

## Inside

Messages	2
Schumacher-themed 'windows' of engagement	3
Systems Learning: Free your thinking	4
Some personal reflections on my life and work	5
Books by fellows of The Schumacher Institute	8
Beyond Extinction Economics (BEE) meeting	10
In the age of Anthropocene...	11
PAPER 1: Preparing for change: preparing for the future	12
PAPER 2: Delivering the SDGs: essential preconditions	13
PAPER 3: Civil Society's influence on EU for a Sustainable Europe	14
PAPER 4: City System Transformation for Sustainable Cities	15

*Café SYSTEM CHANGE RESEARCH Magazine:*

By **Asitha Jayawardena** (Communications | Research, Sustainability and Systems) in collaboration with **Dr Jenneth Parker** (Research Director, The Schumacher Institute).

**The Schumacher Institute** | <http://www.schumacherinstitute.org.uk/>

Twitter @SchumacherInst

CREATIVE COMMONS LICENCE <https://creativecommons.org/licenses/by/2.0/uk/>

Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius — and a lot of courage — to move in the opposite direction.

~ E. F. Schumacher

# Messages

## From Ian Roderick

Director, The Schumacher Institute



The Schumacher Institute invites you to *Café System Change* – an online, open access magazine format that introduces the research work of the Institute. In these pages you will find some of the key ideas and concepts that we work with as we try to help bring about system change towards sustainability.

We also include views and perspectives from systems thinking and sustainability practice inspired by Fritz Schumacher – part of our remit to spread systems perspectives and tools more widely.

We are continually inspired by the new ways in which systems approaches can be applied to help different organisations and the range of topics to which they can fruitfully be applied. Get in touch if you want to find out more.

We hope that you will enjoy this magazine and send it to your friends and colleagues. Do also explore our new open access online Journal *System Change*, where you can find the original in-depth articles.

Do get in touch if you are interested in the Schumacher Institute and collaborations for research or publications.

[ian@schumacherinstitute.org.uk](mailto:ian@schumacherinstitute.org.uk)

## From Jenneth Parker

Research Director, The Schumacher Institute



Welcome to *Café System Change*.

This gives you an easy overview of some of the recent research activities at the Schumacher Institute. As we develop this publication, we hope to have more information about the results and take-home points from our many workshops and events, which we often develop in partnership with other groups and individuals. If you have ideas let us know.

We try to have 3 levels of information:

- Light: tweets and social media
- Intermediary – like this magazine
- Substantial – like System Change online journal

All our work is experimental and we would love to hear from you with any feedback about this publication.

We are very interested in collaborating with other institutions in communicating systems and sustainability – so get in touch!

[jenneth@schumacherinstitute.org.uk](mailto:jenneth@schumacherinstitute.org.uk)

Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing 'patterns of change' rather than static 'snapshots.'

~ Peter Senge

# Schumacher-themed 'windows' of engagement

The Schumacher Institute has 4 research and action themes which guide our work. These can be seen as different windows into the complex field of sustainability.

## More technical

## More emotional/value based

<p><b>MAKING SENSE</b></p> <p>Using systems approaches to help frame the multiple sources of info on sustainability, their implications and significance</p> <p>Issues of governance and expertise</p> <p>Scales of responsibility</p> <p>Analysis and mapping of multiple approaches – moving from conflict to collaboration</p> <p>Direct Learning Activities</p>	<p><b>INCLUSIVE SUSTAINABILITY</b></p> <p>Equality</p> <p>Contraction and Convergence</p> <p>Decolonisation approaches</p> <p>Democracy and expertise</p> <p>Working for equality at the same time as responding to climate</p> <p>Differential duties and opportunities for change</p> <p>Cultural action – faith groups</p>
<p><b>PREPARE FOR CHANGE</b></p> <p>Futures thinking</p> <p>Building resilience</p> <p>Technical energy projects – community energy</p> <p>New forms of community ownership</p> <p>Building community resilience – the practical side – infrastructure and networks</p> <p>Cross-sectoral cooperation for economic transformation</p>	<p><b>LIVING FUTURES</b></p> <p>Wellbeing Economy</p> <p>Valuing the living bases of life</p> <p>Restoration/regeneration values</p> <p>Future Generations</p> <p>Human/nature interdependencies</p> <p>Local nature support and access</p> <p>Green spaces and health</p> <p>Beyond Extinction Economics Group</p>

We are either going to have a future where women lead the way to make peace with the Earth or we are not going to have a human future at all.

~ Vandana Shiva

The art of questioning is to ignite innovative thinking; the science of questioning is to frame system thinking, with the progressive pursuit of better solutions.

~ Pearl Zhu

One can see from space how the human race has changed the Earth. Nearly all of the available land has been cleared of forest and is now used for agriculture or urban development. The polar icecaps are shrinking and the desert areas are increasing. At night, the Earth is no longer dark, but large areas are lit up. All of this is evidence that human exploitation of the planet is reaching a critical limit. But human demands and expectations are ever-increasing. We cannot continue to pollute the atmosphere, poison the ocean and exhaust the land. There isn't any more available.

