PASET Regional Scholarship and Innovation Fund

An Overview and Engagement with the ACE Impact Project

Dr. Moses Osiru
Manager, RSIF RCU, icipe

27 May 2021
1. Population increase among world regions and countries: past and future

2. Limited macro-economic diversification

- SSA’s urbanization occurred without industrialization
- Consequences are:
  - In GDP: the remaining role of agriculture, extractive industries and informal services
  - In employment: the importance of informal activities (self-empl. and farming)
- How to harness the Fourth Industrial revolution

3. Need for high level skills
The Partnership for Skills in Applied Sciences, Engineering and Technology (PASET)- Calls to Action

1. Contribute to training at least 10,000 new PhD holders in Applied Sciences, Engineering and Technology programs;
2. Establishing an SSA regional-wide post graduate scholarship program in ASET fields;
3. Doubling the number of students in ASET programs in at least 10 SSA countries;
4. The emergence of at least 5 additional universities in SSA with high quality Applied Sciences, Engineering and Technology (ASET) programs, and centers of postgraduate studies & applied research in ASET disciplines;
5. At least 5 regional Technical, Vocational Education and Training (TVET) centers of excellence for training faculty of TVET institutions, to enable resource sharing, quality assurance and specialized training in emerging areas;
6. The development of a regional quality assurance mechanism for ASET programs, benchmarked to comparable systems globally;
7. Establishment of high quality data systems and benchmarking of ASET programs and institutions in at least 10 SSA countries.
Rsif - PASET’s flagship

Building sustainable doctoral training, research and innovation ecosystems for development in Africa

Objectives

- Create a stock of highly skilled scientists, professionals and innovators in ASET areas
- Address imbalances in the number of women and disadvantaged groups in ASET fields in Africa
- Build African university capacity to provide relevant ASET training

Permanent (Endowment) Fund (US$15 million by 2024)

General Fund (US$50 million by 2024)

Window 1: Scholarships, institutional capacity building, partnerships & networks

Window 2: Research Grants

Window 3: Innovation Grants and creation of innovation environments

ACE Impact Meeting | May 2021
Scholarships and research and innovation Grants

Capacity building for RCU
- Setting up of endowment fund
- Fundraising and communication
- Improving Scholarship administration
- Strengthening research capacity
- Strengthening innovation capacity
- Studies to improve female participation
- Design and implementation of cross cutting courses
- Supporting the implementation of networks

Scholarships and research and innovation Grants
- Provision of scholarships for PhDs and research grants

Outputs
- Endowment fund established with contributions from SSA governments, private sector and donors
- Increase the number of quality PhD graduates in ASET
- Increase in quality research publications in ASET in Africa
- More industry university partnerships
- More patents filed
- More enterprises developed
- More female participants in RSIF

Outcomes
- Growth in endowment fund for sustained financing of scientific and technical talent development in Africa
- Improved research and innovation capacity in ASET including transformative technologies in SSA
- Increased productivity
- More employment opportunities created
- Increased stock of female scientists in ASET area

Higher level impact
- More economic growth, women empowerment, and R&D investment in SSA
Rsif

“Modus operandi”

Governing Council (Contributing African Education Ministers and key partners)

Executive Board (Representatives of African ministers)

Consultative Advisory Group

RSIF RCU (icipe)

PASET Secretariat

International Partner Institutions

African Host Universities

Students

Funders

ICTs including big data and artificial intelligence

Food security and agribusiness

Minerals, mining and materials engineering

Energy including renewables

Climate change

Five Thematic Areas

ACE Impact Meeting | May 2021
### RSIF General and Permanent Funds

**Current funds committed:** US$ 36.7m (all in General Fund)
- 56% achievement of US$65m total end target
- 73.4% achievement of US$50m of GF target
- 0% achievement of US$15m PF target

**Gap still to fundraise:** US$ 28.3m
- General Fund: US$13.3m
- Permanent Fund: US$15m

---

#### Feasibility study to establish the RSIF Endowment Fund

**Inception Report**
(Oct 2019 – January 2020)

**Fundraising Strategy**
(August 2020 – September 2020)

**Progress Report**
(February 2020 – July 2020)

**Final Report**
(January 2021)

### Desk reviews and stakeholder Consultations
- Review of existing African funds & international Endowment funds
- Stakeholder consultations (PASET, ICPE, Funders, Universities)

### RSIF Outflow targets & Projecting Funding Need
- Projections of AHU capacity
- Projecting student enrolments
- Costs of Scholarships
- Scenario analysis
- Quantifying Funding based on RSIF targets

