



BURKINA FASO

Country Report 2021



Summary of RSIF in Burkina Faso

5 Burkinabe RSIF doctoral scholars enrolled

5 PhD scholars and faculty trained

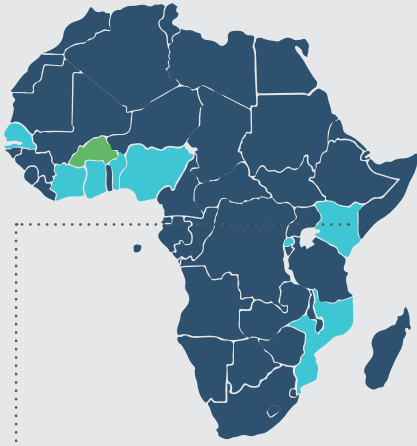
14 training courses held

The **PASET** Regional Scholarship and Innovation Fund



PASET
Partnership for Skills
in Applied Sciences,
Engineering & Technology

An Africa-led initiative to bridge the skills gap in Applied Sciences, Engineering, & Technology



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RSIF IS THE FIRST PAN-AFRICAN SCIENCE FUND OF ITS KIND

Contributing countries: Benin, **Burkina Faso**, Côte d'Ivoire, Ghana, Kenya, Mozambique, Nigeria, Rwanda and Senegal have made or are at the final stages of making contributions to PASET RSIF, in addition to the Government of Korea, the ACP Innovation Fund of the European Union and the World Bank.

RSIF is the first Pan-African Science fund of its kind connecting innovative minds to resources for revolutionary solutions.

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

BENEFITS TO CONTRIBUTING GOVERNMENTS

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.



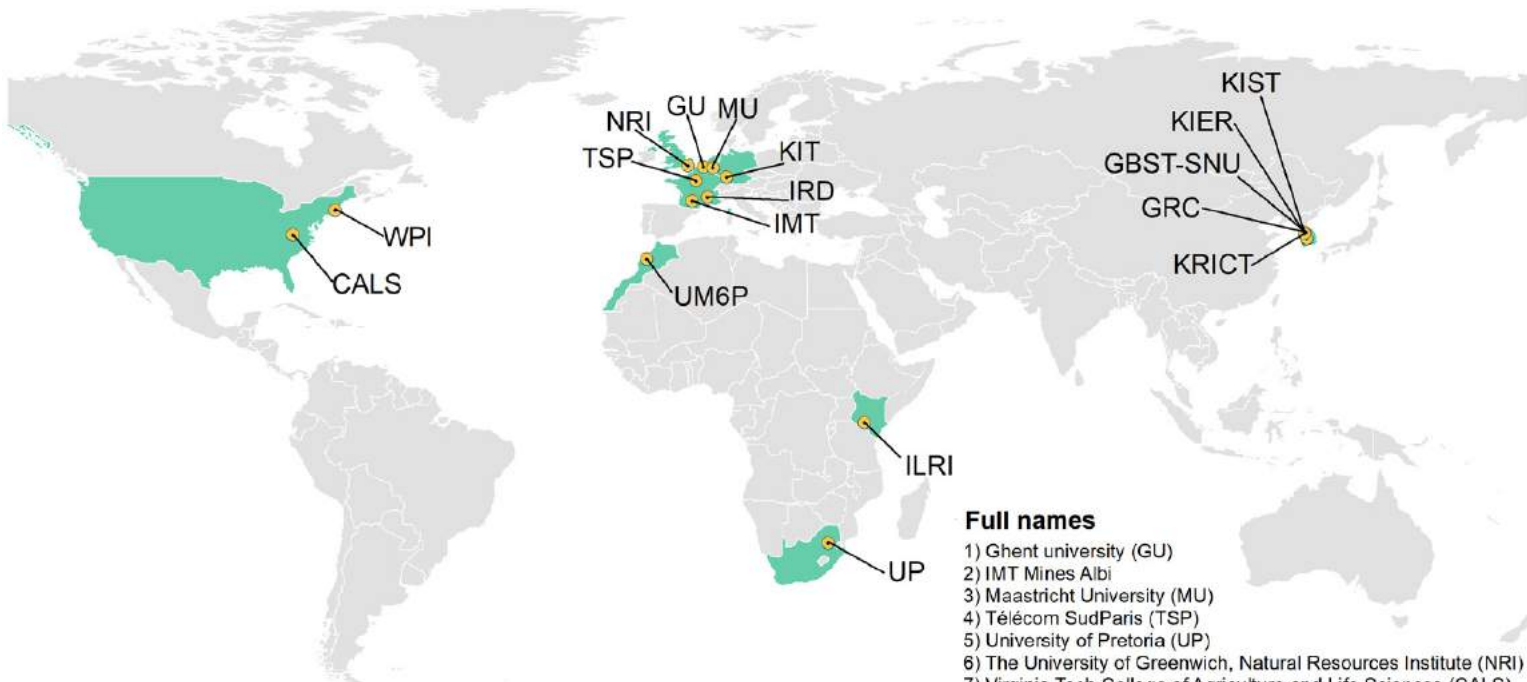
Highly skilled human capital as a driver for the Burkina Faso National Development Plan

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.