~ Stephen Hawking

# Systems Learning: Free your thinking



## What is Systems Learning?

Today, we live in a world where we see everything as easy to fix.

In Systems Learning we call this a 'thing' view of the world. Everything can be measured – and if it can't be measured it doesn't exist. But this worldview is starting to shift and evolve.

## Complicated or Complex?

We all know the world as a highly complex place. Or, beyond complicated, it's not easily understood.

Increasingly, we are needing to adopt different approaches to find solutions to problems on an international, national, community and individual level.

When you look at complex systems, what emerges is much less predictable. When things go wrong, it becomes very difficult to find a single cause or solution.

## Systems Thinking

Complex systems need a whole system approach that involves both an inner and outer aspect:

- The inner means being open, flexible, inquiring, ready to learn, to change perspective, able to let go of what no longer serves. This often involves a deal of humility and acceptance that the world may be too complex to be fully understood.
- The outer means seeing the system and its characteristics. Once you shift to a mindset of inquiring and learning, you will start asking questions of the system itself.

We call this approach... Systems Thinking!

## From Martin Sandbrook

In partnership with the Schumacher Institute I am on a mission, to free as many people as possible from the constraints of the ways of thinking which currently dominate our lives and work.

My aim is to help people and organisations to deal with the world just as it is – messy, unpredictable and complex – rather than trying to shoehorn the world around them into an unrealistic version of how they'd like it to be.

My work follows two inspirational thoughts: EF Schumacher and Donella Meadows.

I believe we need to understand and deal with the world as interconnected, interdependent and complex. As humans we are part of this whole and we need to connect, work and develop in harmony with the world – not against it.

To get a feel for what I say and how I say it, visit <https://systemslearning.org>

## Systems Learning courses

Systems Learning aims to free you from the existing limitations of business as usual. Our courses are designed to help people and organisations free their thinking, to deal with challenges, uncertainty, complex systems and stuck relationships in a far more effective way. We also show how to translate sustainability into action. Systems Learning strives to free your thinking to deal effectively with the world as it is – messy, complex, unpredictable.

Systems Learning is part of The Schumacher Institute for Sustainable Systems.

# Some personal reflections on my life and work

It is difficult to tease out the most formative experiences in a long life but I'll try to convey some of the essential elements that shaped my development. I was born before World War II, and the traumatic experience of the long drawn-out war affected our family very deeply. We lived through the fire bombing of Cologne, lost everything and went to live in a village far away from where my mother had come. My father was killed during a bombing and my mother was left with two young girls and no income. My World War II experience with its deprivations as an evacuee child in rural Germany and my early village schooling were very important for my later life and have given me a profound empathy for the great sufferings of contemporary refugees in many parts of our world today. At the same time the great beauty of nature and the immense freedom I experienced in a peaceful small village in the valley of the Ruhr river surrounded by large woods and small lakes gave me a sense of wonder and mystery, a longing for games and walks with my friends in the open air, whether in the summer sunshine or deep snow in winter.

My teachers greatly inspired and helped me in many different ways and made me wish to learn and explore more, to go from primary to secondary school and beyond. I was fortunate to obtain a German national scholarship to go to university to study theology, philosophy, and German literature as I had wished to do and to explore the world at the same time, as I did against much opposition and criticism. I first studied at the universities of Bonn, Munich, and Tübingen, and then I was encouraged to study abroad, first in France, and later in England when I had married my husband, an Englishman, and later still at the University of Delhi when we were living in India in the mid-1960s.



**Ursula King, University of Bristol**

The Paris of the early 1960s provided an exhilarating environment of great intellectual vitality for the young German postwar woman student I then was. I shall always remember my days at the Sorbonne, the Ecole des Hautes Etudes, the Institut Catholique, and the eminent professors I was able to study with and the great circle of international students from all over the world I met in Paris, especially at the international *Cité Universitaire*. I learnt much about the western classical tradition, early Christianity, and the great Catholic intellectual tradition associated with Paris in past centuries. Of course, all my professors were men. I had experienced one woman philosophy lecturer in Bonn, and another one in Paris, but I also felt a real sense of liberation when I first heard a brilliant woman sociology professor lecture to a large audience – a truly inspiring example.

Later it was the discovery of India, of an altogether different cultural world and the rich religious traditions of a continent so different from the Europe I knew which greatly enriched my intellectual and personal world. I lived and studied there from 1965-1970, but also became immersed in interreligious debate and dialogue, and I also worked a great deal with

Indian women. Most memorable was my early meeting with the Dalai Lama in Dharamsala, long before he visited the West. It will always remain with me how we discussed in great depth the meaning of wisdom in Buddhism and Christianity, just among three of us.

Most formative of all, long before I encountered gender studies which later became very important for me, has been the global and cosmic vision of the French Jesuit scientist and mystic, Pierre Teilhard de Chardin, first discovered in my Paris years. I have done much research on him since, and his work also influenced my interest in debates on science and religion. His long research in China on geology and human origins as well as his thoughts about eastern religions provided rich resources for my PhD which I later undertook part-time at King's College, London, after our return from India when I obtained a lectureship at Leeds University from 1971 onwards.

