

CSC Evaluation and Monitoring Programme

# Strengthening Climate-Resilient Farming Practices in Rural Rwanda and Promoting Sustainability in Humanitarian Initiatives

*Jean Chrysostome Sehene*

**Rwanda is one of the smallest countries in Africa by land mass but has the second-highest population density on the continent. Agriculture remains the primary economic sector, supporting 70% of the population's livelihoods and contributing to 25% of the country's gross domestic product (GDP).**

Like many countries, Rwanda is grappling with the effects of climate change. Despite its strong commitment to environmental sustainability and notable progress in this area, the nation's heavy reliance on rain-fed agriculture makes it continuously vulnerable to climate shocks caused by increasing weather variations. Smallholder farmers who primarily engage in subsistence farming are particularly affected by these changes, experiencing food insecurity and threats to their livelihoods.

Jean Chrysostome Sehene, a 2014 Commonwealth Distance Learning Alumnus with a Master's degree from London South Bank University, unpacked the vulnerabilities and resilience of subsistence farming communities by leading the 'Community Climate Change Adaptation Assessment' project in Rwanda. With a broader understanding of education beyond conventional settings, Jean is dedicated to educating communities about 'smart agriculture' methods and techniques to help them adapt to climate change and ensure food security.

Jean's Commonwealth Scholarship also expanded his career prospects and developmental impact internationally. He played a pivotal role in strengthening environmental governance institutions in Madagascar and in raising

awareness about unsustainable practices in humanitarian programmes. His advisory role on mainstreaming environmental sustainability for a peacekeeping mission in the Central African Republic and the UN World Food Programme (WFP) in the Republic of Congo has heightened environmental awareness, which is often overlooked in international humanitarian efforts.



Jean Chrysostome Sehene (second from left) visiting the small farming holders in Bugesera District 2017.



**Jean Chrysostome Sehene** is a 2014 Commonwealth Alumnus from Rwanda who studied for an MSc in Education for Sustainable Development at London South Bank University through a Commonwealth Distance Learning Scholarship. After completing his Master's degree in 2014, Jean has been involved in projects from Civil Society Organisations to the United Nations for ten years, providing environmental and social safeguards assessment, guidelines, and training. He was an Environmental Management Specialist with the United Nations Development Program (UNDP) in Madagascar from 2017 to 2018; Environment Officer with the United Nations Multidimensional Integrated Stabilization in the Central African Republic (MINUSCA) from 2020 to 2022; and most recently, Environmental and Social Safeguards Advisor with the United Nations World Food Programme (UN/WFP) from 2022 to 2023.

## Introducing Smart Agriculture to Farming Communities in Rwanda to Strengthen Climate Resilience

After graduating from the National University of Rwanda with a degree in Social Sciences in 2004, Jean secured a position at the Rwanda Environmental Conservation Organisation (RECOR), embarking on his career journey in the environmental field. Whilst working there, the more Jean practised in this field, the more he felt the need to advance his knowledge and skills in developing solutions to environmental problems through further education. The Commonwealth Distance Learning Scholarship enabled Jean to further his studies by pursuing an MSc in Education for Sustainable Development whilst continuing his work at RECOR.

Upon completing his studies at London South Bank University, Jean worked on the 'Community Climate Change Adaptation Assessment (C3A2)', a project which was funded by the United States Agency for International Development (USAID), to establish an understanding of climate change risks and adaptive capability in selected communities from five East African countries: Rwanda, Burundi, Tanzania, Kenya, and Uganda. Jean led a team of five people in Rwanda to implement the assessment in selected Rwandan communities, who were guided by the C3A2 toolkit which had been designed for assessors and researchers who were conducting community assessments.

Their assessment increased the understanding of levels of vulnerability and adaptive capability within the communities in Rwanda, leading to effective intervention strategies developed by Jean and his organisation (RECOR) to build communities' resilience to climate change. In Bugesera, a district in Rwanda's Eastern Province, subsistence farmers were educated on modest techniques to cope with the difficulties caused by frequent and prolonged droughts.



Jean Chrysostome Sehene (with green cap) discussing smart agriculture methods with farmers in Bugesera District of Rwanda, September 2017.

'The main challenge was that people could not farm during the dry seasons ... so, there was the problem of harvesting and getting a yield until you showed them small techniques of, for example, irrigation, increasing livelihoods by using the green manure for their small farms, conserving water during the rainy season and then using it during the dry season.'

With these intervention strategies, 640 small-holding farmers benefitted from adopting smart agriculture techniques. Jean believed his Master's studies, supported by his Commonwealth Scholarship, significantly transformed his perception of 'education' and enabled him to address sustainable development issues by sharing knowledge with local communities through ongoing and informal educational approaches.

