ECOLOGICAL FOOTPRINT AND GOVERNING THE ANTHROPOCENE THROUGH BALANCING INDIVIDUALISM AND COLLECTIVISM

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ABSTRACT

The current way of life is unsustainable (Papadimitriou, 2014) and in a bid to maintain the status quo – profit is extracted from people and the environment.
The challenge of scaling up efforts to engage people in an alternative forms of democracy and governance is that currently the response to social, economic and environmental challenges is that internationally politics is being shaped by so-called realist politics (Beardsworth, 2011) based on a) competition for resources, b) the notion that profit and loss, win and lose is contained /carried by 'the other' and c) Huntington's 'clash of cultures' thesis rather than an understanding of our interlinked, co-created and co-determined fate.

Keywords: consumption, accountability participation, governance, stewardship

INTRODUCTION

Growth = poverty according to Vandana Shiva. This paper argues that growth in the size of the population and cities, growth in the size of the gap between rich and poor as a result of the greed of a few at the expense of the majority in this generation and the next is unsustainable. The program of research on which this paper is based is that democracy and governance needs to be reframed through better accounting and accountability. This involves valuing human and natural resources and relationships appropriately and monitoring them fairly and equitably. This requires a transformation in our thinking, decision making and practice to ensure a livable future for this generation and the next.

> "Hybridity and our connection with the land are understood by Aboriginal Australians. We read our past in the landscape and we create its future through our choices" (McIntyre-Mills, 2014, 10).

The paper aims to address ways to balance individual and collective interests.

> " No complex system can be managed effectively without clear goals and appropriate mechanisms for achieving them. In managing the earth we are faced with a nested hierarchy of goals that span a wide range of time and space scales. In any rational system of management, global ecological health and sustainability should be 'higher goals' than local, short-term national economic growth or private interests. Economic growth can only be supported as a policy goal in this context to the extent that it is consistent with long-term global sustainability…" (Costanza et al, 2015: 175

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The Anthropocentric changes at a planetary level require a new form of governance for 'Planetary Stewardship (Steffen et al, 2011). In order to protect the ecological web of life of which humanity is a strand – we need to do more than 'build stocks for the future'; we need to achieve a quantum leap towards recognizing our interdependency and our role as stewards or destroyers. The choice is ours. It is a value based choice. But it is also rational. By thinking carefully about the consequences of our choices we can arrive at a sense of the sacred. Expanding pragmatism is based on a deep understanding of the consequences for current and future generations of life.

THEORY AND KEY CONCEPTS

The notion of ecological footprint has been shaped largely by theorists who work across disciplines. The term ecological footprint or carbon footprint can be traced back to the thinking of Chief Seattle[i] "Every part of the earth is sacred… the earth is our mother…the rivers are our brothers, they quench our thirst. Crystal Lameman, Beaver Lake, Cree nation says of the Tar sands exploitation in Canada, we ought to extract resources only up to the level necessary for agriculture and that the land is not owned by any one[ii]. Gro Brundtland a medical practitioner realized that personal health could only be secured by peace and human security through protecting 'Our Common Future' (Brundtland Report,1987). This landmark report helped to lay the groundwork for an appreciation of the limits of growth and was the basis of the sustainable development movement.

But the work of Howard and Elizabeth Odum (2000) on modelling for all scales showed that we needed to think differently about the use of energy resources. Also the work of Meadows and Randers (1992) in 'Beyond the Limits' set the basis for the Club of Rome approach on the use of natural resources to support an unsustainable way of life at the expense of future generations.

The problem with the modelling used by some of the members of the so-called Club of Rome group was – according to Christakis (McIntyre-Mills, ed, 2006) inadequate because it was top down and did not engage people in considering the 'if then scenarios' associated with peak oil and heavy carbon footprints.

The work of cybernetics (Von Foerster, 1979) and social cybernetics is important in understanding the role of people in shaping the environment, in particular the notion that all living creatures are better off when others and the environment – on which we depend – are better off. The first mention of climate change in sociology is by Constance Lever Tracey (Pidgeon and Fischhoff, 2011). The link between the policy choices than human beings make and capitalist economics (based on profit) needs to be understood if the notion of human ecological footprint is to be understood. The idea that surplus value can be extracted from the labour of human beings and realized as profit when the value added items that have been processed have been sold.

