

## 5. Incentivising ‘Regenerative Value’ to Improve Sustainability Outcomes

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DOI: [https://doi.org/10.17533/978-628-7592-15-5\\_5](https://doi.org/10.17533/978-628-7592-15-5_5)

*Acknowledgement:*

*This article was written during a Fellowship at the Centre for Environment and Sustainability (CES), University of Surrey.*

This chapter argues that whilst specific policy instruments, industry standards, and the Sustainable Development Goals (SDGs) have an important role to play in establishing climate targets, incentivising action and monitoring outcomes requires a more interdependent approach to drive green initiatives at all scales. This chapter puts forward a conceptual framework for mutually reinforcing mechanisms and incentives to promote ‘regenerative value’<sup>2</sup> based on the measurement of net sustainability outputs across different dimensions.

Some have argued that the notion of capitals is an inappropriate approach that commodifies nature and other non-financial entities. In contrast, we suggest

1. *Development in Transition / Centre for the Understanding of Sustainable Prosperity (CUSP)*. <https://cusp.ac.uk/>. E-mail: [amy@developmentintransition.co](mailto:amy@developmentintransition.co)

2. This term has already been coined and is being applied to encourage beyond economic valuation within mainstream organisations. See for instance: ‘Regenerative Value Creation: A new logic for business & economy’, now Partners, accessed March 26, 2021, <https://t.ly/pC9c>

that regenerative value can advance transition management and positive actions on climate change. However, this must be supported with appropriate political-institutional arrangements for an integrated economy with strong redistributive and incentivising components of the co-benefits of sustainable action. This includes greater information sharing amongst stakeholders on sustainability gains, incentives towards promoting climate action, matching of stakeholder needs and interests to maximise sustainability impact, and reconsidering 'value' at a systemic level. In addition, there is a role for indexing organisations, sectoral bodies, or communities that demonstrate positive sustainability action. Engaging with different actors to share insights, frustrations, and opportunities across 'scales' and 'sectors' could help to overcome institutional silos and encourage collaborative approaches to cultivate and capture sustainability transitions, particularly through peer-to-peer support in enhancing sustainability knowledge and action.

Under these conditions, regenerative value could, therefore, be a fundamental component of a post Covid-19 global recovery programme on a local and global scale. We explore these debates and some preliminary ideas posited by the author in previous publications to assess how this might be put into practise.

## 5.1. Introduction

How we can shape 'sustainable' development is a key question for our time. The means to achieve this end are complex and subject to competing visions of what needs to be done, by whom, at what speed, and on what scale. Now more than ever we require a robust framework to assess and guide the type of world we are actually and ideally 'transitioning' towards. The announcement of a Green New Deal for the EU and movements such as the Extinction Rebellion or Greta Thunberg's dramatic awareness-raising are highlighting this need and taking sustainable impact measurement to the forefront of civic and political discourse. Depending on which narratives of 'sustainable development' are invoked and by whom, the outcome may range from a more transformative agenda to encouraging a post-political 'fix'.<sup>3</sup> For instance, once heralded as a

3. Phil Allmendinger and Graham Haughton, 'Post-political spatial planning in England: a crisis of consensus?' *Transactions* 37, no. 1 (2012): 89–103. <https://www.jstor.org/stable/41427930>; Peter North, 'The

promising urban buzzword, the notion of 'smart cities' has become tainted with democratic challenges associated with big-tech companies and countering a more outcomes-focused approach to civic enterprise, wellbeing-focused urban resilience strategies, and nature-based planning approaches.<sup>4</sup>

Speaking on the BBC's Question Time in December 2019,<sup>5</sup> Johnathan Bartlett, the England and Wales Green Party Co-Leader, said that If the climate were a bank, we would have bailed it out by now, highlighting the planet's reduced capacity to stave off negative feedback loops and the inability of financial systems alone to solve the climate crisis. Indeed, Weber refers to siloed and negative feedback loops within disparate, conflicting societal systems as 'utilitarian value,' where natural economic assets and services are valued (primarily in monetary terms) and appropriated from nature.<sup>6</sup> The need to address the unbalanced role of nature in economics has proliferated in recent years from calls for degrowth (decoupling of economic growth and socio-economic systems),<sup>7</sup> limits to growth,<sup>8</sup> regenerative economic theory valuing capital assets of the earth and sun as the life support machine of life on Earth,<sup>9</sup> and 'whole systems' perspectives<sup>10</sup> that incorporate social and economic impacts on natural resources beyond gross domestic product (GDP).

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 Politics of Climate Activism in the UK: A Social Movement Analysis,' *Environment and Planning A* 43, No. 7 (July 2011): 1581–98. <https://doi.org/10.1068%2Fa43534>

4. Sommer Mathis and Alexandra Kanik, 'Why you'll be hearing a lot less about "smart cities",' *City Monitor*, February 18, 2021. <https://tinyurl.com/4k6jckhw>

5. Jonathan Bartlett, BBC's Question Time in December 2019. Under 30s special hosted by Bartlett, Emma in York. - BBC News Election Special. December 9, 2019, video. <https://twitter.com/i/status/1204153591176413184>

6. Jean-Louis Weber, 'Need for an Ecological Currency to Measure Ecosystem Capital Degradation,' Presented at the Conference *Transforming the Future of Money*, Inter-University Centre, Dubrovnik, November 18–20, 2019. <http://shorturl.at/sIKL6>

7. Filka Sekulova, et al., 'Degrowth: from theory to practice,' *Journal of Cleaner Production* 38 (January 2013): 1–6. <https://doi.org/10.1016/j.jclepro.2012.06.022>

8. Tim Jackson, *Wellbeing Matters: Tackling growth dependency (Briefing Paper No. 3)* (London: All-Party Parliamentary Group on Limits to Growth, 2020). <https://tinyurl.com/4saf2anv>; Tim Jackson, *Prosperity Without Growth? The Transition to a Sustainable Economy* (London: Sustainable Development Commission, 2002). <https://tinyurl.com/2995pc3d>

9. Herman E. Daly, 'Uneconomic Growth and the Built Environment,' in *Reshaping the Built Environment: Ecology, Ethics, and Economics*, ed. Charles J. Kibert (Washington: Island Press, 1999), 73–88.

10. Frank Dixon, *Global System Change: A Whole System Approach to Achieving Sustainability and Real Prosperity* (New York: Global System Change, 2017).

