

## **GreenPrints: an Earth-centred approach for living within our ecological limits and creating a steady state economy - Michelle Maloney**

### **In ‘Positive Steps to a Steady State Economy’, CASSE NSW**

#### **Introduction**

As the chapters in this book demonstrate, there is no shortage of truly excellent ideas about the key elements we need, in order to create a steady state economy. But one of the reasons this book has been written, is that there’s a strong need for practical ways to actually *work towards*, and *achieve*, a steady state. As one scientist working in the natural resource management sector said to me recently: ‘I read all these theories, and I understand that we need a steady state economy, but how do we actually get there?’

In this chapter, I’ll map out an approach called ‘GreenPrints’, which is being developed to help civil society groups and enlightened government authorities understand, and take very practical steps towards creating, governance structures to help us live within our ecological limits and achieve a steady state economy. This approach has been created by the Australian Earth Laws Alliance (AELA) to fill an important gap, because while we have ‘blueprints’ to document the design of building and engineering projects, we don’t yet have effective ‘greenprints’ for helping us construct the governance systems we need, to build Earth centred human societies that can nurture the Earth community and flourish in a post carbon, climate changed world.

GreenPrints has three key objectives:

- to create an exceptional, practical and easy-to-use governance model for human activities in Australia;
- to showcase the approach through practical pilot projects with civil society groups; and
- to develop a long-term advocacy plan to help civil society organisations, local governments, State governments and the Federal government understand and implement the model.

GreenPrints doesn’t aim to reinvent the wheel, but rather aims to draw in (and draw from) the multiplicity of projects and methodologies that are already operating – or that are being proposed for use – to help manage human impacts on the Earth. In this chapter, I will outline the key problem that GreenPrints was designed to address, explain its origins within the theory of Earth jurisprudence, and give a brief overview of how the approach can work and the practical steps being taken to test the initial concept.

#### **The problem**

Humanity is facing an unprecedented ecological and social crisis. The past 250 years have seen human societies, powered by apparently plentiful and cheap fossil fuels, develop the technological capacity to use more natural resources than the planet can sustain. The second

half of the 20<sup>th</sup> century saw a ‘perfect storm’ of human population growth, escalating technological capacity and a shift across industrial societies to a consumer culture. The result, as noted by one commentator is that ‘humans have used more resources since 1950 than in all previous human history’ (Durning 1992). The impacts on the natural world of this volume of human consumption have been nothing short of devastating.

Humanity’s insatiable consumption and destruction of the natural world has brought us to the situation where more than 80% of the world’s people now live in countries that are ‘bio-capacity debtors’. This means they consume more than they have and must import resources, deplete their own stocks and/or utilise the global commons of atmosphere and ocean (GFN 2011). Ever widening disparities exist between the resource consumption of industrialised and poorer countries, but in aggregate, human societies are now estimated to be using the equivalent of 1.6 Earths to meet their demands (GFN 2017).

The ecological crisis brought about by humanity’s destruction of the natural world is well documented and well known. It includes: deforestation, biodiversity loss, air and water pollution, land degradation and the escalating disruption of entire components of the Earth System, such as anthropogenic climate change (MEA 2005). Human influence on the environment has become so significant that some scientists are claiming we have moved into a new geological epoch – the ‘Anthropocene’ (Crutzen et al 2000).

The idea of ecological limits was first brought to international attention by the release of the Club of Rome’s report titled *Limits to Growth* (Meadows et al 1972). The report outlined several possible scenarios for humanity’s progress and impact on the environment, based on five variables: world population, industrialisation, pollution, food production and resource depletion. Two of the scenarios saw ‘overshoot and collapse’ of the global economic system by the mid to latter part of the 21<sup>st</sup> century, while a third scenario resulted in a stabilised world. Forty years after its release, its most bleak scenarios have been played out. A range of recent reports, including an analysis by the CSIRO, confirm that the Limits to Growth calculations were accurate (Turner 2008). We are now living beyond our ecological limits and we must urgently rein in the scale of human consumption of the Earth (Meadows et al 1992; Meadows et al 2004; Turner 2008).