Later still, in 1984, I was invited to give the first Hibbert Lecture broadcast on BBC Radio 4, and this grew into a book on Women and Spirituality. Voices of Protest and Promise (1989/1993) which is really an overview of the discussions then taking place in feminist theology and spirituality, but with a comparative and international dimension to it. I was then asked by a publisher to edit a sequel to an existing Reader in Feminist Theology, which became my widely used textbook on Feminist Theology from the Third World (1994), dealing with the wide diversity of feminist theologies across the different continents of the world. I used all this material in my own courses on feminist theology in a global context, especially after moving to the University of Bristol in 1989, where I was appointed as only the fourth woman professor within its 80 year history (covering theology and religious studies – my three female predecessors had been in education, biological science, and social work).

I also developed a course on religion and gender (against the opposition of some of my colleagues). In the late eighties gender studies began to provide exciting and challenging new paradigms for the study of religions. I met considerable resistance when I suggested a Panel on Religion and Gender for the XVIth International Congress of the International Association for the History of Religions, held in Rome in 1990. But it did take place and was a venture well worth taking as it led to an excellent collaboration between international women scholars, and eventually produced the edited volume on Religion and Gender (Oxford and Cambridge, MA: Blackwell, 1995). This experience led me to research much further into religion and gender studies. But while at Bristol, I was invited to a visiting chair in Feminist Theology at the University of Oslo (1999-2002), an experience I greatly enjoyed as I learnt so much from the collaboration with Scandinavian scholars and appreciated the international atmosphere and stimulating research seminars with doctoral students. I even convinced an African male student of the importance of feminist theology and the significance of critical gender thinking, so that he eventually wrote his MA dissertation on gender issues in the farm cooperatives and churches of his own country.

At the University of Bristol I developed an MA in Religion and Gender programme from 1990 onwards, taught in collaboration with several colleagues. The MA was not only taken by women, but also by some men, as was the case with the gender option for undergraduates. Out of this work developed, from about 1996 onwards, the Centre for Comparative Studies in Religion and Gender (CCSRG), which had several associate members from other universities, and also a doctoral programme which produced very good results. We published several monographs based on the empirical and theoretical research undertaken at the Centre,

organized regular research seminars, some with international guest speakers, and some conferences. Out of these activities grew a new publication on Gender, Religion and Diversity: Cross-Cultural Perspectives (edited by Ursula King and Tina Beattie, Continuum, 2004) which discusses many methodological issues in gender studies, shaped by cognate fields and multidisciplinary perspectives. This is a more balanced and more inclusive perspective than that of earlier, exclusively women-centered studies as it includes work on men's studies in religion and has a global, cross-cultural dimension. Several doctoral students of that programme are now working as professors in different universities, one is now the CEO of the British Charity Commission, and another one is the newly consecrated Anglican woman bishop of Loughborough.

My concern with gender studies has grown from small beginnings into something much larger. It has become an intellectual passion which has many practical implications – both personal and social, for my writing and lecturing, but also for my family life, which includes my husband who is an academic in a different field, four daughters, and now six grandchildren of both sexes – a big enough sample to think about gender questions in practice.

There still exists much institutional and individual resistance to this new field, often due to misunderstanding or profound ignorance. It is about more than a paradigm shift in all fields – it is really a shaking of the foundations, and that's perhaps why people are sometimes so resistant. It is a huge intellectual and social task as it requires the re-examination of all bodies of knowledge and the recasting of personal and social patterns of life, and in religion the abolition of hierarchical and patriarchal forms of beliefs and practices. It will still take a long time before this can be achieved, but we are on the

way. I think the need for gender studies is great, and the field is growing ever larger in spite of sometimes major backlashes. There will be much more research coming up in this important area, I think. And it is by no means just a western interest, but these ideas are now being explored and diffused globally. For example, I was asked to lecture on gender and religion as long ago as 1993 when I first visited South African universities. There now exists a growing interest in these issues in Japan and China, and in many other parts of the non-western world. At the level of teaching and research, the study of religion will have to address and pursue this new field of gender studies in a much more systematic way since it is implicated with all other fields. However much has been achieved, there is still a long way to go.

After my official "retirement" from university work in 2002, I have continued working freelance, writing, lecturing, doing some consultancy work, while enjoying the company of my family and friends and helping younger people with their own work and development whenever I can. Although my physical diminutions and problems continue to grow, I still enjoy and celebrate life as a great miracle and superabundant gift of the Spirit and remain firmly convinced that we can greatly help and energise each other to work together in making the world a better place.

#### **More...**

Prof King's many books include:

- King, U (ed.) (1995) *Religion and Gender*. Wiley-Blackwell. 340p. ISBN 9780631193777.
- King, U (2011) *The Search for Spirituality: Our Global Quest for a Spiritual Life*. BlueBridge. 256p. ISBN 1933346140.

Throughout the living world, we find living systems nesting within other living systems.