In this framework, Gibbons et al. suggest there is a need for ‘regenerative development’ models where development and design methodologies are centred on ecological, integrative principles.<sup>11</sup> These can help engender the necessary worldviews, processes, and components for meaningful sustainable development and enhance both living systems and human health, well-being, and happiness. In this vein, Bozesan claims that there is a need for integral investing if the SDGs are to be implemented within planetary boundaries.<sup>12</sup> Or as Snick puts it, the global socio-economic model should move towards sustainable regrowth, which enables further decoupling of economic growth and ecological restoration, with the potential for a future population increase when systems have been restored.<sup>13</sup> These calls mirror the increasing application of Raworth’s doughnut economics framework that assesses ecological and social ceilings within which human activity should strive to work within,<sup>14</sup> a model that is steadily being applied by different sectors and local governments.<sup>15</sup>

One progressive approach within the UK devolved territory of Wales was to pass a Well-being of Future Generations (Wales) Act 2015 that covers government and public bodies. This set a statutory well-being goal for ‘a globally responsible Wales,’ as ‘a nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.’<sup>16</sup> These well-being ambitions are measured by a series of national

11. Leah Gibbons, et al., ‘Regenerative Development as an Integrative Paradigm and Methodology for Landscape Sustainability,’ *Sustainability* 10, no. 6 (June 2018): 1910. <https://doi.org/10.3390/su10061910>

12. Mariana Bozesan, *Integral Investing: From Profit to Prosperity* (Munich: Springer, 2020); the readiness of organisations to follow this model of investing is suggested by Bozesan to be informed on individual and team assessment.

13. Anne Snick, ‘EU Politics for sustainability: systemic lock-ins and opportunities,’ in *European Union and sustainable development: challenges and prospects*, eds. Arnaud Diemer, et al. (Brussels: Oeconomia, 2017), 3–22.

14. Kate Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist*, ed. Joni Praded (Vermont: Chelsea Green Publishing, 2017).

15. For instance, Cornwall County Council (in southwest England) is applying doughnut thinking to shape their decision-making processes during project, policy, or service design as well as for commissioning and procurement and budget setting.

16. ‘A Globally Responsible Wales,’ Future Generations Commissioner for Wales, para. 1, accessed January 12, 2022. <https://t.ly/Wymd>.

indicators<sup>17</sup> and the Welsh Government has produced a range of targeted resources to help councils adapt to a new way of governing through well-being objectives.<sup>18</sup>

By the same token, economies are being shaped towards ethical markets at different scales. Dixon has argued that 'system change investing' is required to end 'myopic thinking' based on a reductionist logic of profit-seeking, ensuring that human endeavours respect the limits of nature and strengthen collective responsibility toward this end.<sup>19</sup> In this light, Zadek suggests that the financial sector has a duty to make low-carbon growth pay to investors but doing so effectively means reorientating the financial system to effect meaningful change.<sup>20</sup> Moreover, Ulrich urges 'integrative economic ethics,' which entails that modern economies need to develop ethical principles that regulate market competition.<sup>21</sup>

Today, there are many initiatives promoting environmental, sustainability, and governance (ESG) within investment platforms, e.g., the Equator Principles,<sup>22</sup> Global Impact Investment (GIIN),<sup>23</sup> Impact Reporting Investment Standard (IRIS),<sup>24</sup> and the Global Reporting Initiative (GRI),<sup>25</sup> all of

17. 'Wellbeing of Wales: National indicators. Data and summaries for each of the national well-being indicators,' Welsh Government, December 15, 2021. <http://bitly.ws/rCFx>

18. 'Well-being of Future Generations (Wales) Act: Guidance 2015,' Welsh Government, last modified May 28, 2020. <https://t.ly/85eP>

19. Dixon, *Global System Change*, 232.

20. Simon Zadek, 'Financing a Just Transition,' *Organization & Environment* 32, no. 1 (August 2018): 18–25. <https://doi.org/10.1177%2F1086026618794176>

21. Peter Ulrich, *Integrative Economic Ethics: Foundations of a Civilized Market Economy* (New York: Cambridge University Press).

22. 'About the Equator Principles,' Equator Principles Association, accessed May 23, 2022. <http://bitly.ws/rCGC>. The Equator Principles are a financial industry benchmark for determining, assessing, and managing environmental and social risk in projects.

23. 'What World Are You Investing In?' Global Impact Investment Network, accessed May 23, 2022. <https://theiiin.org/>. Membership to the GIIN network allows impact investment businesses to access information and resources to support the industry.

24. 'Impact Reporting Investment Standard (IRIS), Global Impact Investment Network, accessed May 23, 2022. <https://iris.theiiin.org/>. This system, which is related to the GIIN, measures and manages impact in the financial sector where social or environmental impact is a primary driver.

25. 'GRI Standards English Language,' Global Reporting Initiative, accessed May 23, 2022. <http://bitly.ws/rD6Q>. The Global Reporting Initiative is a reporting standard on various environmental, social and economic issues and can be applied across all organisations (universal standards) or are specific to different sectors (sector standards) or to specific topics (Topic Standards).

which are positive signs of greening of financial investment standards. At a global level, the Task Force for climate-related disclosure (TCFD) was created by the international Financial Stability Board to help standardise climate-related impact reporting among financial institutions. The UK's sustainable disclosure requirement (SDR) will also drive up the regulatory pressure for financial institutions to report against a green taxonomy, which had its roots in the EU green taxonomy framework and will be aligned to the TCFD.<sup>26</sup> From April 2022, large companies (with a turnover of GBP 500m and 500 employees) will be required to report climate-related impacts, the first G20 country to do so. At a micro-level, there are also emerging financial mechanisms to incentivise green action by individuals and organisations, and green cryptocurrencies such as the ECO Coin<sup>27</sup> that while are currently niche ideas, could provide a potential mechanism to link financial and organisational systems to sustainable behaviours.

Yet, despite various policy initiatives and commitments, the global economy remains predominantly-growth centred.<sup>28</sup> Additionally, some scholars have asserted that the sustainability transitions literature, which explores the conditions to achieve more sustainable societies, so far has not fully engaged with research in environmental economics or considered the pricing of negative externalities.<sup>29</sup> Meanwhile, Avelino questions the 'reinforcive' aspects of 'borrowing' ideas from dominant global institutions, which may act to perpetuate established development practises at the expense of more transformative

26. See Josie Murdoch, Ana Musat, and Nick Mohlho, *Financing the Future: driving investment for net zero emissions and nature restoration* (London: Aldersgate Group, 2021). <https://tinyurl.com/2yy6hdtf>. They provide an excellent summary of how the UK's financial institutions should be reorientated to meaningfully contribute to net-zero policy targets and outcomes.

27. 'About,' ECO Coin, accessed May 22, 2022. <https://www.ecocoin.com/>. ECO Coins are earned by taking actions that contribute towards a sustainable future in exchange for products, services, or experiences.

