



Climate Resilient Islands Programme

Case Study: Community Seasonal Calendars and Changes, Vanuatu

Communities participating in the Climate Resilient Islands programme were asked to map out or illustrate a seasonal calendar, listing natural events throughout the year and changes relating to gardening, agriculture and natural resources. Communities also listed observed changes in these seasons and what they believe has caused these changes. This case study explores commonalities across the communities in Vanuatu. There is a general trend across communities of hotter temperatures, longer dry periods and more intense weather events such as storms.

Knowledge of seasons

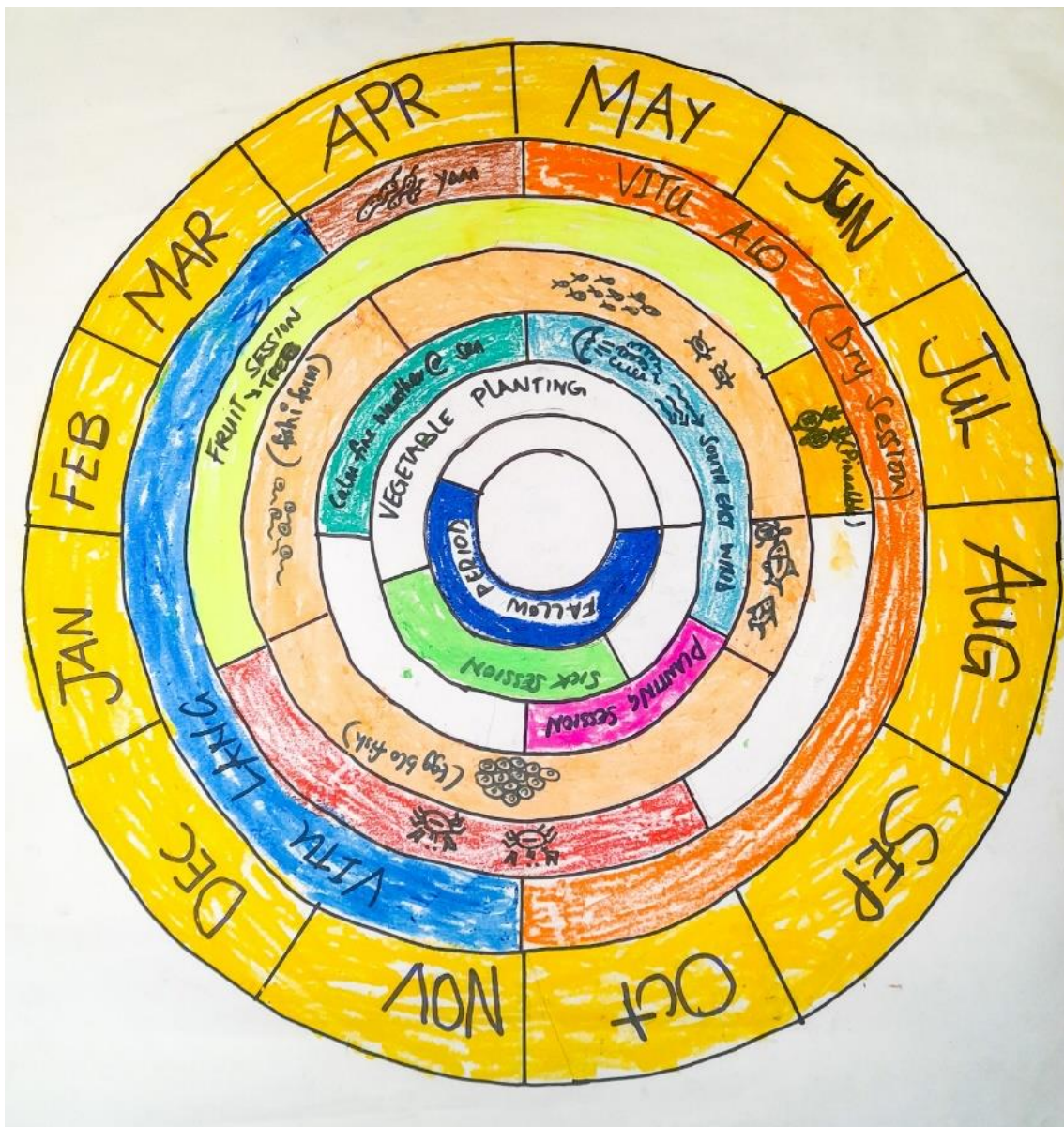
Vanuatu communities have a broad and deep knowledge of the seasons, which includes flowering and fruiting times of local plants, appearance of or breeding season of various local wildlife and livestock, best times for planting crops, changes in weather patterns and signs of impending bad weather. This is one area where local Indigenous knowledge remains strong, although communities have expressed concern that some of this knowledge was stronger in the past.

Changes to seasonal calendars

Communities have noted generally warmer weather and changes to weather patterns, making them less reliable.

Rainfall is higher but dry periods are becoming longer. Four communities indicated that floods from heavy rains and cyclones are more frequent, causing erosion. Three communities listed droughts as increasing threats, with one commenting that long dry periods are causing wells to dry out. According to one community, local, traditional housing is no longer adequate to cope with increased velocity of winds during cyclones.

One community noted that the dry season – typically beginning around June – now begins later, with wet season rains continuing longer.



Two communities noted that sea temperatures have increased. This has resulted in fish poisoning during January, which has made community members eating the fish sick. Increased sea temperatures are blamed for a decline in fish stocks. At the same time, jellyfish numbers have increased, confirming scientific predictions and observations of this outcome of warming oceans.

Sea level rise has been observed in at least three communities. This has resulted in coastal erosion and the contamination with sea water of freshwater wells. Saltwater intrusion into freshwater wells is a threat to water security, with rainwater capture typically on only a small scale.

One community noted, similarly to other Pacific CRI communities, that the season for growing vegetables has shifted and that yields of vegetables are down. One community observed an increase in the number of insect pests attacking crops.

One community listed decreased food diversity as a problem. Communities generally uphold traditional practices well, but some local knowledge is being lost. One community described the process of baking and fermenting foods for preservation in case of cyclone,

and indicated that this practice is no longer continued. However, one community indicated that they do continue traditional means of storing foods for use after cyclones.

Overall, Vanuatu CRI communities' observations about changing seasons are in line with other Pacific communities, in noting temperature increases, longer dry periods alternating with heavier rainfalls and storms, and sea level rise affecting availability of resources.

Resilience planning

Documenting seasonal calendars and understanding changes informs the next phase of the CRI programme – establishing community resilience plans, which involves noting assets most at risk, especially from the impacts of climate change, community capacity for making changes and strategies for increasing resilience.



Climate Resilient Islands aims to strengthen community resilience and adaptive capacity to the impacts of climate change through nature-based solutions working with rural communities in Vanuatu, Fiji, PNG, Tonga, and Tuvalu. The project is a New Zealand Ministry of Foreign Affairs and Trade initiative implemented by Live & Learn Environmental Education.

