Summary of RSIF in Burkina Faso

5 Burkinabe RSIF doctoral scholars enrolled
5 PhD scholars and faculty trained
14 training courses held
RSIF IS THE FIRST PAN-AFRICAN SCIENCE FUND OF ITS KIND

It is the flagship product of PASET, an initiative led by African governments aimed at building skills of citizens of sub-Saharan Africa countries in the field of applied sciences, engineering, and technology for national economic growth on the continent. RSIF builds sustainable doctoral training, highly advanced research and innovation ecosystems to develop transformative technologies in Africa for economic growth and development.
At least 40% of the beneficiaries are women and priority is given to young faculty without a PhD.

Burkina Faso’s contribution to RSIF

Burkina Faso joined RSIF in 2020 and it attended the 5th PASET Forum in Kigali, Rwanda in May 2019. The Minister of Higher Education, Scientific Research and Innovation (MESRI) represents Burkina Faso in the PASET Governing Council (GC), and the Director General for Higher Education, MESRI, sits in the PASET Executive Board (EB).

Burkina Faso’s initial US$2 million contribution is being dedicated to doctoral scholarships. 80% of Burkina Faso’s contribution directly supports training of Burkinabe scholars. The potential of Burkina Faso’s innovative expansion due to this investment is multiplied when leveraged by the funds through matching support from various donors, including the Government of Korea, international partner institutions and others.

By being part of RSIF, Burkina Faso benefits from joint resource mobilization with other countries and capacity building for PhDs and research and innovation far into the future. PASET aims to mobilise over USD 500 million into the RSIF endowment fund, with an estimated 20% to be allocated to research and innovation projects for the benefit of citizens and institutions of participating countries. Many African countries are interested to be part of this.

RSIF competitively selects and harnesses the brightest minds with:

(i) doctoral scholarships at Host Universities in Africa and ‘sandwich’ training at selected International Partner Organizations, (ii) research awards, and (iii) innovation awards to faculty of graduated RSIF scholars.

PASET members have prioritized five cutting-edge thematic areas that will drive growth on the continent:

- ICTs including big data & artificial intelligence
- Minerals, mining & materials engineering
- Energy including renewables
- Food security & agribusiness
- Climate change
As a contributor to RSIF, Burkina Faso benefits in more ways than through the cost-effective training of its doctoral students.

Countries also benefit from efficient centralized administration of the scholarship and other grants, support for the RSIF scholars to ensure that they complete on time, as well as regular monitoring reports on the progress of their students. The pooling of funds, the highly competitive selection of host universities, international partners and students, and the efficient administration of the fund enhances the value and increases the benefits.

Burkina Faso’s participation in RSIF benefits the entire Burkinabe higher education, science and innovation ecosystem. All RSIF scholars will undergo high quality doctoral training in competitively selected SSA universities partnered with international universities, with study abroad for part of the time, at a fraction of the cost of sending students abroad for a full time PhD. On successful completion of the PhD, the students will be eligible for research and innovation grants.
Highly skilled human capital as a driver for the Burkina Faso National Development Plan

The rationale for RSIF is that Africa requires world class scientists in priority thematic disciplines that are relevant to national economic growth across sub-Saharan Africa. Some of these areas include orphaned research areas such as mining, minerals and materials science, energy and information and communication technology among others. This African led program aims to support the training of African innovators and leaders, with focus on women and faculty, to be able to strengthen the capacity of universities to train at the doctoral level and undertake innovative and impactful research for the future needs of the country.
Through the Burkinabe RSIF PhD scholars, Burkina Faso benefits from linkages with universities across Africa, as well as with RSIF international partner institutions for the RSIF’s ‘sandwich programme’ whereby students spend 6-24 months at an advanced institution conducting collaborative research.

The cost of PhD training is significantly lowered, while also reducing inbreeding in Burkinabe universities since PhD training is done in other African universities and international partner institutions.

By working closely with academic institutions, relevant investors and governments and other stakeholders within sub-Saharan Africa; specialized knowledge will be integrated in the region and transferred to the future generation.
Scholarships have been awarded to more than 180 RSIF PhD Scholars in total from across sub-Saharan Africa. Five of these are Burkinabe. More scholars will be selected in Cohort 4 in late 2021.