### **Why aren’t we living within our ecological limits? Understanding barriers**

Given how well documented and studied human impact on the environment is, and the direct threat this poses to our own existence, the logical response is for us to live within our ecological limits, to consume less and to ‘limit human consumption so it doesn’t exceed the sustainable level of production from natural systems’ (Lowe 2006). However, due to a complex mix of reasons, human societies are not reducing consumption and we are not making concerted efforts to live within our ecological limits.

GreenPrints proposes that the burgeoning theory of human governance called ‘Earth jurisprudence’ offers a comprehensive foundation for building an effective human governance system that can help us live within our ecological limits and nurture the Earth community. Earth jurisprudence, a term coined by cultural historian and ‘Earth scholar’ Thomas Berry, is an emerging theory of Earth-centred law and governance (Berry 1999,

2002). Advocates for Earth jurisprudence propose that the primary cause of the ecological crisis is anthropocentrism - a belief by people in the industrialised world that we are somehow separate from, and more important than, the rest of the natural world (see worldview and ethics chapter). Berry argues that this anthropocentric world view underpins all the governance structures of contemporary industrial society – economics, education, religion, law – and has fostered the belief that the natural world is merely a collection of objects for human use (Berry 1999). In contrast, Earth jurisprudence suggests a radical rethinking of humanity’s place in the world, to acknowledge the history and origins of the Universe as a guide and inspiration to humanity and to see our place as one of many interconnected members of the Earth community (Swimme and Berry 1992). By ‘Earth community’ Berry refers to all human and ‘other than human’ life forms and components of the planet – animals, plants, rivers, mountains, rocks, the atmosphere – our entire Earth (Berry 1999). He suggests that ‘our great work’ is to transform human governance systems to create a harmonious and nurturing presence on the Earth.

From an Earth Jurisprudence perspective, the reasons for humanity’s failure to transition to societal rules that help us live within our ecological limits are complex, but can be grouped under three main headings or barriers. The first barrier is the powerful combination of two belief systems in western industrial society: anthropocentrism, the idea that humans are the centre of all things and are superior to or more important than, all other elements of life, and the belief in unlimited economic growth. The idea that unlimited growth is critical for the health of national economies developed during the Industrial Revolution and continues to dominate modern political, economic and cultural life (Alexander 2011). The combination of these two world-views has been a significant barrier to the mind shift necessary to accept and act on the reality of our ecological limits (Berry 1999).

The second barrier to human societies living within their limits is the unequal power structures created and perpetuated by the vested interests who control much of the Earth Community, or the planet’s ‘natural resources’ and currently prevent those concerned with the health of the Earth from transforming our societies. There are now many claims that modern western societies are plutocracies rather than democracies (Burdon 2014; Alexander 2014; Preston 2014) and are governed by the interests of wealthy individuals and corporations, in partnership with State-sanctioned policies. The lengths to which private interests have gone to protect their financial interests in industries as diverse as tobacco and fossil fuels have now been carefully documented (Oreskes and Conway 2011). There are also an increasing number of investigations showing the interaction between powerful private interests and their control over the public policy agenda (Sachs 2011). The recent election of President Trump in the USA has cast into sharp relief, the ethical and economic problems created when private business interests control aspects of public office. Such power structures mean that the vast majority of the world’s population, including civil society and other groups who want to live sustainably and within their ecological limits, are excluded from key decision making roles. This ‘pathology’ of a society dominated by vested interests and disconnected from its physical realities is a powerful and all-pervading reason why we no longer live within our limits. But recognising these power structures, naming them and directly addressing them is crucial.

The third barrier – and the one that GreenPrints has been specifically designed to address - is the fact that Western industrialised nations have, particularly since the Industrial Revolution, functioned for hundreds of years *without* any concept of environmental limits, means that living *within* limits is new and challenging for our governance and legal systems. Our existing governance systems – our institutions, regulatory systems, environmental laws and ‘environmental management tools’ – are all built to support, or only gently mitigate, human-centred growth, and are not yet sufficiently sophisticated or in tune with the Earth Community to help us live within our limits (Guth 2008; Allenby 2002; Salzman 1997). While the 1970s and 1980s saw very important developments in theories and rhetoric about ‘sustainable development’ - including the Australian focus on ‘ecologically sustainable development’ - by the early 21<sup>st</sup> Century, the escalating deterioration of the health of the natural world has proven that these concepts, and humanity’s efforts (and lack thereof) to *implement* these concepts, have failed to protect or nurture environmental health (Klein 2014).