~ Fritjof Capra

# Books by fellows of The Schumacher Institute

## The Politics of Climate Change under President Obama

Hugh Atkinson (2018)

Through a detailed analysis of the politics of climate change, this book places the evolution of US climate policy within broader debates on the nature of politics in the US. It argues that there exists a latent potential, often obscured by the complexities of its political system, for America to act as a world leader on action on climate change.

Available at [www.routledge.com](http://www.routledge.com)

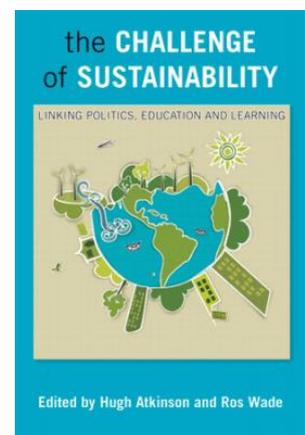


## The Challenge of Sustainability: Linking Politics Education and Learning

Hugh Atkinson and Ros Wade (eds) (2015)

This book explores the links between politics, learning and sustainability. Its central focus is on the future of people and the planet itself. The challenges that we face in building a more sustainable world are complex. The book argues that we need a fundamental change in the way we do politics and economics, embedding a lifelong commitment to sustainability in all learning.

Available at [www.bristoluniversitypress.co.uk](http://www.bristoluniversitypress.co.uk)

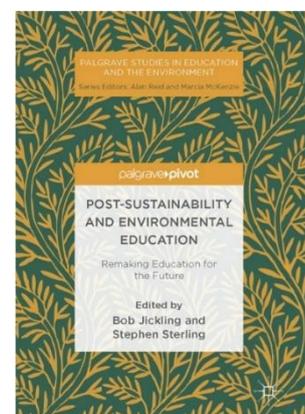


## Post-Sustainability and Environmental Education: Remaking Education for the Future

Bob Jickling and Stephen Sterling (eds) (2017)

This book provides a critique of over two decades of sustained effort to infuse educational systems with education for sustainable development. Taking to heart the idea that deconstruction is a prelude to reconstruction, this critique leads to discussions about how education can be remade, and respond to the educational imperatives of our time, particularly as they relate to ecological crises and human-nature relationships. It will be of great interest to students and researchers of sociology, education, philosophy and environmental issues.

Available at <http://www.palgrave.com/us/book/9783319513218>



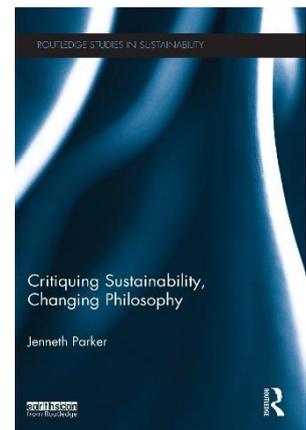
“Clearly, the rise of sustainable development in education and policy over the last 25 years has not led to a transition away from sustained, systemic global dysfunction. Arguably, this rise has unwittingly helped make this dysfunction more resilient. Contributors to this book represent essential counter-hegemonic voices that critique the dominant sustainable development discourse. But they also offer alternatives that may lead to “educative societies” where people can live well with each other, with the more-than-human world, and within planetary boundaries. This is an essential book for those seeking to transgress and disrupt the structures and forces pushing us all towards extinction.”

~ **Arjen Wals** (Professor of Transformative Learning for Socio-Ecological Sustainability, Wageningen University, the Netherlands and Gothenburg University, Sweden)

## Critiquing Sustainability, Changing Philosophy

Jenneth Parker (2015)

To increasing numbers of people, sustainability is the key challenge of the twenty-first century. The task of this book is to provide an overview of the current state of philosophy in the context of what philosophy is, could be or should be – in relation to sustainability and the human future on Earth. This includes an extended discussion of systems approaches and their relationships to philosophical approaches to knowledge. This text also presents proposals about how to conceive of interdisciplinarity in a system-informed way helpful to researchers and students



*Critiquing Sustainability, Changing Philosophy* focusses on the importance of philosophical work to the formation and effectiveness of global civil society and social movements for sustainability in the context of the Anthropocene age of the Earth. It takes a transdisciplinary systems approach that challenges philosophy and concludes by proposing a greatly enhanced role for philosophical contributions to global public reason for sustainability.

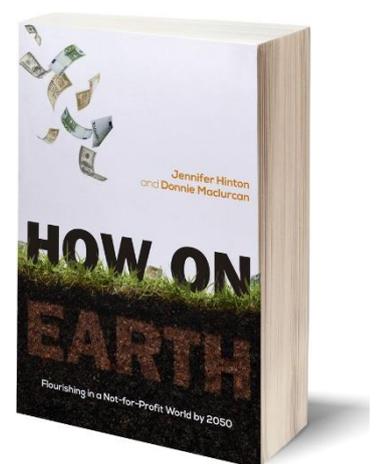
Available at <https://www.routledge.com/sustainability>

## How on Earth

Jennifer Hinton and Donnie Maclurcan (2016)

Imagine there was a simple way our economy could serve all people and the planet. Imagine we could evolve beyond capitalism to a system that inherently promotes individual health, community wealth and planetary well-being, while maintaining the best aspects of our existing market economy. Not only is such an evolution possible, it might already be on its way. *How on Earth* is a forthcoming book that documents the rapid rise of not-for-profit forms of business in the global economy and the foreseeable end to the profit motive in our lifetimes. This work reveals a potentially emerging future of purpose-driven companies that naturally promote financial circulation, social well-being, and environmental regeneration. A realistic market-based economic alternative to capitalism is possible, and is already taking hold across multiple sectors.

