

EVALUATION REPORT_THE AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES - NEXT EINSTEIN INITIATIVE FOUNDATION (UK)

AIMS-NEI

AIMS-NEI

© 2022, AIMS-NEI



This work is licensed under the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/legalcode>), which permits unrestricted use, distribution, and reproduction, provided the original work is properly credited. Cette œuvre est mise à disposition selon les termes de la licence Creative Commons Attribution (<https://creativecommons.org/licenses/by/4.0/legalcode>), qui permet l'utilisation, la distribution et la reproduction sans restriction, pourvu que le mérite de la création originale soit adéquatement reconnu.

IDRC GRANT / SUBVENTION DU CRDI : - MATHEMATICAL SCIENCES FOR CLIMATE CHANGE RESILIENCE (MS4CR)

Mathematical Sciences for Climate Resilience (MS4CR) Mid-Term Evaluation

Launched in 2017, the MS4CR program at AIMS is a six-year CAD 22.6 million initiative funded by Canada's International Development Research Centre.

Pillars



**Master's in
Mathematical
Sciences - Climate
Science Stream**



**Internship
Program**



**Research
Program**



**Climate
Science
Fellowship
for Women**



**Consolidation
of AIMS
Network**

Objective

The mid-term evaluation seeks to assess the implementation and early results achieved by the MS4CR program, inform the final two years of implementation and provide recommendations on how best to attain program objectives for greater impact.

Key Findings

1. Relevance

- Well-aligned with the development priorities of Africa and the challenges faced by climate change
- Addresses the gap in quality training in higher education, limited research capacity and available funding, and lack of access by women to research opportunities in climate change
- Research is targeting key sectors in Africa at risk to climate change, including agriculture, human health, energy and water resource management.
- Coherent with AIMS Vision 2020 and the AIMS Strategic Framework 2021-2026
- The MS4CR Research, WiCCS and internship programs are relevant
- The training (Master's) component is not entirely adapted to the needs in climate science fields: relevance for climate scientists to be trained in mathematics, but less relevance for mathematicians to be trained as climate scientists

2. Effectiveness

- Program implementation is behind schedule but on path to achieve revised targets
- COVID-19 posed challenges and limited in-person training, research and internships
- Results to date:**
 - 2 of 8 planned Climate Science Stream cohorts at AIMS Rwanda, Cameroon and Ghana
 - 54 of 174 expected graduates from Climate Science Stream
 - 11 of 18 planned Research Master's candidates
 - 12 of 13 planned PhD candidates
 - 7 of 14 planned Post-Doc Fellows
 - Research Chair and 3 Resident Researchers in Climate Change in place
 - 10 of 16 Small Research Grants awarded
 - 6 of 20 expected Climate Science Fellowships for Women awarded
 - 6 of 10 mobility grants for women scientists awarded
 - 3 of 5 planned NEF Fellows nominated from the field of climate science
 - 62 of 100 planned internships in climate change facilitated

3. Efficiency

- Due to delays in implementation and low budget consumption in Year 1-2, the budget was re-profiled and funding for a new AIMS Centre in la Francophonie was reallocated among program activities
- There is a sufficient human, operational, and financial resources to implement the remaining programme activities.
- Application and selection process for Climate Science Stream has faced difficulties - lack of interest among students to pursue the stream
- Implementation of the program had a bumpy start, in terms of student recruitment, selection of lecturers and tutors, and quality of training

4. Early Signs of Impact

- MS4CR is increasing the role that African scientists play in finding solutions to climate change
- 39 AIMS alumni (46%) are employed and working in the field of climate change
- 29 AIMS alumni are pursuing PhDs and Research Master's in climate science (28%)
- AIMS research community has produced 32 publications in climate science with a total of 185 citations - five of which are in the top 10% most cited articles in their field

5. Sustainability

- Host government financial commitments have proven difficult to mobilize
- Strong partnerships established
- Limited funding from other donors could affect the long-term sustainability of the program's impact

Mathematical Sciences for Climate Resilience (MS4CR)

Mid-Term Evaluation

Recommendations



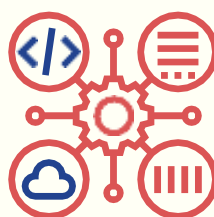
Strategy and Governance

- Install a Programme Board for the MS4CR programme
- Make explicit choices about the best way to achieve synergy between the AIMS model and climate resilience
- Carefully consider opening new Centres in light of a sustainability plan (including fundraising plan).



Overall Operations

- Safeguard AIMS' reputation for excellence
- Take adequate time and resources necessary for designing and planning before launching any new programmes or even scaling them up



Master's level training Program

- Consider the balance between mathematic and climate topics in the course
- Increase the length of time dedicated to the introductory course on climate at the beginning of the programme
- Improve the recruitment process for the Master's programme in order to attract higher-quality applicants
- Consider tailoring the length of the courses according to their level of difficulty



Research Program

- Involve more PhD and Research Master's students in the Research Chair's team
- Strengthen the cooperation with universities and increase the opportunity to exchange and network with other researchers
- Identify a coordinator of the scientific activity under the Research programme



Climate Science Fellowship for Women

- Pursue the Women fellow programme and expand it to include more women.
- Intensify gender outreach activities
- Encourage WiCCS alumni to mentor young women researchers



Internships Program

- Build stronger relationships with industry, government and non-governmental organizations

Consolidation of AIMS Network

- Consider extending the size of the international governing board to include more members and from non-academic background
- Consider carrying out a study on the level of centralisation versus decentralisation to the AIMS Centres
- Enhance the reporting function on the programme.
- Enhance the PMF consolidation component to include some more indicators notably on the governance and business model, separately from other key functions