It is this final barrier – the historical absence of systems and structures for living within our limits – that GreenPrints has been designed to address. Created from an Earth jurisprudence perspective, GreenPrints aims to make it easier for people to understand their ecological limits, and to work with their head, heart and hands, to create the culture, ethic and societal rules, to work towards degrowth where necessary, and then to implement a steady-state economy for the long term. The approach is designed to offer hope and alternative ways forward; these are critical elements when tackling the first and second barriers outlined above.

### **GreenPrints – a practical approach to building Earth-centred, steady-state societies**

GreenPrints aims to answer a critical question: how can we create human governance systems that help us live within our ecological limits and nurture the wider Earth community? The Australian Earth Laws Alliance (AELA) designed the rough outline for GreenPrints in 2016, and is trialling pilot projects in two communities in 2017 and 2018, to help refine the methodology.

Given the historical absence of any serious action by nation-states to acknowledge and address ecological limits, and given the current disturbing rise of extreme “right wing”, neo-liberal values within the governments of many western industrial nations, we don’t have any expectations that the GreenPrints approach will be taken up by State or Federal governments in the immediate future. For now, the draft GreenPrints Handbook is aimed at civil society – individuals, community groups and organisations – as well as enlightened local governments. Our aim is that these groups use the GreenPrints approach as a starting point and guide for moving their town, city and bioregion into a zero-carbon, biodiverse place for human societies and the wider Earth community. And despite the apparent ‘endarkenment’ of governments in the Western world at present, we will also be using GreenPrints to advocate to governments at all levels; to demonstrate that an alternative system is possible. The journey toward systemic change will probably take decades, and GreenPrints may be redesigned as we go, but AELA is committed to the work and believe that we can in fact

create governance systems that enable humans to build a more harmonious relationship with the wider Earth community, and thrive within the productive capacity of the non-human world.

## **An overview of the GreenPrints approach**

### **Step 1 – Thinking differently, and starting with the Earth first – how do we engage with Earth-centred governance?**

The first ‘step’ in the GreenPrints approach, is to *change the way we think* about our place in the world. If we accept that humans are simply one part of the wider, interconnected community of life on this planet, and we accept that all of life and life-supporting systems have the intrinsic right to exist, thrive and evolve<sup>1</sup>, then our expectations of how we should live change dramatically (see chapter on worldview and ethics). And our starting place for transitioning to a healthy future is in fact the Earth itself (not us).

As noted above, it has been argued that ‘ecologically sustainable development’ as a concept and practical model, has largely failed (Washington 2015; Klein 2014 ). One of the key reasons it failed is that governments and corporations embraced the idea that ESD was all about ‘balancing’ the three pillars of human society – environment, society and economy. Unfortunately our existing culture and governance systems ensured that we focussed predominantly on the modern notion of an ‘economy’ and the environment and society often lost out. ESD was also treated largely as a process of continual improvement – it had no end game, no outer limits, no parameters within which to achieve success.

In contrast, GreenPrints is based on the original notion of ‘nested’ sustainability – that is, the needs of a healthy environment come first, and we then ‘fit’ human societies, and human economies, into it. This may appear blatantly obvious to those of us who have been working on sustainability issues for a very long time. But again, as noted above, at present our governance systems are not built this way – narrowly defined, unjust economic interests are valued above all else, while the environment and social justice deteriorates.