28. Derk Loorbach, et al., 'Transformative innovation and translocal diffusion,' *Environmental Innovation and Societal Transitions* 35 (June 2020): 251–60. <https://doi.org/10.1016/j.eist.2020.01.009>

29. Jeroen C.J.M. van den Bergh, 'A third option for climate policy within potential limits to growth,' *Nature Climate Change* 7, no. 2 (February 2017): 107–12. <https://doi.org/10.1038/nclimate3113>

approaches.<sup>30</sup> This, in turn, leads to inequalities, extending democratic deficits, or co-opting the appropriation of environmental governance discourse.<sup>31</sup>

Accordingly, what is needed is a broader conceptualisation of value and resources in the context of sustainable production and consumption where the institutional environment allows for such interaction to flourish.<sup>32</sup> As Reuter argues, transforming dominant cultural narratives will require a 'quantum leap in consciousness' to transform our attitude toward nature; doing so can simultaneously change our 'social ecology';<sup>33</sup> that is, the way humans relate to one another to secure fairer outcomes. For resilient social and ecological systems to flourish, it required to have 'a high degree of diversification and the maintenance of a dynamic web of mutual interdependence relationships that capitalises from such diversity.'<sup>34</sup>

Yet, while its effects are localised at the community level, climate change works at a systemic level with epidemic tendencies, spreading rapidly across (social) ecosystems. Moreover, for communities to be resilient and liveable in the future, the onus needs to effectively link communities with comparable and meaningful measures of 'sustainability.' This is also to reduce the risk of a 'schizophrenic' green economy emerging where, as consumers, we prioritise material advancement that may be at odds with positive environmental outcomes. These observations highlight the need to rethink the nexus of values, democracy, and resource distribution toward an inclusive circular economy.

30. Flor Avelino, 'Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability,' *Environmental Policy and Governance* 27, no. 6 (November/December 2017): 505–20. <https://doi.org/10.1002/eet.1777>

31. Eric Swyngedouw, 'The Non-political Politics of Climate Change,' *ACME: An International Journal for Critical Geographies* 12 no. 1 (2013): 1–8. <http://bitly.ws/rD7r>

32. Peter Bradley, 'An Institutional Economics Framework to Explore Sustainable Production and Consumption,' *Sustainable Production and Consumption* 27 (July 2021): 1317–39. <https://doi.org/10.1016/j.spc.2021.02.035>.

33. Thomas Reuter, 'Principles of Sustainable Economy: An Anthropologist's Perspective,' *CADMUS* 3, no. 2 (May 2017): 146. <http://bitly.ws/rHfP>

34. *Ibid.*, 131.

## 5.2. Defining and Measuring Transformative Innovations

Loorbach et al. define transformative innovations as ‘shared activities, ideas, and objects across locally rooted sustainability initiatives that explore and develop alternatives to incumbent and (perceived) unsustainable regimes that they seek to challenge, alter or replace.’<sup>35</sup> They suggest that transformative innovations are stimulated through networking across scales, i.e., through ‘translocal networks,’ to share discourse, objects, and practises.<sup>36</sup> These authors outline how the TRANSformative Social Innovation Theory (TRANSIT) project<sup>37</sup> captured 450 ‘critical turning points’ in a database, drawing on semi-structured interview data with 80 initiatives.<sup>38</sup> Meanwhile, the accelerating and rescaling transitions to sustainability project (ARTS) identified the mechanisms of growth and diffusion through which sustainability initiatives develop and found similarities between initiatives in terms of learning and exchange in different types of regions.<sup>39</sup>

This chapter suggests that introducing multi-level indicators of sustainability action can help to capture such similarities of learning and exchange and the extent turning points occur within and outside different systems. This could have a wider bearing on the study of ‘deep transitions’<sup>40</sup> or the way societal systems interact and how value systems are created and transformed. In this train of thought, we explore the potential to quantify and thereby cultivate transformative innovations through the practise of monitoring and evaluation (M&E),

35. Loorbach, et al., ‘Transformative innovation,’ 252.

36. Ibid.

37. ‘Transformative Social Innovation Theory,’ TRANSformative Social Innovation Theory, accessed September 7, 2020, <http://t.ly/PLz8>; ‘The TRANSIT Project,’ Dutch Research Institute for Transitions, accessed September 7, 2020. <https://t.ly/AOTT>

38. Bonno Pel, et al. *The Critical Turning Points database; concept, methodology and dataset of an international Transformative Social Innovation comparison (Working Paper)* (TRANSformative Social Innovation Theory, 2017). <http://bitly.ws/rFdk>

39. Loorbach, et al., ‘Transformative innovation.’

40. Laur Kanger and Johan Schot, ‘Deep transitions: Theorizing the long-term patterns of socio-technical change,’ *Environmental Innovation and Societal Transitions* 32 (September 2019): 7–21. <https://doi.org/10.1016/j.eist.2018.07.006>



a well-established field within international development and policy impact studies. More recently, sustainability transition studies have expanded to embed accountability and learning practises, encouraging reflective feedback and information sharing on results. For instance, Strasser et al.'s 3D framework emphasises the depth (impact), width (reach), and length (stability and duration) of transitions through a process of learning within networks.<sup>41</sup>

Though, while local governments may have routine sustainability monitoring procedures, these vary across countries and in some cases may be very weak or non-existent. Community-led initiatives sometimes may perceive M&E as onerous or lacking the resources and knowledge required to access evaluative tools,<sup>42</sup> which affects the extent they can commit to robust reflective processes. Particularly revealing is that international funding for data and statistics has been at half the level the UN suggests is required.<sup>43</sup>

### 5.3. Opportunities and Challenges of Using the SDGs for Transformative Action

Adopted in 2015 and agreed by 193 member states of the United Nations, the SDGs encompass a broad range of economic, social, and environmental dimensions of sustainable development. Likewise, they set specific targets for the implementation of 17 goals with an associated 169 targets. Many local councils have also declared climate (and sometimes ecological) emergencies as a means of publicly stating the need for more action to address sustainability. Indeed, the Local Government Association (LGA) and the UK Stakeholders for Sustainable Development (UKSSD) posed that when a local council has declared a climate emergency, the best way to galvanise action and change behaviour is

41. Tim Strasser, Joop de Kraker, and René Kemp, 'Developing the Transformative Capacity of Social Innovation through Learning: A Conceptual Framework and Research Agenda for the Roles of Network Leadership,' *Sustainability* 11, no. 5 (March 2019): 1304. <https://doi.org/10.3390/su11051304>

42. Amy Merritt and Tristan Stubbs, 'Incentives to Promote Green Citizenship in UK Transition Towns,' *Development* 55, no. 1 (March 2012): 96–103. <https://doi.org/10.1057/dev.2011.113>

43. United Nations. *The Sustainable Development Goals Report 2020* (Geneva: United Nations Statistics Division, 2020). <https://tinyurl.com/2p9fst8>

to follow the SDGs since these latter enable councils and local people to think strategically, use a common language, and be accountable.<sup>44</sup>

The SDGs seek to capture the multi-dimensional aspects of sustainable development, with associated global indicators<sup>45</sup> reported mainly at the national scale, with approximately two indicators for each target (or 300 indicators in all). Governments are also free to develop their national indicators to track progress. At the city-scale and beyond, some local governments are departing from the discursive parameters of a growth-centred logic such as Liverpool City Council's (England) commissioning of a local group to map the Mayor's inclusive growth plan against targets and indicators of the SDGs.<sup>46</sup> Moreover, the UK's Thriving Places Index identifies the local conditions for wellbeing and measures whether those conditions are being delivered fairly and sustainably.<sup>47</sup> Furthermore, the Royal Town Planning Institute (RTPI) has produced a toolkit for UK and Irish planners to use in their work that focuses on outcome-based valuation within land-use and strategic planning aligned to the SDGs.<sup>48</sup>