Available at: <https://arxiv.org/pdf/1902.01398.pdf>



Let's face it, the universe is messy. It is nonlinear, turbulent, and chaotic. It is dynamic. It spends its time in transient behavior on its way to somewhere else, not in mathematically neat equilibria. It self-organizes and evolves. It creates diversity, not uniformity. That's what makes the world interesting, that's what makes it beautiful, and that's what makes it work.

~ Donella H. Meadows

Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty.

~ Albert Einstein

We all share one planet and are one humanity; there is no escaping this reality.

~ Wangari Maathai

# Beyond Extinction Economics (BEE) meeting

*Penning by Jenneth Parker*

The Schumacher Institute is supporting a think-tank/networking group Beyond Extinction Economics that has been going since May 2018.

Thanks to all speakers and participants for a very successful and informative meeting. The network is currently mostly a sharing and discussion group with potential for further developments – to be decided. The first meeting resulted in a letter in the Guardian coordinated by Ted Benton.

<https://www.theguardian.com/environment/2018/mar/15/awkward-questions-about-diversity>

The meeting held on 2 February 2019 at Wolfson College Oxford heard talks from participants. These were so good that we made a resolution to capture them going forward and make them available as podcasts.

## **Susan Canney – ‘Half for Nature’**

Zoological Society film

<https://www.youtube.com/watch?v=ptWmJhIhjNM>

it was noted that this involves questioning the growth model and that maybe a special BEE group might progress this?

## **Victor Anderson – Biodiversity Convention and China 2020 meeting**

Whilst problems with such events they are useful intervention points – they get publicity and open up media. But previous Biodiversity targets have been totally missed with no analysis why. This year's IPBES Global Assessment is out and each report provides media opportunities. There is no process to assess the previous failures – is there need for a FRINGE event? The rise of nationalist populism creates problems for the whole process.

## **Zoe Young – Extinction Rebellion**

Zoe gave a talk from a social movement participants' perspective, i.e. mixing personal and political dimensions in a very affective and interesting way. Zoe introduced the 3 demands <https://rebellion.earth/>

Zoe stressed the importance of linking good science and recognition of emotional dimensions. Rapid rise of participation – people have had crowded meetings and creative forms of protest that express rage and sorrow over the state of the devastation of biodiversity and climate. Creative actions include funerals for extinct species. This has started an international movement in 35-40 countries. Whole set of mass actions.

## **Jenneth Parker – What about the Economy?**

This was a short diatribe about how even supposedly radical centres of Political Economy still fail to deal centrally with the need to change economics and the understanding of value. E.g.

[http://speri.dept.shef.ac.uk/our-research/?mc\\_cid=2530f77fa4&mc\\_eid=e90f3ed0a8](http://speri.dept.shef.ac.uk/our-research/?mc_cid=2530f77fa4&mc_eid=e90f3ed0a8)

It was generally thought that rather than spend energy trying to reform PEconomy, it might be better to collaborate with those who were more open to changes in economics e.g. The Association for Heterodox Economics.

<https://hetecon.net/>

We could offer something to a future event/conference – to be considered further.

In a world where profit is consistently put before both people and the planet, climate economics has everything to do with ethics and morality.

~ Naomi Klein

# In the age of Anthropocene...

*This piece is based on Introduction by Dr John Blewitt and Welcome by Dr Jenneth Parker in issue 1.*

In the 19<sup>th</sup> and 20<sup>th</sup> centuries people were indeed living in 'the Anthropocene' even if they were more concerned to dominate nature than nurture it. But for many in the 19<sup>th</sup> and certainly early 20<sup>th</sup> century the word they would have to use to describe all that was wrong with the world would have been 'civilisation'. And today, in many ways, the Anthropocene is also concerned with civilisation.

Civilisation is still again under scrutiny. The actions of highly productive human beings have created both the fruits and wonders of civilisation – art, literature, architecture, music – and a world, a civilisation, where nature has been greedily consumed to meet civilisation's seemingly insatiable needs and wants. Of course, if humans are social beings then they are also ecological beings too. It is the interaction of humans with their environment that has enabled the Anthropocene to supersede civilisation as a descriptive, explanatory and ultimately a political concept characterising our times.

The Anthropocene shows us all what is wrong and who is responsible for the problems and challenges we confront. However, the concept does not in itself tell us what we need to do although at its core is possibly an ecocentric sensibility struggling to make itself heard. We talk about the Anthropocene, we travel through it, we live it, we breathe it, we study it, we consume it, we photograph it and we may sing it. That is, we create it.