**So GreenPrints is based on the idea that if we are to transition industrial societies away from their current abuse and overconsumption of the natural world, we need to start by focussing on the health of the natural world. But what ‘scale’ or ‘unit of analysis’ is the best way to start? What are these ecological limits that we need to work within?**

A useful 'starting point' for mapping out what Earth-centred governance can look like, is a *bioregion*. A bioregion is an area of land or sea defined by common patterns of natural characteristics and environmental processes (such as geology, landform patterns, climate, ecological features such as plant and animal communities). A bioregion’s borders are defined by natural boundaries such as mountain ranges and soil types (rather than the political boundaries of many maps). Each bioregion has a unique collection of ecological communities as well as different patterns of land use and threats to biodiversity.

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<sup>1</sup> This is the fundamental basis of Earth jurisprudence and the Rights of Nature Movement – see the Universal Declaration for the Rights of Mother Earth - <https://pwccc.wordpress.com/programa/>

A bioregion is smaller than an ecoregion<sup>2</sup>, but larger than an ecosystem or catchment area. In Australia, we have a widely accepted classification system called the Interim Biogeographic Regionalisation for Australia, version 7 (IBRA7), which has created 89 bioregions in Australia<sup>3</sup>. Many conservation and land management groups in Australia already use bioregions in conservation projects<sup>4</sup> and consultation with our GreenPrints scientific advisory group confirmed that this is the best unit of analysis for the project.

A distinction should be made at this point, between bioregions (defined above) and ‘bioregionalism’. Bioregionalism is a body of thought that evolved to ‘reconnect socially just human cultures in a sustainable manner to the region-scale ecosystems in which they are irrevocably embedded’ (Aberley 1999). It has a rich, vast literature and despite its critics, has created an enduring legacy. GreenPrints will draw on the powerful ideas from the bioregionalism movement, but unlike the movement itself, does not place a priority on re-drawing our current political boundaries to comply with bioregional boundaries. GreenPrints proposes that bioregions offer the best way for us to create long term, understandable ‘ecological limits’ within which we can redesign our governance systems.

The benefits of a bioregional approach are threefold: By using bioregional ecological health as a starting point for human governance, we can: (1) implement a key aspect of Earth Jurisprudence, that is, we can develop our understanding of place and connection with our local Earth community; (2) map out what nature needs to thrive and (in contrast to the idea of ‘sustainable development’) we can build understanding about the critical parameters and ultimate ‘end-game’ for us to work within and (3) redesign human culture and society so that economic, social and political systems all work towards the same, life-sustaining ecological goals.

**So for the remaining ‘steps’ in the GreenPrints method, the parameters for all activity are the ecological health of the bioregion in which individuals and organisations using GreenPrints live.** Linked to this, is the critical role of scenario creation and the mapping of bioregions. For each community that engages with the process, several maps will be created, to show business-as-usual as well as several other different scenarios for ecological health and human activity, based on the specific nature of the bioregions. They will be powerful tools for ‘showing’ what Earth-centred governance options exist. The ultimate decisions about which ‘scenario’ to aim for, will be made by the communities involved.

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<sup>2</sup> The ecoregion classification system was created by WWF and the Australian ecoregions can be seen here: <https://www.environment.gov.au/land/nrs/science/ibra/australias-ecoregions>

<sup>3</sup> To see the full map, visit [http://webadmin.communitycreative.com.au/uploads/rangelands-regional-plan/IBRA%20bioregions%20map\\_Dec13.pdf](http://webadmin.communitycreative.com.au/uploads/rangelands-regional-plan/IBRA%20bioregions%20map_Dec13.pdf)

<sup>4</sup> For example, see the NSW Government’s Office of Environment and Heritage website: <http://www.environment.nsw.gov.au/bioregions/BioregionsExplained.htm>

## **Step 2 - Exploring our own connection to country: art, spirit, community, traditional knowledge**

Before we launch immediately into Western scientific understandings of ‘ecological limits’ and ‘ecological integrity’, we’ll work through Step 2 and Step 3 of our GreenPrints methodology.

In order to begin the process of helping people think in an Earth-centred way, and truly appreciate the importance of nurturing the Earth and living within ecological limits, we need to find creative, enjoyable ways for people to connect with, and understand, their own bioregion, catchment and ecosystem. It’s surprising how few people actually know the geographic layout of their bioregion, let alone what a ‘healthy’ bioregion should look like. GreenPrints has engaged a range of artists, deep ecology practitioners (see Worldview chapter) and community development workers to help design and experiment with processes, activities and learning methods, to help people access the most powerful and stimulating catalysts for engaging with their local Earth community.