The Burkinabe RSIF graduates are equipped with advancing technologies and strategic research skills for innovation solutions. This provides opportunities for building new university departments that respond directly to national priorities, boosting Burkina Faso’s capacity to train at the PhD and postdoctoral level. With the ability to undertake high quality research, Burkina Faso will be well positioned to lead improved outputs, ranking and prestige.

Training Applied Researchers in Science and Engineering Fields

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Breaking Barriers for Women in Science

Women’s participation in research remains low in Africa, with women making up only 30% of the science community. RSIF is shifting that perspective.

None of the current Burkinabe scholars are female. RSIF assigns attention to not only women, but also, underrepresented groups, seeking to promote family-friendly policies as well as language and accessibility measures.
CATALYZING RESEARCH
to Generate Transformative Technologies for Innovation and Development

RSIF graduates who obtain a post-doctoral or permanent position in an academic institution or research centre in Sub-Saharan Africa are eligible to apply for RSIF Research and Innovation Awards. These competitive grants enable them to advance their research to generate exceptional research results to solve pressing African challenges.

RSIF’s establishment of international networks provides the Burkinabe RSIF graduates with a global pool of like-minded innovators. RSIF supports the establishment of research networks to support Burkinabe institutions.

RSIF is encouraging partnership with international partners and private firms to leverage some of the brightest minds on the continent. This will contribute to enhanced partnership in higher education, science and innovation ecosystem and collaboration in training, research and innovation.

Burkinabe institutions are eligible to compete for grants in the area of Agri-based digital innovations under the ACP Innovation fund for Western Africa that icipe is also managing.
In a published article, three female RSIF PhD scholars on international sandwich placements in Korea and USA, discuss the impact of COVID-19 pandemic on their personal lives and research journeys. Their immense resilience to pursue despite the unprecedented challenges is evidence of the determination and caliber of RSIF scholars. While the COVID-19 pandemic is affecting all scientists in general, women scientists, especially those with young families, are uniquely impacted. RSIF not only ensures that women scientists enter and thrive in PhD programmes, but also, guarantees that all its scholars are able to circumvent the challenges related to the pandemic. icipe, RSIF’s RCU is already providing support to scholars in various ways, including online training support, and psychosocial support on issues like mental health. In addition, RSIF is working with partner universities and students towards timely progression in research and overall course completion.

SPOTLIGHT ON AFRICA’S FUTURE LEADERS

in Science, Engineering and Technology

Sami Florent PALM, University of Nairobi, Kenya, Department of Physics

Research Topic: Techno-economic impact of photovoltaic solar power plants connected to the electricity network under Sahelian climate
## Burkinabe RSIF Scholars and Research Topics

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<td>Sami Florent PALM</td>
<td>Techno-economic impact of photovoltaic solar power plants connected to the electricity network under Sahelian climate: the case of Burkina Faso</td>
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See repository of RSIF Scholar Research [here](#)
Country contributions have been earmarked to scholarships, and in some cases to support research and innovation projects, aligned with national needs. So far, most countries have focused on doctoral training.

More importantly, RSIF aims to create a permanent vehicle for supporting science, technology and innovation capacity building through an endowment fund that is being established by the governments.

Burkina Faso is encouraged to continue its leading role in PASET through continued contribution to RSIF and investment in the RSIF endowment fund for lasting returns.

Burkina Faso can explore innovative ways of raising more funds for RSIF. By providing tax incentives for private sector companies investing in RSIF, by recommending RSIF to its development partners and by making a fixed annual budgetary allocation to RSIF, Burkina Faso will be in alignment with its commitment to PASET’s vision.

RSIF is designed for sustainability and has two components: (i) the General Fund and (ii) the Permanent or Endowment Fund, with proceeds to capitalize the general fund.
RSIF provides full doctoral scholarships and grants for research and innovation, to boost technical and scientific capacity for the advancement and use of transformative technologies to tackle Africa’s most pressing challenges.

Connect with us
PASET Regional Scholarship and Innovation Fund (RSIF), Regional Coordination Unit (RCU)
The International Centre of Insect Physiology and Ecology (icipe),
Duduville Campus, Kasarani
P.O. Box 30772-00100, Nairobi, Kenya

+254 20 863000
dg@icipe.org
icipe@icipe.org

African governments make good their pledges for advanced training in applied sciences and technology, as continental demand soars.