INES-Ruhengeri
Institute of Applied Sciences

GREATER - SDG Global Goal Week @ INES-RUHENGERI

Topic:
BEYOND THE GRID: RENEWABLES, IOT, AND SOCIAL EMPOWERMENT

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Erasmus+
Co-funded by the European Union

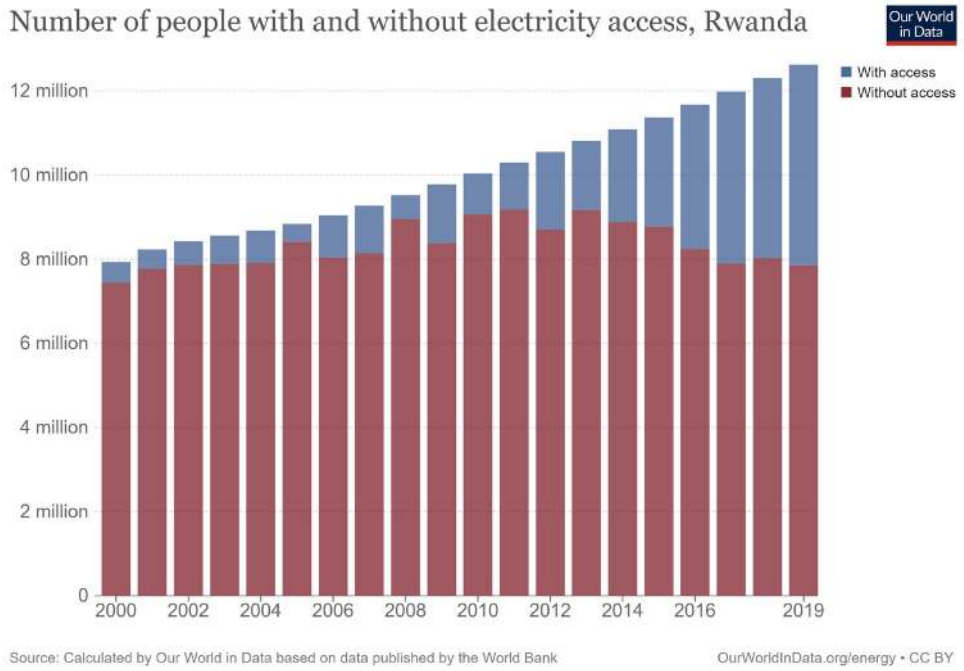
Outline

- Overview of energy usage in Rwanda
- Why Renewable Energy is Critical for Rwanda
- INES-RUNGEHERI in Renewable Energy Vision
- New concept of “**Living Lab”**
- Community engagement
- Transfer activities: Art Competition 2025
- Transfer activities: ATINGI online course
- Call for action

Overview of Renewable Energy in Rwanda

Rwanda electricity access rate is rapidly growing.

- Still problems:
  - rural areas
  - limited energy availability
- June 2022:
  - 72% households are electrified
    - 50% on-grid
    - **22% off-grid (mostly PV)**
- Target by 2024:
  - 100% households are electrified
    - 52% on-grid
    - 48 % off-grid
- 2025:
  - As of February 2025, 82,2% households are electrified
    - 57% on-grid
    - **24,8 % off-grid (mostly PV)**



Why Renewable Energy is Critical for Rwanda?

Demand for electricity has been rising sharply in the last 5 years

- Electric vehicles
- Electric motos
- New industries

Firewood dependence

- Stat of 2023/24 reported: 75% of households rely on firewood for cooking; 18.8% use charcoal; 5.4% use gas
- **Woody Biomass Deficit:** wood supply < demand
- **Health Costs:** Indoor air pollution from smoke is a major health risk
- Climate change

Fuel prices rose sharply, increasing from 1,574 Frw/L and 1,576 Frw/L to 1,862 Frw/L and 1,808 Frw/L within just 1 year and 7 months



COMMUNIQUE

Rwanda Utilities Regulatory Authority (RURA) announces the revised fuel pump prices, which will come into effect from 07:00 PM on 08 October 2024, for a duration of two months, as follows:

- Maximum retail price for Gasoline (Premium Motor Spirit): **1,574Frw/L.**
- Maximum retail price for Diesel (Automotive Gas Oil): **1,576Frw/L.**

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Kigali, (

RUGIGA
Director



COMMUNIQUE

Rwanda Utilities Regulatory Authority (RURA) announces the revised fuel pump prices, which will come into effect from 06:00 AM on 09 February 2025, for a duration of two months, as follows:

- Maximum retail price for Gasoline (Premium Motor Spirit): **1,633Frw/L.**
- Maximum retail price for Diesel (Automotive Gas Oil): **1,647Frw/L.**

These adjustments are primarily based on recent fluctuations in international petroleum products prices.

Kigali, 08 February 2025

RUGIGANA Evariste
Director General



COMMUNIQUE

Rwanda Utilities Regulatory Authority (RURA) informs the public that for the next two (2) months, effective 2 July 2025, 6:00 AM, the maximum retail prices for petroleum products, inclusive of Value Added Tax (VAT), have been revised as follows:

- Gasoline (Petrol): Not to exceed **1,803 FRW/L.**
- Diesel: Not to exceed **1,757 FRW/L.**

To mitigate the increase in pump prices driven by global market trends and ease the burden on consumers, the Government of Rwanda has ensured adequate fuel reserves and maintains prudent economic management.

Kigali, 1 July 2025.

RUGIGANA Evariste
Director General



ITANGAZO

Urwego rw'igihugu rushinzwe kugenzura imikorere y'inzego zimwe z'imirimo ifitiye Igihugu akamaro (RURA) ruramenyesha Abaturarwanda bose ko mu gihe cy'amezi abiri (2) ari imbere, uhereye ku wa 06 Nzeri 2025, saa kumi n'ebyiri za mu gitondo (6:00), ibiciro ntarengwa by'ibikomoka kuri peteroli bivuguruwe mu buryo bukurikira:

- Lisansi ntigomba kurenga **Amafaranga y'u Rwanda 1,862 kuri Litiro.**
- Mazutu ntigomba kurenga **Amafaranga y'u Rwanda 1,808 kuri Litiro.**

Mu rwego rwo guhangana n'ihindagurika ry'ibiciro by'ibikomoka kuri peteroli ku isoko mpuzamahanga, Guverinoma y'u Rwanda ikomeje gucunga neza ububiko bw'ibikomoka kuri peteroli no gushyira mu bikorwa imicungire myiza y'ubukungu muri rusange hagamijwe kurengera abaguzi no kwirinda izamuka rikabije ry'ibiciro.

Bikorewe i Kigali, ku wa 05 Nzeri 2025

RUGIGANA Evariste
Umuyobozi Mukuru

GREATER
GROWING RWANDA ENERGY AWARENESS THROUGH HIGHER EDUCATION

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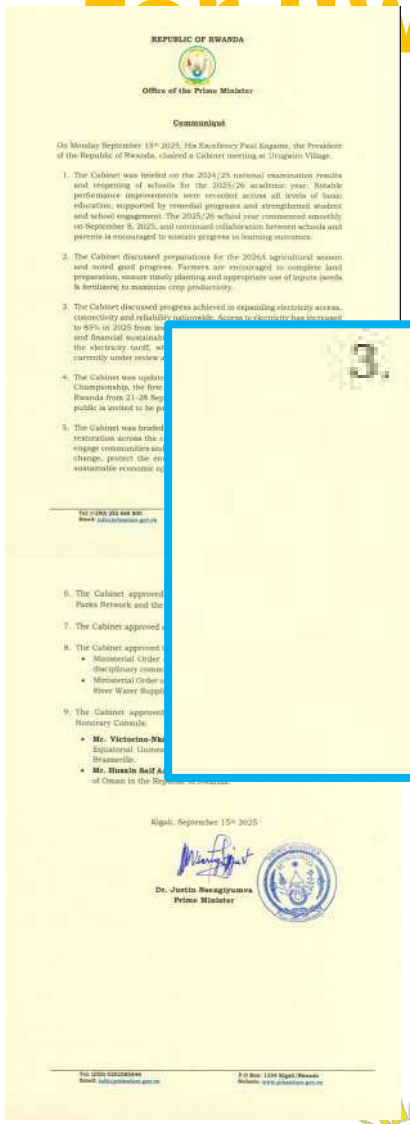
Why Renewable Energy is Critical for Rwanda?



