



IMPACT STORY

Planet

Completing the last mile:

Making the impacts of climate change on vulnerable groups, and opportunities to empower those groups, explicit across UN CC:Learn’s global, regional and national work

Background

[UN CC:Learn](#) is a partnership of 36 multilateral organizations collaborating in the development and / or delivery of climate change related learning at the global, regional and country levels. It was built in response to calls for a coordinated approach to climate change learning across UN and other multilaterals. Having been initially developed to support policy makers and field practitioners working for multilaterals, over time it has broadened its reach to businesses, NGOs, Academic organizations and the general public. It is hosted by UNITAR and its [online platform](#) hosts courses ranging from the basics of climate change to climate change and health, deforestation, children, cities, food security, water, and many more.

Since its launch in 2009, UN CC:Learn has developed through three phases of piloting and development, and recently completed its fourth phase: 2017-2020. Towards the end of this phase an [evaluation](#) was completed. One of the recommendations of that evaluation was that the project should make the impacts of climate change on vulnerable groups, and opportunities to empower those groups, explicit across UN CC:Learn’s global, regional and national work.

Figure 1: Suggestions to make the content more inclusive



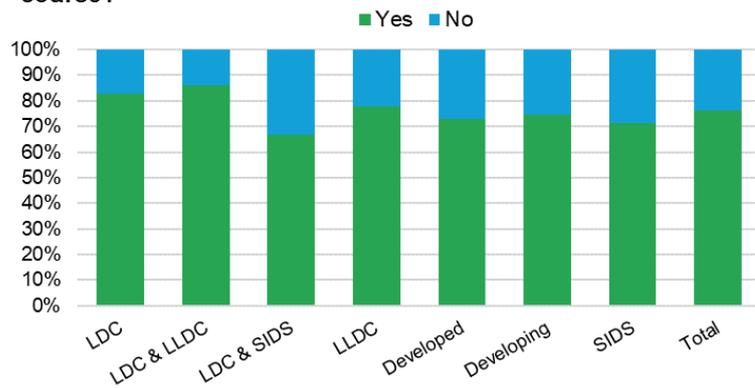
In support of that recommendation, this impact study explores feedback from five people who have completed UN CC:Learn courses. These people represent this target group in various ways, including gender and country development status - Small Island Developing States (SIDS) and Least Developed Country (LDC). Reference is also made to feedback from 519 respondents to an online course participants’ survey. The top recommendations from those respondents, regarding inclusion, are shown in Figure 1.

Most of the survey respondents (76 per cent) were from developing countries, including LDCs, LLDCs and SIDS; aged between 25 and 44 years old (67 per cent); and mostly male (58 per cent).

Overall, the application rate, of the knowledge and skills acquired during the course, was high (76 per cent). Moreover, those participants based in LDC and LLDC countries were more likely to apply the knowledge, with rates above 80 per cent, as can be seen in Figure 2. There are no further differences in the application rate between female and male participants, with a difference of 4 percentage points in favour of men.

Furthermore, 67 per cent of the survey respondents considered that UN CC:Learn courses address their specific needs related to personal characteristics (e.g., age, gender, disability, etc.) and 25 per cent considered it relevant but that it could be further improved. This relevance rate was higher for participants from LDC and LLDC (76 per cent) and developed countries (71 per cent). On the other hand participants coming from LDC and developing countries were those who indicated the highest rates about the course missing information relevant for their contexts (7 per cent and 6 per cent, respectively).

Figure 2: Have you applied the knowledge/skills from the course?



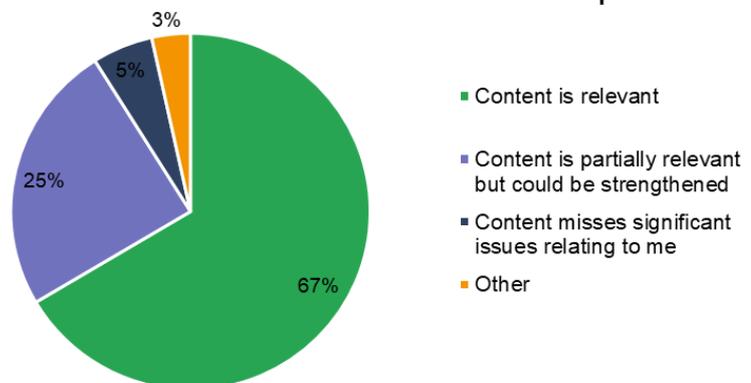
Besides application in the workplace, 61 per cent of these survey participants indicated that the course led to some changes in their personal or professional lives (generally changes in daily behaviour), as well as the way in which they think about climate change (78 per cent). Male respondents replied slightly more positively to this question (80 per cent compared with 76 per cent for female).