However, the extent of monitoring and reporting of SDGs into local systems has been low. In addition, while initiatives such as the Thriving Places Index are extremely welcome to map the progress (or lack thereof) among and between urban areas, such information could be more explicitly tied to incentives that promote the sharing of best practise. This should be particularly done in 'least performing' or 'deprived' areas for encouraging people to share insights with others in the first place. At the same time, those deemed to be underperforming in some areas need to have resources available so that they can draw on a fair exchange of sustainability knowledge and practises. It is paramount

44. Local Government Association and the UK Stakeholders for Sustainable Development. *UN Sustainable Development Goals: A Guide for Councils* (London: Local Government Association, 2020). <https://tinyurl.com/3h6vnuufh>

45. 'sdg Indicators,' United Nations Statistics Division, accessed September 14, 2020, <https://t.ly/GEar>

46. UK Government, *Voluntary National Review of Progress towards the Sustainable Development Goals: United Kingdom of Great Britain and Northern Ireland* (London: Department for International Development, and Foreign, Commonwealth & Development Office, 2019). <http://shorturl.at/dkDGM>

47. 'Thriving Places Index,' Centre for Thriving Places, accessed March 25, 2022, <https://t.ly/05i5>

48. 'Measuring What Matters: Planning Outcomes Research,' Royal Town Planning Institute, accessed January 17, 2022. <http://t.ly/vqUK>

to incentivise people interested in similar issues to reach out and support one another through mutually supportive horizontal governance, which may cut across traditional administrative or national boundaries to include those grappling with similar issues, e.g., in a forum-based arena.

Meanwhile, the SDGs tend to focus on the symptoms of unequitable organisations, not the root causes of inequality, environmental unsustainability, or broader systemic constraints.<sup>49</sup> In fact, the SDGs may restrict more transformative approaches to economic growth: they do not call on governments to change the limited liability model of corporate governance, reform taxation systems, or orient economic systems to better reflect the true value of the environment.<sup>50</sup> An alternative to the SDGs is the One Planet Living (OPL) principles.<sup>51</sup> While these echo many of the objectives of the SDGs,<sup>52</sup> OPL principles emphasise *equity* overgrowth.<sup>53</sup>

Opportunities and shortfalls of current assessment processes reveal what is still required to develop a truly holistic framework for cultivating and measuring sustainable outcomes. Additional improvements relate to longer-term assessment and monitoring more broadly,<sup>54</sup> particularly where this involves assessing the health of ecosystems through a combination of selected indicators.<sup>55</sup> Much of global climate science is localised, whereby policy-makers seek to legitimise technical and political decisions often through co-production for stakeholders to situate local issues within broader climate change issues.<sup>56</sup> However, research indicates that there is little demand for climate projections

49. Dixon, *Global System Change*.

50. Ibid.

51. 'One Planet Living,' Bioregional, accessed September 7, 2020. <http://t.ly/iSth>

52. See 'The 17 Goals,' United Nations, accessed September 7, 2020. <http://sdgs.un.org/goals>

53. For example, SDG 8 'Decent Work and Economic Growth' compares to OPL 2 'Equity and local economy.'

54. Erika Y. Chin and John A. Kupfer, 'Prevalence of Ecological, Environmental, and Societal Objectives in Urban Greenway Master Plans,' *Southeastern Geographer* 59, no. 2 (Summer 2019): 153–71. <https://doi.org/10.1353/sgo.2019.0013>

55. Margaret A. Palmer and Catherine M. Febria, 'The Heartbeat of Ecosystems,' *Science* 336, no. 6087 (June 2012): 1393–94. <https://doi.org/10.1126/science.1223250>

56. Jason Corburn, 'Cities, Climate Change and Urban Heat Island Mitigation: Localising Global Environmental Science,' *Urban Studies* 46 no. 2 (February 2009): 413–27. <http://dx.doi.org/10.1177/0042098008099361>

to inform local planning adaptation due to existing policy and legal and regulatory frameworks hampered by changes in the regulatory environment and austerity measures.<sup>57</sup>

Against a backdrop of ever-changing governments and political priorities, can a harmonisation of approaches to sustainability reporting be achieved? How can this be incentivised and how much standardisation is desirable across different contexts? We suggest that M&E tools need to be integrated to respond to the challenge of capturing progress towards the SDGs whilst being able to be used by a range of different stakeholders in such a way that they promote a circular response to climate action. Such an endeavour requires greater attention to the transition governance around incentive structures, data management, and knowledge exchange for sustainability action.

## 5.4. Promising Avenues in Alternative Measurement of Transformative Metrics

Environmental, sustainability, and governance (ESG) factors are considered in investment decisions on an increasingly routine basis. Some frameworks such as total corporate responsibility (TCR), which was developed in 2003, seek to hold stakeholders accountable for their actions to engender system change. TCR includes metrics linked to higher-level economic, social, and political change, for instance, government influence working with the third sector and addressing system flaws. The EU Sustainable Finance Strategy includes a Green Deal for Europe which aims to reorder European production models and includes ecocide as a crime against humanity in international law with the Environmental Court of Justice empowered to track its progress. In turn, the European Investment Bank (EIB) will fund the Green Public Works programme to inject public investment into green infrastructure, housing, and community projects

57. Rosalie Callway, Tim Dixon, and Dragana Nikolic, 'Embedding green infrastructure evaluation in neighbourhood masterplans - does BREEAM communities change anything?' *Journal of Environmental Planning and Management* 62, no. 14 (February 2019): 2478–2505. <https://doi.org/10.1080/09640568.2018.1563371>; Susanne Lorenz, et al., 'Adaptation planning and the use of climate change projections in local government in England and Germany,' *Regional Environmental Change* 17 (February 2017): 425–35. <https://doi.org/10.1007/s10113-016-1030-3>

through green investment bonds issued by the EIB. In the UK, the Environment Bank aims to leverage funds that 'invest in nature' and work with housing and commercial developers, planning authorities, and landowners to find solutions to deliver biodiversity net gain, i.e., demonstrable enhancements to nature and biodiversity as a result of development, this latter concept being now enshrined in the UK's Environment Act 2021.<sup>58</sup> The Act also encourages local nature recovery strategies which will cover the whole of England, recognising the integrated function of ecosystem services and the need for strategic enhancements for nature in specific areas.

The measurement of such enhancements can be captured through natural capital-based approaches, which measure the stock of natural assets from which various goods and services may be derived and upon which humans and other forms of life depend. Various monitoring and natural capital accounting schemes have been established by the UN<sup>59</sup> and the Millennium Ecosystem Assessment (MEA) to measure ecosystem capacities, resilience, and economic accountability to nature.<sup>60</sup> In the UK, natural capital accounting is mainstreamed by national government agencies, e.g., Natural England,<sup>61</sup> and at the regional scale, such as the Greater Manchester Combined Authority.<sup>62</sup> These demonstrate the value of natural assets such as recreation and water to social outcomes such as amenity value, mental health and physical health, air quality, food, and flood risk.

