Climate Change Education approaches in South Africa

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TWO GUIDING NOTIONS

- Guide: National Climate Change Response White Paper (RSA, 2011)
- **Mitigation-** reduction in factors causing climate variability and climate change / tackling the causes and minimising the possible impacts of climate change
- **Adaptation-** building resilience to climate variability and climate change-related extreme weather events
- / "any adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects which moderates harm or exploits beneficial opportunities".
- Resilience- ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. Improving climate resilience involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks.
- **FIVE main approaches are discernible: Climate Science; Adaptation; Mitigation; Future development (Futures oriented); Education**

CLIMATE SCIENCE APPROACHES

CCE within a traditional Science framework: learning of concepts on climate science.

CCE within a new Science framework: learning via inter- and transdisciplinary approaches. For example,

CCE within a social-ecological risk and vulnerability and resilience framework:socio-ecological systems are characterised by complexity and uncertainty, educational responses stress risk identification, risk perception and participation in issues around the risk.

ADAPTATION APPROACHES

CCE within an adaptation framework: promoting local actions that enable people to adjust to and to tolerate the effects of climate change the new conditions by changing the way that they do certain things.

MITIGATION APPROACHES

CCE within a mitigation framework: influenced by policy(ies), practices and processes that promote reduction of greenhouse causes in the atmosphere by reducing their production or by increasing their sink.

FUTURE DEVELOPMENT APPROACHES

CCE within a futures-oriented competence and capabilities framework : multidisciplinary and transdisciplinary approach to inculcate a greater understanding and capacity of how to think about the future.

CCE within a climate compatible development framework: in the context of the need for enhanced and sustained economic growth together with social development while acknowledging the complex and changing patterns of innovation, trade, production, population distribution and threats as well as uncertainties.

EDUCATION-CENTRED APPROACHES

CCE within an ESD and ESD learning processes framework : methods and content that encourage learners to question unsustainable development patterns, find and suggest innovative solutions to prevailing and emerging issues-sustainable lifestyles and sustainable futures.

CCE within a social learning framework: in the context of participating in practices of social communities and through constructing identities in relation to these communities.

CCE within a learner-centred education framework: using a curriculum that is connected to the lives of learners in their communities.

CCE within an action learning education framework : development of robust approaches to researching CC issues and plans that support individual and collective action

EDUCATION-CENTRED APPROACHES

CCE within an Outcomes-based Education (OBE) framework: OBE promotes curricula practices that are based on constructivist methods with minimum

CCE within a cultural heritage and knowledge-based framework: developed from cultural and heritage knowledge and experiences.

CCE within an entrepreneurship/ poverty alleviation and resilience driven framework: CC is taught from the perspective of generating income and alleviating poverty.

CCE within a health and wellbeing framework: reference to health concerns and systems associated with CC such as spread of disease vectors and pathogens

CCE within a content-referenced curriculum framework : a content-referenced curriculum foregrounds content knowledge, knowledge of facts and assessment of knowledge of facts.