

The Lush *Spring* Prize

*Raising the profile of regeneration and its potential
to move livelihoods and economies beyond the sustainable*

A Background Paper
September 2016

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Literature review

Regeneration: context and global movement

This literature review attempts to navigate the academic and grey literature on regeneration; defining regeneration for the purpose of communicating with a range of stakeholders; identifying key publications and summarising the history of the regenerative movement. In doing so it identifies key ‘regenerators’ - organisations, research institutions, individuals, funders and campaign groups – working in the following five areas:

- 1) Food
- 2) Energy
- 3) Water
- 4) Shelter
- 5) Communities.

It also identifies, what Ethical Consumer sees, as three connected but distinct streams of regeneration – working in the areas of business, agriculture, and design.

Moving beyond sustainable

Regeneration by definition goes beyond sustainability. Regenerative systems not only aim to do no harm, but they aim to work with all stakeholders within a system to improve their social, environmental and economic contexts.

By contrast ‘sustainable’ implies a self-sustaining state and is often defined by humanity’s ability to meet its own needs without compromising the needs of future generations. A degraded landscape may therefore be sustained in its current state and be used to produce food for humans, but won’t be improved and bought back to its former biologically diverse state (unless regenerative farming practices are utilised).

‘Sustainable’ has also become a term that is commonly used to refer to an object or practice that is more environmentally friendly or efficient than a toxic or conventional alternative – the less bad option. For example a cardboard box made from 70% recycled materials is considered sustainable. By contrast, a regenerative cardboard box would be made from 100% recycled materials and also improve the social and physical environment within the factory it is made.

The term ‘sustainable’ sits more or less in the middle of the degenerative to regenerative continuum.

Regeneration as a term can still be abused however. It may be associated with urban regeneration projects that take a fragmented approach to development – having an economic and social focus but failing to integrate environmental factors into their design. And the term is still widely used in the biological sciences to refer to the re-growth of cells and limbs for example. In addition, as observed when conducting external interviews, there are different perspectives on what regeneration means which can create complications in terms of defining it for the purpose of engaging with a wide range of stakeholders that may not be considered to understand regeneration.

However, for the purpose of this literature review, the term ‘regeneration’ refers to design systems and practices that take a holistic systems approach to solving environmental, social and economic problems; aiming to restore and rejuvenate rather than merely sustain. Regenerative design observes ecological systems in order to inspire the creation of suitable closed loop systems, and aims for humans to work in partnership with nature rather than against it. Humans are viewed as part of the broader natural ecosystem rather than a pioneer. Regenerative systems therefore aim for energy, natural resources and materials to be conserved and enriched and contribute towards equitable development.

Ethical Consumer therefore perceives regeneration as the ultimate goal for a broad range of sustainability movements, practices and theories including: biomimicry, holistic management, permaculture design, agro ecology, management intensive grazing systems, conservation agriculture, cradle-to-cradle design, bush regeneration, forest gardening and natural farming, just to name a few.

The history of regeneration

The historical foundations of regenerative design are difficult to pinpoint due to the huge numbers of actors and movements involved – both documented and presumably undocumented. Most of the literature reviewed comes from the west, and so many voices and knowledges, particularly from the majority world, do not get represented.

However, the foundations of the current discourse around ecological design, particularly in the western world, gained momentum in the 20th century in response to increasing concerns about population increase, urbanisation, pollution, land degradation, non-renewable resource depletion and climate change (Dias 2015, Robinson and Cole 2014).

According to Robinson and Cole (2014): “much of the regenerative design literature is rooted strongly in the science of ecology (Lyle, 1994), living systems theory (e.g. Krone, referenced in Mang & Reed, 2012), whole systems thinking (e.g. Reed, 2007) and radical ecologism (e.g. du Plessis, 2012)”.

Mang and Reed’s chronology of regenerative design and development explores this history in more detail, stating that some trace the origins of ecological design back to the work of Patrick Geddes - a biologist that saw cities as living organisms, whose landscapes and processes needed to be understood before they could be made sustainable. Kennedy et al (2011) review the concept of urban metabolism further and explored how it can be applied to create more sustainable cities.

Regenerative design therefore takes an ecological world view whereby the importance of understanding the interconnections within and between ecological, social and economic systems are emphasised, and the need for humans to work in partnership with nature is considered of paramount importance.

Alternative agriculture and the rejuvenation of degraded landscapes appear to have played a key role in the regenerative movement to date, and developed in parallel with other forms of regenerative design and development within manufacturing processes and architecture and business. We therefore briefly explore the development of three parallel movements – business, agriculture, and design.

