



## **Call for PhD application**

Arba Minch University (AMU) in collaboration with Vrije Universiteit Amsterdam (VUA) and other consortium members is going to implement NWO-funded project under the NL-CGIAR Research Programme focused on accelerating the adoption of water Retention, Recharge, and Reuse (3R) practices in agri-food systems in the Horn of Africa. The project aims to develop tools, networks, and practical experience to co-create scalable interventions, and seeks a qualified researcher to contribute to data collection, advanced analysis, and implementation using modern methods and technologies. The selected candidate will work within a multidisciplinary team and must enrol as a PhD student at Arba Minch University in either Hydrology, Irrigation Engineering, or Irrigation and Drainage Engineering to be eligible for the research funding.

### **About the Project**

Title of the Project: **ACCEL-3R**: Accelerating the adoption of Water Retention, Recharge, and Reuse Measures in the Horn of Africa: Testing multilevel intervention bundles to trigger socio-hydrological tipping points.

Smallholder farmers in rain-fed systems in Kenya and Ethiopia face increasing drought and soil degradation, but their ability to adapt is constrained by technical, social, and institutional barriers. This project addresses these challenges by co-developing scalable soil moisture management solutions based on 3R strategies (Recharge, Retain, and Reuse), using a systems approach to design and test multi-level interventions that overcome multiple constraints at once and encourage widespread adoption. Led by Vrije Universiteit Amsterdam and supported by different international and local partners, the project aims to shift from reactive to proactive drought management, strengthen resilience, and improve livelihoods, food, and water security while informing broader scaling efforts.

### **Proposed activities of the Ph.D. student**

- **Year 1: (setting up experiments and connections, review existing situation)**
  - stakeholder analysis & reflexive-explorative workshops with stakeholders | (A1.3, 1.2)
  - *involved in* GIS mapping and market analysis of current 3R | (A2.1 supervised by ICARDA)
  - prioritisation of 3R through CBO-SME dialogues | (A2.2)
  - *involved in* co-creation of locally viable 3R packages (A2.3, supervised by ICARDA)
  - *involved in* ethnographic decision *trees* & review of 3R policies | (A3.2, A5.1 supervised by ILRI)
  
- **Year 2: (data collection and analysis)**
  - survey on community catalysers for 3R adoption | (A4.1)
  - (short) farm experiment with 3R impact on soil health | (A2.4)
  - *involved in* identifying community level enablers | (A4.2, supervised by ICARDA)
  - evaluate community communication channels | (A4.3)
  - *involved in* political economy analysis and policy coherence on 3R | (A5.3, supervised by ILRI)
  - *involved in* application of scaling-readiness framework | (A2.5, supervised by ILRI)
  
- **Year 3: (using results to create new scenarios to accelerate 3R scaling)**
  - co-design community interventions | (A4.4)

- *involved in* co-design integrated multilevel intervention bundles combining insights from all levels | (A6.3, together with everyone)

- **Year 4: (Publishing, finalising PhD thesis)**

- *involved in* co-develop 3R governance framework | (A5.4, supervised by ILRI)

- *involved in* AGENT-BASED MODELLING, governance recommendations +blueprint | (A6.4 with VU, A6.5 with everyone)

- publishing findings

## Requirements

- Must present GAT pass certificate to pursue PhD study in Arba Minch University as per MoE, FDRE.
- Master's degree in soil and water conservation, Irrigation Engineering, Water Resources Engineering, Hydrology, land and water management, agricultural engineering, and Water Resources Management, climate change adaptation, or a closely related fields.
- Demonstrated experience in survey design, implementation, and analysis.
- Experience with choice experiments and/or participatory decision-analysis methods.
- Field experience in the context of climate adaptation, water, agriculture, soil and water conservation.
- Demonstrated experience of work in multi-disciplinary team work, team spirit and sociability
- Proficiency in Python, or R (with willingness to learn Python), preferably experience with object-oriented programming (OOP).
- Good track record of publications in reputed, high impact journals in the area of soil water retention, storage and use; hydrological modeling related to soil moisture storage, reuse, soil and water conservation or very closely related topics which would demonstrate the candidates feasibility for the post.
- Willing to conduct field survey for research work to contribute to objectives of the ACCEL-3R project.
- One who can present testimonials such as permission of leave of absence from affiliated institution for a study period that is at least four years.
- Willing and capable to collect relevant data as mentioned above while attending classes during the course period under multiple supervision team as per activities list.
- Willing to abide by the Post Graduate Studies regulation of Arba Minch University.

## Applications should include

- Motivation letter (1 page max)
- PhD Synopsis on the topic similar to the project (not more than 6 pages including references if any)
- Recent Curriculum vitae (CV) (not more than two pages)
- Academic testimonials/copies of both B.Sc and M.Sc. transcripts
- B.Sc. Term paper/Project work /M.Sc. thesis work title and abstract.
- Recent publications
- Specific research activity and financial requirement to be funded by the project and expected outcomes
- Recommendation from at least two referees

## **Selection Process**

- Candidates will be critically screened based on the criteria set above and only short listed candidates will be invited for interview.
- The evaluation of the candidate (document evaluation for first screening and interview) will be carried out by an independent set of experts from Vrije Universiteit Amsterdam (VUA) and others consortium member organizations and countries.
- The interview will be made virtually or personally or hybrid depending on the feasibility of whoever is the best.
- The recommendation of the interview committee will be the final and the selected candidate will soon request admission into Ph.D. program at Arba Minch University, the faculty of Water Resources and Irrigation Engineering.

**Number of positions:** One (1)

### **Benefits**

- The project will cover costs related to research activities, equipment, and other needs as required.
- Project members will supervise the PhD student in collaboration with Vrije Universiteit Amsterdam (VUA), The Netherlands, ICARDA, and ILRI.
- Other supports such as training, publication fee and conference opportunities will be arranged based on demand and possibilities.

### **Deadline for application**

- The deadline for submission is within two weeks' time from the date of this announcement and submissions must be received by 10:00 PM local time.

### **How to apply and notification of results**

- All applications are sent to project coordinators: [demewon21@gmail.com](mailto:demewon21@gmail.com) (+251-923474480) and [samueldagalo@gmail.com](mailto:samueldagalo@gmail.com) (0961011095).
- Final results will be announced within 2 weeks after the submission deadline.