Key Recommendations

All of the people interviewed for this impact study found UN CC:Learn’s courses very relevant, helpful and accessible. Their key recommendations for strengthening inclusion of vulnerable groups are:

- Making greater efforts to engage young people through social media, school syllabuses, interactive content, and developing gifs and memes
- Accompanying online courses with face-to-face learning such as online gatherings, to help people explore their desires to make a difference and help them turn this into practical action
- Develop a suite of regional and country specific impacts, mitigations and adaptations so that people can find relevant examples and see people who look and sound like them
- Use of social media to build a movement for change
- Promoting new content to existing users
- Providing more content in more languages, including local languages
- Making use of non-internet based media, including television, radio and posters.

Figure 3: To what extent does the course address/miss specific needs?





Kari Boinaidi

Vice President – National Platform of Young Entrepreneurs - Comoros

UN CC:Learn helps an entrepreneur equip young entrepreneurs to grow the green economy.



Kari Boinaidi is from Domoni Badjini, a village in the south-west of Comoros, a Small Island Developing State, situated in the Indian Ocean.. Kari now lives in Moroni, the capital, where he works as a Civil Servant. His day to day work is observation, analysis and preparation of data for weather forecasting within the National Agency of Meteorology. However, Kari's interest in climate does not remain in the office. He is passionate about helping young people become green and blue economy entrepreneurs, which can be seen in his work as Vice Chair of the National Platform of Young Entrepreneurs.



Kari has completed six UN CC:Learn courses in the last three years, starting with *An Introduction to Climate Change*, and subsequently courses on climate change and cities, children, deforestation, health and finally climate change and water resource management and wetlands.

Kari says that UN CC:Learn's courses made him realise that climate change is happening now, and needs action now, not some time in the future. He says that he found UN CC:Learn's resources helpfully interactive and easy to use. So much so that he has shared the links with his colleagues and many of them have gone on to take UN CC:Learn's courses.

Kari says that his initial reason for taking the courses was to improve his performance in his job and as a trainer. He analyses data in his job, but this does not require him to apply the learning. It has helped him in the additional work he does accompanying university students as he explains the work of the meteorology department and the links between climate change and meteorology. Kari has organised learning events in the directorate and also awareness campaigns with civil society organizations.

Kari has found his learning most useful in his voluntary work with young people where he is encouraging waste separation for green economy livelihoods. He attributes this in part to his realisation that women, who cook and deal with waste, use wood and charcoal, which harms the environment. However, Kari also says that his interest in helping young people has arisen from his own youth, growing up in a remote village where people are vulnerable to the impacts of climate change, and where there is a lack of opportunities. He says that it would not be possible for people in his village to access the internet to take UN CC:Learn's courses.

As part of his contribution to the National Platform of Young Entrepreneurs, Kari delivered around five trainings since the



start of 2019, free to young university graduates. Kari combined entrepreneurship elements with climate change and focussed on green and blue economy.

Kari says that ultimately this led to his support in creating employment for young people using car tyres to create furniture including chairs, sofas and tables, such as those shown in the photograph. These tyres would previously have been burned to get rid of them. Kari attributes much of his success to his learning from UN CC:Learn courses.

Meeting the needs of people who are vulnerable to climate change in Small Island Developing States. Kari says that the greatest need for his country is assistance in tackling youth unemployment in a sustainable way that will help reduce the impacts of, or adapt to, climate change. With no climate change learning centre in Comoros, his request to UN CC:Learn is to adapt the training to have face to face courses for the young graduates and potential entrepreneurs. He would love to see donors make scholarships available to help young people establish green and blue economy livelihoods. Kari believes in the importance of training and knowledge empowerment.



Neerav Shah

Student – International Business Master’s Degree – India

Breaking the family tradition to become a Green Economy entrepreneur



Neerav Shah is a young man who wants to change the world.

A family of doctors. Neerav is from a line of medical doctors. His father, grandfather, and other relatives are doctors. So when he told his family that he wanted to leave the family tradition and study commerce, he made sure to share his desire to make a difference in the world. This desire was inspired by his knowledge of the pressures for viable livelihoods for the large population of his native India together with his direct encounters with poverty, waste, and flood related disasters he had seen hitting his home city of Mumbai.

Neerav sought out UN CC:Learn’s courses because he was interested in finding out more about Sustainable Economy, which had been briefly mentioned in his studies. Neerav says *“I wanted to know more about how Climate Change impacts cities. I was keen to know how climate change may affect day to day life. I live in Mumbai, so we are directly exposed to the impacts here. I have first-hand experience of the near-term impacts of increased flooding and changed monsoon seasons. Many South Asian cities are predicted to be under water by 2050, which is not very far away, so I had to do something.”*



Neerav acted on his concerns and searched for online courses that could help him learn more. This was not a requirement of his course, it was a growing personal passion. *“I have been reading about climate change in the newspapers; hearing how Western countries are taking action, but I couldn’t find out what was happening here in my own region, in India, and the surrounding countries. I had to find UN CC:Learn’s courses before I found out about*

the floods in Myanmar.” Neerav is concerned that developing countries cannot build their economies using polluting fossil fuels as Western countries had done. He wants to be part of Asian and developing countries’ cities developing a different way ahead that is sustainable and for the greater good. He chose UN CC:Learn’s Cities and Climate Change course to help him on his journey.