The idea that profit is sustainable has been critiqued by Stiglitz et al in 'Mis-measuring our lives'. He makes a case for providing a value for natural and social assets. He calls this recognition of aspects previously regarded as so –called externalities, 'wellbeing stocks' for future generations. These ideas have been criticized as they give a

price to nature and thus commodify it. Monbiot (2014)[iii] stresses the importance of mobilizing for change. People need to be able to voice their values and shape the indicators of wellbeing that matter to them. Whilst I agree that the market is the problem, it could change if the power to frame it is given to people and not to CEOs. Without a shift in power, decisions will continue to be made in the interest of the top 10 % of the population, Monbiot (2014) concludes by arguing:

> "If we surrender to the financial agenda and say, 'This market-led neoliberalism thing is the way forward,' then we shift social values. Environmentalists are among the last lines of defense against the gradual societal shift towards extrinsic values. If we don't stand up and say, "We do not share those values, our values are intrinsic values. We care about people. We care about the natural world. We are embedded in our communities and the people around us and we want to protect them, not just ourselves. We are not going to be selfish. This isn't about money", who else is going to do it?"

Space ship earth is the concept developed by Kenneth Boulding in his policy plea that we achieve transcendence. There is no such thing as an externality according to his thesis that we are part of space ship earth. The challenge is to :

- face up to our interconnectedness
- understand that human futures are interconnected with the environment on which we depend.

This requires the capability to hold in mind many variables and not to think in terms of 'us /them' expressed in terms of tribes, organisations and nation states. Nussbaum (2006) argues for social justice and for capabilities for human beings and sentients. De Waal makes a case for co-operation based on empathy and reciprocity as one of the bases of animal nature along with the capacity for compete. Both aspects are important for evolution.

In times of crisis – Albert Hirschman (1970) suggested three options – loyalty, voice or exit. Although it was possible for him to apply all three options to great acclaim in his life time – to exit totalitarian states and to demonstrate alternative ways of doing things, times have changed. His work could be characterised as striving to reveal 'in the small new ways of seeing the whole' (Adelman, 2013, 9). He contributed to reframing the way in which areas of concern were perceived. But the challenges we face today cannot be addressed by working within the boundaries of a nation state or leaving a nation state that has become totalitarian, because issues are now at a planetary scale.

The work of Hannah Arendt emphasises both potential and risks. It holds resonance today, because she talks about the banality of evil which seems perhaps even more relevant today than it did when she wrote about Eichmann's trial. As a Jew, she stressed that the man Eichmann was part of a monstrous system that appeared quite banal as it was widespread and part of a culture and a bureaucracy that was taken for granted. Today we need to be thinking critically about taken for granted structures. We need to take the liberative potential of small scale projects (as suggested by Hirschman) and try to think of their potential as a way to do things differently. Hannah Arendt stressed the banality of evil and the need to consider the broad context and the structures that lead people to make unethical choices.

The work of Stuart Hall (1992,1996,1997), a cultural theorist discussed the diversity within the modern state and stressed the need to consider the way resources are

distributed and consumed within nation states by asking: What is the social, cultural, economic and environmental context? Who gets What, When, Why and So what? His contribution to praxis is important as he stressed that the notion of national identity today requires a long narrative response to explain each of our origins. Where we live, where our parents live, what they did for a living and where they came from and why. When we think of cultural identity we also think of food, hospitality and fostering friendships through sharing.

Where our food comes from is now a global concern and we also need to think of our responsibility when consuming cheap food that is supplied by food chains that make a profit as a result of the lack of rights of the food producers, for example.

Robert Costanza in 'An introduction to ecological economics' (2015) stresses that the magnitutde of the anthropocentric human footprint has implications for new forms of governance:

> "Satisfaction of basic human needs requires a balance among social, built, human and natural capital (and time). Policy and culture help to allocate the four types of capital defined earlier as a means for providing these opportunities. One institution that helps build social capital is a strong democracy…. where all citizens are free (and expected) to participate in all political decisions affecting the community. Interactive discussion plays an important role…preferences and opinions are not fixed and hence can be changed/shifted through a deliberative process. The process of deliberative democracy involves 1. Sharing of information and policy options among a set group of individuals, 2) the process of deliberation among the group, and 3) the socialization and dissemination of the results of this process (Held and Hervey, 2009; Herbrick and Isham, 2010, Costanza et al, 2015: 294-295)".