### Fund Design
- Analysing funding inflows
- Determining funding gap
- Developing financial model
- Fund Structure & Governance

### Implementation Framework of Fund
- Draft fund raising strategy
- Draft investment strategy & asset allocation strategy (Investment Policy)
- Draft Terms of Reference for Board & fund manager

### Final Report & Implementation Framework
- Final Report (incl. implementation roadmap)
- Final fundraising strategy
- Policies (Investment Policy inc. investment strategy & asset allocation )
- ToRs (Board & fund manager)
RSIF Permanent Fund Structure

**RSIF Permanent Fund**

**Endowment Board of Directors**
- Independent Board with membership from PASET Members, donors & independents
- Supervisory Authority over the RSIF Endowment Fund
- Set key policies for the Fund
- Oversight over the management of Endowment Fund
- Delegation of fund management to fund manager
- Key Governance Mechanisms: Board Charter/ToR

**Fund Manager**
- Active management of the investments of the Endowment Fund
- Adhere to policies set by board
- Key Governance Mechanisms: Fund Manager ToRs & Investment Policy

**PASET Executive Board**
- Set the overall objectives of the RSIF Endowment Fund
- PASET EE will initially select first Board of directors, thereafter, Endowment board will have independent board selection mechanism
Update on Status

PhD Students | 183

International Partner Institutions | 16

Research & Innovation Awards | 14

From 22 countries

ACE Impact Meeting | May 2021
### Rsif AHU Selection

- **Goal:** to select 4 additional AHUs (PhD programs) to bring total to 15 (3 in each thematic area)
- **Thematic areas for this call:** Food security, climate change, ICT, Energy
- **Call restricted to ACEs and current AHUs**
- **Call open:** 27 Sept. **Closed:** 23 Nov 2020
- **Validation underway**
- **Signing of agreements with icipe:** July 2021

<table>
<thead>
<tr>
<th>University</th>
<th>PhD Program</th>
<th>Thematic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson Mandela African Institution of Science and Technology (NM-AIST), Tanzania</td>
<td>PhD in Sustainable Agriculture</td>
<td>Food security</td>
</tr>
<tr>
<td>Félix Houphouët-Boigny, Cote d'Ivoire</td>
<td>Biotechnologie, Bioresources, Biosécurité</td>
<td></td>
</tr>
<tr>
<td>Makerere University, Uganda</td>
<td>Plant Breeding and Biotechnology</td>
<td></td>
</tr>
<tr>
<td>Haramaya University, Ethiopia</td>
<td>PhD in Climate Smart Agriculture and Biodiversity Conservation</td>
<td>Climate Change</td>
</tr>
<tr>
<td>Institut International d’Ingénierie de l’Eau et de l’Environnement (2iE), Burkina Faso</td>
<td>Ecole Doctorale Sciences et Technologies de l’Eau, de l’Energie et de l’Environnement</td>
<td></td>
</tr>
<tr>
<td>Kwame Nkrumah University of Science and Technology, Ghana</td>
<td>Water Resources Management</td>
<td></td>
</tr>
<tr>
<td>University of Nigeria, Nsukka, Nigeria</td>
<td>Power Systems and High Voltage Engineering</td>
<td></td>
</tr>
<tr>
<td>University of Energy and Natural Resources, Ghana</td>
<td>Sustainable Energy Management</td>
<td></td>
</tr>
<tr>
<td>Obafemi Awolowo University, Nigeria</td>
<td>Computer Science</td>
<td>ICT</td>
</tr>
<tr>
<td>Université d’Abomey-Calavi, Benin</td>
<td>Formation doctorale TIC de l’IMSP et formation doctorale GIT de l’ED-SDI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Priority Area*</th>
<th>CC</th>
<th>E</th>
<th>FS</th>
<th>ICT</th>
<th>MM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current host universities</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Selection for this 3rd round</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Rsif  Students by country

ACE Impact Meeting | May 2021
All publications are available on RSIF digital repository [https://www.rsif-paset.org/resources/](https://www.rsif-paset.org/resources/)

<table>
<thead>
<tr>
<th>Thematic area</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Climate change</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>2. Energy including Renewables</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. Food security and Agribusiness</td>
<td>2</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>4. Minerals, Mining and Materials Engineering</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>5. ICTs including Big Data and Artificial Intelligence</td>
<td>2</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>43</strong></td>
<td><strong>58</strong></td>
</tr>
</tbody>
</table>

Total female publications: **15** | Total male publications: **43**
Rsif Research and Innovation Grants