Natural capital-based approaches can be classified into the provision of food and water, the regulating functions of natural ecosystems, supporting

58. UK Government. Environment Act 2021: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

59. 'System of Environmental Economic Accounting,' United Nations, accessed April 3, 2022. <https://t.ly/N7vI>

60. *Millennium Ecosystem Assessment, Ecosystems and human well-being: synthesis* (Washington, DC: Island Press, 2005). <http://bitly.ws/rFgA>

61. Natural England, *Accounting for National Nature Reserves: A Natural Capital Account of the National Nature Reserves managed by Natural England (NERR078), 2nd edition* (London: Natural England, 2019).

62. 'Natural Capital Account for Greater Manchester,' Economics for the Environment Consultancy, accessed April 4, 2022. <https://shorturl.at/lrD16>

lifeforms, and the cultural, spiritual, and recreational benefits to nature.<sup>63</sup> The late Colin Tingle coined the term ‘naturegain’<sup>64</sup> to account for the added value nature gives us. Weber has also suggested that metrics of ecological value could be based on ecosystem capability units (ECU); these could measure public goods such as regulation of water, climate, air quality, biodiversity, and sustainability of assets and services as ‘ecological value’<sup>65</sup> and ‘ecosystem capability accounting.’<sup>66</sup> Weber posits that ECU is ‘a composite currency to measure ecological values: ecosystem capability degradation and enhancement, ecological debts and receivables,’<sup>67</sup> which can be calculated in basic units (tons, m<sup>3</sup>, or ha) and then be saved and transacted.

Nonetheless, the monetising of nature – and related emerging nature-based offsetting markets - has been critiqued by a number of scholars for its potential to commodify natural public good benefits. For instance, Victor affirms that valuations of the cost of environmental change have ‘serious flaws in standard welfare economics.’<sup>68</sup> This is due to the way value is assumed within a rational choice theory of change.<sup>69</sup> Moreover, the notion of capital has encroached into non-market spheres that represent a neo-liberalisation of social value.<sup>70</sup> Additionally, Victor argues that there are issues with comparative calculations of abundant natural resources and their depletion, which makes definitions of monetary value arbitrary.<sup>71</sup> Likewise, another key concern is that ‘estimates of the monetary value of ecosystem services are meaningful if and only if there are

63. Peter A. Victor, ‘Cents and nonsense: A critical appraisal of the monetary valuation of nature,’ *Ecosystem Services* 42 (April 2020): 101076. <https://doi.org/10.1016/j.ecoser.2020.101076>

64. Ecosystem Knowledge Network, *Involving local communities in the recognition of what nature does for people: Field visit to Lewes and Ouse Valley eco-nomics group* (Wallingford: Ecosystem Knowledge Network, 2014). <http://bitly.ws/rFuG>

65. Weber, ‘Need an Ecological Currency.’

66. Jean-Louis Weber, ‘Ecosystem Capability Accounting,’ *Ecosystem Capability Accounting*, last modified November 25, 2014, <http://www.ecosystemaccounting.net/>

67. Weber, ‘Need an Ecological Currency,’ 6.

68. Victor, ‘Cents and nonsense,’ 1.

69. *Ibid.*

70. *Ibid.*; Marion Fourcade, ‘Cents and Sensibility: Economic Valuation and the Nature of “Nature”,’ *American Journal of Sociology* 116, no. 6 (May 2011): 1721–77. <http://dx.doi.org/10.1086/659640>

71. Victor, ‘Cents and nonsense.’

market-based substitutes available that people consider are sources of equivalent value.<sup>72</sup>

Still, as Merritt and Stubbs point out, forms of exchange need not be driven solely by financial forms of exchange. Non-monetary forms of exchange such as Timebanking (where people exchange time and build up time credits through non-monetary exchanges with others to provide goods and services) also provide a form of resource exchange to facilitate sustainable action projects based on the long-term informal economic practise of bartering.<sup>73</sup> A more recent form of social exchange in the UK, borne out of the Covid-19 pandemic has been FurloughGo<sup>74</sup> whereby furloughed members of staff could offer their (voluntary) services to charities that need expertise and additional resources. The social movement SumOfUs has also established a Covid Support Network that aims to match unmet needs and people providing support.<sup>75</sup>

Consequently, there is potential to see beyond the term 'capital' as an intrinsically negative term. Rather, it is worth assessing how value mechanisms can encompass societal forms of value and exchange, including approaches that challenge neo-liberalism and solicit a move towards the sharing economy, or the 'new economy.' This latter term is a meta-narrative for communing, sharing, and regenerative economics. Here, value can be embedded in informal green monetary initiatives that can quantify ecosystem capital degradation impacts and incentivise their restoration such as ecological currencies. In this

72. Ibid., 2.

73. Amy Merritt and Tristan Stubbs, 'Complementing the Local and Global: Promoting Sustainability Action Through Linked Local-Level and Formal Sustainability Funding Mechanisms,' *Public Administration and Development* 32, no. 3 (June 2012): 278–91. <https://doi.org/10.1002/pad.1630>

74. Her Majesty's Revenue and Customs, 'Check if you can claim for your employees' wages through the Coronavirus Job Retention Scheme,' GOV.UK, last modified October 15, 2021, <http://t.ly/xbw3>. In the UK, the term 'furlough' was used to describe an employee who was temporarily not working as their employer has applied to the UK government's furlough scheme. This meant that staff, whose roles were affected by the pandemic (e.g., loss of demand for services offered in these roles such as hospitality or travel sectors), were paid a proportion of their salary by the government. In most cases, furloughed staff were permitted to work whilst receiving such government support although there were cases of 'flexible furlough,' i.e., staff worked on certain days if they were affected by the closure of schools.

75. This network was formed to act as a mechanism to bring together those in need and those offering assistance to meet unmet needs caused by the Covid-19 pandemic whereby SumOfUs created a centralised, global response system. Though, since the pandemic the platform appears to be mainly used by those seeking support in the Global South. See SumOfUs Covid Support Network. <https://aid.sumofus.org/en>

vein, building upon Figge and Hahn's proposition of the term 'sustainability capital',<sup>76</sup> we argue that generating a quantifiable and tradeable value of 'greening' could help to shift behaviours and system logics towards those that show a distinct move towards sustainable pathways. As we discuss below, positive externalities may be accrued by cultivating more regenerative value by means of which mutually reinforcing enhancements to people and the planet can be quantified, incentivised, and formalised. As NOW Partners suggest, initiatives such as B-Corps, which is a certification of 'social and environmental performance' lead to a 'new economic DNA' that recalibrates how organisations and individuals interact in positively transformational ways.<sup>77</sup>

However, while B-Corps are a necessary self-regulatory tool to reflect environmental and social business practises, the economic system still requires additional mechanisms to overcome free-riding 'by creating incentives to reward cooperation and to sanction violations.'<sup>78</sup> Below, we discuss how such institutional parameters might be established within (sustainable) market and beyond-market mechanisms to feed into a self-generating circular economy, in addition to incentivising transformative governance capabilities. We also document some indicative moves towards forms of regenerative value by way of an example of how quantification and exchange can engender a shift towards more sustainable outcomes.