Extending the Critique of social contract approaches

Is the social contract adequate to protect the environment and interests of citizens who are young, disabled or members of other species? Furthermore the social contract is not extended to non-citizens and more and more people are displaced and outside the protection of the nation state.

Giddens (2009) in 'the Politics of Climate Change' warns that localized efforts, whilst important for prefiguring change are insufficient to hold the market to account, unless they are applied regionally and internationally. The signing of the United Nations Declaration of Human Rights has not lead to detailed covenants or the means to implement the noble ideas:

> "After adopting the Universal Declaration they argued intensely over the highly controversial and emotionally charged question of whether this proclamation imposed international legal commitments or not. The complicating problem of international politics in the United Nations itself became particularly serious. The United Nations and its allies in the Cold War increasingly came to fear the organization was falling under the radical influences of Communists interested in threatening the status quo by destroying colonial empires…This East West confrontation soon affected nearly everything that the United Nations attempted, including what has been called the 'The Deep Freeze" for international human rights" (Lauren: 2003 :236).

Enabling the transformation of identity through governance and public education is the challenge for ethical systemic governance. Obama (2015)[iv] has stressed that the notion of 'clash of civilisations' just helps the terrorists'. Huntington's 'clash of culture'

thesis is understood as part of the same self-fulfilling narrative. The problem with Huntington's clash of civilisations thesis is that it assumes cultures are static. Furthermore, Western Culture is assumed to be the touchstone of civilization without considering the exploitation it has wreaked in social , economic and environmental terms. Huntington's thesis describes 'what is the case' without making suggestions as to how the clash narrative could be redressed through political and policy interventions. It adopts a realist approach to politics and a formalist approach to economics. It assumes that the identities of opposing groups are inevitably locked in conflict. As an explanatory paradigm it is in line with Mary Douglas' notion of sacred and profane. Those who share the same paradigm or our own cultural narrative and those who do not share our cultural narrative are regarded as profane. Critical Systems thinking (or critical heuristics) draws on the work of Kenneth Boulding (1956) on transformational evolution based on a recognition that human beings can make conscious decisions as to how they wish to live. Knowledge systems that appreciate the essential values of life could help to transform society and current attitudes towards consumption supported by formalist , capitalist economics. Critical systems thinking draws on the work of West Churchman and his student Werner Ulrich and others such as Jackson (2000), Midgley (2000) , Flood and Romm (1996) McIntyre-Mills (2003) who argue that social systems can be transformed are not closed they are open and can be re-defined or reframed.

People tend to feel connected to those who share the same culture, values and language and disconnected or 'less connected' to those defined as 'other'. This is in part the result of the so-called social contract – a product of social democracy – being extended only to those within the boundaries of the nation state. And even then being limited to those who can prove that they are entitled to support by virtue of being a) citizens 'in good standing' or b) 'in need' who qualify in terms of reference points that are becoming increasingly residualist as resources become scarce.

RE-DESIGN: CURATING STEWARDSHIP PRAXIS

How can we 'curate the conditions for a thrivable planet' (International Systems Sciences, 2013) by transforming democracy and governance? Consumption and happiness is now a focus of attention, because the consumption of more resources has not resulted in greater happiness. Instead people with more time and more social capital are found to lead healthier happier lives (Wilkinson and Pickett, 2009).