REPUBLIC OF RWANDA

Office of the Prime Minister

Communiqué

On Monday September 15th 2025, His Excellency Paul Kagame, the President of the Republic of Rwanda, chaired a Cabinet meeting at Urugwiro Village.

1. The Cabinet was briefed on the 2024/25 national examination results and reopening of schools for the 2025/26 academic year. Notable performance improvements were recorded across all levels of basic education, supported by remedial programs and strengthened student and school engagement. The 2025/26 school year commenced smoothly on September 8, 2025, and continued collaboration between schools and parents is encouraged to sustain progress in learning outcomes.

2. The Cabinet discussed preparations for the 2026A agricultural season and noted good progress. Farmers are encouraged to complete land preparation, ensure timely planting and appropriate use of inputs (seeds & fertilizers) to maximize crop productivity.

3. The Cabinet discussed progress achieved in expanding electricity access, connectivity and reliability nationwide. Access to electricity has increased to 85% in 2025 from less than 2% in 2000. To achieve universal access and financial sustainability in the power sector, the Cabinet noted that the electricity tariff, which has remained unchanged since 2020, is currently under review as part of broader strategic measures.

Kigali, September 15th 2025

Dr. Justin Nsengiyumva
Prime Minister

The Cabinet of Rwanda has identified electricity access as one of the major issues to be discussed at the national level (Cabinet resolution dated 15 Sep 2025)

3. The Cabinet discussed progress achieved in expanding electricity access, connectivity and reliability nationwide. Access to electricity has increased to 85% in 2025 from less than 2% in 2000. To achieve universal access and financial sustainability in the power sector, the Cabinet noted that the electricity tariff, which has remained unchanged since 2020, is currently under review as part of broader strategic measures.