Neerav says that the course content was easy to access and understand, nicely interactive and very relevant to his context. He explains that the course helped inform his engagement with Mumbai University’s National Service Scheme (NSS), who he volunteered with to help people living in poverty across India. Neerav says that the Cities and Climate Change course helped inspire him in many different projects with the NSS, including obtaining permission to paint a mural on climate change in Mumbai’s central train station in direct line of sight of the over 5 million people per year who pass through, and another mural at a Mumbai hospital (photo 1). The train station mural was Neerav’s idea and included messages on climate change and plastic use, using an image of the globe with healthy trees on one side and polluting factories on the other, supported by messages in Hindi and English.



Neerav has been very active in addressing climate change including community tree planting with



other students (photo 2); and promoting the use of cloth bags and teaching women how to make them as a livelihood activity after plastic bags were banned in Mumbai (photo 3). Neerav says that particular project was very important because he regularly sees plastic bags blocking public drains, which make Mumbai’s flooding problem even worse. Neerav recalls being stranded in his school when he was just ten years old, in January 2006. *“We were stranded in the school, unable to move anywhere because the streets were submerged, and many people lost their lives. It is caused by Coral abstraction and cutting mangroves, but climate change is making the problem even worse”.*



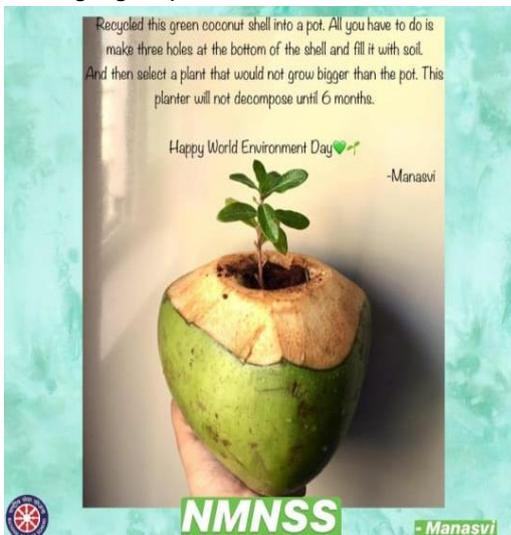
Neerav and his fellow students have also participated in clean-ups of substantial volumes of waste after religious festivals (photo 4). Projects he has engaged in have also included making bird shelters (photo 5); using coconut husks as tree sapling incubators (photo 6); recycling disused electronics, and running childrens' activities to engage them in caring about the environment (photo 7).

Neerav's interest has not been confined to his studies. In his own life he is taking trains instead of flying; walking or using the metro instead of using a car. He is separating and sorting waste. He even adapted the packaging of his laptop to make a travel case for it, to avoid causing pollution by disposing of it and purchasing a laptop bag. *"All of our small*

actions add up to make an impact", he says.

Of course Neerav would not attribute his actions to UN CC:Learn's course alone. However, he explains that the course strengthened his knowledge, reinforced his growing belief that he needed to take personal action, and gave him ideas of practical actions he could implement. Neerav says he already knew what climate change was, but he is convinced that the course helped him turn his words into actions, saying that without it, it is likely it would have taken him many more years before he did anything about his concerns.

Neerav is quite passionate about engaging people as young as possible. He would like to encourage UN CC:Learn to promote their courses to 15-16 year olds, seeking to get them embedded within school curricula. He believes this is the age when humans ask the most questions and look for answers, and he says the course content is already well designed for this age group. Neerav would therefore like to get support to



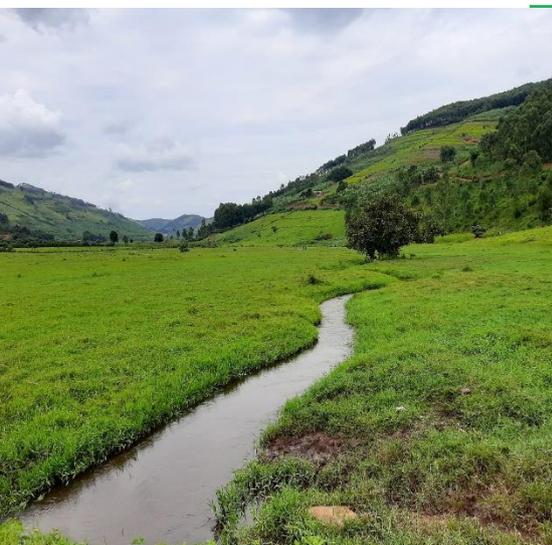
help him reach a wider audience. He uses UN CC:Learn and UN Habitat resources because they give more credibility than speaking as an individual and the resources are online which helps overcome geographical boundaries. Neerav points out that there is a vast amount of information on the internet and it is very hard to find what is true and what is misinformation, so he calls on UN CC:Learn to target the right people with the right information.