## 5.5. Regenerative Value and Associated Governance Components

Regenerative value is similar to Weber's ECU to the extent that it assesses change according to measurable aspects of environmental value and Figge and Hahn's 'sustainability capital.' However, it also has a more extensive systemic reach. Regenerative value is proposed herein as 'a form of value that is produced when

76. Frank Figge and Tobias Hahn, 'The Cost of Sustainability Capital and the Creation of Sustainable Value by Companies,' *Journal of Industrial Ecology* 9, no. 4 (February 2008): 47–58. <https://doi.org/10.1162/108819805775247936>

77. 'The B business potential: Why multinationals become B Corps,' accessed March 26, 2021, <https://t.ly/SzIK>

78. Brian Walker, et al., 'Looming global-scale failures and missing institutions,' *Science* 325, no. 5946 (September 2009): 1345–46. <https://doi.org/10.1126/science.1175325>



other value dimensions act in tandem to produce sustainable outputs or outcomes, calculated and circulated through linked governance mechanisms that promote the common good.<sup>79</sup> This concept extends the important research by Flora and Flora who proposed the idea of a 'community capitals framework' to help communities foster a systemic approach to generate positive outcomes in their communities by mapping different levels of different capitals via indicators, i.e., units of analysis that measure specific changes.<sup>80</sup> Yet, to avoid a charge of attributing these forms of social and environmental value within a capitalist framework, the figure below outlines the components of regenerative value based upon other types of 'values,'<sup>81</sup> rather than 'capitals.' The aggregate interaction in these different fields can be quantified through a regenerative value score through (common) indicators and reporting tools and exchanged by both financial and non-financial means to further incentivise sustainability action.

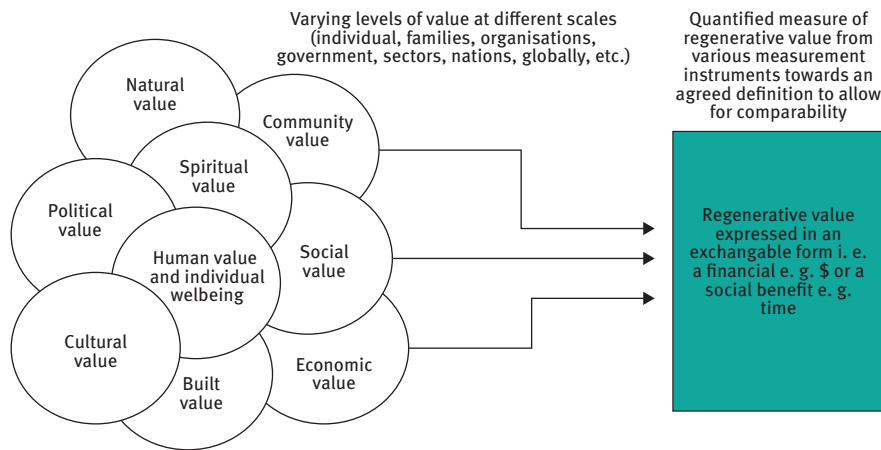


FIGURE 4. Inputs in a Regenerative Value Framework

Source: Prepared by the author based on Flora and Flora.<sup>82</sup>

79. Amy Burnett 'Regenerative and just planning,' 126.

80. Cornelia Butler Flora and Jan L. Flora, *Rural Communities: Legacy and Change, 3rd Edition* (Boulder: Westview Press, 2007).

81. Figure 4 also emphasises spiritual value as an important component that can be linked to well-being, community, social or natural value but could also transcend these as its own field.

82. Flora and Flora, *Rural Communities*.

Regenerative value could reduce carbon emissions, rejuvenate local economies, and drive action by circulating within the local economy and influencing national GDP to become more sensitive to environmental and social dimensions. This echoes a greening of municipal social activism pioneered by the US city of Cleveland (Ohio) and Preston (UK) where ‘community wealth building’<sup>83</sup> cultivated partnerships with ‘anchor institutions’ to keep wealth in the area. Such an approach has also been suggested by Hines who speaks of *localisation* as ‘a process which reverses the trend of globalisation by discriminating in favour of the local.’<sup>84</sup>

Those seeking paradigm shifts away from neo-liberal economics go further. The Post Carbon Institute, for example, suggests re-localisation as a greening of locally situated socio-economic systems, including local food, energy, currency, and governance tied to social equity.<sup>85</sup> Mechanisms to promote regenerative value might combine a locally rooted approach through the reinforcing links within systems that promote re-localisation at different scales tied to a more-than-local change agenda. Some illustrative examples of regenerative value in action are detailed in the table below.

To realise regenerative value and associated mechanisms at different scales this chapter revisits the author’s previous ideas<sup>86</sup> and reflects on their suitability and potential adaptability to a post-Covid recovery model against some of the themes proposed by the Transformative Metrics October 2020 conference organisers.<sup>87</sup> Also, we draw on Bakker’s insight that ‘a better understanding of actor rationales can be of help to the design of incentives for actors to take part in niche activities (i.e., which incentives are likely to trigger different actors?).’<sup>88</sup>

83. See more information and many examples published by the US think tank at ‘Community Wealth Building,’ Democracy Collaborative, accessed May 23, 2022. <https://democracycollaborative.org/cwb>

84. Colin Hines, *A Global Look to the Local Replacing economic globalisation with democratic localisation* (London: IIED, 2003), 5.

85. ‘Relocalize,’ Post Carbon Institute, accessed May 27, 2019, <https://www.postcarbon.org/relocalize/>

86. See Merritt and Stubbs, ‘Complementing the Local,’ Merritt and Stubbs ‘Incentives to Promote;’ Burnett ‘Regenerative and just planning.’

87. ‘Transformative Metrics Workshop Call,’ Transformative Innovation Policy Consortium, accessed January 17, 2022, <http://t.ly/vLFFK>

88. Sjoerd Bakker, ‘Actor rationales in sustainability transitions – Interests and expectations regarding electric vehicle recharging,’ *Environmental Innovation and Societal Transitions* 13 (December 2014): 61. <https://doi.org/10.1016/j.eist.2014.08.002>

TABLE 1.1. Examples of Regenerative Value in Action

Sector	Examples	Details	Strengths	Weaknesses
Energy	Feed-in-Tariff	Policy incentive that rewards installation of renewable energy with a guaranteed financial reward over a specific time period (usually 20 years).	It encourages the uptake of renewable energy for domestic, commercial, and community energy.	It is dependent on government funding and support.  Cuts can damage the renewable energy sector.
Housing	Green Leases Environment Bank	A 'green lease' incorporates clauses whereby the owner and the occupier undertake specific responsibilities/obligations with regard to the sustainable operation/occupation of a property, for example, energy efficiency measures, waste reduction/management, and water efficiency.	It fosters investment in green infrastructure in the real estate sector.	It may engender inequalities and prioritise those who may afford a green premium.
Finance	Green Bonds  Eco-Coin	Leverages investment and directs towards ESG outcomes.  A cryptocurrency where credits are earned through sustainable actions; coins are stored in digital wallets accessible through a mobile platform.  Sustainable actions are verified by and rewarded by certified vendors.	It boosts the greening of the financial sector.  It incentivises the greening of consumer behaviour.	Some carbon-intensive investments may have a higher return.  It is still relatively 'niche' and wider benefits are not mainstreamed.  It may be a mismatch to vendor: consumer needs.