Moving towards regenerative business

Charles Krone developed living systems thinking in the 60s and 70s, and used the term regenerative to describe the highest level of work in his ‘4 levels of work’ model:

Potential	REGENERATING	- build capacity of whole system to create new value
	IMPROVING	- increase capability of system to evolve
Existing	MAINTAINING	- keep at highest level of function
	OPERATING	- get things done, and well

All these levels of work were seen as essential, and with the same goal – regeneration. A system could not work without maintaining and operating, but as they are ruled by entropy and can therefore only keep things going, they are unable to restore the system after damage, or allow it to evolve. Living systems thinking also tried to understand nature and community as living systems too, but was applied to and evolved in businesses.

A 1990 business article by Frank Rose described how “companies like AT&T, Procter & Gamble, and Du Pont are offering employees personal-growth experiences of their own, hoping to spur creativity, encourage learning, and promote "ownership" of the company's results” (Rose, 1990).

Ethan and Gregory of Terra Genesis International have also developed the '8 forms of Capital' framework- designed to encourage recognition of other forms of wealth. The 8 form of capital include: social capital, intellectual capital, experiential capital, living capital, material capital, financial capital, spiritual capital and cultural capital.

Moving towards regenerative agriculture

Many different movements have contributed towards the concept of regenerative agriculture, from the development of no till cultivation, organic farming and agro ecology, to permaculture design which brings together a whole selection of tools to develop not only regenerative food systems but communities. The following section identifies key 'alternative agriculture' players and events in an approximate chronological order.

The rise of alternative agriculture

Alternative or more sustainable agriculture is said to have developed in the 1900s in parallel with industrial agriculture – as the environmental degradation caused by humans was realised.

The concept of 'humus farming', mulching, and no-till agriculture emerged in the early 1900s – feeding into approaches to biological agriculture. Notable pioneers of no-till agriculture include but are not limited to Roberts (1907), Fletcher (1907), Waksman (1936), Ruth Stout (1955), Patricia Lanza's lasagne gardening (1998) and Charles Dowding's no dig organic agriculture (2016).

Biodynamics

In 1924 Rudolf Steiner gave a series of lectures on agriculture, after which biodynamic agriculture started to grow as a self-defined eco-agriculture movement. Biodynamics encourages food growers to create diverse and balanced organic ecosystems that enhance soil fertility from within farms themselves. Biodynamics is unusual from other alternative agriculture movements in that it works according to the lunar calendar and uses preparations made from manure, minerals and herbs to enhance soil fertility and the nutritional quality and flavour of the food being raised. The biodynamic movement is still going strong today – particularly in European and Scandinavian countries - and a few academic studies have started exploring the benefits of biodynamic agriculture compared to conventional agriculture systems (Reganold, 2009).

Natural farming

From the late 1930s onwards Japanese farmer Masanobu Fukuoka also started to develop the

concept of ‘natural farming’, whereby nature is observed and worked with, fields are not ploughed, trees and shrubs are not pruned, and no artificial fertilisers and pesticides are used. The ‘One Straw Revolution’, published in 1975, summarises Fukuoka’s early learnings. He later went on to regenerate degraded landscapes around the world with a particular focus on regenerating deserts.

The birth of organics

In 1946 Sir Albert Howard published the influential “An Agricultural Testament”, which discussed integrated agriculture and a decentralised and chemical-free farming system. His work is said to have influenced the work of the Soil Society in the UK and J.I. Rodale in the USA, in addition to discourse around the links between human health and soil health. William Albrecht (1888-1974) is also noted as a key proponent of discourse around the links between soil and human health.

The term ‘organic’ appears to have first been used by Northburn (1940), whose work was followed by a series of influential books that emphasised the importance of soil health and organic agriculture practices. In particular Lady Eve Balfour’s ‘The Living Soil (1943)’ is reported to have spurred the organic movement on, with organic literature flourishing from the 1940s – 50s.

J.I.Rodale is often named as another key actor in driving the organic movement in the US – publishing a series of books between 1945-1975 and founding the US’s Rodale Institute in 1947 to study the links between healthy soil, healthy food and healthy people.

‘Regenerative’ agriculture

J.I Rodale, Booker T Whatley and Dr. George Washington Carver are amongst those named as early proponents of a ‘regenerative agriculture’.