Neerav is convinced that his engagement in the course helped increase his activity by at least 50 per cent. He says he is 50 per cent better at talking to people, 50 per cent more likely to talk to people about climate change and 50 per cent more effective at helping people understand what climate change really is. He regularly uses examples from the course and can demonstrate that this is not just a third world problem. He would, however, like the courses to include more specific examples

for different countries, perhaps providing a menu of climate impacts and actions for countries across the world, so users can find content that is directly relevant to them. He explains his concern using examples from his own country, saying *“Every Indian knows about the rampant cutting of trees – it is regularly in the media. The government says it is planting new saplings. This is good, but we don’t keep in mind that the new trees are just saplings and the trees we are cutting are full grown. Cutting them destroys ecosystems and releases carbon. Plans to double train capacity in the State of Goa sound great for transporting goods and people, but we don’t consider the impact on wildlife corridors and biodiversity in the UNESCO World Heritage Site. We have to count the cost.”* Neerav recognises the tension faced by India as one of the founding members of the Paris Climate Agreement, with the 6th largest economy in the world, and needing to grow, and yet held back by its own coal mines because coal is local, cheap and has existing infrastructure which is needed to power that growing economy.



What can be strengthened? In addition to his suggestion for UN CC:Learn to target its courses at younger people, Neerav asks why new courses are not targeted at existing users. Having completed courses by Coursera, EdEx and UN CC:Learn, he notes that two of these agencies are regularly encouraging him to take new courses, but UN CC:Learn has never sought to engage him in new learning. However, in contrast he advises that UN CC:Learn has been very enthusiastic about seeking increasingly deeper levels of feedback on the learning he has already done, which the other agencies have not. He wonders if this demonstrates UN CC:Learn’s commitment to quality, but lack of commercial requirements to fund future courses.



Viola Mugisha

Local Government Environment Officer – Uganda.

“We have to not care if we’re going to care”

Viola is from Mbarara, a district in Western Uganda, which is around 270 km from Kampala City. She works as an Environmental Officer, undertaking Restoration of degraded fragile ecosystems, including wetlands, forests, river banks and lakeshores. She also performs Environmental and Social Impact Assessments for proposed economic and social development projects, to minimise or avoid their likely negative environmental impacts. She engages local businesses and community groups and sensitises



them on managing the environment. She says *“If you don’t engage the community, what you are really doing is nothing, because it is people who degrade the environment, and it is people who need to protect the environment. Therefore, we work hand in hand with community groups to help them understand fragile ecosystems such as wetlands, rivers and mountains, to help them identify the best ways to work with these ecosystems.”*

Viola describes herself as someone who restores people to earth, to know that we only live once and have to treasure life and be accountable for everything we do. She jokes that her message is as simple as “mind your own business”. This describes her more serious point that many of us are in fear of taking action because we

are concerned that family, friends and neighbours may judge us. She says the problem is that we have to not care – not care what others think, and instead get on with doing what is right – speaking up when things are wrong and taking action to restore the environment.

Viola observes that she has witnessed the slow urbanisation of Mbarara, a place that was originally known for cattle grazing. She notes that in recent decades people have cut down most of the trees to make room for grassland for cattle grazing. She has watched as wetlands and forests have been destroyed and has observed changes in local weather from previous regular dry periods, to current drought, as deforestation and water abstraction have led to significantly reduced water levels in the area. She has watched as the single river serving the city, the Rwizi, has dropped and water quality worsened as a once clear running river is now a consistent dirty brown. She is keen to attract other livelihoods into the area that do not involve grazing.

Viola also works directly with local communities. She notes that some people’s houses in Mbarara town are flooded, and explains how she advises them that they have built on wetland areas where the river would naturally flood. She advises people to build their houses outside of the flood plain, explaining that rainfall is now more erratic and extreme, and shares examples of many following her advice. She advises the community, who practice poor cultivation techniques in the fragile river bank and wetland ecosystems, to adopt alternative livelihood practices such as fish cage farming. On disaster preparedness, she advises community groups to adopt better soil conservation techniques such as agroforestry practices in the mountainous area, in order to reduce the substantial landslides and flooding that occur after intensive rainfall. Viola is frustrated that people’s lives are lost unnecessarily, and noted that 15 people died very recently where there was flooding as a direct result of deforestation and people moving into natural flood zones.