The ways forward are fourfold:

a) Extend the social contract through new forms of communications for discursive democracy (Dryzek (1999, 2000,2005,2010) and inclusive governance within and beyond the nation states to include regional post national constellations.

b) Declare an a priori global covenant, norms , ideals and laws to protect the planet through constitutions like Bolivia[v] and Ecuador and ensure that these declarations are more than window dressing. This can be achieved through more engagement by civil society in monitoring the way in which resources are valued as well as the way in which they are used, exchanged or

redistributed. Systemic relationships are relevant to the understanding of ecological footprints[1] as is the development of an understanding of our inter dependency and that we evolved through our ability to co-operate, not only our ability to compete with others or to exploit others and the environment (De Waal (2006,2009).

c) Transform a posteriori performance accounting and accountability from below (Hill, 2015)[vi] through new measures that protect rights and that ensure that being socially and environmentally responsible is protected in terms of a new set of indicators, spanning doing work that supports living systems, having a social and environmental conscience (demonstrated in terms of the choices and decisions we make daily) to protect the social and environmental fabric of life and – thus protecting our ecological foot print. Global policy needs to address food, energy and water security. Policy requires balancing individual and collective interests. This requires addressing the wider regional biosphere. Wilkinson and Pickett (2009) argue that after a certain point, more consumption does not lead to more happiness. Thus, increased consumption based on increased economic growth does not make people happier – in fact it poses 'existential risks'. 'More equal societies almost always do better' socially, economically and environmentally.

d) Public education to protect the global commons and the public good through transforming the curriculum through formal and informal means to enhance the capacity for transformation through teaching people to value living systems through protecting water, food and renewable forms of energy. These basic, systemic needs are best protected through valuing so-called 'cultural flows'[vii]. The approach strives to avoid the dangers of the commodification approach in "mis-measuring our lives" made by Stiglitz et al (2011) and instead makes a plea for changing the way in which some human beings live (at the expense of others and future generations of life) based on a recognition that the 'personal is indeed political'.

Let us start with the IPCC formula that addresses the implications of polarizing people versus the planet. IPCC formula E (Emissions) = Population X Consumption per person X Energy Efficiency X Energy Emissions. Existential Risk has implications for representation, accountability and sustainability. Consumption is very unequal and the gaps between rich and poor become wider and wider.
Accountability rests on showing the links across excessive consumption, unfair distribution and harm (Saul et al 2012: 167).

Table 1 Architecture for cosmopolitan democracy and governance of ecological footprints in overlapping domains?			
	Structure	Process	Action
Micro-level Individuals	Aarhus convention (1998)	Questions raised and posed to local government by individuals	Local government, NGOS and individuals

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[1] The ecological footprint has policy and governance implications for the common good and the global commons. The common good is defined in terms of the wellbeing of humanity and the planet on which we depend. The global commons spans all national biospheres and includes the fabric of life on which living systems depend and of which we are part --- such as the water we drink, the earth that feeds us and the air we breathe.

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Meso States and regions	Aarhus convention Linked to Global Covenant	On line monitory democracy and governance to address state/market/civil society concern	Networking NGOs and INGOS to address representation and accountability
Macro Cosmopolitan governance	Legal structures to support the Global Covenant, Aarhus convention and Biospheres Convention	International Criminal Court United Nations	Global action to pass laws to protect social and environmental justice in overlapping biospheres

Source: Adapted from Archibugi (in Wallace Brown and Held, 2010: 322 cited in McIntyre-Mills et al 2014:93-95 and McIntyre-Mills (2014:7) in Reconsidering boundaries, Sociopedia.

The root cause of consumption is power without responsibility – so whoever comes to power needs to be held to account through mechanisms to develop social, economic and environmental indicators that secure the wellbeing stocks for the future. Minority greed at the expense of the majority and future generations of life who face hunger[viii], thirst[ix], disease, displacement without access across open borders[x] and death The IPCC formula explains that the excessive consumption of energy resources impacts on the size of our carbon footprint (defined in terms of E (Emissions) = Population X Consumption per person X Energy Efficiency X Energy Emissions)
This suggests that the privileged lives of some could lead to 'existential risk' for all forms of life on the planet (Bostrom, 2011).

> " The IPCC estimates that between 1.1 and 3.2 billion people could experience water scarcity by 2080…..Around 655 million people in Asia lack safe drinking water, while 1.9 billion lack access to basic sanitation…." (Saul et al: 204).