NURTURING HIGH-IMPACT PARTNERSHIPS



● RSIF International Partner Institutions



Full names

- 1) Ghent university (GU)
- 2) IMT Mines Albi
- 3) Maastricht University (MU)
- 4) Télécom SudParis (TSP)
- 5) University of Pretoria (UP)
- 6) The University of Greenwich, Natural Resources Institute (NRI)
- 7) Virginia Tech College of Agriculture and Life Sciences (CAL S)
- 8) Institutes of Green-bio Science & Technology – Seoul National University (GBST-SNU)
- 9) Karlsruhe Institute of Technology (KIT)
- 10) Korea Institute of Energy Research (KIER)
- 11) Korea Institute of Science and Technology (KIST)
- 12) Korea Research Institute of Chemical Technology (KRICT)
- 13) Mohammed VI Polytechnic University (UM6P)
- 14) Worcester Polytechnic Institute (WPI)
- 15) International Livestock Research Institute (ILRI)
- 16) Seoul National University Global Research & Development and Business Center (GRC)
- 17) Institut de Recherche pour le Développement (IRD)

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.

RSIF Training Courses Provided

1. Research Communications and social media
2. Digital Storytelling
3. Reference management & open access
4. Grant writing
5. E-Resources
6. Grievance address mechanisms
7. Sexual harassment
8. Strategies for a successful PhD
9. PhD proposal writing
10. Responsible conduct of research including research ethics
11. Introduction to information literacy
12. Introduction to research methods and statistics, data analysis and management
13. Science presentations
14. Science posters

Training Applied Researchers in Science and Engineering Fields

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.

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.



Photo: Study visit to Keio University, Japan, September 2019

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.



RESILIENCE OF RSIF SCHOLARS: COVID-19 CHALLENGES AND LESSONS LEARNT

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.

<https://www.universityworldnews.com/post.php?story=20201208123315401>

SPOTLIGHT ON AFRICA'S FUTURE LEADERS

in Science, Engineering
and Technology



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

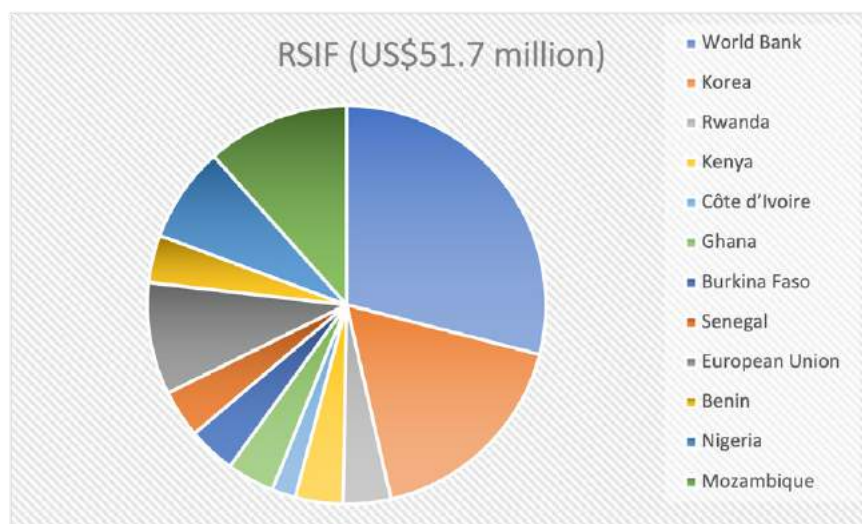
Research Topic: Techno-
economic impact of photovoltaic
solar power plants connected
to the electricity network under
Sahelian climate

Burkinabe RSIF Scholars and Research Topics

Name	Research Topic	African Host University
Sami Florent PALM	Techno-economic impact of photovoltaic solar power plants connected to the electricity network under Sahelian climate: the case of Burkina Faso	University of Nairobi, Kenya, Department of Physics
Aboubacar SAVADOGO	Solar Energy - Study of a solar cell with radial n + / p junction of polycrystalline silicon semiconductor in static regime under monochromatic illumination: determination of the recombination parameters	
Alassane COMPAORE	Formulation and characterization of lightweight concrete: use of foam and minerals from Burkina as raw materials.	Kenyatta University, Kenya
Zakaria SAWADOGO	Automatic comment sorting by an artificial moderators	Université Gaston Berger, Senegal, Africa Centre of Excellence for Mathematics, Informatics and ICT (MITIC)
Yacouba OUEDRAOGO	Climate change impact on Fumonisin B1 (FB1) distribution: Case study in Burkina Faso	Sokoine University of Agriculture, Tanzania, Africa Centre of Excellence for Infectious Diseases of Humans & Animals in Southern & Eastern Africa (SACIDS)

See repository of RSIF Scholar Research [here](#)

THE FIRST PAN- AFRICAN SCIENCE FUND INTUITIVELY DESIGNED FOR GROWTH



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.

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.

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



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.

[Read more](#)

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Connect with us

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