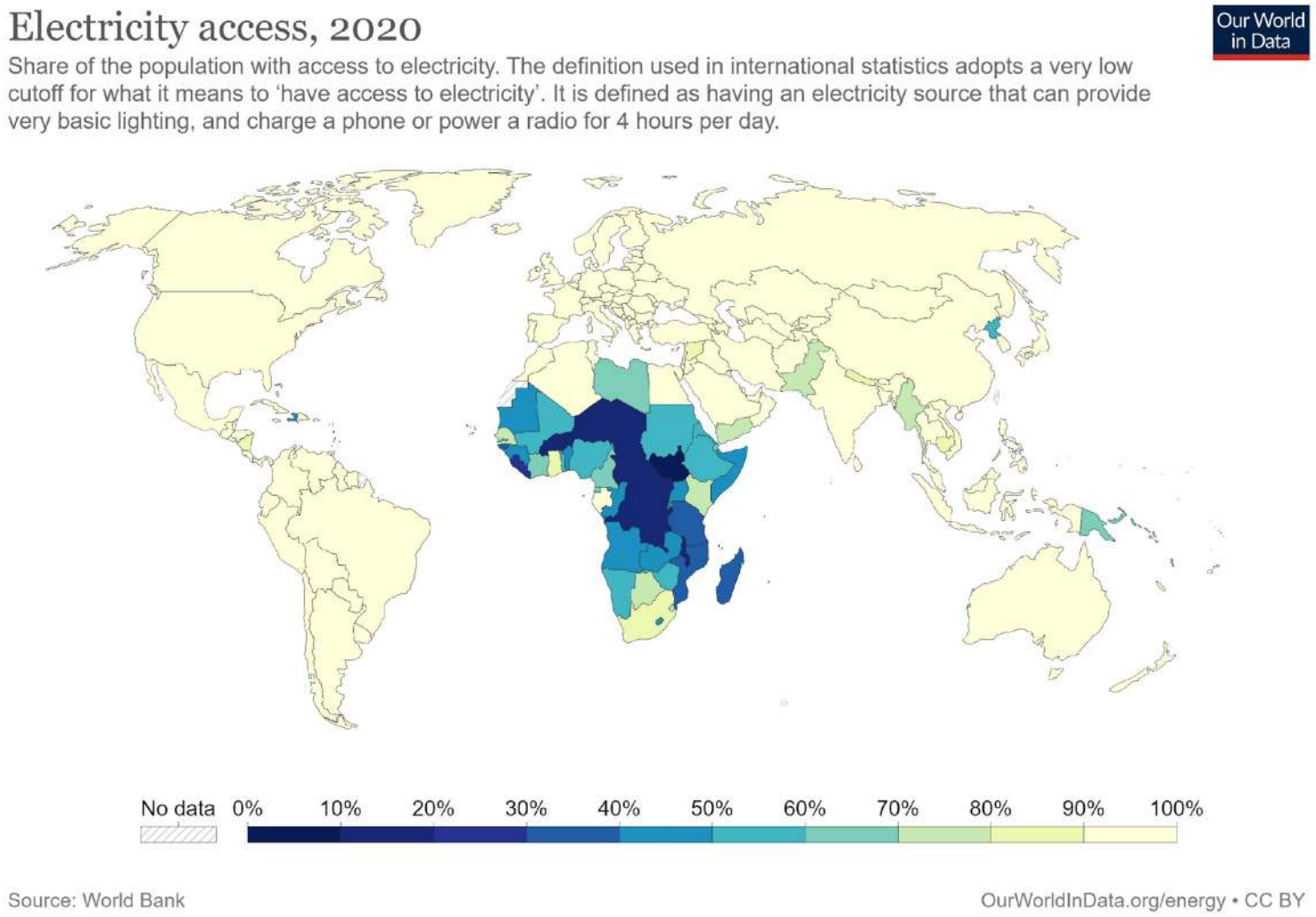
Opportunities vs Challenges to Overcome

Opportunities

Solar Irradiation Advantage

- **Rwanda (Equator):** 4.5–5.5 kWh/m²/day
- **Germany:** ~2.5–3.0 kWh/m²/day
- **Italy:** ~3.5–4.5 kWh/m²/day

Rwanda has **equal or higher sunlight** than EU countries, leading in PV adoption.



Opportunities vs Challenges to Overcome

Challenges to overcome

- Misconception:

  “Renewable energy is weaker than grid power”

- Readiness to use renewable energies
- Shortage of skilled technical staff
- Integration of new technologies into existing systems

INES-Ruhengeri's Vision for Renewable Energy

INES-RUHENGERI as Institute of Applied Sciences:

- Initiated a project to become one of the center in renewable energy research & training in Rwanda
- New curriculum in Renewable Energy under development
  - Integration of IoT and AI in the curriculum
- Strong partnerships with EU universities and agencies, NGOs & local stakeholders
  - GREATER project with EU and Rwandan universities
  - Engineers without BORDERS FROM GERMANY
  - Polar Partner Ltd from Finland
- Living Lab model → integrated in teaching & research

INES-Ruhengeri's Vision for Renewable Energy

INES-RUHENGERI as Institute of Applied Sciences:

- Capacity building for staff and students
  - PhD candidate
  - summer school in Rwanda and in Europe
  - staff and student mobility Rwanda – Europe and Europe-Rwanda for knowledge sharing
- Advanced infrastructure & equipment available for future use
  - Lab equipement
  - Expansion of Living Lab concept to other sectors (IoT, smart systems)
- Commitment to community outreach & awareness
  - Living lab initiated in rural areas: Busengo in Gakenke District
  -New opportunities for education & research
- Long-term impact on Rwanda's sustainable development