UN CC:Learn course. Viola says that the first UN CC:Learn course she took was the Introduction to Climate Change. However, with some embarrassment, she explains that she didn’t complete it. This was perhaps because she already knew what the problem was, but was stuck about what to do about it. Her real interest, her passion for conserving forests, is demonstrated in her later completing the REDD+ course in just three weeks, despite having a poor internet connection. Taking the course strengthened Viola’s passion for preventing deforestation for firewood and manufacturing processes. She notes that 80 per cent of Ugandans use charcoal or firewood for fuel despite efforts from the Ministry of Energy to try to persuade people to switch to gas or electricity.

The key benefits Viola notes from taking the course are her strengthened knowledge, the practical tips she picked up and also getting a certificate which she can note on her CV as proof of her commitment and knowledge. This helped her get her current job, where she can make a difference in improving

the environment. Viola further notes that the course must be useful, because her MSc lecturer used almost the same content in the course she delivered.

Viola explains that she uses her course learning in her day to day work on the green and brown environment, seeking to make progress towards the SDGs, looking for ways to help her community develop that do not harm the environment. UN CC:Learn helped her understand REDD+ principles, using mitigative measures such as the polluter pays principle. She has used her learning in advising local factories of global soft drinks manufacturers, and local beer brewers, helping them to understand their impacts on the environment and adopt cleaner technologies. She notes her advice to a sugar production factory to reduce use of sawdust in their process. This sawdust has been demonstrated to cause breathing difficulties and health problems. She also attributes her advice to stop using maize husks to fuel boilers, to her learning from the course, because they also cause substantial air pollution. Viola helps cattle ranchers and large water users to understand the vital function of wetlands in sequestering carbon and regulating local climate. She attributes a significant part of the positive changes she's helped these companies to enact, to her learning from UN CC:Learn's REDD+ course. Viola specifically says that the course has *"Taught me about forestry and climate change causes. It has taught me how to advise people. I think around 50% of my climate change knowledge is from UN CC:Learn, with most of the rest of my learning from my degree in natural resource economics and subsequent MSc in natural resource management. REDD+ helped me see that forest systems are degraded as trees are cut and indigenous species are replaced with commercial monocultural pines and eucalyptus species. REDD+ has also helped my CV. I recently used knowledge from the course as my answer to a key interview question. The course has been very helpful."*

Community advocacy. Viola does not leave her concern about the climate and the environment at work. In her personal life she and her friends have tried to build a community group for community engagement, training and hazard reduction, covering mainly floods, but observing that until very recently this would have been mainly droughts. Together with friends, Viola is writing a paper assessing droughts. They are using hydrological models such as the Soil and Water Assessment Tool (SWAT) in analysing droughts and floods in the area to see how they can develop meaningful climate change projections and impact mitigations.

Personal lifestyle changes. Viola attributes her own lifestyle changes to the carbon footprint explanation within the UN CC:Learn course, saying *"It opened my mind. I didn't know my shopping could contribute to carbon release. It directly affected me – I have 20 pairs of shoes. Am I really wearing them? I have to look for a waste handler who will re-use or recycle them. Previously I would have burned them when I no longer wanted them. I got this from the UN CC:Learn carbon footprint. I assessed my food, shopping, travel. I now take a public bus to reduce my emissions. I now stop and think, and I just don't go if I don't need to. If I want to go for one thing I wait until I need to go and do several things. If I reduce my purchases and waste, or make sure I use things fully, and stop burning waste, I can make a difference. I have now decided that I want to buy some land and plant some trees. I'll get my team to help. I may benefit eventually economically by selling them, but my main reason for doing it is to help improve the climate."*

What can be strengthened? Viola suggests that UN CC:Learn adapts its content to include locally relevant examples, suggesting videos and photos of impacts from all countries could be included, and linked to different courses. She notes that people change when they see impacts that look relevant to them and see people who look like them doing something about it. She suggests the content has to become more diverse, using a wide range of people who are young, old and in-between; able bodied, disabled, male, female and diverse.

Viola also suggests UN CC:Learn has a concerted effort to make better use of social media, which is where all the young people are. She notes that absolutely everything is online now, and it's become the default place where people look, and this has only been reinforced by the recent Covid-19 lockdowns. She notes that she now often works via Zoom, something that was unheard of in Uganda

just 9 months ago. She suggests that UN CC:Learn could engage local young people from different regions and countries to develop good short animations, gifs and memes that speak to their culture and context, aiming for them to go viral amongst the youth. She also notes the importance of developing content for radio as most people still don't have television or internet in her country. She emphasises that change will only happen if you get young people informed because they will demand change and bring it anyway as they get older.



Rocio Collantes

Coordinator – Panama Chapter of the International Network of SDG Promoters - Panama.