After J.I Rodale died in 1971, his son – Robert Rodale - expanded the Rodale Institute and started to promote and develop the idea of regenerative agriculture. He is said to have coined the term ‘organic regenerative agriculture’, which was used to describe systems: “marked by tendencies towards closed nutrient loops, greater diversity in the biological community, fewer annuals and more perennials, and greater reliance on internal rather than external resources...Regenerative organic agriculture is aligned with forms of agroecology practiced by farmers concerned with food sovereignty the world over” (Rodale Institute 2014, foodsovereignty.org.uk). Robert Rodale also started to use the term ‘regenerative’ to describe agricultural systems that renew and regenerate their own resources, and later applied this concept to economic development (Mang and Reed 2011). The Rodale Institute continues to publish independent scientific literature on organic and regenerative agriculture techniques – providing evidence of the benefits of such systems for carbon sequestration and soil fertility.

Holistic Resource Management

In the 1960s Allan Savory, a Zimbabwean wildlife biologist, started to develop the technique of Holistic Resource Management (HRM) after he realised what might be causing the desertification of grassland ecosystems. Savory's research challenged the notion that livestock was a major cause of desertification, suggesting that it was *how livestock were managed* that was key, not the number of livestock etc. His initial solution involved mimicking the behaviour of wild herds (savory.global/institute, viewed 16/8/2016).

Holistic Resource management, or the Savory Grazing Method, has developed over time to become a wildlife management technique and a water management technique that can be used even where there are no livestock on the land. It is a tool for regenerating landscapes that aims to simultaneously manage the needs of the following four systems to reach a pre-determined goal (whether that be regenerating a desert scape, increasing yield per acre etc):

1. Succession of plants, animals and soils together as one entity
2. Water cycle in the ecosystem
3. Mineral cycle in the ecosystem
4. Energy flow through the ecosystem

In 1992 Savory and his wife established the African Centre for Holistic Management in Zimbabwe as a site to practice and demonstrate HRM. And in 2009 the Savory Institute was founded in the

USA by Savory and colleagues, with the aim of demonstrating the concept and benefits of HRM through project work. The Savory Institute has now developed a network of learning hubs around the world.

The Holistic Management International, also appears to have been doing similar work since 1984.

Agro ecology

Literature about eco-agriculture and agro ecology started to emerge in the 1970s – 1980s, although it should be noted that agro ecology, agroforestry and 'food forests' have traditionally been widely practised in many parts of the world (www.worldagroforestry.org, viewed 15/8/2016).

Walters' the Case For Eco- Agriculture (1975), Altieri (1987), Rodale's Breaking New Ground (1983) and Agroforestry (Nair 1993), are key publications referenced by the Sustainable Agricultural System (1990) book, amongst others. Current key names in the agro forestry and forest gardening world include Dave Jacke and Eric Toensmeir (2005); Robert Hart whose work in the UK has been developed by Martin Crawford of the Agroforestry Research Trust, and a number of permaculturalists including Patrick Whitefield. Elm Farm (Organic Research Centre), the Research Institute of Organic Agriculture (FiBL) and the Centre for Agroecology, Water and Resilience (CAWR) also conduct scientific research on agro ecology and agro forestry.

Permaculture

In 1978 David Holmgren and Bill Mollison first coined the term 'permaculture', having been inspired by the works of Russell Smith's *Tree Crops: A Permanent Agriculture*; P.A. Yeoman's key line designs in Australia, and H.T. Odum's concept of systems ecology, amongst other works. According to Mang and Reed (2011), "permaculture was the first ecological design system to introduce the concept of a regenerative effect as a new standard for ecological performance for the built environment – the generation of a surplus or over-abundance of energy and resources that could be reinvested to evolve natural and human living systems as an integrated whole".

Permaculture's scope and definition has broadened over time to include landscape design, architecture, community planning and enterprise. Initially permaculture stood for 'permanent agriculture', and was defined as "an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man ... in essence, a complete agricultural ecosystem, modelled on existing but simpler examples" (Mollison and Holmgren 1978, p. 1). By 1988 however, Permaculture was increasingly described as a contraction of the words 'permanent' and 'culture', and its definition broadened to: "the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. It is the harmonious integration of landscape and people providing their food, energy, shelter, and other material and non-material needs in a sustainable way." Permaculture's underlying principles have remained the same however, with permaculture's ethics of earth care, people care and fair share (also referred to as return of surplus), guiding 12 key design principles: 1) observe and interact 2) Catch and store energy 3) Obtain a yield 4) Apply self-regulation and accept feedback 5) Use and value renewable resources and services 6) Produce no waste 7) Design from patterns to details 8) Integrate rather than segregate 9) Use small and slow solutions 10) Use and value diversity 11) Use edges and value the marginal 12) Creatively use and respond to change. According to the Permaculture Association's website (viewed 15/8/2016) these principles were recently reviewed and adapted by David Holmgren.