GREATER - SDG Global Goal Week @ INES-RUHENGERI

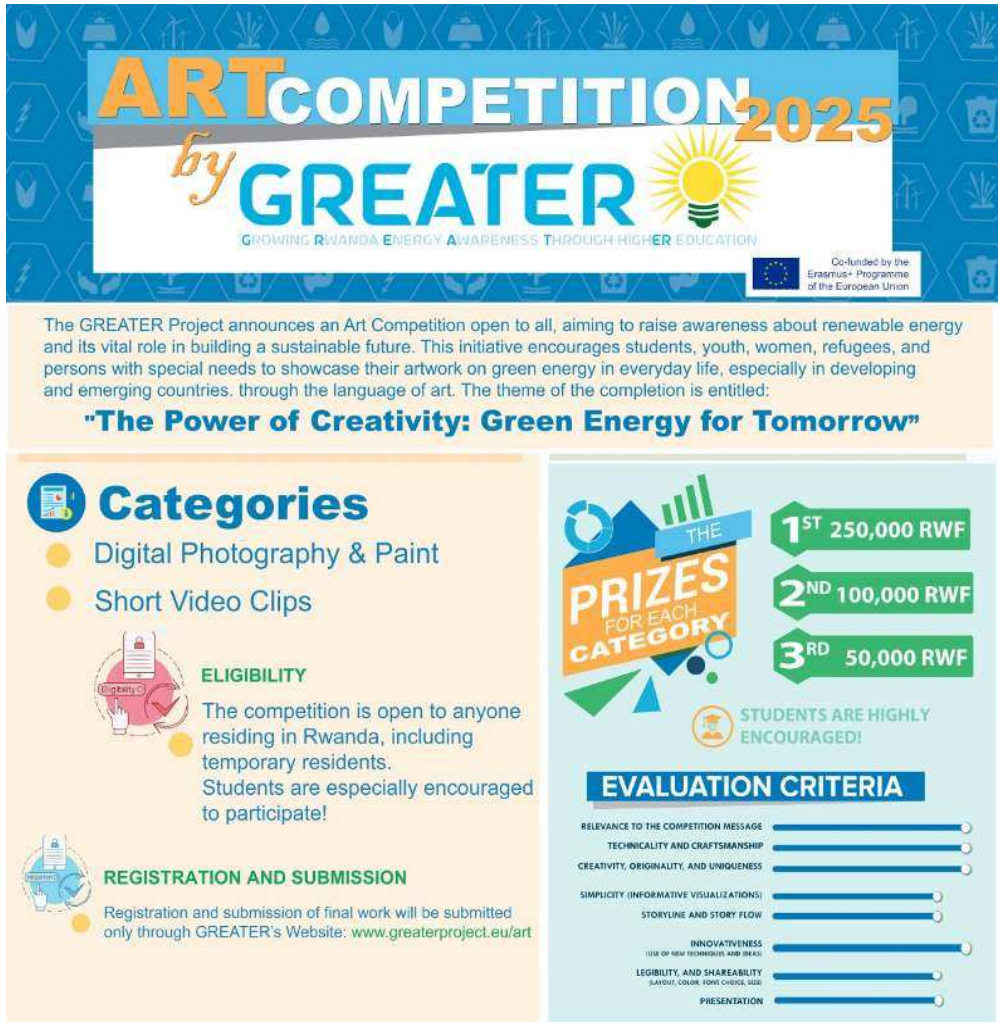
In 2015, the countries of the United Nations made a universal promise to leave no one behind in achieving a peaceful and prosperous world by 2030.