If anything, the first two issues are concerned with finding out on how we can develop new social and economic practices that are sensitive to planetary boundaries, the human condition and the condition of all those other life forms whose existence is often compromised or destroyed by our anthropogenic desire for MORE.

Titled 'Sharing the Planet in the Anthropocene', the first two sharing issues of one the key systems challenge of our time – how we both share, and care for, the planet Earth. It is EU Framework 7 project called CONVERGE led by The Schumacher Institute.

**The following four pages list summaries prepared by Jenneth Parker on the key questions of the papers.**

## Anthropocene: what is it?

In 2000 Paul Crutzen and Eugene Stoermer used the concept of the Anthropocene which has entered the scientific and popular literature as a vivid expression of the degree of environmental change on planet Earth caused by humans.

Human driven biological, chemical and physical changes to the Earth's system are so great, rapid and distinct that they may characterise an entirely new epoch – The Anthropocene (<https://www.bgs.ac.uk/anthropocene/>).

The Anthropocene is the idea that the Earth is entering a new epoch in its geological history, in which human beings have for the first time become the primary agents of change on a planetary scale (<https://www.nationaltrust.org.uk/features/what-is-the-anthropocene>).

The word combines the root "anthropo", meaning "human" with the root "-cene", the standard suffix for "epoch" in geologic time (<http://www.anthropocene.info/>).

# Preparing for change: preparing for the future

Based on **Preparing for Change in the Anthropocene: a Systems Perspective** by Ian Roderick

Preparing for change in the Anthropocene means constantly looking out for what might be coming towards us – commonly called scanning the horizon, this means identifying weak and early signals and systematically thinking through the consequences. A priority is to look for opinions on trends and movements, for signs of the big shifts in the world as well as the small advances (or retreats) that might have important consequences, or offer opportunities for improvement, or pose threats. Preparing for change is a form of future studies where we propose possible, probable, and preferable futures and the worldviews and myths that could underlie them. Futures studies seek to understand what is likely to continue and what could plausibly change.

## **Systems Aspects of the Early Anthropocene: Committed – Locked in, canalised, path dependent**

(In the early industrial revolution)... we were in a self-reinforcing channel, the more we dug the easier it became to keep digging and the rewards kept getting bigger. The systems term 'canalisation' could be used for this phenomenon, it means a development pathway that is robust and returns to where it was going after any perturbation – a process that cannot be stopped or diverted from its final form. Let's remember that the major social perturbations of colonialism, war and conflict actually increased the speed of industrialisation, increasing this canalisation.

## **Reinforcing Feedbacks**

The characteristics of the early stages of exponential growth provide an example of another key systems concept – that of 'reinforcing feedback'. This describes the ways in which change of a certain kind leads to more and more of the same – in this case where each technological advance opens up new ground for further advances. A major driving force in

this reinforcing feedback was also what Hornborg calls 'displacing problems to others' (Hornborg, 2014, p. 6). This involved a systematic displacement of labour and environmental degradation from countries like Britain to colonised parts of the world where labour and land were at near zero marginal cost (in economic, but not in human terms).

In discussions of resilience there are two main types of change identified.

**Type one: shocks or surprise change** – these are usually the disasters, disruptions and emergencies and they come with obvious distress, they are immediately perceptible and newsworthy – an extreme weather event is a shock change.

**Type two: stresses or creeping change** (also good or bad) – these are phenomena that accrete over a period of time, they build up or, alternatively, they erode and degrade. These are the day-to-day imperceptible changes, described by historical trends – climate change is an obvious example again. Loss of biodiversity is another very important example of category 2. Type change.

**A large part of preparing for change is to imagine both type one and type two changes at all scales from the global shifts down to the local effects on your own particular community.** One of the meanings that we can attach to the Anthropocene is that we could be seen as trying to create a global, viable system – some people might call this a global brain. With hope this highly interconnected system will develop its identity to avoid collapse, to restore the damage we have done and to keep us on a path of similar flow – converging to a world of equalities and within limits.

## **Full paper:**

<https://systemchange.online/index.php/systemchange/article/view/23>

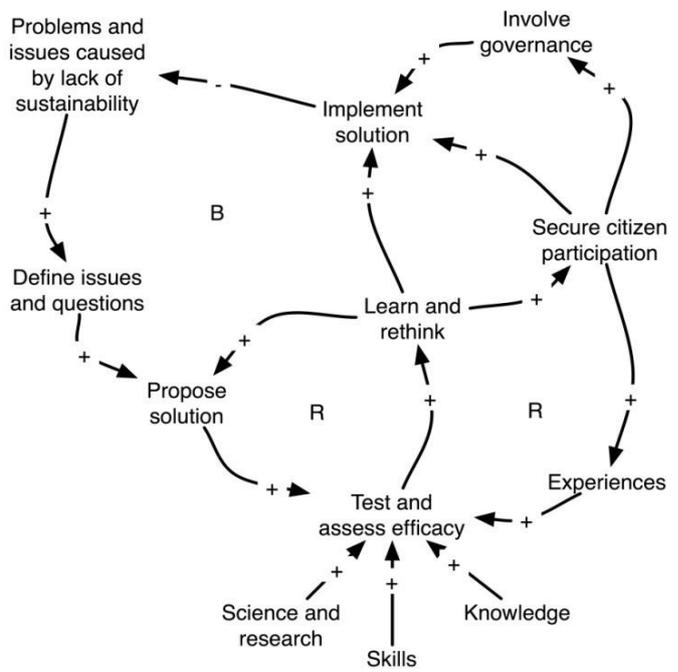
# Delivering the SDGs: essential preconditions