- RSIF Windows 2 & 3 (37 + 12 + 20 grants)
- Deadline for Proposal Submission for Second Call:
  - May 31, 2021; 23:59 EAT
- Deadline for Agridi Grants proposal submission
  - June 30, 2021; 23:59 EAT

Five Thematic Areas

- ICTs including big data and artificial intelligence
- Food security and agribusiness
- Minerals, mining and materials engineering
- Energy including renewables
- Climate change

RSIF Grant selection process

(1) Launch call & receive proposals
  - Publish call for proposals
  - Grant proposal writing training, when necessary
  - Receive proposals (one stage process)

(2) Proposal review process
  - Completeness & eligibility screening;
  - Independent expert evaluation
  - Review & evaluation by Independent Technical Committee (ITC)

(3) PASET EB Approval
  - Presentation and approval of ITC recommendations by PASET Executive Board (EB)

(4) Grant Award
  - Review workplans & budgets
  - Sign grant agreements & funds transfer
  - Implementation, M&E
  - Reporting to PASET EB

ACE Impact Meeting | May 2021
Rsif

Social Media Channels

Direct Audience Reach

Demographics: Overview

Key Metrics:
- Age: 47.51% of total users
- Gender: 56.2% male, 43.8% female

Top Acquisition Channels

- Direct: 66.4%
- Organic Search: 8.2%
- Referral: 16.1%
- Social: 5.1%
- Email: 0.1%
- Other: 9.1%

Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Users</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>10,979</td>
<td>20.85%</td>
</tr>
<tr>
<td>Kenya</td>
<td>5,679</td>
<td>11.14%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>5,245</td>
<td>10.44%</td>
</tr>
<tr>
<td>United States</td>
<td>2,839</td>
<td>5.68%</td>
</tr>
<tr>
<td>Ghana</td>
<td>2,464</td>
<td>4.97%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>2,193</td>
<td>4.16%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>1,690</td>
<td>3.20%</td>
</tr>
<tr>
<td>Uganda</td>
<td>1,463</td>
<td>2.77%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>1,420</td>
<td>2.71%</td>
</tr>
<tr>
<td>Senegal</td>
<td>1,340</td>
<td>2.65%</td>
</tr>
</tbody>
</table>

ACE Impact Meeting | May 2021
• RSIF PhD student (3) profiling in the latest edition of Africa Renewal Magazine.

• Women take longer to finish their PhD studies, publish less. University World News Link

• Can Mozambique fast-track innovation? University World News Link

• PhD students: A year of great promise, anxiety, lost opportunities. Link
Rsif Engagement with ACE Impact

1. Most applications from anglophone countries i.e. Ghana, Kenya & Nigeria
2. 17-20% of total applicants female.
3. Need strengthen communication and capacity building
4. Enhance engagement with countries

<table>
<thead>
<tr>
<th>Country</th>
<th>End Date</th>
<th>Amount (in US$)</th>
<th># students</th>
<th># Students Recruited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkina Faso</td>
<td>31-Dec-23</td>
<td>2mill</td>
<td>20</td>
<td>Cohort 2 Cohort 3 Cohort 4*</td>
</tr>
<tr>
<td>Ghana</td>
<td>31-Dec-23</td>
<td>2mill</td>
<td>20</td>
<td>10 10 0</td>
</tr>
<tr>
<td>Senegal</td>
<td>31-Dec-23</td>
<td>2mill</td>
<td>20</td>
<td>3 6 11</td>
</tr>
<tr>
<td>Benin</td>
<td>30-Jun-24</td>
<td>2mill</td>
<td>n/a</td>
<td>10 10</td>
</tr>
<tr>
<td>Nigeria</td>
<td>N/A</td>
<td>4mill</td>
<td>40</td>
<td>n/a 24 20</td>
</tr>
</tbody>
</table>
Impact of COVID-19 on research and innovation activities

Key challenges 01

• Changing restrictions on student movements – i.e. third wave shutdowns.
• Limited face to face events – switched to online forums.
• Impacted negatively on investment decisions by donors and governments i.e. South Africa, Uganda.
• How to harness opportunities arising - i.e. research collaborations

Scaling RSIF

• Quality issues and managing growth, i.e. gender strategy implementation; supervision; matching.
• Simultaneous growth - universities, scholars, IPIs, and systems (Mentorship; MIS; Fund; Communication etc).
• Permanent Fund establishment
Acknowledgement

Donors directly providing financial support to icipe

For more information contact

**Regional Scholarship and Innovation Fund**
International Centre of Physiology and Ecology (icipe)
P.O. Box 30772-00100, Nairobi, Kenya
Tel +254 (20) 8632000
www.rsif-paset.org