GREATER - SDG Global Goal Week @ INES-RUHENGERI

Transfer activities: Art Competition 2025

Deadline: 31st December 2025



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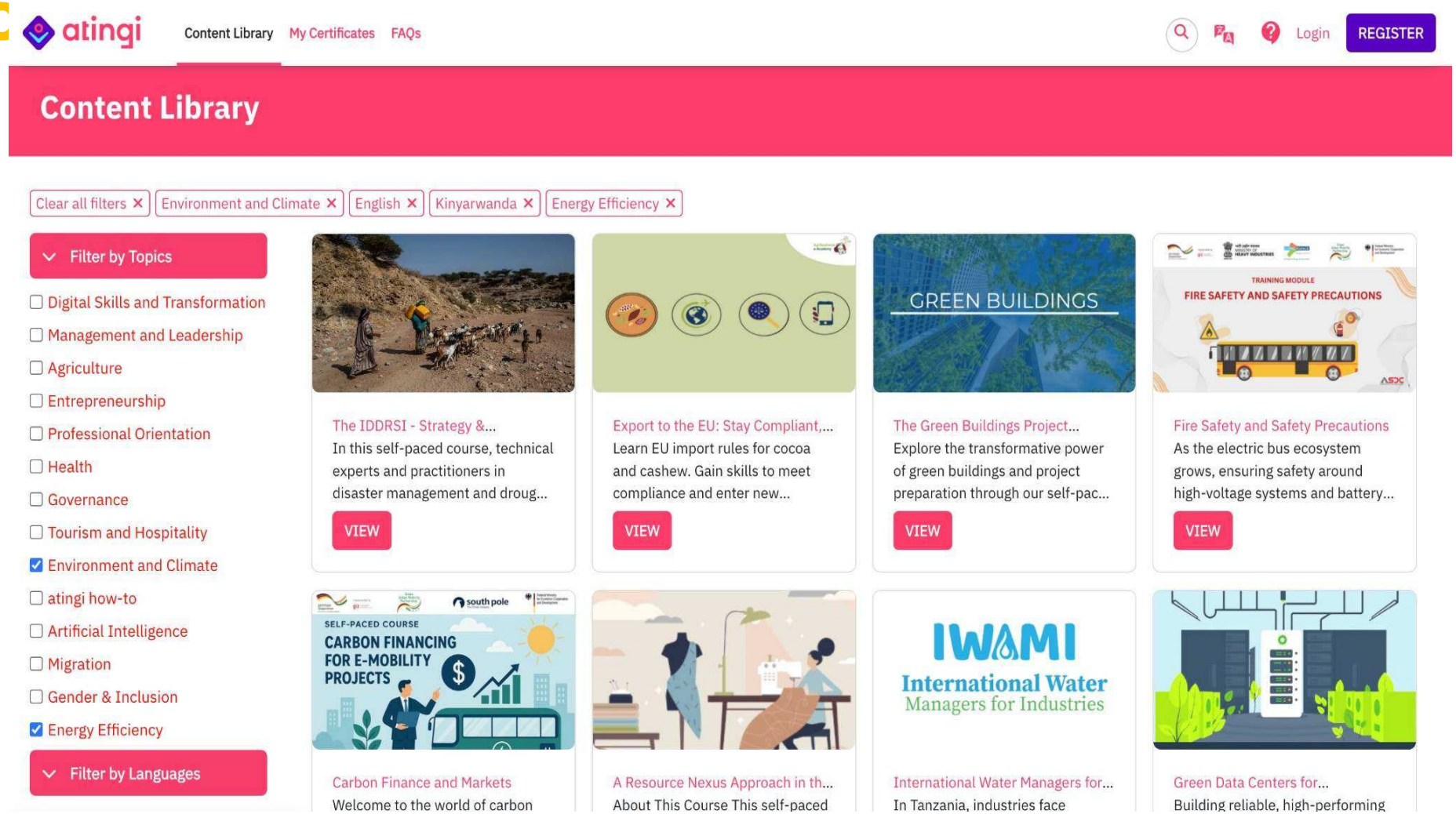

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GROWING RWANDA ENERGY AWARENESS THROUGH HIGHER EDUCATION

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GREATER - Transfer activities: ATINGI online course

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Climate change - Our Planet at Risk

About this course

Perhaps you have heard about climate change? It is causing temperatures and the sea level to rise in some parts of the world while leading to natural disasters, such as hurricanes, melting glaciers, flooding and extreme drought in other parts of the world.

In this course, we will explore the impact of climate change on planet Earth. To do that, we will start by identifying what has made the Earth particularly suitable for human development over the past 10-12.000 years. Then we will explore how and why these favourable conditions are under threat. We will also look at what must be done to reverse such threats. Luckily, there is a lot we can do about climate change. While the bulk of responsibility lies with the people in power, we can all do a lot to reduce our contribution to climate change.

Perhaps you will get new and exciting ideas for actions towards a sustainable future

Who is this course for?
The course is for students aged 16 and up

What will you learn?
By the end of this course, you will be able to explain:

- Why the Holoscene period provided a particularly stable climate
- Why some scientists claim we are moving into a new geological epoch called the Anthropocene
- What climate mitigation means and why all mitigation efforts are important
- What climate adaptation means and why all adaptation efforts are important

Call for action: Assignement

