

# Panarchy as adaptation paradigm in the Anthropocene

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## 1.Introduction;

We, humans have our roots in pre-Anthropocene eras where we gathered skills for survival and establishing our culture. The cumulated tacit knowledge, the skills, ideas and experiences that can only be shared by personal contact and mutual trust, is evolved and cumulated during this pre-Anthropocene era. This tacit knowledge is geared to our existence and to local circumstances, it is the indigenous knowledge necessary for local adaptation and for (cultural) perseverance. The Anthropocene era however, is characterized by rapid changes with respect to environment, climate, food sovereignty, culture and more. Our tacit knowledge needs to evolve and adapt at the same pace as changes happen in our environment and culture. Changes in the Anthropocene era are fast and disruptive thereby challenging concomitant evolution of our tacit knowledge.

## 2.Objectives;

Panarchy is the paradigm of transition and change. Panarchy is interaction of countless interconnected and nested complex adaptive systems. Panarchy is the paradigm where small actions can have major effects for better or worse. It is to expect the unexpected. Panarchy holds the promise of positively changing the Anthropocene. By being prepared we can anticipate upon unexpected emerging phenomena which can be used as leverage for creating change.

## 3.Method;

We have experimented this approach within the context of SDG-labs. SDG-labs are living labs for developing new practices fostering the United Nations Sustainable Development Goals (SDG-labs)<sup>1</sup>. SDG-labs are the environment where we can experiment and create new resilient concepts for adaptation to the Anthropocene. SDG-Labs have two aspects, the first is creation of concepts for change within the lab-setting, its content; the second is the process of organisation of the lab within its environmental and societal context. The Lab itself can be regarded as a complex adaptive system while the organisation of the SDG-Lab is within panarchy, acting on multiple levels and on different scales. Both faces, content and context, of the SDG lab have their own emerging properties.

## 4.Findings;

Contextual settings of the SDG-lab determine its rate of success. Many good ideas perish in the "valley of death", before they can realise their full potential. The contextual setting determines acceptance and hence increases probability of idea realisation. The action of organising SDG-labs generates curiosity, enthusiasm, resistance and other emotions with people and organisations. This lead to disturbances in panarchy, which is rendered in emerging opportunities that can be seized by imaginative people.

## 5.Significance of the work for policy and practice.

The constant factor in human panarchy systems is knowledge, the skills, ideas and experiences necessary for coping different phases of the adaptive cycle. Codified knowledge, the theoretical knowledge has shown to be only partial effective for predicting adaptive cycles or panarchy change events. Tacit knowledge has that capacity neither but create skills for recognizing and seizing opportunities and to be prepared upon unexpected events, for better or worse. Tacit knowledge is shared by learning by doing, by gaming, by following examples, by learning from each other in contextual settings of mutual trust.