

EO Capacity Madagascar Project

Needs Assessment Interim Report

1 Project Overview

Digital Earth Africa (DE Africa)'s EoCapacity Madagascar initiative aims to empower sustainable development through geospatial training in Madagascar. The project will demonstrate how a diverse range of government, research and industry partners can harness freely available Earth observation data to cost-effectively build a more environmentally sustainable resources sector, and support agriculture and water resource management. It will enable participants in Madagascar to leverage Australian science and innovation.

The project will partner with key stakeholders, including the Ministry of Mines and Natural Resources, the Ministry of Agriculture, and the University of Antananarivo, to enhance data literacy, resource management, and agricultural practices in the country. The project places particular emphasis on the inclusion and empowerment of women and youth and includes a targeted event to engage women in STEM and young professionals in the resources sector.

2 Expected Outcomes

1. Enhanced awareness and understanding of the DE Africa platform across a broad range of government and research organizations, including the Ministry of Mines and Natural Resources, the Ministry of Agriculture, the Ministry of Water and Sanitation and the University of Madagascar.
2. Comprehensive assessment report highlighting the geospatial capacity development requirements of each institution, informing tailored training programs designed to address the identified capacity gaps and empower a diverse range of participants with geospatial skills and knowledge.
3. Strengthened institutional capacity to effectively utilise geospatial data for evidence-based decision-making, resource management, and research, and increased collaboration and knowledge sharing among stakeholders, fostering a geospatial community of practice in Madagascar.

3 Training Needs Assessment:

As part of the preparation for the in-person training, DE Africa conducted a training needs analysis to identify the types of participating institutions, the gender of participants and the EO capabilities of the target audience. This information allows the DE Africa team to tailor the training to the needs and capabilities of the participants in Madagascar.

DE Africa identified potential organisations and individuals to participate in the training through the support of Prof Solofo from the University of Antananarivo, the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA). Key stakeholders including governmental, academic, nongovernmental and private institutions were identified and invitations were sent out to each organisation notifying them of the training and requesting the completion of the needs assessment form. DE Africa developed a [Training Needs Assessment Form](#) (TNAF) to understand the existing capacities of potential participants, and other information in preparation for the training.

3.1 Identified needs

3.1.1 Institutions

26 Participants from Governmental Organisations (73.1%), Academic Institutions (23.1%) and Non-Governmental have confirmed their participation (Table 1). The cross-sectional nature of interest in the use and application of geospatial technologies in the country.

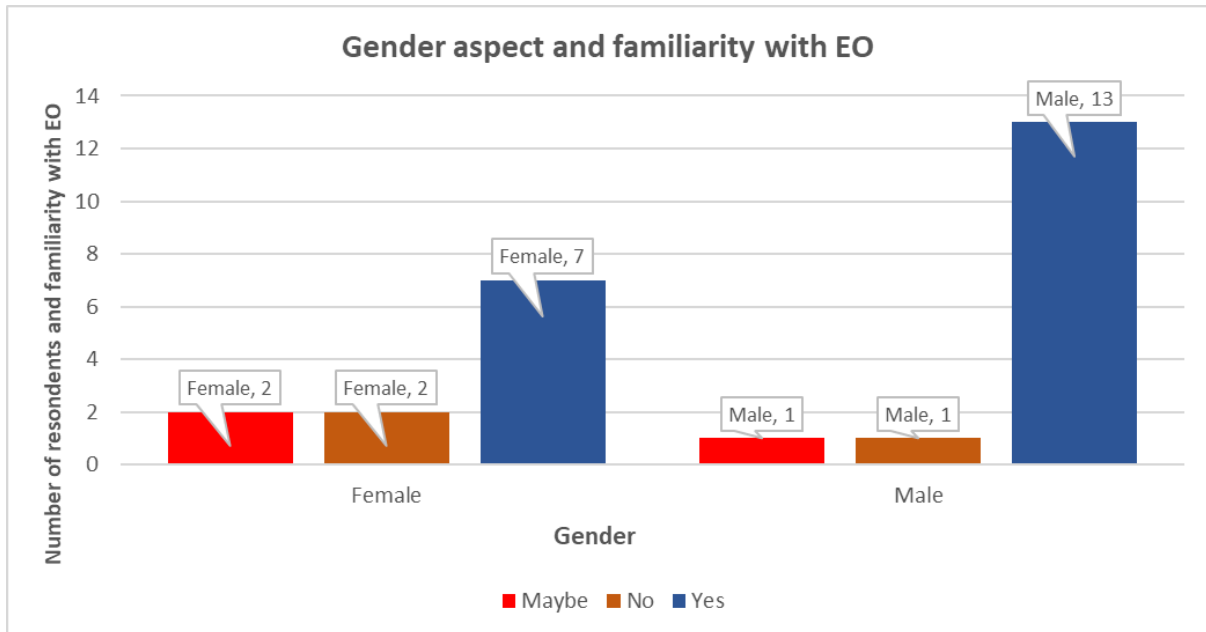
Table 1: Organisation Type and Organisation Names

Governmental Organisations	Bureau National de Gestion des Risques et des Catastrophes CGARD CNFEREF Direction des Services Topographiques au sein du Ministère de l'Aménagement du Territoire et des Fonciers Direction Générale de la Météorologie divcomdett@gmail.com FOIBEN-TAOSARINTANIN'I MADAGASIKARA Laboratoire des Radioisotopes (IRI)- Université d'Antananarivo MATSF/DGSF/DSFD Ministère de l'Aménagement du Territoire et des Services Fonciers Ministère des Mines et des Ressources Stratégiques Office National pour l'Environnement Service Topographique à Madagascar
International NGO	Missouri Botanical Garden Madagascar World Resources Institute
Academic Institutions	Centre National de Recherches sur l'Environnement École Supérieure Polytechnique d'Antananarivo Mention Géographie - Université d'Antananarivo
Private Sector	Cabinet de géomètre expert Geosystems (Geomatique et Services Associates)

3.1.2 Familiarity with EO, and gender diversity of participants

The results of the survey showed significant diversity with 42.3% of the respondents being females. Of the 26 respondents, 20 have some training on using the least trained on EO applied to various areas. These findings will inform different levels of participants to develop an inclusive methodology.

Figure 2. Participant Gender and Familiarity with Earth Observation Concepts



3.1.3 Expectations from the training

The respondents shared their expectations and desired areas of interest when they attend the DE Africa training, and the leading areas of interest are (1) environment, (2) agriculture and food security, (3) climate change, and (4) water resource management. Training expectations are shown in Figure 3. The current project will be an opportunity to improve hands-on skills of participants through the use of Digital Earth Africa platforms.

Figure 3. Areas of interest for the training



3.2 Next Steps

DE Africa plans on hosting two training sessions that include up to 40 participants per session. DE Africa will continue to invite other potential participants through the Australian High Commission to Mauritius, and other partners such as ASARECA and CCARDESA.

Digital Earth Africa has begun the process of adapting its training material to the skills and needs of the participants as already identified.

3.3 Acknowledgements

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