Strengthening professional capacity

Rocio¹ is from Panama City, Panama, and has a background in Law and International Relations. Four years ago, she received a scholarship for an international postgraduate programme in Climate Change: International Climate Negotiations in Fondo Verde. Her final project for her postgraduate programme was about climate change in the agricultural sector in Panama « El cambio climático en Panamá en los sectores agropecuarios », obtaining the first place in her year group (2016). Rocio says that her childhood was within the UN system with her father being a project manager for World Food Programme (WFP) from 1977 to 2003.

Rocio defines herself as a human rights, climate change and sustainable development activist. She is the coordinator of the Panama chapter of the International Network of SDGs promoters, which was founded in Argentina. She is an active member of the UNESCO Earth Charter Young Leaders since 2017. She is also participating for the second time in the 2030 Agenda Citizens Ambassadors Programme as part of her work in the Earth Charter Young Leaders. She is currently working as an independent consultant for international organizations in climate change, SDGs, Human Rights and the UN system. Part of her duties is to assist diplomats in the elaboration of reports related to climate change and environment from a global perspective. She is planning to undertake a master's degree in environmental law or environmental management.



Rocio completed the UN CC:Learn Fundamentals on REDD+ course and is currently taking the REDD+ advanced course. She has also taken the gender equality and environment, sustainable diet, children

¹ (Photo: <https://qcostarica.com/deforestation-worsens-drought-in-panama/>)

and climate change, climate change international legal regime, green economy, and introduction to climate change courses and is taking another climate change course with the UNDP.

Rocio's interest in climate change started with her family. Her mother and brothers are agricultural engineers. When she was reviewing UN climate change reports during her postgraduate degree, she realised that the latest information available for Panama dated 1998 and 2010. She determined to learn more about the topic and try to make a contribution.

Course relevance and effectiveness. Rocio advises that the advanced REDD+ is not easy technically but it is very helpful for her work. The REDD+ basic helped lay the foundations to equip her to take the new advanced level course. She says that the courses are well designed, and the advanced course builds well on the introductory one. She likes the course structure and methodology and appreciates the videos and that the courses are self-paced. She particularly likes being given three times to complete exercises, to check whether participants understand the content. She says this has helped her become aware of her mistakes and the knowledge that she needs to reinforce. She appreciates that the course helps her improve her English skills and likes the videos with details on global warming and greenhouse gases. However, like most of the other interviewees, she would like a more interactive experience.

Impact on professional life. Rocio advises that the course has increased her professional and academic capacity on climate change. She now talks about climate change across a number of networks and with her International Relations colleagues. She has recommended the UN CC:Learn courses and recommended sharing ideas based on her new knowledge.

Impact on personal lifestyle. Although Rocio already made a number of environmentally sustainable lifestyle decisions, after completing the first UN CC:Learn course Rocio chose to change two further personal habits. She now buys LED lightbulbs and tries to recycle more. Her parents are also active in environmental issues and have influenced her. Her mother is dedicated to the protection of macaws, parrots and toucans in Panama. In 2017, Rocio designed a project with recycled materials, which was one of the highlights within the Diploma in Innovation Policy Affairs South, called "La Huerta de Rosy" that is based on SDGs 13, 14, and 15.

Attribution. Rocio attributes her strengthened climate change knowledge to the UN CC:Learn courses, stating that the materials give more detail and a broader perspective on activities at the global and international level than she could gain from her university learning. Rocio says that course materials have helped her with her work as a diplomat consultant, directly attributing learning from one course to her obtaining her current consultancy. She will soon publish an article about the Earth Charter and the SDGs with the CIDEDEC (Centro de Investigaciones Democráticas y Políticas – Democratic and Political Research Center) of the University of Panama. Rocio gives a score of 9 out of 10 to her improvement at work being attributable to the UN CC:Learn course.

Suggestions for strengthening UN CC:Learn courses. Rocio suggests UN CC:Learn develops a course on youth and climate change, similar to the one on children and climate change. She also says content should be developed with a more accessible methodology for people who have lower educational levels.

Inclusivity. Rocio comments that the courses are in some way inclusive because they are free of charge. She says that UN CC:Learn provides an excellent opportunity for International Relations and Law students and other professionals to develop their professional learning. She would like UN CC:Learn to create networking spaces with other people taking the course to share ideas and expand professional networks.



Mame Henriette Sambour

WASH Engineer and PhD student – Climate Change and Water Resources - Senegal.

UN CC:Learn's courses help career progression

Mame² is a water and sanitation engineer, living in Dakar, Senegal, where she is currently studying a PhD in climate change and water resources. Mame sought out the Impact of Climate Change on Water Resources in the Senegal River Basin course to help her write her application for her PhD.

Mame advises that the course helped her to understand what climate change is, and to also learn some very helpful facts about the Senegal river basin that were pertinent to her PhD application. She also learned about societal activities related to energy and agriculture. Mame completed the course over a period of around two months. She found the course to be not very interactive, although there were some videos and links to find additional information. Mame did appreciate how flexible the course is, particularly the ability to take breaks followed by concentrated study. Mame attributes her successful PhD application to having completed the UN CC:Learn course, but notes that she could also have found the information elsewhere.

