet is expected to be a highly cross-disciplinary community of practice, engaging in partnership building with like-minded organizations both locally and internationally.

2. Modality of the Call

The research network is coordinated jointly by the Centre for Critical Development Studies at the University of Toronto Scarborough (Canada) and iHub (Kenya). OCSDNet will mobilize and support researchers and practitioners from the Global South (Latin America, Middle East and North Africa, East and South Asia, and Sub-Saharan Africa) selected through an initial competitive call for Concept Notes (no more than 3,000 words, see section 7 below for details), followed by full proposal development and subsequent approval.

Successful authors or organizations of concept notes will be invited to attend a proposal development workshop to be held in Nairobi, Kenya, from Oct. 13-16, 2014. The cost of attendance and travel will be covered by the program. The purpose of the workshop will be to collectively review and refine the program's objectives and conceptual framework, to identify common or synergistic research problems and shared methodologies, and to allow applicants to incorporate relevant knowledge from the program team and advisory board members in preparation of the full case study proposals.

3. OCSDNet Support

OCSDNet will work closely with the successful applicants to provide them with the support needed to further define the scope of research, ensure the effective implementation of the research agenda and monitor research outcomes throughout the grant period. In addition, the panel of international advisors will serve as mentors by providing guidance to the selected research teams in terms of research design, data collection and analysis, and effective knowledge dissemination strategies. The OCSDNet virtual hub will further support resource sharing and the cross-fertilization of ideas and knowledge between research teams. OCSDNet will also support regional workshops, preparation for presentations and publications of research findings at appropriate international meetings and open access venues, and policy interface with funders and decision makers wherever applicable.

4. Deadline for Submission

The call will be closed on **Monday, September 8th, 2014.** Late submissions will not be considered.

5. Amount of Funding and Duration

Up to 15 projects will be funded, which may include field research, capacity building initiatives including implementation and experiments, and critical analysis of OCS. Grants will range between CAD $50,000 to CAD $80,000 (please see the budget template and IDRC guidelines for acceptable project expenditures). Project duration must not exceed 24 months, including all research and/or implementation activities and final reporting. Projects are expected to begin in January 2015 and end by Dec. 2016.

6. Eligibility Criteria

The call is open to any researcher or practitioner affiliated with an organization or consortium of organizations based in countries eligible for support by the IDRC (see the list of eligible countries here).

At the time of submission, applicants must indicate their availability and commitment to participate in **the proposal development workshop to be held in Nairobi on October 13-16, 2014.** In case of unavailability, the applicant must be represented at the workshop by a colleague or collaborator who will play a significant role in the proposed project. **Any Concept Notes that are not represented at the workshop will be disqualified from the final proposal submission.**

Effort will be made to ensure that an equal number of projects will be selected from each of the supported regions (Latin America, Middle East and North Africa, Asia, and Sub-Saharan Africa). The exact number of grants awarded will be determined by the quality of applications received and the cumulative cost of each proposal. Depending on the number of successful full proposals and the remaining funds, a second call may be issued at a later date.

7. Procedure for Submissions of Concept Notes

Format:

- Applications should not exceed 3,000 words in total and must be submitted using the online application system on the OCSDNet website (www.ocsdnet.org). (The application portal will be available on the website from **18th August, 2014**.

- Applications should be written in English.

- The Project Objective should address any of the four thematic research areas (see section 9 below). However new research questions can be formulated, over and above the examples listed under the thematic areas.

- Applicants should define “development outcomes” with appropriate justification in their concept notes.

Key information:
The primary applicant's contact information, organizational information

- include a website link, if available

Additional documentations:

- a signed official letter of endorsement from each applicant organization
- include a list of other participants and their organizations, in the case of inter-organizational collaborations. Where appropriate, please attach one-page biographies of the proposed team members and not full academic CVs (at this stage).
- Tentative budgets should include projected expenses per budget category (as per the provided template).

8. Concept Note Evaluation Criteria

Concept note submissions may incorporate both theoretical work and practical implementation relating to the conceptual framework (see Section 9 for more details), and should clearly factor in development related outcomes. Final selection will also take into consideration our aims of supporting research and knowledge-sharing:

i) in multiple thematic areas within Open and Collaborative Science;
ii) in diverse regions of the global South; and
iii) across organizations and organizational types.

In addition, applications will be assessed on the following four criteria:

I. Relevance and Fit: Relevance of the research or activity to the identified development issue and to the network of researchers working on, or interested in open science.