Agro ecology and permaculture have been described as developing in parallel. However, as highlighted by Ferguson and Lovell (2014), very little academic research can be found about permaculture – a key proponent of agroecology- whereas agroecology is frequently discussed in academic literature and has been referred to as "a scientific discipline, a social movement, and a set of agricultural practices" (Wezel et al. 2009). Ferguson and Lovell (2014) raise the issues posed by Permaculture isolating itself from scientific literature, which they state is because it is vaguely defined and lacks evidence of its impacts to date. Nevertheless, permaculture has a high public profile and is practised and developed on all continents around the world. Austrian farmer, Sepp Holzer, has also created his own 'Holzer permaculture' which developed independently out of practical application and focus on creating warmer micro climates with the use of rocks, ponds and wind breaks. He also developed a technique called hugelkultur.

Food Sovereignty

In 1996 the term ‘food sovereignty’ was coined, building on the vision by La Via Campesina of a just, democratic and sustainable food system. ‘Food Sovereignty’ critically challenged the notion of food security – emphasising the political and social elements of the food system and the fact that not all ways of achieving food security are equal.

Since 1996, the concept of food sovereignty has developed in response to the needs of food producers globally. In 2007 the Nyéléni declaration and action plan was produced following an international gathering in Mali where “more than 500 representatives of organisations of small-scale food producers, workers, indigenous peoples and social movements from over 80 countries gathered.” The Nyéléni declaration identified the six key pillars of the ‘food sovereignty’ movement (what it stands for and what it doesn’t), which Global Justice Now summarised in 2012 as the following: “food as a right, not a commodity; valuing food producers; prioritising local and regional provision over distant markets; control of natural resources such as land and water being in the hands of food producers rather than privatised by corporations; building knowledge and skills; protecting natural resources”. A Nyéléni Europe Forum also met in 2011 to apply the principles to Europe. Agro ecological methods have become a key aspect of food sovereignty, having been advocated by La Via Campesina and experts such as Professor Olivier De Schutter, the UN special rapporteur on the right to food.

Moving towards regenerative design

Ecological design (Todd 2005), and appropriate/ intermediate technology (Pursell 1993 / Schumacher, 2011) started to form their own movements in the second half of the 20th century.

In 1969 “Design with Nature” was published by Ian McHarg, setting the foundations for an ecological view of urban landscape design. John T. Lyle, influenced by the regenerative agriculture work of the Rodale Institute, further developed this concept which culminated, after several publications exploring the concept of human ecosystems, in “Regenerative Design For Sustainable Development,” published in 1994. In 1994 Lyle also opened the Lyle Centre for Regenerative Studies to explore, develop and test the concepts of regenerative design further (www.ellenmacarthurfoundation.org).

Walter R. Stahel, an architect by training, was conducting similar work to Lyle and ended up coining the term cradle-to-cradle in the 1980s. This term was later popularised by William McDonough and Michael Braungart who published “Cradle to Cradle: Remaking the Way We Make Things” in 2002. Their book called for a radical change in industry; a move towards cradle-to-cradle models of production whereby up-cycling is emphasised. (When products’ lives come to an end, their “biological” and “technical” nutrients should be utilised- just as forests re-use biodegradable materials.)

The concept of cradle-to-cradle systems, circular economies and regenerative design has been widely interpreted by architects as systems that are self-renewing. This narrow definition has been criticised by Mang and Reed (2011), and the Regenesys Collaborative Development Group in the mid 90’s, who called for a move towards architecture and systems that enable the co-evolution of human communities with natural systems, whilst continuously regenerating environments and cultures - now coined “regenerative development”.

Regenesys developing their ideas of ‘regenerative development’ by integrating Krone’s living systems with permaculture design and Developmental Change Processes. They focussed on the importance of human systems being able to co-evolve with natural systems, so that they could keep regenerating after the initial design phase was complete.

As discussed in the 2016 Autumn edition of the Permaculture Magazine, a number of key individuals have taken the regenerative architecture movement forward including Bill Reed who co-founded the Regenesys Group and the Integrative Design Collaborative.

Jason McLennan has also created the ‘Living Building’ challenge and certification scheme, and the ‘Living Futures Challenge’. (Wahl, Autumn 2016).