The IPCC formula suggests that the privileged lives of some could lead to existential risk for people and the planet (Bostrom, 2011). This has implications for the way we live and the need to change our way of life through living sustainably. Representation, accountability and sustainability challenges need to be met through addressing consumption choices that are currently very unequal. The gaps between rich and poor, the powerful and the powerless have become wider and wider.
The greatest challenges are the consequences of inaction that will potentially pose an existential risk to humanity. These challenges include representation of the increasingly diverse populations within nation states along with accountability to ensure that resources (e.g. water, food, and energy) are used fairly, equitably and sustainably in local and regional biospheres.The 'price of inequality' – national and global has escalated. The global figure for displaced people passed 50 million for first time since the Second World War, according to the United Nations High Commissioner and by 2050 it could be 150 million (Rusbridger, 2015, 13).
And yet the needs of the displaced are not addressed through the current architectures of democracy, governance and education. Surely it is time to reframe the social contract and to support public education to enable people to join up the dots?
We need a new narrative of Earth Democracy. According to Evans Pritchard the Nuer understood that they need to unite against a common enemy so they set aside their differences. We need to understand the arc as planet earth – not 'the other'. We are interconnected -we can no longer address differences through loyalty , voice and exit as

described by the development economist Albert Albert Hirschman , because whereas in the past concerns were at the level of the organization or nation state, they are now at a post national level.

The level of analysis needs to be extended to address the convergent challenges (social, economic and environmental) that do not allow exit from the problem which is in global.

Hannah Arendt's work on the banality of evil provides the other side of the coin. We are all vulnerable to evil and we are all dependent on one another to do the 'right thing'. Recognition of our vulnerability needs to underpin our working towards being resilient.

The links across actor network theory, socio cybernetics and the debate by Habermas (1984, Bausch, 2001 cites Habermas, 1979) and Luhman (1995) on the nature of reality (Bausch, 2001). Habermas stresses that human beings can shape systems through their constructing constitutions and laws. Luhman stresses that we are part of the system along with other non-human agents.

Habermas and Luhman both shifted ground from their extreme positions as a result of their ongoing dialogue and agree broadly that human beings shape the environment and are in turn shaped by it. Relationships are systemic.

'Knowing our place through recognizing our hybridity and interconnectedness' is an extension of this argument with an emphasis on food security as a way out of the current social, economic and environmental crisis.

The IPCC formula suggests that the privileged lives of some could lead to 'existential risk' for all forms of life on the planet (Bostrom, 2011). The 'price of inequality' – national and global has escalated.

Each of the concepts will defined in turn. I refer to the recent Sydney Peace Prize Winners as indicative of some of the key social and environmental justice concerns:

- Global panoptican – the surveillance approach that has been revealed by the Guardian through the work of Greg Snowden and Julian Assange (2011)[xi]
- Penal states – the incarceration of asylum seekers because of the containerist approach to social justice in nation states – (Julian Burnside , 2014)[xii]
- Disappearing states – the rising sea levels destroying some nation states (see the work of Vandana Shiva[xiii], a scientist, feminist and environmentalist on commodification, capitalism, climate change and the implications for rising sea levels.

Complex challenges such as poverty, climate change and terrorism comprise many, interrelated variables that are perceived differently by those who hold different values. Religion, morality , politics and aesthetics are the values that make us human. They enable us to co-operate and to compete. They are what Churchman calls, the so-called the 'enemies within'. The notion of wicked problems is his concept (albeit popularised by Rittell and Webber). The notion of taming is not a critical heuristics concept. It is oppressive and it assumes power over others and including non sentients and nature! Critical heuristics when applied to thinking through 'if then' policy scenarios is a precursor for decision making. This does require 'drawing a line'. But who draws it , what is included and excluded, where it is drawn and how it is drawn matters. Ethically we need to consider many ways of knowing before making a decision. This is different from the language of ' taming wicked problems' or governing from above. It is about stewardship based on appreciating many dimensions and many ways of knowing. We need to think of :

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Logical coherence of an argument , the extent to which the perceptions and lived experience and the quantitative data are available. Idealism in terms of what ought to be done to ensure human rights , the capabilities of all sentient beings and planetary rights. We are part of an ecosystem on which we depend.

Dialectical engagement to address alternative arguments needs to be based on considering the consequences of decisions for human and environmental wellbeing. Discursive engagement enables people to test out ideas and to enhance their capacity to think critically and to join up the policy dots. It also enhances their capabilities to engage in the policy and politics as to who gets what, when why, how and to what effect.

