



Regenerative Businesss Strategy

The Need for a Regenerative Businesses

Humankind is dependent upon Earth's ecological life support system, whose well-being, in turn, depends upon the practices of human society. Escalating ecological degeneration and mounting social challenges highlight the need to rethink the current way of doing business. Human and business activities rely on functioning social-ecological systems but tend to take these for granted. Ironically, just as our collective land-use practices are degrading ecological conditions across the globe, humanity has become dependent on an ever-increasing share of the biosphere's resources.

Regeneration seeks to be life-enhancing in that it produces the field within which the improvement of living systems can take place. Accordingly, regenerative sustainability pursues the objective to cultivate relationships, which provide both life-support and life-enhancing conditions for the global human community within a healthy eco-system. What characterizes regenerative sustainability is that it is procedural, systemic, net positive, relational, and collaborative.

Imagine an economy based on this principle of regeneration, an economy that uses our highly productive capabilities to not just reduce but actually undo environmental harm, all while continuing to provide the products and services on which we've come to depend.

What is a Regenerative Businesses

A regenerative business requires the reconciliation of demands for biodiversity conservation and increased agricultural production. This approach strives to create synergy between the resource demands we place upon our managed landscapes and the health of natural environments. A regenerative business is not just about reducing harm, but seeks to improve the health of the land, waterways, the animals that live on it, and people that benefit from it.

A key notion in development of a regenerative business is the co-evolutionary, partnered relationship between socio-cultural and ecological systems, which requires an explicit engagement with the implications and consequences of future design decisions. Since all complex systems have uncertain futures, a regenerative approach would require the development of strategies to deal with uncertainty. This vision aims to restore and support environmental, social and economic flows from a systems perspective.

Regenerative businesses seek to create production systems that contain high functioning component parts, that are well-selected to perform well within the environment they are placed and inter-connected with a diversity of complimentary parts that collaboratively support the function of each component part.

Each element of the business should also be selected to perform well within the environmental context it is positioned and not require a lot of resources to support production. Each element should also be selected so that its function is utilised to restore the health of that system - in addition to providing useful resources.

Regenerative Design

Regenerative design is one of the critical pathways or processes towards an ecological worldview in synergy with the natural environment.

Regenerative design draws on the fields of knowledge required to better understand the unique social, cultural and ecological opportunities and constraints of place - that includes history and nature's wisdom, and provides alternative ways to look at development.

The main context of regenerative design is to restore degraded systems (businesses, natural environments and social) back to a state of health while sustaining an income to those dependent upon the provision of resources for their livelihood.

Regenerative design requires a mindset that is systems-based, place-based, and positive-outcome oriented. Regenerative design is where the output of a system improves the health and resiliency of that system over time. This is achieved by positive feedback loops, where the production of each element has positive influences on the other elements of that system.

Regenerative design, as a scientific discipline and practice and movement, emerged as a response to these problems, with the goal to create more sustainable systems in which businesses operate.

The adoption of regenerative design requires a sequential analysis of a site, based upon good observation, research and application of that data to actions that restore the health and resiliency of that business system.

The data collection, design and management of the regenerative business comprise a holistic strategy that acts as a working document to be constantly revised as new information impacts the design and management practices carried out within that system.

Regenerative design thinking is at the heart of a regenerative business and has the following core characteristics:

- A human-centred approach.
- A strong integration of experimenting with artefacts.
- Collaboration in multidisciplinary teams.
- An integrative and holistic view on complex problems.
- A characteristic six-step process of 'understand', 'observe', 'define', 'ideate', 'prototype', and 'test'

Applying Regenerative Design

To implement a business system with these characteristics the following principles of actions could be applied:

Diversity and Redundancy:

- Diversity increases ecosystem stability and allows for multiple actors to carry out a function. This redundancy allows backup production – which is a buffer against shocks that would otherwise compromise the resiliency of those systems.
- Redundancy provides “insurance” by allowing some system elements to compensate for the loss or failure of others. Redundancy is also important in enabling adaptation to slower, ongoing change. This variety usually allows at least some of the elements to persist through disturbances and continue delivering services. Diversity in therefore encompasses biodiversity, spatial heterogeneity, livelihood strategies, and institutional diversity

Connectivity:

- Connectivity is defined as the manner and extent to which resources, species, or social actors disperse, migrate, or interact across ecological and social “landscapes”. Landscapes may consist of components, such as patches, habitats, or social groupings. These components are referred to as nodes and the connections between them as links.
- Connectivity facilitates the exchange of material or information necessary for the functioning of ecological and social processes. Connectivity also affects the resilience of ecosystem services because it affects the spread of disturbances and facilitates recovery after a disturbance.
- Connectivity between habitats enhances population viability due to the dispersal of populations between sites. Maintaining connections to areas that serve as refuges can also accelerate the restoration of populations following a disturbance.

Slow Variables and Feedbacks:

- Business ecosystems consist of variables that change and interact on a range of timescales. Slow variables determine the underlying structure, whereas the dynamics of the system typically arise from interactions and feedbacks between fast variables that respond to the conditions created by the slow variables.
- Feedbacks occur when a change in a particular variable, process or signal either reinforces (positive feedback) or dampens (negative feedback) subsequent changes of the same type.
- This can create a self-reinforcing dynamic that is very difficult to break. Monitoring is a specific form of feedback, in which information about the state or responses of the system will inform the actions for managers of that system to take.
- Strengthening the stabilizing feedbacks in a system can help maintain a particular system in a particular stable state.

Understanding social-ecological systems as complex adaptive systems:

- Understanding the complex function and synergy within agricultural ecosystems requires adopting a mindset that is adaptive and responsive to observing the dynamics within slow variables, lags, and feedbacks. It challenges us to embrace a more holistic view of systems and hold our traditionally more reductionist views more lightly.
- This approach requires us to continually learn and experiment and adaptively manage uncertainty, disturbance, and surprise rather than attempt to eliminate it.

Learning and Experimentation:

- Learning describes the process of modifying existing or acquiring new knowledge, behaviours, skills, values, or preferences. The need for learning is based on the assumptions that knowledge is always incomplete, and that uncertainty, change, and surprise are inevitable in complex systems. Hence, there is a constant need to revise existing knowledge to enable adaptation to evolution and change, as well as to maintain ecosystem services in the face of disturbance and change.

- Experimentation and monitoring are widely used tools for facilitated learning in natural resource management. Monitoring provides information about changes in a system, whereas experimentation involves the active manipulation of particular processes and structures to observe and compare outcomes.
- Although monitoring and experimentation have often been carried out by specialist agencies and universities, there is growing recognition of the importance of broader participation in the learning process by all parties involved in governance and management.

Broaden Participation:

- Participation appears central to facilitating the collective action required to respond to disturbance and changes in agricultural ecosystems.
- The participation of a diversity of stakeholders in ecosystem management is suggested to improve legitimacy, facilitate monitoring and enforcement, promote understanding of system dynamics, and improve a management system's capacity to detect and interpret shocks and disturbances.