## **Step 3 - Acknowledging First Nation Peoples’ laws and knowledge systems as a basis for Australian Earth-centredness**

One of the most exciting elements of GreenPrints is the critical role that First Nation Peoples laws and knowledge plays in the overall approach. For participating non-indigenous communities and organisations, designing a truly Earth-centred governance system in Australia must involve engaging with, learning from and supporting the work and aspirations of local indigenous people. This journey will be different for every community, and the GreenPrints Handbook will be co-authored by indigenous colleagues, who can provide guidance for non-indigenous Australians.

## **Step 4 - Understanding ecological health and ecological limits – science and the role of bioregions**

After engaging with their bioregions through heart and spirit, via art and other processes, and engaging with the First Nations People, whose ancient laws and ongoing custodianship nurtures the continent, GreenPrints participants will be invited to engage with scientists who can connect them with a western scientific understanding of their bioregion.

GreenPrints participants will be invited to engage with current literature around Planetary Boundaries, Earth systems science, ecological integrity and other scientific material that can help people understand the best knowledge that exists about ecological health and limits. In fact, participants will be invited (and assisted) to collate as many resources as possible, that describe, plan for, and currently manage the ‘natural environment’ in their bioregion. The resources gathered will include one of the most valuable areas of work for the entire GreenPrints project: natural resource management (NRM) plans developed by Catchment Management Authorities and ‘NRM management bodies’.<sup>5</sup> While NRM bodies often come under criticism for labelling the environment as merely a ‘resource’, at present they offer

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<sup>5</sup> For example, see Healthy Waterways and Catchments, previously the SEQ NRM - <http://www.seqcatchments.com.au/news/latest-update-new-entity-frequently-asked-questions>

some of the most up to date and comprehensive information about bioregions in Australia. NRM groups have been working for decades to produce plans that map the ecological health of ecosystems and bioregions, outline current threats, and focus on ecological restoration and maintenance. One of the biggest gaps in our current governance systems is that these plans are not the basis of modern planning laws. **They should be.** Where these plans already exist, GreenPrints aims to promote them as a solid foundation for future planning and human management plans.

### **Step 5 - How do we place human social values within ecological health?**

Step 5 and Step 6 are closely woven together. These are the steps that require GreenPrints participants to begin articulating the kind of communities and societies they want, within the (now understood) scenarios for ecological health in their bioregion. While there is insufficient space in this chapter to elaborate on the details, Step 5 and Step 6 basically invite GreenPrints participants to explore how human life can be designed to *fit within, and ensure the continuation of, bioregional ecological health.*

A range of methods can be used to explore the values of participating communities and organisations, in order to unpack values that are (and are not) compatible with truly Earth-centred, sustainable living. At this stage, there's an iterative process that reconnects participants with the work done in Step 1 of the approach. It encourages participants to consider the 'community' as being more than just humans, taking in all life in the region. There's also a process to enable people to 'redefine the good life' and analyse existing strategies, such as Voluntary Simplicity (see chapter here) and Transition Towns, for methods that suit their interests and needs.

Based on the values outlined, GreenPrints participants will then be invited to 'flesh out' the maps and scenarios described in the previous steps. They will, in effect, be invited to identify what kinds of human activities can be carried out in their bioregion, whilst still maintaining ecological health into the long term.

### **Step 6 - How do we create and strengthen new economies that support ecological health and human wellbeing?**

GreenPrints is intricately connected to the New Economy movement in Australia, as AELA is trialling the GreenPrints project and also coordinating the creation of the 'New Economy Network Australia'.<sup>6</sup>

After GreenPrints participants identify the main social values and goals they wish to achieve, Step 6 enables people to fully explore the burgeoning 'new economy' or 'alternative economy' movements locally, regionally and nationally. The fundamental goal will be for people to creatively engage with the exciting range of diverse economic approaches that already exist – and are bubbling up all around the world – which can enable humans to live, work and play *within* their ecological limits.