Based on **The Economic Challenges of the UN Sustainable Development Goals: a Systems Dynamics Approach** by Vala Ragnarsdottir and Harald Svedrup

There are several areas considered essential to enabling the delivery of the SDGs. These include: new economic thinking; new development indicators; mechanisms to address political corruption; and more equitable wealth distribution from resource extraction.

**Resources at the root of the economy**  
 (We need) a circular economic model that seeks to maximise the value obtained from resources, is restorative or regenerative by design, and intends to eliminate waste through the superior design of materials, products, systems and business models...

It is important to realize that issues like poverty, inequality, injustice, are all system outputs. Thus we can choose 'end-of-pipe' solutions, that is 'post-damage-done' or we can change the system that creates these issues as outputs. With 'End-of-pipe solutions,' the problems and issues will persist, but with real systems change, we may remove them altogether. This is where systems thinking and systems analysis comes in. Without understanding the systems causalities and feedbacks, we simply do not know how to change the system. Systems thinking and systems analysis is talked about a lot, but it is often not applied until it is actually too late. It is time to not only talk the talk but also walk the walk and change the system.



*A system for developing solutions must depart from proper definition of issues and questions to be solved.*

## Policy recommendations and leadership challenges for SDG achievements

Strategic leadership towards sustainability is about having a grand vision, a strategic plan for how it should be achieved, and then be able to work out a practical action plan for how to implement it into the real world.

### Full paper

<https://systemchange.online/index.php/systemchange/article/view/24>

RODERICK, Ian. Preparing for Change in the Anthropocene: a Systems Perspective. **System Change**, Vol 1 No 2, May 2018. Available at: <<https://systemchange.online/index.php/systemchange/article/view/23>>. Date accessed: \*\*\*\*\*.

RAGNARSDOTTIR, Kristin Vala. The Economic Challenges of the UN Sustainable Development Goals: a Systems Dynamics approach. **System Change**, Vol 1 No 2, May 2018. Available at: <<https://systemchange.online/index.php/systemchange/article/view/24>>. Date accessed: \*\*\*\*\*.

# Civil Society's influence on EU for a Sustainable Europe

Based on **For a Sustainable and Just Europe: Can Civil Society Effectively Influence the EU? The case of Trade Policy** by Lucy Ford

This paper provides a broad analysis of civil society actors that are engaging and challenging European hegemonic governance, including NGOs and social movements. These questions are explored through the retrospective case study of EU trade policy questioning the extent of the opportunities for civil society to influence this policy area, with implications for current challenges.

From the point of view of systemic change, this paper raises interdisciplinary questions of how we see second order (or radical) system change in the sphere of discourse, concepts and beliefs about social and economic systems. Again, this is a relatively unexplored area in system change discussions which tend to be focused on desired outcomes, or economic levers, and tend to leave out the cultural aspects that are also needed help achieve transformational change.

The first part of this article reiterates the usefulness of neo-Gramscian perspectives in understanding the contemporary political economy of EU trade policy, particularly attempts to consolidate a neoliberal trade agenda while paying lip-service to wider social interest groups. It reviews the orthodox and neo-Gramscian analyses of notions of governance and civil society and locates European governance within the global political economy.

FORD, Lucy. For a Sustainable and Just Europe: Can Civil Society Effectively Influence the EU? The case of Trade Policy. **System Change**, Vol 1 No 2, May 2018. Available at: <<https://systemchange.online/index.php/systemchange/article/view/26>>. Date accessed: \*\*\*\*\*.

The experience and understanding gained in the context of the EU may well have assisted in helping European civil society organisations understand better the concerns of Latin American countries, for example. In 2011 the S2B network along with other regional and global alliances launched a process for building The Alternative Trade Mandate Alliance (ATMA). The aim of this alliance is to challenge the neo-liberal direction of EU trade policy and propose radical alternatives including respect for human rights, decent work, sustainability, gender equality, further advocating making the European trade and investment policy process more democratic and accountable (ATMA, 2013). Though focused on EU trade policy, crucially this network is a globally inter-connected...

There is a spectrum of social movements with emancipatory potential, however latent and diverse. From this perspective one can apply Gramsci's concept of a 'war of position' that is above all focussed on political leadership (Gramsci (1971, p. 88) and also Gramsci (1971, p. 229)). I liken this to the need to develop complex, multi-layered strategies based on a sophisticated analysis of existing social forces and structures, including discourse and cultural framing. In addition this is increasingly happening at connected scales as more movements are addressing issues explicitly in their global context, targeting the interconnectedness of economic, social and ecological problems within the global political economy.