 The three approaches to economics are (according to Polanyi, 1967); reciprocity, redistribution and exchange. At face value reciprocity (give and take) may appear egalitarian as does the notion of re-distribution, whilst exchange may appear to be most formal. How these concepts are interpreted matters when considering the current social, economic and environmental crisis. Narratives can be seen as formal (modernist), informed by political economy critiques or substantive (based entirely on the perspectives of people's own lived experiences). All these lenses provide a dimension of the situation. The problem with the realist clash paradigm is that although it describes the situation it can hasten the movement towards conflict. This is the self-fulfilling prophecy argument, to which I subscribe.

An alternative future needs to be modelled and co-determined by with and for people of good will. This is the cosmopolitan agenda. It is not naïve. It can be argued to be logical and scientific if we consider the work of Buckminster Fuller on Space Ship earth and Kenneth Boulding's work on domains of knowledge and evolution from inorganic to organic life to living systems[2] comprising human systems that can consciously evolve in directions that they can shape with a sense of purpose. The evolutionary direction is shaped by   values. Hence the justification for co-determining and co-creating the direction of policy and politics (McIntyre-Mills, 2014 a, b).

- For those who argue for more state intervention, the state has all the answers to welfare and environmental concerns
- For those who argue that the market provides the answers, more economic freedom is advocated
- For those who argue that the state is inadequate to protect human rights and democracy and accountability a case is made for openness to ideas and freedom of information. Transparency and monitoring from below is needed.
- A responsive approach requires a multilevel response to areas of concern and the right response in context.

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[2] http://www.panarchy.org/boulding/systems.1956.html

Boulding's Classification of Systems: "1. Frameworks. The geography and anatomy of the universe : …

2. Clockworks. The solar system or simple machines …

3. Thermostats. Control Mechanisms or Cybernetic Systems : ..

4. Cells. Open systems or self-maintaining structures. ..

5. Plants. The outstanding characteristics of these systems (studied by the botanists) are first, a division of labor with differentiated and mutually dependent parts (roots, leaves, seeds, etc.), and second, a sharp differentiation between the genotype and the phenotype, associated with the phenomenon of equifinal or "blueprinted" growth.

6. Animals. Level characterized by increased mobility, teleological behavior and self-awareness, …

7. Human Beings. In, addition to all, or nearly all, of the characteristics of animal systems man possesses self consciousness, ..

8. Social Organizations. …Social organizations might be defined as a set of roles tied together with channels of communication.

9. Trascendental Systems…"

The nation state cannot control the global market which impacts on the welfare of all its citizens, let alone be left to determine what constitutes social and environmental justice. The argument developed is that a new 'post national constellation' (Habermas, 2001) approach to social democracy is needed. The zero sum approach to law in the so-called 'national interest' has prevailed in undermining human rights and the environment. The zero sum approach is based on the idea that my gain must be at your expense. It is based on the idea that life can be compartmentalised. Losses and gains are not understood as being systemically interconnected.To have any hope of buttressing wellbeing and the global commons we need to find ways to identify with the future of the planet, rather than the rights of the powerful to make the law to protect their own interests.

Pilots to prefigure change that provide examples of learning how to do governance differently are necessary, in order to maintain or reduce the size of our ecological footprint.

For example: Murray's notion of a Tuvalu test for decision making provided inspiration for the development of a new architecture for democracy and governance developed , tested and discuseed (McIntyre-Mills,   Denise de Vries and Natasun Binchai (2014). The approach (McIntyre-Mills et al 2014) is about enabling people to voice their intrinsic values and to shape agendas 'from below' as detailed in 'Transformation from Wall Street to Wellbeing' and its companion volume ' Systemic Ethics for non-anthropocentricism'. These works discuss the testing of a pilot project to develop raft of systemic wellbeing indicators to address the notion of wellbeing stocks and being the change glocally. We test the principal of subsidiarity and Ashby's rule and strive to implement Murray's notion of a Tuvalu test for decision making. Murray is a physicist who argues that decisions made in one country affect the life chances of people in other parts of the world. The Tuvulu test refers to rising sea levels. Thus rising sea levels in Tuvalu or in Samoa , for example are a result of the choices made in other developed nation states within the region. Hence the so-called Tuvalu test for decision which asks us to think about the consequences of our thinking. The second volume emphasizes that political and economic systems are constructions that can be reframed by moving beyond the recognition of wellbeing stocks systems to take into account cultural flows. Water and seeds can be seen as a synecdoche of a new economics and perhaps a new constitution that recognises the role of human beings as stewards is not merely about neoliberal markets shaping and commodifying nature (Monbiot (2014)[xiv]. Monbiot critiques the thesis raised in works such as 'Six Capitals: the revolution capital has to have or can accountants save the world?' see http://www.monbiot.com/2014/07/24/the-pricing-of-everything

