

Taking action on climate change in the Seychelles: a Preparedness for Climate Change case study

Seychelles Red Cross took on climate change and found that there are networks to be tapped into and that much can be done to prepare....

Background

Seychelles is an archipelago nation of over 115 granitic and coral islands off the coast of mainland Africa and northeast of Madagascar in the Indian Ocean. It has an estimated population of around 84,600. The economy relies heavily on tourism and tuna fishing. Official languages are English, French and Seychellois Creole. Culturally, it is a matriarchal society, with mothers looking after the household, controlling expenditures and contributions by the fathers. Human inhabitation caused a loss in biodiversity in the fragile island ecosystem, however it now has very strict environmental legislation, ensuring sustainable tourism, and 50% of its land area is under natural conservation and holds rare plant and animal species.

Like many other small islands, Seychelles is economically, culturally and environmentally vulnerable to the impacts of climate change and associated extreme events. Warmer temperatures are set to negatively impact the livelihood of islanders, as their economies are linked to climate sensitive resources, such as agriculture, fisheries and tourism. These effects are already felt. One local fisherman commented "everything has changed.....nothing is the same as before, one has to fish farther than usual." It is also felt that traditional knowledge can no longer be relied upon and is confusing people. The "rainy season would normally start in November/December and it's

starting in October." Local people also commented that there has been extreme hot and dry weather, coral bleaching and unusual heavy rainfall.

Coral bleaching, such as the severe occurrence experienced in 1998 from abnormally high water temperatures, negatively impacts fishing and tourism.

Seychelles has also experienced an increase in natural climate related disasters over recent years such as extreme rainfall, tropical depressions and cyclones, coastal flooding, landslides, forest fires and drought.

Development on the islands is concentrated on narrow coastal zones, exposing people and infrastructure to sea level rise, coastal flooding, storm and tidal surges. This can cause structural damage, erosion and salt-water intrusion, which has implications for fresh water supplies, food security and ways of life. According to the world's authority on climate change, the



Climate change workshop at Anse Royal Secondary School. Over 60 teachers attended the half-day workshop. There were presentations on weather and climate with assistance from the Seychelles Meteorological office, impacts of climate change in Seychelles and methods to address it. In the above photo the RCSS Disaster Management Coordinator briefs participants for group work.

Intergovernmental Panel on Climate Change (IPCC), sea levels have been rising at a rate of 1.8 mm per year from 1961 to 1993 and increased to 3.1 mm/yr from 1994 to 2003. The IPCC report also found global temperatures have increased by an average 0.74°C over the last 100 years (1906-2005). We are locked into a certain amount of warming and subsequent impacts, regardless of how much we reduce our emissions, because greenhouse gases stay in the atmosphere for decades. For this reason adaptation to reduce impacts of the changes will be necessary.

The project

With the aim of strengthening risk reduction measures and preparing for the challenges of climate change, the Red Cross/Red Crescent (RC/RC) Climate Centre launched the Preparedness for Climate Change Programme (PfCC) with financial support from the Dutch Government. The aim of the programme was for Red Cross and Red Crescent (RC/RC) National Societies in countries particularly vulnerable to climate change, to gain a better understanding of climate change and its impacts and to identify country-specific adaptation measures inline with risks.

The Seychelles Red Cross Society (SRCS) was one of the thirty-nine countries to participate in the programme between 2006 and 2009, which gave participants the option of undertaking any number of the following four steps:



Presentation on climate change by Seychelles Red Cross at the launch of the Climate Change Background Document. The document investigates the implications climate change has for the work of Red Cross. An educational brochure summarises this document.

1. Organizing a workshop on the risks of climate change for RC/RC staff
2. Assessing the risks of climate change in the country and the priorities and programmes of the national society through a background document
3. Capacity building for climate resilient RC/RC programmes through exchanging experiences with other national societies and partners in a regional workshop on climate change and disaster risk reduction
4. Developing climate change resilient plans and RC/RC programmes and mobilizing resources

The SRCS decided to undertake the programme because climate change was highlighted in the International Federation of Red Cross and Red Crescent's 2010 strategic plan, especially climate change in relation to natural disasters and vulnerability. Moreover the "SRCS is also well respected within the community, and seen as an important contributor towards creating climate change awareness in the community."

SRCS completed all stages of the programme and the key areas they identified for action were

- 1) Coastal erosion from sea level rise and coastal flooding;
- 2) Landslides from extreme rainfall;
- 3) Increased incidence of water-borne diseases.

Awareness raising, education, communication, planning and institutional focus were identified as first steps for the National Society to undertake, but more importantly they also decided to develop a coherent framework and engage in appropriate partnerships with national and international bodies to tackle these issues. Ways of addressing each of these areas were then brainstormed, prioritised, with potential actors identified and an estimate of costs established.