Sector	Examples	Details	Strengths	Weaknesses
Environment	Environmental Net Gain	A form of ecosystem-based payment that encourages a positive net environmental benefit.	It can help to realign and reaffirm nature-based approaches to mainstream development practise.	It depends on policy measures to be effectively implemented and regulated.  It requires investment in local planning authorities and local/national policy alignment.
Indexing	Thriving Cities Index	It monitors well-being and sustainability metrics across towns and cities.	It allows comparability and monitoring of sustainability and well-being within and across places.	It is UK-based not global.
Data	ClimateView	ClimateView is a climate action technology company that combines scientific modelling, machine learning, and interface design to help cities understand and act on the complexities associated with climate change.	It mines data from extant published sources to inform sustainability baseline.  It maps pathways associated with SDGs.	It lacks an integrative focus on well-being and nature.  It works with some Global North cities, but with not a global approach yet.
Multisectoral	Social Value and the National TOMS metrics (themes, objectives, and measurement)	Under the UK's Public Services (Social Value Act 2012) under which public entities need to report their contribution to social and environmental outcomes, including well-being. A method of reporting and <i>measuring</i> social value to a consistent standard from the Social Value Portal.	It provides standardised metrics for quantifying social value for both public and private companies.	It converts values into proxy financial values, thus not moving beyond market valuation.

Source: Prepared by the author.

## 5.6. Targets and Incentives towards a Greening of the (Social) Economy: Recommendations to Cultivate Regenerative Value

### IDENTIFYING ALIGNMENT BETWEEN SOCIAL NEEDS AND SOCIO-TECHNICAL SYSTEMS

The creation of regenerative value should be linked to both formal and informal value creation (e.g., taxation and the private sector: banks and formal investors), new financial innovations (including redistributive offset markets), and grassroots financing mechanisms (e.g., TimeBanking, community currencies, community share schemes, and peer-to-peer lending). The latter are crucial because they have the potential to account for the social dimension by way of a community-driven allocation of sustainability financing. Taxation linked to regenerative value and an embedded fair redistributive element could mean that governments play a key role in supporting community-led sustainability initiatives, incentivising action, and ensuring local-level ownership or capacity benefits towards sustainability action.<sup>89</sup> On the other hand, emerging offset markets for ecosystem services might be linked to the value of local currencies and local nature recovery strategy outcomes. This could help to quantify and price localised impacts of pollination, water purification, flood protection, and climate regulation on the local economy and environment.

Flows of regenerative value could be created from a tax on the extent to which services and products generate or deplete value dimensions. An example of this is organic farming that enhances biodiversity and can become more affordable if it is paid out of regenerative value tax on some products, e.g., that use unsustainable palm oil or cause soil depletion.<sup>90</sup> In this regard, price differentials, poverty, and inequality would need to be seriously considered but such a mechanism might help to redistribute the absorption of the impacts of negative agricultural practises onto companies rather than the end consumer.

89. Merritt and Stubbs, 'Complementing the Local.'

90. See the UK's Environment Act 2021 for progressive approaches to ending illegal deforestation: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

This, in turn, could make healthy food with a positive environmental benefit more affordable due to the dynamics of supply and demand.

A regenerative value label with the net value of embodied sustainability could be incorporated into the packaging of different products, services, or even buildings.<sup>91</sup> Having a regenerative value reward system that can be accumulated through purchases is one possibility. Other locally raised green taxes that promote low-carbon, equitable outcomes should also be explored. Measuring, through regenerative value metrics, the value of formal and informal exchanges and how these co-generate value will help identify and study misalignments and alignments between social needs and demands and broader socio-technical systems. Integrating regenerative value within doughnut economic models to further incentivise action is another possibility; that is, accounting for a definitive and exchangeable value for sustainable policies, goods, and services that work within planetary boundaries. However, policy measures would be required so that carbon liabilities rest with consumers of finished goods, not just producers, i.e., pricing unsustainable commodities and services so they become less desirable within an entire value chain.

#### IDENTIFYING THE STRUCTURE OF CURRENT AND POSSIBLE FUTURE SOCIO-TECHNICAL NETWORKS

If organisations register their skills, capacities, needs, and interests on a searchable platform, this might help locate resources to match stakeholders within systems. There are already many online ‘sustainability action platforms’ that aim to encourage lesson sharing and peer-to-peer support on sustainability issues.<sup>92</sup> Such platforms have the potential to further match individuals and groups to similar projects within communities in a given region, sector, or with communities across the world, either online or through an app, with obvious issues in literacy and access to the internet duly considered and addressed. This

91. See: Sophie Lavallée and Sylvain Plouffe, ‘The ecolabel and sustainable development,’ *The International Journal of Life Cycle Assessment* 9, no. 6 (January 2004): 349–54. <http://dx.doi.org/10.1007/BF02979076>

92. Oliver Bream-McIntosh, et al., *Can Sustainability Knowledge-Action Platforms Advance Multi-Level Sustainability Transitions?* (Paper submitted for peer review). Zenodo, last modified January 18, 2022. <https://doi.org/10.5281/zenodo.5873822>

would allow for targeted 'capacity matchmaking' and help to pool resources to support sustainability initiatives.<sup>93</sup> All in all, using a platform to map these resources and connections in different contexts over time with social network analysis methods would help identify the structure of current, and possible future, socio-technical networks; data tagging to inform knowledge flows within networks can assist in this endeavour.

**PARTICIPATIVE MAPPING AND RESOURCING AS A MEANS TO CATALYSE NICHE INNOVATION AND ENHANCE THE POTENTIAL FOR SCALING UP**

Merritt and Stubbs suggest establishing 'community savings banks' (CSBs) if constituted as a cooperative, to leverage and collectively distribute sustainability resourcing. This could draw on both financial (economic-local and economic-national/international) and social (TimeBanking) resourcing schemes. Members, i.e., individuals or groups, might request time, grants, loans, or micro-credit from the CSB to fund local sustainability projects,<sup>94</sup> which may be decided through a form of public vote either in-person or online. For instance, the Local Entrepreneurs Forum in Frome, Somerset, and the Community of Dragons in Totnes, Devon (both towns in England) offer inspiration for a model that matches ideas and resources in specific places, but also in a global platform-based network. Inspired by a 'Dragons Den' format with the audience acting as the 'Dragons' pledging their support and assisting start-up projects, interesting projects and ideas can be resourced with financial and/or non-financial investment such as time and materials or through regenerative value.

The amount of time, resources offered, and consumed/absorbed over time through the CSB would indicate the health of grassroots initiatives compared to their relative outcomes and their capacity to generate regenerative value. Thus, this will provide a proxy of types of resources vs. effort expended to indicate the overall health of niches. Embedding an annual assessment of progress, or a health check might identify the reasons initiatives fail to scale up or decide not to follow particular actions.