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<sup>6</sup> See – [www.neweconomy.org.au](http://www.neweconomy.org.au)

Participants can explore a range of different ways of fulfilling their community's material/economic needs. For example, they may discover that they can no longer support land clearing or logging, but instead need to restore forests and forest biodiversity; or they may discover that they need to scale down or 'degrow' quarrying, mining or other extractive activities. They may want to upscale community owned renewable energy and small scale local food production. The GreenPrints approach aims to help build a community-wide understanding of the myriad ways that economic activities *can* be carried out within the ecological limits of their bioregion.

### **Step 7 - Redesigning law and governance to 'fit' Earth centredness. The challenge: connecting bioregional ecological limits, social values and new economies – to create Earth centred governance**

In the final step of the approach, lawyers and governance experts are invited into the discussions. The key question at this stage is: based on the different scenarios mapped out through the previous steps, *for these specific bioregions*, what legal, regulatory and governance systems need to be created, removed and modified, to achieve the desired scenarios?

A range of 'big picture' questions are addressed at this stage, including: (i) how do we create incentives and remove disincentives, to build the new economies, public spaces, transport options, population control and other issues that need to be addressed, to create governance systems for living sustainably within our limits; (ii) how do we change existing planning laws, which focus on growth, to link to NRM plans and the excellent work already done across Australia by NRM management groups and community environment groups; (iii) how do we work within the current Federal, State and local government boundaries to create Earth-centred governance that (initially at least) doesn't need the difficult challenge of changing political/legal jurisdictions and (iv) how do we ensure GreenPrints' bioregional focus is compatible with existing, successful state and national legislation to protect National Parks and Protected Areas.

At this stage we would also want to examine innovative new legal approaches to embedding ecological limits and Rights of Nature laws into local, State and Federal laws, and explore approaches that increase community level governance, such as the community and nature's rights ordinances advocated by the Community Environmental Legal Defence Fund (CELDF) in the USA. As a continuation of the work done in Step 2, and throughout the GreenPrints approach, we would also work with local First Nations People, to see how First Nations Peoples values and laws can be integrated into the new governance and legal system.

Obviously there are many other issues to be addressed – but the journey is just beginning and the GreenPrints team is tackling these issues with enthusiasm.

### **Step 8 – Making it all happen**

The final step in the GreenPrints approach is to help participants explore the many ways that change can be made. At this stage, a range of theories and successful practices would be

explored, and experts in any of these approaches would be invited in, to support the participants' efforts. Content may include, but not be limited to:

- An overview of theories of social change so that participants can analyse and develop their own theory of change;
- Tools and techniques for community organising, including processes for deliberative democracy to bring more people into the GreenPrints discussions and longer term change making efforts;
- Connections and introductions to new economy mentors and others in Australia who can assist with exploring and developing positive initiatives such as the creation of new social enterprises and cooperatives;
- Tools and techniques for lobbying governments of all levels, to invite them to engage with GreenPrints ideas
- An overview of how communities can initiate and support law reform, at all levels of government
- Other strategies

### **Practical steps being taken to test the GreenPrints approach**

Over the next two years, AELA will be undertaking pilot projects with communities who invite us to work with them on the approach. Our first community is Palm Island, as several community leaders have invited AELA to work with them to trial the GreenPrints approach as they build a sustainability hub that focuses on environmental protection, environmental restoration, community capacity building and community economic development.

### **Conclusion**

In light of the crisis we currently face, it is imperative that we develop sound, workable alternatives to the current flawed human governance systems that have failed to care for the Earth community. If we are to hold out hope and practical strategies for creating social change, and saving what's left of the natural world (for both moral/ethical reasons and for our own survival) then we must work hard to try new approaches. GreenPrints is just in its early stages, but it offers a holistic approach that embraces and explores the full range of cultural, scientific, social and legal/governance issues that must be addressed if we are to transform our current relationship with the natural world from one of abuse, to one of supporting ecological health for all life on earth, including our own.

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