Thus praxis (McIntyre-Mills et al 2014 and McIntyre-Mills 2014a, b) takes as its starting point the issue of commodification and suggests not merely a new form of performance accountability but also a transforming what we value and how we live. Ways to reduce the size of our ecological footprint through alternative forms of governance and democracy has been demonstrated with Global Agoras team.[xv] The governance of the footprint 'from below' through subsidiarity – means that decisions need to be made at the lowest level possible and that freedom and diversity should be fostered – with the caveat that these decisions should not undermine the rights of others or future generations of life. Governance is necessary to maintain the balance across

individual and collective interests. The current architectures for democracy, economics and governance are fatally flawed and that the time to reframe it is long overdue.

How democratic is democracy if it does not foster food and human security? Liberal democracies are increasingly criticized for not representing the interests of diverse citizens, engaging stakeholders in dialogue, building a shared sense of identity, whilst enabling individual diversity, capability and freedom to the extent that the diversity, capability and freedom *of others* is not undermined. The current difficulties in addressing representation, accountability and sustainability are theoretical, methodological and value based and it has implications for the size of our ecological footprint. The privileged lives of some are at the expense of the majority and at the expense of future generations of life.

The issue is that the nation state is no longer able to address the challenges that span national boundaries because poverty and climate change do not respect political boundaries. Critiques need to avoid reifying systems, rather than addressing the potential to enhance representation, accountability and sustainability through re-framing the architectures of democracy and governance.

PAN OPTICAN: SURVEILLANCE 'FROM ABOVE' NEEDS TO BE BALANCED BY SURVEILLANCE 'FROM BELOW' TO ENABLE SYSTEMIC GOVERNANCE FOR STEWARDSHIP

Surveillance 'from below' is needed to protect food, energy and water security by protecting the non-renewables and by ensuring that local people can live lives that are worth living and are capable of achieving quality of life (Nussbaum, 2006).

It would be ideal to be able to protect planetary citizens in ways that respect rights and responsibilities across national boundaries through international law. But to enable the implementation of social and environmental justice we need a new form of governance and a new form of democracy that enables participation and monitoring. But we also need free accessible ways to ensure that transparency does not become a vehicle for the panoptic on authoritarian state.

It is insufficient to argue for global covenants in overlapping regions. We need:

- A movement that ensures we live differently and that we value sustainable living.
- Overlapping republican rights not a Penal state supported by global panoptic on
- Power of the state through judiciary, police and army to subjugate and incarcerate.
- Power of surveillance the challenge is to avoid surveillance from above without monitoring from below.

Six principles of sustainable governance underpin the Lisbon principles (1998) these principles are : responsibility (individual and collective), scale matching (at multiple levels) , precaution rather than narrow minded profit, adaptive management based on integrating as much social, economic and environmental information as possible, full cost allocation based on considering the inter connected dimensions of social and environmental considerations and markets should be adjusted and participation based on engagement using discursive dialogue. Previously the work of Ulrich Beck (1992) discussed the so-called 'boomerang affect' of poverty and pollution, but he did not explain the implications for climate change or the ecological footprint.

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Governance and democracy have to deal with three options pertaining to truth (McIntyre-Mills, 2000, Crowder, 2003): a) One truth responses defended by grand narratives or conflict, b) No truth (postmodernist) approached defended by relativism, c) Mediated (harmonized) responses based on stewardship. Beck (2009: 96) stresses the need for sub politics 'from above' and 'below'. How to achieve this is the goal of current research on balancing individual and collective needs. The focus is on the local, so that the poor will not be silenced and so that local wisdom can be drawn upon. This enables creative responsive transformation and the emergence of new relationships.