93. Merritt and Stubbs, 'Incentives to Promote Green.'

94. Ibid.

**IDENTIFYING AND ANALYSING INTERACTIONS ACROSS SOCIO-TECHNICAL SYSTEMS**

Monitoring different forms of value and financial flows (including intergovernmental transfers) through sustainability metrics (such as the SDGs) can also direct investments in climate mitigation and adaptation to address wider capacity issues within communities.<sup>95</sup> Merritt and Stubbs, also suggest establishing a local sustainability index (LSI) which could rank community progress in generating regenerative value similar to the FTSE4Good Index<sup>96</sup>. An LSI could capture localisation and community wealth building by monitoring impacts from the local private sector and could function at an organisational, sectoral, or governmental level. At the community level, there might be a redistributive element or a 'circular index' where those doing well in a given area support others doing less well to 'level up,' communicated extensively within communities and through a platform ecosystem. It could also include political sustainability indicators to move beyond the 'three-legged stool' of sustainability.<sup>97</sup>

Meanwhile, some Covid-19 response initiatives that have emerged to promote unmatched skills, resources, and experiences such as UK FurloughGo could inspire an integrated global sustainability platform that encourages sharing and the solidarity economy, if sufficiently linked to other formal and informal mechanisms. The take-up of ideas and resources and how these are applied and monitored through the platform could be used to measure the flows of resource exchange and intensity. This might be categorised by initiative and indicators to measure regenerative value as well as how niche and regimes interact, e.g. informed through an assessment of niche ('innovation') /regime ('incumbent institution') characteristics and how personal and organisational dynamics affect barriers to sustainability transitions over time. It is important to consider that what may be a niche for one actor may be mainstream for others.<sup>98</sup> In addition, there are a plethora of online sustainability platforms, and

95. Ibid.

96. 'FTSE4Good Index Series,' FTSE Russell, accessed September 15, 2020. <http://bitly.ws/rHaF>

97. Amy Burnett, 'Planning for Transitions? A case study of Frome, Somerset (UK); PhD diss. University of Reading, 2019. <https://doi.org/10.48683/1926.00085827>

98. Ibid.



more work needs to be paid to the interoperability of existing platforms rather than reinventing the wheel.<sup>99</sup>

#### ANALYSIS OF INCREMENTAL AND RADICAL CHANGE AS FAST OR SMOOTH TRANSITIONS

One potential idea is to embed tags within indicators or outputs and outcomes to measure the flow of interdependencies towards outcomes and eventual pathways to impact. This might be explored with artificial intelligence to trace the use of keywords (tags) over time and their embeddedness in certain contexts, institutions, or organisational forms. A platform architecture could be tied to the LSI over time and generate a map of the patterns of relationships, ideas, and networks over a given period. The LSI could then inform which and how many resources need to be disbursed according to indicators that map these patterns, which may or may not relate to the SDGs (i.e., enabling customised monitoring of indicators like wellbeing indicators).<sup>100</sup>

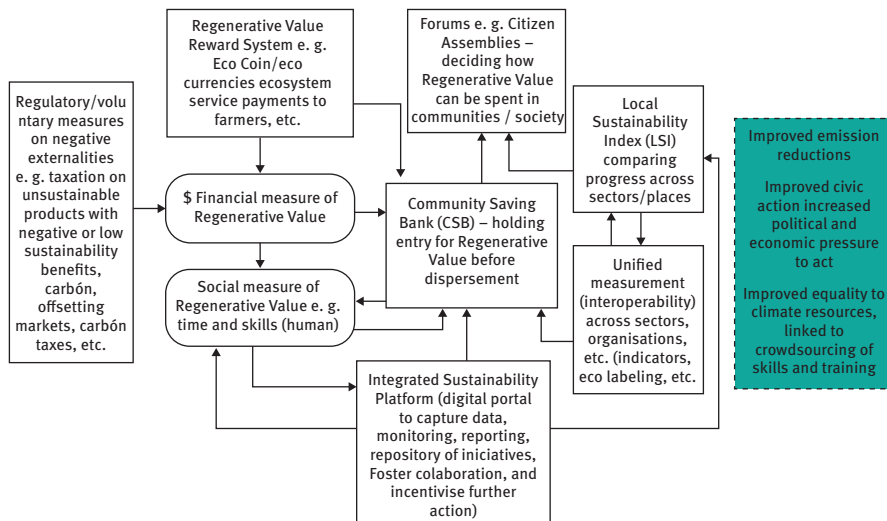
Combining the elements discussed in this section, below we propose a life-cycle of the creation and redistribution of regenerative value:

## 5.7. Conclusion

This chapter has sought to depict a system of interlocking, socially and ecologically transformative mechanisms to embed metrics geared towards incentivising sustainable action through regenerative value and help coordinate behaviour change and cross-sectoral value alignment. Regenerative value is not meant to detract from intrinsic motivations to act sustainably (i.e., doing something because you want to). Rather, regenerative value seeks to complement this through a form of compensation for acting sustainably to encourage additional action above and beyond what those already engaged are doing and therefore, activate latent socio-cultural potential through additional and co-produced incentives.

99. Bream-Macintosh, et al., 'Sustainability Knowledge-Action Platforms.'

100. Safe; Healthy; Achieving; Nurtured; Active; Respected and Responsible; and Included. Collectively they are often referred to as SHANARRI. See also Bream-Macintosh, et al., 'Sustainability Knowledge-Action Platforms.'



**FIGURE 5.** The Lifecycle of the Creation and Redistribution of Regenerative Value

Source: Prepared by the author based on the work of Merritt and Stubbs.<sup>101</sup>

This framework can work with the myriad of innovative and promising routes to transformation in our ‘social ecology’<sup>102</sup> such as doughnut economics, B Corps, social value, and regenerative financial instruments as feed-in-tariffs, whilst stimulating inclusive and transparent decision-making on the mobilisation and allocation of sustainability resourcing. Effective monitoring where people feel part of an integrated framework and indexing of progress towards truly regenerative communities could help to encourage circularity as the benchmark to work to. This would help to complement decentralisation and devolution ambitions by synergising creative partnerships and positive feedback loops to continually seek out regenerative value because it yields multiple benefits for people and the planet.

To be most effective, the initiatives discussed in this paper should be adopted on as a large scale as possible. All communities could create a co-produced local charter of values as a commitment to climate change, ecological health, and

<sup>101</sup> Merritt and Stubbs, ‘Complementing the Local;’ Merritt and Stubbs, ‘Incentives to Promote Green.’

<sup>102</sup> Reuter, ‘Principles of Sustainable Economy.’

socially responsible outcomes to help prepare for a regenerative economy and society. We need to find the right metrics to use that are simple enough and effective enough to account for what is important to us in every decision we make, which could be informed through a regenerative value score in the products we buy or the projects we invest in. In doing so, we could transcend financial metrics as the default mode of exchange and stimulate debate about how these values may be identified, created, and shared to boost a culture of regenerative value in the heart of our social ecosystems.

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