References

- Altieri, M.A., (1987), *Agroecology: The scientific basis for alternative agriculture*. Westview Press, Boulder, Colorado
- Alan Savory (1983), *The Savory Grazing Method or Holistic Resource Management*, *Rangelands*5(4)
- BEYOND SUSTAINABILITY -- BIOPHILIC AND REGENERATIVE DESIGN IN ARCHITECTURE, Dias, Bruno Duarte. *European Scientific Journal* (Mar 2015).
<http://search.proquest.com/openview/00320bedd3bcdf623682b2471d9e30b1/1?pq-origsite=gscholar>
- Charles Dowding, www.charlesdowding.co.uk, viewed 15/8/2016
- De Schutter O (2010) Report submitted by the special rapporteur on the right to food. United Nations Human Rights Council
- Du Plessis, C. (2012). Towards a regenerative paradigm for the built environment. *Building Research & Information*, 40(1), 7–22
- www.ellenmacarthurfoundation.org/circular-economy/schools-of-thought/regenerative-design, viewed 12/8/2016
- Fletcher,S. (1907) *Soils: How to handle and improve them*. Doubleday. Page and Co., New York, 438 pp
- Frank Rose (1990), *A NEW AGE FOR BUSINESS? Visionary thinkers are rejecting the by-the-numbers approach to enterprise and seeking a new paradigm for viewing the world. Love and caring in the workplace? The profit motive less than preeminent? Major corporations are buying in.*
archive.fortune.com/magazines/fortune/fortune_archive/1990/10/08/74156/index.htm
- Global Justice Now (Sep 2012), *Food Sovereignty, Tricky questions briefing*,
http://www.globaljustice.org.uk/sites/default/files/files/resources/food_sov_tricky_questions.pdf
- Jackson, W. (1980), *New Roots For Agriculture*. Friends Of The Earth. San Francisco, California.
- Jacke,D., Toensmeier,E. 2005 *Edible Forest Gardens, Volume I: Ecological Vision, Theory for Temperate Climate Permaculture*, Chelsea Green Publishing Company
- Kennedy,C.*, Pincetl, S., Bunje,P. (2011) *The study of urban metabolism and its applications to urban planning and design*. Environmental pollution, Elsevier
- Lanza, Patricia. *Lasagna Gardening: A New Layering System for Bountiful Gardens: No Digging, No Tilling, No Weeding, No Kidding!* Emmaus, PA: Rodale. 1998

Lyle, J. (1994). Regenerative design for sustainable development. New York: Wiley.

Mang, P., & Reed, W. (2012). Designing from place: A regenerative framework and methodology. *Building Research & Information*, 40(1), 23–38.

McDonough, W. Braungart, M., (2003) Towards a sustaining architecture for the 21st century: the promise of cradle-to-cradle design, UNEP Industry and Environment April – September 2003 http://www.c2c-centre.com/sites/default/files/McDonough%20-%20Towards%20a%20sustaining%20architecture%20for%20the%2021st%20century-%20the%20promise%20of%20cradle-to-cradle%20design_0.pdf

Mollison B, Holmgren D (1978) *Permaculture one: a perennial agricultural system for human settlements*. Tagari, Tyalgum

Nair PKR (1993) *An introduction to agroforestry*. Kluwer, Dordrecht

Northburn, Lord (1940). *Look to the land*. Dent, London, England.

Pamela Mang, Bill Reed (2011), *Regenerative Development and Design*, Regensis Group and Story of Place Institute, Chapter 303, *Encyclopedia Sustainability Science & Technology*, 2112

Permaculture Association’s website, viewed 15/8/2016: www.permaculture.org.uk/knowledge-base/principles

Pursell C (1993) The rise and fall of the appropriate technology movement in the United States, 1965–1985. *Technol Cult* 34:629–637

Rafter Sass Ferguson, Sarah Taylor Lovell (2014), *Permaculture for agroecology: design, movement, practice, and worldview*. Volume 34, Issue 2, pp 251–274 <http://link.springer.com/article/10.1007/S13593-013-0181-6>

Reed, W. E. (2007). Shifting from ‘sustainability’ to regeneration. *Building Research & Information*, 35(6), 674–680

Reganold, J.P. (2009), Soil quality and profitability of biodynamic and conventional farming systems: A review, *American Journal of Alternative Agriculture / Volume 10 / Issue 01 / March 1995*, pp 36-45

Roberts, I. (1907). *The fertility of the land*. Macmillan Publishing Co. New York, 415 pp

Rodale’s *Breaking New Ground* (1983): The search for a sustainable agriculture. *The Futurist* 1 (1): 15-20