The impact

During the project, the SRCS engaged and created liaisons with the following organisations that have an important stake in climate change in the Seychelles:

- Ministry of Environment, Natural Resources and Transport
- National Climate Change Committee
- Department of Risk and Disaster Management
- Ministry of Health and Social Affairs
- Ministry of Local Government
- Ministry of Education
- Sea Level Rise Foundation
- Sustainability 4 Seychelles
- Wildlife Clubs
- National Meteorological Services
- Town and Country Planning Authority



The Seychelles Red Cross also has a Red Cross Club in host Secondary Schools. Climate change is now an integrated part of RCSS programmes and its dissemination is ongoing. Two volunteers have already represented the National Society at international level and they are respectively focal points for climate change; one for health and the other for disaster/dissemination.

In addition to creating stronger links with local partners, who are now more willing to assist in awareness raising, the programme also increased public awareness through a SRCS workshop that was attended by over 60 school teachers. This has widely increased the awareness on the impacts of climate change and the importance of reducing risks associated with those impacts.

In addition, the SRCS has also disseminated a lot of information in their newsletters and on their website and have produced an educational booklet on climate change implications.

Jeanine Grandcourt, Secretary General of the Seychelles Red Cross explains, "by producing and distributing the climate change background documents and booklets to our partners and members

of the community, the Red Cross Society of Seychelles has managed to raise the awareness of all stakeholders about how to prepare themselves against the risks of climate change, especially school children, for whom the booklet had been designed. This is indeed a big achievement for our small national society!"

Lessons learned

- Dialogue with key partners such as government departments, NGOs and community groups is very important, as is further reinforcing dialogue with schools and other educational institutions. A central focus of this dialogue should be aimed at developing effective mechanisms for contribution to national and district-level policy, planning and implementation.
- Building a national network of climate change experts and responders to climate-related disasters should form part of a strategy to address climate change. This group of people will be able to help guide the planning and work of the RC/RC. Networking is also essential in presenting consistent messages to the community.
- Maintaining momentum and commitment among volunteers is challenging for the SRCS. By undertaking such a project during periods of relative 'calm' serves keeps the volunteers motivated and involved in the work of the SRCS.
- Achieving community resilience is the biggest challenge of all and requires a concerted and integrated approach. Capacity building and awareness is not sufficient, as communities will need to be empowered to take decisions based upon ever changing circumstances. In view of the high level of uncertainty in climate change at the local level, it is therefore vital that resilience building also incorporates empowerment and access to further advice and resources.
- Through its global network SRCS should strengthen its advocacy role and increase awareness on risk reduction, resilience building and adaptation to climate change.
- Sensitising volunteers and the community at risk is important, and activities should be organised to create awareness in the community.
- Communicating climate change is made easier though the use of media, especially television and radio as well as power point presentations and using a lot of visual aids.

Recommendations from SRCS for other RCRC National Societies trying to address climate change or just starting out:

- Start TODAY before it's TOO LATE
- Integrate your programme with the National one
- Make use of personnel in the government and involve them in your programme
- Involve staff, volunteers and members of your organisation - it concerns them and they are the best persons to assist in the dissemination of information

Next steps

The following further actions have been identified:

1. Address risk reduction and improve surveillance of climate impacts, in particular health.
2. Build capacity for resilience building and response to climate change within the SRCS and at community level.
3. Establish community pilot projects to address coastal erosion and flooding with particular attention to awareness and better communication.

4. Develop innovative financing mechanisms to involve community participation in the reduction of risks associated with climate change
5. Develop a set of best practice guidelines for use by the general public, architects and developers to address risk of high winds, flooding and coastal erosion

The Seychelles Red Cross aims to:

- Play an important role in national disaster prevention and building climate resilience in Seychelles. They are working with various national organizations to address climate risks and engage in dialogue with the government, NGOs, community groups and schools.
- Build a national network of experts and responders to climate change-related disasters and seek access to international centres of expertise to gain more knowledge of key adaptation measures such as coastal stabilization techniques, drought-tolerant plants and water conservation.
- Focus on capacity building with more trained volunteers and a dedicated 'disaster management unit'.
- Health has been identified as a priority area, and they want to strengthen community awareness in solid waste disposal, which is one of the primary causes of mosquito-borne epidemics in Seychelles.
- Food security is another priority and they want to develop a long-term nutritional and food security strategy.
- Risk and vulnerability mapping, early warning and evacuation, flooding awareness and training, stockpiling of relief materials and having an influence on planning are also seen as important.
- Integrate climate change into their strategies and plans. Although climate change and disaster preparedness/response require different areas of expertise and focus, more frequent and severe climate related extreme events are an important aspect to address within the multitude of climate change issues. It has also been identified that there is a need for SRCS to update its strategic plan and policies to incorporate climate change issues and that areas of concern and action should be fed into the national climate change strategy.
- Continue to raise awareness of climate change impacts, targeting more schools and high risk coastal communities, as well as continuing to distribute booklets to people of different backgrounds in the communities to aid in the dissemination of information. They're also aiming to strengthen their local network in order to be able to undertake more advocacy.
- Conduct Disaster Preparedness trainings for their volunteers and communities. They also aim to train "A First Aider in every home".

Photos: Seychelles Red Cross

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