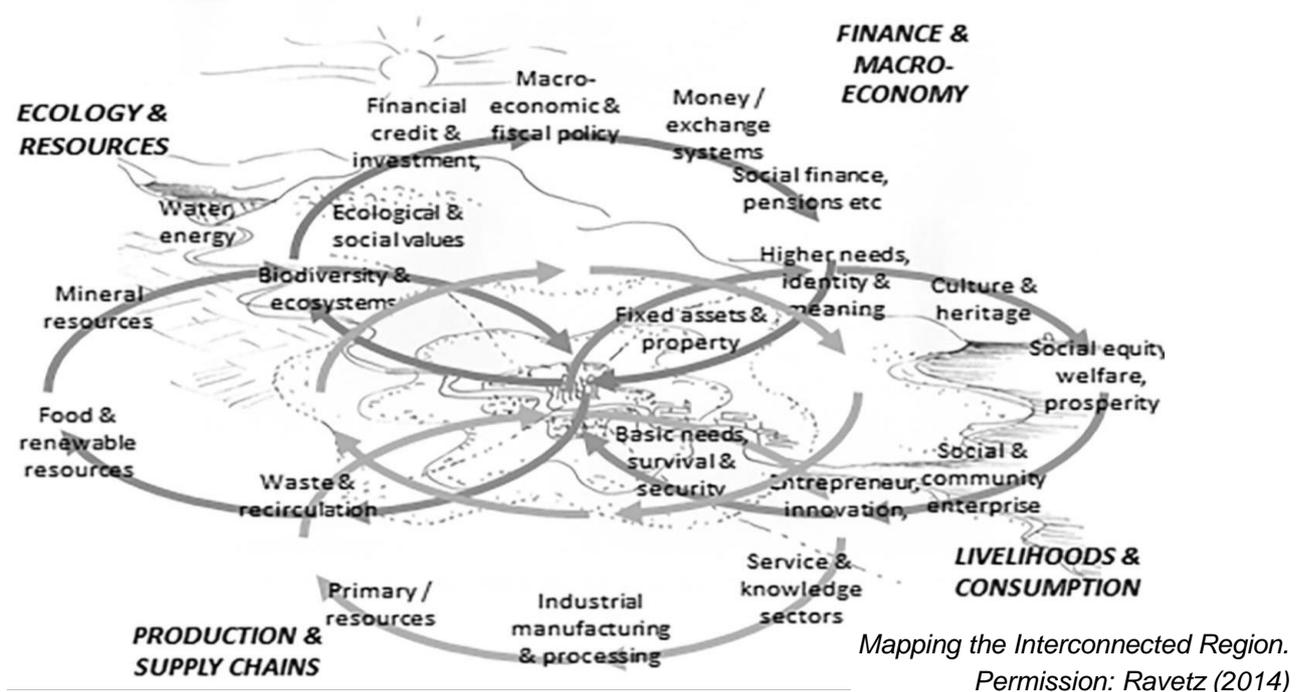
## Full paper

<https://systemchange.online/index.php/systemchange/article/view/26>

They're polluting the planet for free, and you're paying the price. ~ **Christine Milne**

# City System Transformation for Sustainable Cities

Based on **Sustainable Cities in the Anthropocene? City System Transformation will be needed** by Mike Goodfellow-Smith, Chris Rogers and Miles Tight



The current geological age is viewed as the period during which human activity has become the dominant influence on climate and the environment – the Anthropocene (Sykes et al., 2017). A defining feature of the Anthropocene is surely the large scale impacts associated with the rise and spread of the city. In 2016, there were 31 megacities globally and their number is projected to rise to 41 by 2030 (UN, 2014). The impact of such concentrated living is exerting extraordinary tolls on the very life support systems that sustain these centres of human population..... the next radical experiment might require making our cities small, green and self-sustaining. Now there's a novel idea. An idea that evokes City System Transformation – a renewal process with a 'One Planet' impact..

City Regions are essentially functional definitions of the economic and social 'reach' of cities. The aim in defining them is therefore to identify the boundaries of those areas in

which a majority of the population see the core city as 'their' place – in which they may work, shop, visit for entertainment and leisure pursuits, and with which they identify (Robson, Barr, Lympelopoulou & Rees, 2006).

It is the extent to which we adopt City System Transformation that will determine whether the city leaves a mark in the Anthropocene that is only a smudge of pollution and a line of dust, or a vibrant social and economic hub of ideas and innovation that provides healthy and sustainable lives for all...

## Full paper

<https://systemchange.online/index.php/systemchange/article/view/27>

GOODFELLOW-SMITH, Mike, ROGERS, Chris, TIGHT, Miles. Sustainable Cities in the Anthropocene? City System Transformation will be needed. **System Change**, Vol 1 No 2, May 2018. Available at: <<https://systemchange.online/index.php/systemchange/article/view/27>>. Date accessed: \*\*\*\*\*.