Rodale Institute (2014) *Regenerative Organic Agriculture and Climate Change: A down to earth solution to global warming*: rodaleinstitute.org/assets/RegenOrgAgricultureAndClimateChange_20140418.pdf

- Edited by Clive Edwards et al (1990), Sustainable Agricultural Systems, the Soil and Water Conservation Society <https://books.google.co.uk/books?hl=en&lr=&id=XdVcjAyHtAgC&oi=fnd&pg=PA3&dq=history+of+regenerative+agriculture+and+design&ots=iTUCG8iprj&sig=YHHnNDZNjo0qDfrKHglNpdf7GDo#v=onepage&q&f=false>
- Schumacher, Ernst Friedrich. (2011), Small is beautiful: A study of economics as if people mattered. Random House, 2011.
- Theoretical underpinnings of regenerative sustainability, John Robinson & Raymond J. Cole
Page 133-143 | Published online: 01 Dec 2014
- Todd NJ (2005) A safe and sustainable world: the promise of ecological design. Island Washington, DC
- Waksman, S. (1936) Humus: origin, chemical composition and importance in nature
- Walters, C., Jr (1975), The case for eco- agriculture, Acres USA, Raytown, Missouri
- Wezel A, Bellon S, Doré T, Francis C, Vallod D, David C (2009) Agroecology as a science, a movement and a practice. A review. *Agron Sustain Dev* 29:503–515
- Wahl, D.C., (Autumn 2016), Re-generation, permaculture magazine No.80 page 13. Autumn 2016.
- World Agroforestry Centre website, viewed 15/8/2016,
www.worldagroforestry.org/Units/Library/Books/Book%2007/agroforestry%20a%20decade%20of%20development/html/1_the%20history.htm?n=7

Online survey

Due to the flat structure of some regenerative and sustainable food and social justice networks, Ethical Consumer thought it appropriate to create an online survey to allow for a wider group of people to engage in the consultation for this background paper.

21 people responded from a variety of organisations including the Himalayan Permaculture Centre, Soils for Life, the Regenesi Group, Burscombe Cliff Organic Farm, The Regenerative Business Summit and The Regenerative Business Prize, Unicorn Grocery, Kindling Trust, Transition Cities. Moorgreen Veg, Co-op Culture, Permaculture UK, Food Sovereignty Network, Centre for Transformational Learning and Culture, and the 3LM.network.

Questions included in the survey were similar to those used for external interviews, however it did not mention LUSH, and options were given for some of the question's answers e.g. barriers to the regeneration movement growing.

4:1 Results from online survey

Barriers to growth?

- 67% of respondents identified lack of awareness about regeneration as being the key barrier to the movement growing. This was emphasised within the comments and external interviews. 52% stated there was a lack of funds to support new and existing projects; 48% felt there was a lack of supportive policy and legislation; 38%, a lack of capacity in local networks and 29% named 'other barriers'. Other barriers to growing the regenerative movement included: people feeling disempowered, it being difficult to shift human thinking towards the regenerative, the current economic paradigm of capitalism, a lack of understanding of what regeneration means as a paradigm by people acting as though they do understand it.

“The greatest single barrier to growing our regeneration is self-belief, hope, and imagination. If we can help people to rekindle their imaginations, their hope, and their belief that they can be part of realising their ideas and hopes then it's game on. This has to start in local communities”.

Would a regeneration prize be useful?

- 76% of respondents felt that a regenerative prize could help to overcome barriers to growing the regenerative movement, so long as the prize was well publicised and the process designed holistically and in the ethos of regeneration. 14% didn't know if a prize would be effective. 2 respondents felt a prize would not be effective and would contribute to current misunderstandings of regeneration.

What's an appropriate prize?

Money was considered to be a useful prize so long as it contributed to projects moving towards regeneration, replication and developing communities' capacity and resources for moving towards regeneration. However, other suitable prizes suggested included: mentoring, publicity, education and knowledge sharing. It was also felt that different prizes would be appropriate for different projects depending on their circumstances.

Who would be good on a judging panel?

Permaculture design leaders; regenerative practitioners; those with entrepreneurial skills; holistic thinkers, people with practical skills not just academics, people with no 'conflicts of interest' - can gain financially from regenerative agriculture; an interdisciplinary panel with activists, academics, politician and general public; specialists in category areas...

“A broad coalition of people, especially those from groups who are often most poorly represented in discussions on regeneration. The judging should preferably be done in stages with those drawn from the skill area involved in judging the categories and those from the social group judging categories based upon social grouping”.