'There are many types of education. Previously, I knew formal education from the school. But I didn't know or understand how the communities can be educated, for example. So, by knowing that there is continuous education, there is informal education, by working with the communities, the government, and the private sectors, we can always keep on educating people on the developmental agenda.'

Moreover, after understanding the dynamics of working with communities where women play a crucial role in passing on new knowledge and leading effective small initiatives, Jean actively engaged with these women leaders to increase environmental awareness and education.

The RECOR actively promoted and piloted small projects while encouraging the community to develop its own initiatives. They prepared and delivered awareness campaigns to encourage communities to adopt best practices in water, sanitation, and hygiene (WASH) for accessing water in Bugesera, including establishing pilot sites to demonstrate good practices, utilising radio shows to reach beneficiaries, conducting training workshops, and making regular field visits and holding meetings with beneficiary communities. Through awareness campaigns, the adoption rate of these practices rose from 50% to 76%.

These successful interventions, developed through small pilot projects, created a ripple effect that spread to neighbouring communities and drew the government's attention and action.

'The small projects could help the advocacy to tell the government if you do this, it can help the community to adapt to the effects of climate change. ... Now, there are the subsidies on the irrigation material ... and the government reduced the import taxes for the people who want to import the material that can help the irrigation.'

Following his work on assessing communities' adaptive capability in Rwanda, Jean was recruited in 2017 as a national consultant for Rwanda's Strategic Programme for Climate Resilience (SPCR), a holistic and multi-sectoral investment plan to increase cross-sectoral collaboration for building climate resilience. Jean and his colleague collected data from 14 industrial sectors, including agriculture, health, and transport, analysed how these sectors were affected by climate change, and developed intervention strategies. According to Jean, some projects were developed based on this programme and have been implemented in Rwanda.

**Jean feels that the most significant change in his community because of his Commonwealth Scholarship was that he enhanced communities' resilience to climate change in the Bugesera District of Rwanda through the application of his skills and knowledge while working at RECOR.**

'The majority of Bugesera district, like the whole Rwandan community, depends economically on subsistence and rain-fed agriculture. The prolonged droughts have negatively affected the agricultural outputs, resulting in harvest reduction and loss.'

'The Rwanda Environmental Conservation Organisation (RECOR), together with other civil society organisations, worked with local communities to adopt climate-resistant agriculture techniques, including small-scale irrigation, the use of organic manure and rainwater harvesting. Two demonstration projects were implemented, and their results supported the government to initiate friendly policies in this domain. The main achievement of these interventions was the adoption of small-scale irrigation systems, increasing agricultural production and ensuring food security.'

## Advocating for Environmental Institutions to Promote a Structured Approach to Sustainability in Madagascar

In 2018, Jean moved from Rwanda to Madagascar, to work for the United Nations Development Programme (UNDP) as an Environmental Management Specialist. As an island country in the Indian Ocean, Madagascar experiences frequent cyclones and biodiversity loss. There Jean worked to support government institutions to meet the provisions of the three Rio Conventions on Biodiversity, Climate Change and Desertification, which are derived from the 1992 Earth Summit.

Unlike Rwanda, which has robust institutional frameworks established to oversee environmental management practices such as the Rwanda Environment Management Authority (REMA), Madagascar needed to build its institutional capacity to better support environmental initiatives. Leveraging Rwanda's successful experience

in building structures and readiness to respond to climate change, Jean was pivotal in advocating for the institutionalisation of environmental governance in Madagascar, thereby addressing a crucial need in the country's environmental sector.

**'For Madagascar, I advocated that they first strengthen the environmental governance institutions, because that was the foundation to implement anything or to help the country be ready to adapt.'**



Tree planting campaign with Madagascar government officials.

In addition to advocating for strengthened environmental governance, Jean ensured that environmental considerations were integrated into national development programmes, thereby mainstreaming environmental sustainability in the country's development agenda. As the environmental management specialist advising on the implementation of a portfolio of six main projects, Jean advised on how environmental impact assessments should be conducted, ensuring that the negative impacts of climate change were understood by decision-makers and accommodated for during the planning phases.

**'There was a law and a policy on environmental impact assessment, but the way it was done was not clear. So, I ensured that the national government institution checked that the projects or the investors met the environmental impact requirements before they got the certificates to implement their projects.'**

**Because of the implementation of all these projects, the understanding of climate change and the environment itself has been raised among the decision-makers, and some of the necessary measures were taken when it came to implementing some of the projects.'**

## Uncovering Unsustainable Practices in Humanitarian Programmes to Increase Environmental Awareness

From 2020 to 2022 Jean led and monitored the implementation of Environmental Action Planning and Performance (EAPP) in the Central African Republic, a country transitioning from conflict to peace. The EAPP is a roadmap for mainstreaming environmental considerations into the peacekeeping mission.