Changed thinking. Mame says that with very limited resources on climate change available within Senegal, the course has changed her thinking. She had heard about climate change, but did not have any knowledge about how people working on the Senegal river basin take climate change into consideration in their planning. Because of her learning from the course, Mame talks a lot about climate change in Senegal with other people on in her department. She notes that most people still don't link flooding or changing temperature extremes with climate change.

Lifestyle change: Mame says her learning about climate change has led to her changing the way she shops, travels and uses energy, although notes that alternative energy and transport options are very limited and air quality is poor, which can encourage her and others to take a private vehicle. Mame explains climate change, sea level rise or weather extremes to her family and notes that they don't relate these phenomena to climate change. The difference in knowledge between generations was clear when she spoke with a close relative who said that God was causing these changes. Mame took time to carefully explain how humans have caused climate change, and advises that the conversation was like a conversation between two different worlds.

Relevance / inclusion: Mame notes that the course is relevant to women. She says that climate impacts are often greater for women, who suffer a lot when there are water shortages, or travel further to find firewood. Mame suggests that the course should have said more about water, but notes that other UN CC:Learn courses address that. She observes that UN CC:Learn courses that she has taken do not address differences relating to age, ethnicity or religion, but this specific course was very relevant for her country because it was specifically developed for Senegal. Mame has noted other UN CC:Learn courses that she would like to complete, including the fundamentals on REDD+. She says

² (Photo – Reuters stock image of Dakar Senegal flash flooding Sept 6th, 2020)

she wants to learn so she can help her country access funding for developing countries for mitigation and adaptation. She wants to learn about this to help her get a good job after she completes her PhD. Mame is hoping to get a job as an expert on adaptation and mitigation in climate change in the Environment Ministry.

Attribution: Mame has found some of the UN CC:Learn content on the impacts of climate change on the Senegal River Basin directly useful for her PhD. She advises that she finds it easy to finish UN CC:Learn courses, whereas she starts but doesn't finish courses from other providers. Mame attributes 30 per cent of her learning to this course, and says the course is very good for someone who wants to be an expert, who wants to master climate change.

What can be strengthened? Mame notes that there have been UN CC:Learn courses that she has wanted to take but has found them to be closed. She requests that UN CC:Learn remove these courses as soon as they are closed. She particularly appreciates that she did not have to pay as that could have prevented her from being able to complete the course. She requests that translation to other languages is faster, noting that some of her friends and colleagues have started courses in English but given up and then not come back to them when they are translated, because they're already perceiving them as too difficult.

Conclusion

Each of the five people interviewed for this impact story have shared their experiences of how climate change impacts are being felt across all parts of the world. Their feedback demonstrates that UN CC:Learn's courses contain learning content that is relevant to their lives and the countries that they live in. UN CC:Learn's courses are being accessed by people from vulnerable countries, including LDCs and SIDS, this includes hurricane afflicted countries in Central America. However, it is noted that the people interviewed in this short study are all well educated and relatively less vulnerable than the majority of people in their countries.

Consideration of this group of interviewees suggests that UNCC:Learn is successfully reaching women and younger people in their early twenties. Conversely, despite some effort, it was not possible to identify and interview anyone with a disability or other notable diversity. There is therefore clearly more that could be done to reach the most vulnerable people within more climate-vulnerable countries. It should also be noted that all of the people interviewed were already actively engaged in learning about and taking action on climate change, so determining how much change can be attributed UN CC:Learn should be done with caution. However, each of the participants went looking for learning and they consistently say that UN CC:Learn's resources were the most relevant and helpful to them.

Professional changes are evident in each of the interviewees' lives. This includes knowledge gained from UN CC:Learn's courses helping the interviewees gain admission to University learning, or to career progression. Whilst each of them demonstrated at least some existing awareness of climate change prior to taking UN CC:Learn courses, they all spoke of the courses strengthening their knowledge and ability to take action or motivate others to take action. They also attributed their strengthened passion and commitment to address climate change in some significant ways through their academic or professional work, to their increased knowledge from UN CC:Learn courses.

Perhaps more importantly, all of the interviewees reported increased confidence and said that their learning had enabled them to take action in their work or communities. This action has ranged from Kari starting to include information on climate change in his presentations on meteorology to university students and inspiring young people to make furniture out of car tyres, to Neerav training women to make cloth bags and painting murals for the attention of millions of annual train commuters. It has included Viola tirelessly working to restore lost wetlands and persuade local companies understand and reduce their polluting practices, whilst Rocio has strengthened her commitment to influencing the UN and international community towards climate action and Mame has committed herself to PhD study

towards a career engaged in strengthening the Senegal river basin against the impacts of climate change.