Who would be a winner?

Although many specific projects were named, there were underlying comments and thoughts that were considered more useful that related to the age of projects, the potential of not having any winners/ everyone gaining from the process. Comments included: a project that has been around for a while; nobody; everybody; organisations with holistic approach, open, iterative, respond to local need, meaningful engagement; community-focused projects with clear, concrete proposals, but also some uncertainty and openness...

“Inevitably the environment should be the winner, coupled with an improvement in well being and capacity to contribute of those who the project identifies as 'chief beneficiaries'.”

How can a prize giving event be made regenerative

- All applicants should gain something from the process and should be invited to take part in a participatory learning dialogue.
- Event should be held over a few days
- Actively work on one of the applicant's projects at the event e.g. offering labour etc

- Host the event at a venue that reflects the values of regeneration or is working towards them, perhaps something practical and useful could come out of an event? Crowdfunder, report, clean a river etc Should also serve regenerative food, be hosted off-grid etc.
- Former prize-winners should be involved in the events later on
- Use prize to increase capacity/resource/legacy/dissemination
- Use a collaborative process to decide winners
- Use portion of prize budget for outreach work and education and replication
- Use for networking and co-learning
- Part of the criteria for judging could be related to the ability for the winner/s to be able to help develop the abilities of good projects which did not succeed in winning a prize to develop their proposals and to, perhaps, begin a process of research and consultation to make their project even more sustainable and more of a winner next time.
- Use online techniques to minimise travel
- Many local regional events should be held that are suited to local context rather than one event
- Publicity for all projects or winners post prize

Key findings from the online survey

There is clear support for a prize event, although from survey responses it appears that respondents have different, if any, understanding of regeneration as a concept. This suggests that the term ‘regeneration’ should be avoided, and/ or more descriptive language needs to be used to explain the philosophy behind it (if a wider range of people are to be engaged). A decision also needs to be made as to whether the prize aims to meet people where they are at i.e. engage with those that aren’t necessarily aware of regeneration but are doing valuable work. Or does the prize want to work with those that are already engaging in the process of regeneration; supporting them to go to the next level?

Those that appeared to understand the concept of regeneration emphasised the need for the prize to be holistic – to see it as a process rather than a one off event, where everyone that engages in the prize process gains something that helps them move further towards regeneration. Networking, co-learning, education, publicity, access to ‘experts’, money, matching projects and co-creating at events were all suggested as a means to achieve this.

Fragmentation should be avoided if a regenerative process is wanted, and further thought therefore needs to be given to categories and prizes, if there are to be any – ensuring that they will contribute to the projects aims.

Money does not appear to be the best prize for all projects. As one respondent said, “successful

regenerative projects won't necessarily need money."

External interviews

Who we wanted to interview

Based on the ‘regeneration’ literature review, Ethical Consumer drew up a list of 22 key people to interview about the practicality and desirability of a Lush Spring Prize. This list included practitioners central to the regenerative development and design movement; the regenerative business movement; the regenerative agriculture movement; relevant academics and research institutions; and people engaged in ‘parallel movements’ - those concerned with strengthening planetary life support systems and reconciling humans with nature and each other e.g. agroecology movements, and holistic organisations such as the Permaculture Association and the Transition Network.

Ethical Consumer also wanted to include a diversity of voices amongst those interviewed, including those of the global south, even if not directly engaged with the concept of regeneration. We did not want to ignore that in many cases people associated with the food sovereignty movement are struggling for immediate survival in the face of exploitation and even hunger, as well as long-term ecosystem survival.

In addition, as many of the food networks such as Regeneration International, the Food Sovereignty Movement and RegenAg have flat structures or are comprised of partners, interviews with ‘key individuals’ did not seem appropriate. An online survey was therefore created and was encouraged to be shared amongst networks.

Summary of external interviews

We sent external stakeholders a copy of the initial one page draft Spring Prize project proposal and then conducted interviews by phone/Skype/email or in person with 15 individuals, asking the following questions:

- What are the barriers to main-streaming regenerative design and practices?
- Are the prize categories (food, energy, water, shelter, communities) too broad? Or are we missing something?
- What is an ‘appropriate’ prize for a regenerative project?
- Who would be good on a judging panel?
- Who would be a potential winner?
- How could a prize-giving event be made regenerative?
- Are the concepts and languages associated with permaculture helpful in communicating the

prize to a wider audience?

- Will a prize best achieve the project's aims?

Because our individual interviewees did not speak on the record for this research we have not named or linked comments directly with individuals. Instead we have summarised their responses below.