> "At the beginning of the twenty –first century, we see modern society with new eyes, and this birth of a 'cosmopolitan vision' (Beck 2006) is among the unexpected phenomena out of which a still indeterminate world of risk society is emerging. Henceforth, there are no merely local occurrences. All genuine threats have become global threats. The situation of every nation, every people, every religion, every class and every individual is also the result and cause of the human situation. The key point is that henceforth concern about the whole has become a task. It is not optional but the human condition" (Beck, 2009: 19)

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[ii] http://www.theguardian.com/environment/2015/mar/08/how-will-everything-change-under-climate-change , Naomi Klein

[iii] http://www.theguardian.com/environment/georgemonbiot/2014/jul/24/price-nature-neoliberal-capital-road-ruin
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[iv] Roberts, D. 2015,No war with Islam,Obama says,but conflicts continue The Guardian 27.02.15

v http://www.theguardian.com/environment/2011/apr/10/bolivia-enshrines-natural-worlds-rights The country, which has been pilloried by the US and Britain in the UN climate talks for demanding steep carbon emission cuts, will establish 11 new rights for nature. They include: the right to life and to exist; the right to continue vital cycles and processes free from human alteration; the right to pure water and clean air; the right to balance; the right not to be polluted; and the right to not have cellular structure modified or genetically altered. Controversially, it will also enshrine the right of nature "to not be affected by mega-infrastructure and development projects that affect the balance of ecosystems and the local inhabitant communities"."It makes world history. Earth is the mother of all", said Vice-President Alvaro García Linera. "It establishes a new relationship between man and nature, the harmony of which must be preserved as a guarantee of its regeneration."

vi "How on these grounds alone could fracking be compatible with Bolivian law?" The article makes it clear that the questions raised by those concerned about the environment are vital for maintaining both social and environmental justice.

vii http://www.mdba.gov.au/what-we-do/working-with-others/aboriginal-communities/cultural-flows

viii The total number of mal nourished people has risen from 850 to 963 million (Saul et al: 196)

ix Saul et al cite the paper by Ban Ki Moon (2007): "there are around 260 transboundary river systems in the world. Water scarcity is a potent source of potential for human conflict… Many of the world's major transboundary river systems are governed by such legal regimes, which deal with issues such as the allocation of water rights between upstream and downstream users, as well as (less commonly) issues of water quality such as pollution…." (Saul et al : 204-205)

x http://theconversation.com/the-myth-of-the-people-smugglers-business-model-16426

xi http://sydneypeacefoundation.org.au/?s=Julian+assange&submit.x=-696&submit.y=-246&submit=Go has challenged the centuries old tradition that governments are entitled to keep the public in a state of ignorance".

xii Citation: " for ..rule of law as a means to achieve a more peaceful and just society" http://sydneypeacefoundation.org.au/peace-prize-recipients/2014-julian-burnside-ao-qc/

xiii Winner of the Sydney Foundation Peace Prize http://sydneypeacefoundation.org.au/peace-prize-recipients/2010-dr-vandana-shiva/" for her scientific analysis of environmental sustainability, Sydney Peace Prize Lecture: *Making Peace With the Earth."*

xiv Monbiot critiques the thesis raised in works such as 'Six Capitals: the revolution capital has to have or can accountants save the world?' and describes them as commodifying nature see http://www.monbiot.com/2014/07/24/the-pricing-of-everything

xv Flanagan, T. McIntyre-Mills, J, Made, T. Mackenzie, K. Morse, C. Underwood, G. and Bausch, K. 2012. 'A Systems Approach for Engaging Groups in Global Complexity: Capacity Building Through an Online Course', Systemic Practice and Action Research: 25(2):171-193.Bausch, K. Flanagan, T. McIntyre-Mills, J. Made, T. Mackenzie, K. Morse, C. and Underwood, G. 2012 Striving for Sustainable Global Democracy through a Group Decision-Making Process: A Critical Review of an Online Course to Model Transformative Praxis *Journal of Globalization Studies.* Volume 3, Number 1 / May 2012 http://www.sociostudies.org/journal/jogs/archive/2012_1/ Accessed 15/08/2012