Kari's example of young entrepreneurs using old tyres to make furniture, is an excellent example of recycling and reducing air pollution from burning rubber. Kari attributes much of this to his learning from UN CC:Learn's courses. He used this learning about climate change within multiple trainings for young people from the National Platform of Young Entrepreneurs. He has encouraged young people from the platform to think creatively and develop their ideas into sustainable green economy businesses. This has the twofold benefit of reducing unemployment amongst young people and reducing environmental harm.

All of the interviewees talked about using their learning to influence the learning and actions of colleagues and others they work with. Some of them have spoken at or even organised learning, training, or advocacy events, and three of them said that they have encouraged colleagues to take UN CC:Learn courses.

Personal changes are also evident in each of the interviewees' lives, from Kari addressing climate change and green economy in his voluntary work with young people and in his waste recycling; Neerav, Viola, Rocio and Mame all noting that they have changed their travel, consumption, energy use and waste habits. Four interviewees mentioned using their knowledge to influence their family and community.

Recommendations

The question could be asked *"can UN CC:Learn ever hope to reach the most vulnerable and diverse members of society if they don't have access to the internet or the same educational opportunities that are available to people with more wealth or opportunity?"*. It may indeed seem unrealistic to ever expect an on-line platform to reach the most vulnerable people. However, interviewees asserted that UN CC:Learn could play a strong role in reaching them.

Their recommendations for UN CC:Learn's stronger engagement with, contribution from and support of groups who are most vulnerable to climate change align very closely with those of survey participants. The suggestions of both groups are therefore explored together, below.

Reach

The main suggestion, developed from responses by 18 interviewees and survey respondents, was to make greater efforts to reach a more diverse audience, especially young people, through more effective use of social media. Suggestions included facilitating gatherings of diverse young people to develop gifs and memes, with the aim of creating a simple message that could go viral and affect the behaviour of young people across whole countries, regions or even globally.

The second most frequent suggestion was also about reaching more people - through alternative channels including radio, television, posters and downloadable / offline content. Related to this, several comments suggested reaching the most vulnerable and remote people through these channels. Additional suggestions were made on reaching young people, including integrating existing content into school syllabuses, aimed at 14- to 16-year-olds.

Perhaps unsurprisingly, 13 requests were for the content to be made available in more languages, including local and indigenous languages, with the suggestion made that people are more likely to engage in educational content if it is in their mother-tongue. Perhaps building on this, suggestions were made to tailor courses to gender, ethnicity and geographical area. Similar suggestions were made regarding developing content aimed at supporting indigenous communities and minorities in obtaining climate justice.

Engagement

Most interviewees suggested course content should be more interactive in some way. Many of these included suggesting on-line cohorts be created, who could discuss content and develop their thinking and potentially collaborate in taking actions. Some noted that this could be done in a way that encourages inclusion of people living with any kind of difference. This could perhaps be achieved by offering this opportunity upon completing a course and linking people who respond positively. Related to this, some suggested use of newer technologies to help people meet using online video communications technology. Related suggestions included holding events some weeks after a course is completed to further engage participants.

Perhaps the most significant suggestion was for the development of a suite of regional and country specific content such as case studies, climate impacts, mitigations, adaptations and other practical examples. Suggestions included embedding this into courses or providing it in a format whereby relevant content was shown according to your region, gender, or other characteristics such as age, ethnicity or even disability. It was emphasised that context specific content is required so that people can find examples of climate impacts, mitigations and adaptations that are directly relevant to their context, but perhaps more importantly in terms of inclusion and reaching the most vulnerable, users would like to see people who look and sound like them. Including people of different ages, abilities, sexuality, religion, gender and ethnicity is likely to lead to greater uptake of UN CC:Learn's courses. Examples were given of people not appreciating content that related to Europe and North America.

Some respondents requested the use of more videos and less written text. Some also requested the use of simpler language – avoiding technical terms. There were also requests for developing resources for people who are illiterate. Three people requested facilities for people with visual or hearing disabilities, although it is noted UN CC:Learn has recently upgraded its platform to integrate these functionalities. A further suggestion was to work with partners, including governments, on a joint inclusion strategy. This could include partnering with universities and schools.

Existing audience

Two interviewees recommended promoting new UN CC:Learn content to existing users. They pointed out that other climate change learning providers do this, and they find it unusual the UN CC:Learn does not do more to re-engage them. One suggested that this may be because UN CC:Learn is not commercially driven.

Related to this was the suggestion from five people, to have more beginner and advanced courses so people could make progress. Some also suggested that this could build up to be part of an overall recognised qualification such as a diploma or even degree. A further development of this suggestion was to offer face to face courses offered to people who have completed a certain number of courses, with the offer that the further they engage, the more support they get. Beyond that, one suggestion was that grants to seed fund projects could be offered – perhaps these could be offered to people who have passed a set level of engagement or even contribution to UN CC:Learn.