Key findings from external interviews

To identify common points made by interviewees, Ethical Consumer grouped and analysed responses. These are summarised under each key question below.

Support for a prize?

There was mixed support for the idea of a regeneration prize, with 5 interviewees (33%) considering prizes to be a good way of generating excitement; 2 (13%) felt it was a good method of raising awareness of regeneration with the wider public; 4 (27%) felt that a regeneration prize would encourage the use of the regeneration concept amongst applicants.

There were many suggestions for how the proposed prize could be improved to benefit participants in other ways, and to ensure that the prize reflects the concepts of regeneration and therefore leads to greater understanding of regeneration, rather than increased confusion.

It was suggested that the aims of the prize should be re-thought through using a holistic management framework, to consider what the outcomes of the project should be. These should then be integrated into its design - "the purpose of a system is what it does".

What language should we use?

Due to misunderstandings of what regeneration means and who it is relevant to, it was suggested by 10 interviewees (67%) that the prize use neutral and simple language to describe what regeneration is, but without necessarily having to use the term; complementing the advice we received during the briefing process. 'Tribal' languages specific to any one movement such as Permaculture should also be avoided. Simple language should be backed up by stories, examples and images. Telling stories was also identified as one of LUSH's strengths, and should be built on.

In addition, the proposed categories (food, energy, water, shelter, communities), were considered to be too fragmented by 53% (8) of the interviewees. Even those that thought the categories were OK, suggested that it should be emphasised, when describing the categories, that a regenerative project would embrace all. Ideally more holistic categories should be created, if any are used at all. Perhaps they should emphasise replication, new projects that are engaging with the process of regeneration, and established projects or businesses that have embraced regeneration?

Barriers to regeneration

Perceived barriers to the regenerative movement growing included:

- knowledge of regenerative skills (10 (67%) interviewees)
- misunderstandings of what regeneration is (9 (60%) interviewees)
- legislative and policy barriers (7 (47%) interviewees)
- financial barriers (4 (27%) interviewees)
- research evidencing the benefits of regenerative design and practices (2 (13%) interviewees)

If the prize aims to support the move towards regeneration, it should address all of the above barriers – integrating relevant processes into its design.

Although money was considered to be an appropriate prize by 12 interviewees (80%), money appears not to be the key barrier to growth – suggesting other sorts of prizes should be considered. It was proposed that the prize should build the capacity of all those involved, to enable them to move towards regeneration. This should include all applicants, whole groups and not just attendees, the wider public, and prizewinners, if there are any. Ideally everyone involved in the process should be a ‘winner’ somehow.

How could the prize be made regenerative in itself?

It was proposed that the prize itself should evolve – in the philosophy of regeneration! And that everyone should gain something from entering the application process.

For example, the event could last for a couple of days and emphasise networking, co-learning and participatory activities. 40% of interviewees suggested projects could be matched during and after the project so that they can co-learn from each other (winners matched with young projects for example).

The application process itself could be designed to offer benefits to projects such as offer the opportunity for self reflection; offer promotional opportunities through submitting a project video that is uploaded and promoted on a website etc. Or projects could even be supported beforehand, during the event, or after (by regenerative design practitioners), to identify where they are on the regeneration continuum and what they need to do to move towards regeneration.

The prize event should benefit the place it is held in, and should model the principles of regeneration. This could include offering ‘regenerative food’, cleaning a local river, planting trees, providing free labour during the event to a local regenerative project etc

6 interviewees (40%) emphasised the need for the event to be inclusive – potentially being streamed online to include those that may not be able to physically attend.

What is an appropriate prize?

80% of interviewees felt money was an OK prize, so long as it was spent wisely. 67% felt building the capacity of people, a community or project was more suitable as a prize.

It was also suggested that applicants either get asked what prize they would benefit from (money, access to expert support, publicity), or they are supported by a regenerative expert to identify what their needs are and what their prize money should be spent on – in order to move towards regeneration.

Suitable judges and winners?

The judging panel should contain individuals with backgrounds in whole systems thinking, drawing on practitioners in the regenerative and permaculture design networks. Specialists in the proposed category areas should also be included – including someone with good business skills and someone who understands social justice issues and group dynamics. A mix of ages and ethnic groups should be included in addition to a couple of strategic wild card e.g. someone from the United Nations Committee of Sustainable Development Goals.

Suitable winners will depend on what the aims of the prize are.

It seems that the prize should try to support those who are engaging in the process of regeneration, and not award a static project.