- Fit with at least one of OCSD thematic areas, namely Motivations (Incentives and Ideologies); Enabling Infrastructures & Technologies; Communities of practice in OCS in the Global South Context; Potential Impacts (Positive and Negative) of OCS (see Appendix Section 2 for details of the themes and potential research areas).
- Clear demonstration of how the research or activity will add value to existing knowledge and/or practice, citing past work done on the theme by the applicant organization and by other researchers.
- Framing of open strategies as a means to a specific end, whether a better product, service, process or policy engagement.

II. Merit: Evidence of innovation, clarity of research questions and objectives, conceptual soundness, soundness and adequacy of design and methodology.
Clearly identified linkage to the conceptual framework and Theory of Change (TOC) outlined in the Terms of Reference. Applications for events and for dissemination activities and products should provide as much detail as possible on: the program and process of the event

or activity, how they will engage with the other members of Open and Collaborative Science community.

III. Application of knowledge: Evidence of clear need and demand for research and/or knowledge-sharing on the issue.

- Clear and feasible plan to disseminate findings/proceedings to a variety of players/stakeholders.
- Clear explanation of how the proposed research/activity will build OCS research leadership, inform decision-making, and/or influence practice and learning by groups or organizations, including the grant recipient(s), to benefit from the project.

IV. Feasibility: Suitability and display of capacity by the applicant team.

- Realistic and well-supported budget.
- Sound plan and activities for monitoring and evaluating progress toward proposed outcomes (changes in awareness, will and behaviour on part of groups or organizations, including the grant recipient(s) to benefit from the project.
- Viable work plan with roles and responsibilities of lead and collaborating organizations clearly defined.
- Evidence that the proponents can mobilize the necessary collaboration and other funding to ensure the success of the project and efficient use of financial resources.

9. Key Dates

Online Application Submission Portal - **opens August 18, 2014**
Online Call for Concept Note Submissions Closed - **September 8, 2014**
Short-listed Concept Notes Notified - **September 24, 2014**
Mandatory Workshop in Nairobi - **October 13 - 16, 2014**
Full Proposals due - **November 12, 2014**
Final Projects selected and announced - **November 26, 2014**
OCSDnet Projects begin - **January 2015**

10. Thematic Research Areas

Theme 1 (T1): Motivations (Incentives and Ideologies)

This research theme investigates on a broad scale the contexts and conditions under which open science approaches are likely to be adopted by researchers and how a pro-open environment might be created at the social, cultural and policy framework levels. Unpacking these two problems requires an understanding of relevant actors, their behaviours and interactions at multiple levels and often across disparate research networks as well as more bounded organizations. The objective is to further understand and develop strategies to overcome some of the challenges to the uptake of open science. For this reason, it will

intersect heavily with research theme three, investigating open science communities, and four, examining evidence for the proposed benefits of open science.

Sample questions:

- What policy and value framework will enable the practice and uptake of OCS? What are the current obstacles?
- What makes a researcher adopt open practices? Are these driven by selfish or altruistic motives?
- What are the institutional design choices that are available and how can they be optimized to achieve the results for specific goals?
- How can open science support visibility and communication of science outside formal academic structures?
- Does the practice of OCS require new forms of governance and management of access to resources and outputs?
- What are the licensing and reuse barriers associated with the outputs of OCS?
- How can the economic and social value of open science be captured and measured?
- Is there a need for a new language of values for research impact directed at development concerns such as health equity and food sovereignty?

Theme 2 (T2): Infrastructures & Technologies

Open and Collaborative Science is highly dependent on network technologies. We are seeing an increase in global connectivity enabled by technologies such as mobile phones, including web-enabled smartphones, high-bandwidth Internet connections and a broader ecosystem of scientific data, resources and cloud-based services. Such technologies are assumed to be enablers of OCS, increasing broad participation and practices. However, inequities in connectivity and access to the technologies required to participate in OCS are a challenge to its uptake and success. This research theme examines the infrastructure that enables or disables OCS, for whom and in what conditions.

Sample questions:

- What constitutes open “infrastructure” for network collaborative science?
- What are some of the limitations, tensions, and problems associated with infrastructure provisioning?
- What lessons have been learned about infrastructure development that could be relevant for OCS?
- How to ensure technical, social, and institutional interoperability when implementing OCS projects?
- How could knowledge infrastructure be designed to maximize inclusive participation for OCS?

Theme 3 (T3): Communities of Practice in Open and Collaborative Science

This theme speaks to the overarching question, “how can science be made more open and inclusive,” by looking at the communities of practitioners and stakeholders who shape the landscape of OCSD and may influence the uptake and trajectory of OCSD approaches.

Understanding more about communities of actors, the institutional contexts, their heterogeneities and interactions is particularly important to increase inclusiveness and inform other research themes around motivations and incentives.