‘Every intervention has an impact on the environment. That is why the environmental unit was created to facilitate or help the mission take measures to prevent environmental degradation.’



Jean Chrysostome Sehene (standing right side) with the Commander of Cambodia Engineering Company deployed in MINUSCA inspecting the site for the integrated waste management yard in Bria, Central African Republic, 2021.

Jean highlighted that his holistic approach to understanding development issues was acquired from his Master’s studies with the support of his Scholarship.

‘It’s understanding things holistically, the holistic approach ... I understand that when we talk about development, we are talking about the social, we are talking about the economy, we are talking also about the environment, and the ecological issues. You cannot think of only one pillar and then forget another one. So, I went deeply. I shaped my knowledge in understanding all these pillars and how they interact.’

To increase environmental awareness and action, Jean developed materials and trained staff at the United Nations Multidimensional Integrated Mission for Stabilization in the Republic of Central Africa (MINUSCA) on environmental management in energy, solid waste, and wastewater, reaching out to 2,100 staff from three categories; Military, Police, and Civilians. He also organised and delivered training on Environmental Management Systems (EMS) to 12,000 staff members of MINUSCA.



Jean Chrysostome Sehene (Civilian attire with blue hat) discussing proper implementation of MINUSCA’s Environmental Action Plan and Performance with the Commanders of the MINUSCA Cameroon contingent deployed in Bozoum, Central African Republic, May 2022.

Moving from the MINUSCA project, Jean worked as an Environmental and Social Safeguard Adviser for the UN World Food Programme (WFP), the world’s largest humanitarian organisation providing food assistance and bringing life-saving relief across 123 countries and territories. In this role, Jean supported country offices to meet the environmental and social safeguard requirements of WFP, including their application in emergency contexts. The WFP is committed to integrating environmental and social sustainability standards into its operations and programmes, however the implementation of these standards can be complicated by challenges such as the need to balance urgent humanitarian assistance and long-term sustainability, and doing so in challenging environments with weak governance.

‘We don’t have time to do environmental and social risk screening. We don’t have the time to carry out environmental impact assessments. We don’t have time to develop the environmental and social management plans. So, it was a big challenge.’

Jean encountered these challenges when country projects did not pass Environmental and Social Risk Screening, and country offices neglected the development of an Environmental and Social Management Plan. For example, in the Democratic Republic of Congo, environmental and social risk screenings, assessment, and management were not prioritised as much as other facets of the humanitarian emergencies such as refugee issues.

To address this challenge, Jean advised his unit and supervisors to develop environmental and social safeguards for emergencies to ensure that required efforts are made to safeguard long-term environmental and social sustainability.

Another country Jean visited was the Republic of Congo, which has the Earth's second-largest rainforest after the Amazon. However, the conservation of this environmental heritage had been neglected mainly due to limited understanding and capacity to preserve it.

**'When I intervened in the Republic of Congo, which is mostly covered by this forest, the government said they did not give much importance to it or understand how they had to preserve this heritage. But after training and demonstrating alternative solutions to the activities that were harming the environment or that were harming that forest, that's what they came to understand.'**

Awareness of environmental sustainability was also absent in school meal programmes implemented by WFP, which aimed to reduce children's dropout rates by cooking and providing food at schools in the Republic of Congo. While tracking the programme activities, Jean found that they were contributing to deforestation by using firewood from protected areas or by damaging endangered plant species. His findings raised the alarm about hidden unsustainable practices in humanitarian assistance programmes and emphasised the need for a broader understanding of environmental sustainability across all programmes.

**'You make sure you don't encroach and use the wood from the protected areas, or you don't collect the food from the species that the IUCN (International Union for Conservation of Nature) identified as under threat of disappearance.'**

**Jean feels that the most significant change he has experienced due to his Commonwealth Scholarship is his improved work performance and expanded career scope from national to international levels.**

'The knowledge and skills acquired from the Commonwealth Scholarship helped me to increase my work performance and get promoted. The promotion from national to international level expanded my exposure and thus increased my professional network and sphere of influence.'

'By the time I got my Master's degree, when I started applying for international jobs, I started doing job interviews. And finally, I got the first one in Madagascar. So, I think obtaining my Master's degree in Environmental Education and Education for Sustainability helped me raise my knowledge and skills, because before it was not possible.'

## Moving forward

Currently, Jean is a freelance consultant based in Kigali, Rwanda, providing environmental and social services to individuals and institutions. These range from project implementation, monitoring, and reporting in sustainable development fields to environmental and social impact assessment, risk screening and environmental management systems.

### More about the work of Jean Chrysostome Sehene

[Community Climate Change Adaptation Assessment \(C3A2\)](#)

[Strategic Programme for Climate Resilience \(SPCR\)](#)

[MINUSCA | United Nations Peacekeeping](#)

[UN World Food Programme \(WFP\)](#)

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