Chapter 74

Learning and Climate Change Adaptation:
Moving towards Resilience in an Era of Escalating Instability

Lynn A. Wilson
SeaTrust Institute, USA

ABSTRACT

Youth play an ever-increasing role as counter-cyclical agents that can be mobilized for developing and implementing adaptation responses to build resilience in communities under stress from climate change. Organizations with a coupled research and educational focus are well situated to partner with formal and informal educational institutions to create valuable opportunities for simultaneous learning and practice for youth and their communities in building resilience to climate change. In this chapter, the author argues that climate-knowledgeable and empowered youth are positioned to show new, resilient behavior as critical environmental and social thresholds are approached. Using human health as a gauge for sustainable action, the study by NGO SeaTrust Institute that is analyzed in this chapter shows potentially effective learning approaches, programs and systems for engaging youth as transformational agents to catalyze community leadership for climate change adaptation in an age of escalating environmental and social instability.

INTRODUCTION

Walk with the dreamers, the believers, the courageous, the cheerful, the planners, the doers, the successful people with their heads in the clouds and their feet on the ground. Let their spirit ignite a fire within you to leave this world better than when you found it… — Wilferd Peterson

Informed action by new leaders of the future, the youth of today, is critical for closing the loop with policy and research to create resilient communities. Preparing these future leaders through formal and informal education, research and climate change programs that interweave local knowledge with the

most current global science positions them to becomes the catalysts that propel community leaders to make plans for and react to a wider range of possible futures.

While scientists express high confidence that climate change is and will continue to escalate at an increasing rate (IPCC 2014), the myriad ways in which this will play out in specific regions and communities remain uncertain. People tend to discount events that are seen as unusual, uncertain, or perceived to be only relevant in the distant future. Well documented cases in economics and debates about the gravity or even existence of climate change (Sherwood 2007; Heal 2009) attest to the tendency to set aside difficult, complex issues; people face difficulty in responding to incremental change processes (Glantz 1999) until crisis is imminent or in progress.

Nimble organizations that can adapt quickly to both local and global situations and that combine an educational and research focus are in a position to engage community youth, leaders and professionals in working together to build resilience through country consultation, community-based projects and capacity building, conducting youth education, facilitating meaningful youth-led projects, and providing technical support for climate change adaptation plans and tangible actions within the local cultural context. Partnerships between these research and education NGOs and community based organizations with support from university and professional experts allows for the combination of optimum flexibility (NGO), community knowledge and trust (CBO), and access to a wide variety of expert knowledge (professional experts) needed to address the complex issues encountered in climate change adaptation and resilience development.

This chapter frames findings from SeaTrust Institutes' pilot project of the Halcyon Adaptation Scenario(SM) within the general systems model of dynamic and reconfigurable combinations of the right kind of disconnected diverse functioning units that can self-organize, often in ways otherwise never seen except in times of crisis. It illustrates that as communities develop capacity, it is vital to prepare youth, who have the attributes of elasticity, future orientation and motivation to become agents that can flip the system at the edge of climate change crisis back to a state of equilibrium, to collaborate with leaders on community solutions.

SeaTrust Institute researchers used the Halcyon Adaptation Scenario(SM) in a 2013 pilot project in the Chiawa region of the Lower Zambezi River in Zambia. The Halcyon Adaptation Scenario(SM) provides a roadmap for collaborative climate change adaptation development at the community level as well as the conceptual framework for action-oriented, science driven youth education that prepares them to active agents in creating and implementing community climate change resilience. Key features of the approach include:

1. Integration of local data into the most relevant and recent globally vetted science
2. Trust development and safety of participants
3. Using human health as a measurable gauge of successful adaptation strategies

Analysis of field research conducted by SeaTrust Institute in 2013 supports scholarly observations that, as climate change knowledge and leadership capabilities increase, those who are subject to high stakes choices can manifest strategies of reorganization, trust and diversity as new behaviors within the framework of intentionality and complementarity. Author objectives in this chapter are to illustrate the optimum roles of youth in the process and what preparations and conditions are needed to instill and support youth in being able to flip a process at the point of climate change and associated social crises.

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