Sample questions:

- How do the knowledge creation processes of OCS differ in varying local contexts?
- How does access to "big" data and research processes make new questions thinkable?
- What are the pathways for how new knowledge generated by OCS is learned, shared and communicated?
- What is the relationship between OCS and science education?
- How should the next generations of researchers be trained to practice and value OCS?
- How do these pathways challenge conventional norms and structure on the flows of knowledge about science and development?

Theme 4 (T4): Potential Impacts (Positive and Negative) of Open & Collaborative Science

The aim of this research theme is to systematically work through the proposed benefits for OCSD and find evidence to support them, as well as identifying and evidencing any risks and potential negative impacts. This will be challenging while the open science community is small and until their status as an object of study develops. Therefore, developing a conceptual framework and set of research methodologies is a vital part of ensuring that research is effective even at such an early stage. Research under this theme could combine observational studies with action research and support for open science practitioners as well as community building and awareness raising activities to increase uptake and participation in OCSD in the global South. Methodologies drawing on evidence from other related but more advanced fields could also be applied to expand the scope of what is possible. All research under this theme focuses on the quality, meaningfulness and possible utility of openness and collaboration which dominate discussion in Open Development, Open Data and other topics, including other research networks under IDRC's Information and Networks (I&N) programme.

Sample questions:

- Would outputs of OCS lead to better understanding of local development issues and more autonomous decision making?
- What are the distributional consequences of OCS? Do they advance the interests of entrenched institutions while ignoring the potential of others?
- Will OCS lead to a redistribution of resources, labour, and policy focus? If so, what are the social, economic and political consequences of these changes?
- Does OCS necessitate a new framing of distributive justice that maps change to outcomes in ethical and inclusive ways?

- Would the outcomes of OCS reinforce or reconfigure existing power relations of knowledge production and uptake?
- How does the 'openness' of US-EU infrastructures contribute to benefits to development outcomes and how do we need to critique/frame the 'openness' of those infrastructures so as to maximise those benefits?

Appendix: Application Template

Below are supplementary concept note formulation guidelines. (For more details on concept note formats and key information, please refer to section 7 above).

Submissions will be made via the OCSDNet website (www.ocsdnet.org). The application portal ***will be accessible from August 18th, 2014***.

Section A: Research Team Information

1) Researcher 1

First name		**Last name**	
Designation		**Telephone:**	
E-mail Address		**Website:**	
Area of Expertise and Interest (list max. 5 in order of preference)			
List up to 5 relevant publications or research outputs (e.g. - videos, policy brief, software, tools, dataset etc.)			
Research Institution/ Organization Name		**Country of Incorporation**	
Office Address			
Telephone: **Fax:**		**Website**	

Country of Residence		Country of Citizenship	
Role in Project (e.g. - Principal researcher, research collaborator, research assistant, external advisor)			

2) Researcher 2 (replicate form for other members of the research team)
3) Researcher 3 etc.

4) Previous affiliation with IDRC (if any) – yes/no

If yes, provide details of previous affiliation with IDRC (if any). Project/event name, year and researcher(s) role should be mentioned here.

Section B: Summary of Skills and Expertise

Provide a brief narrative of the principal researcher's skills and relevant expertise that would be beneficial in conducting the proposed study. Summarily list details of relevant previous activities, especially those that have required techniques similar to those proposed in this study. List the additional expertise brought in by the research collaborator(s) or, explain how the collaborator(s) complements the principal researcher's skill (if applicable). Word limit: 500

Section C: Proposed Research Study Information

C.1 Title of the Research Study:

C.2 Country/Countries to be studied:

C.3 Abstract of the Research Proposal

Describe the problem that you propose to study and the research questions that you want to answer, in the context of the topics and research themes outline in the Call. Summarize succinctly and clearly the development challenge being tackled, the overall context, rationale and significance of the proposed study within the overall context of the selected theme. **Word limit: 750**

C.4 Outline the Design and Methodologies

Describe briefly the research design and the methodologies for the project. In what ways are the design and methodologies supportive of the ideals of OCSDNet? **Word limit: 750**

C.5 Expected Development-related Outcomes and Relevance

Describe the expected outcomes from the project and its usefulness for the proposed study as well as the overall context of OCSDNet, include policy relevance where appropriate. **Word limit: 500**

C.6 Monitoring and Evaluation

Outline briefly the monitoring and evaluation plan being considered. How would meaningful success and impact be evaluated? **Word limit: 500**

C.7 Quote the total budget of the proposed study (in Canadian Dollars)

C.8 Attach separately a letter of endorsement from your organization

C.9 Attach separately the budget (using the template) for the project.

In case of any queries, contact us at info@ocsdnet.org.