SUSTAINABLE LIFESTYLES POLICY AND PRACTICE: CHALLENGES AND WAY FORWARD

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SUSTAINABLE LIFESTYLES POLICY AND PRACTICE: CHALLENGES AND WAY FORWARD

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Please cite as: Simon Gilby, Caixia Mao, Ryu Koide, Atsushi Watabe, Lewis Akenji, Vanessa Timmer. 2019. Sustainable Lifestyles Policy and Practice: Challenges and Way Forward. Institute for Global Environmental Strategies, Hayama, Japan.
Layout Design: Zachary Eaves (@CacheWestCreative)
ISBN: 978-4-88788-233-1

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ACKNOWLEDGEMENTS

This report draws on the outputs of the Envisioning Future Low-Carbon Lifestyles and Transitioning Instruments project, which is a part of the Sustainable Lifestyles and Education programme of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP). We would like to thank UN Environment for their kind support, as well as the co-leads of the Sustainable Lifestyles and Education programme, the Governments of Japan and Sweden.

Many thanks as well to the project advisory group: Erik Assadourian, Katarina Axelsson, Arthur Batomalaque, Abdel-Maoula Chaar, Corazon Davis, Sonia Maria Dias, Adina Claudia Dumitru, Fabián Echegaray, Sonja Graham, Misgana Kallore, Chris Large, Lai Choo Malone-Lee, Sylvia Lorek, Pan Haixiao, Blake Robinson, Divya Sharma, Edina Vadovics, and Lei Zhang. We would also like to thank our project co-implementers at One Earth – Vanessa Timmer, Dagmar Timmer, Dwayne Appleby, and William Rees. We also appreciate the kind contributions of Magnus Bengtsson and Raquel Ortega Smith who attended the workshop and gave inputs to the project.

In addition to the advisory group, we would also like to thank all those who kindly gave up their time to be interviewed or otherwise contribute to the case studies.

We would also like to acknowledge all those who submitted case studies to the Envisioning Future Low-Carbon Lifestyles and Transitioning Instruments project call for case studies:

A – Leonore Alaniz, Leonore Alaniz Textile Atelier; Eve Annecke, Sustainability Institute; Louise Armstrong, Forum for the Future; Sarpong Hammond Antwi, Pan African University Institute of Water and Energy Sciences (PAUWES), Algeria.
B - Kate Berrisford, Green Africa Directory; Aminu Bonifacio, Department of General Agriculture, Sunyani Technical University.
C - Catherine Cameron, Agulhas: Open Knowledge; Vincent Carragher, Civil, Structural and Environmental Engineering, TCD, Dublin; Prajna Cauvery, Anaadi Foundation; Amirthan Christy Charles, Social Change and Development (SCAD); Chen Keqi; Bingyu Chiu, University of Pennsylvania; Jenn Chong, Association of World Citizens (France); Mary Clear, Incredible Edible Todmorden; Edevbie Clifford, Clean Climate And Environment Campaign Initiative; Ashley Colby, Rizoma Field School, Washington State University; Denise Conselheiro, Instituto Akatu; J.H. Crawford, Carfree.com.
D - Maria das Graças Brightwell, Universidade Federal de Santa Catarina; Anna Davies, Trinity College Dublin; Teresa de Hoop, The University Of Saskatchewan; Kim Alvina de Lara, Department of Education - Niogan Elementary School; Bas de Leeuw and Sonia Valdivia, World Resources Forum; Michael Amorim de Oliveira, Instituto Akatu; Renato Godoy De Toledo, Assessor de Relacoes Governamentais; Tamara DiMattina, The New Joneses; Manuel Díaz R., Centro de Energía Universidad de Chile; Jan Dictus, GOJA Consulting; Ding Xu; Marc Domingos; Dong Yang.
E - Heather Eckton, Seven Oaks School Division; Patrick Elf, University of Surrey.
F - Warren Fitzhenry, Sustainability Institute Innovation Lab (iShack Project); Natasha Foote, Mazi Farm.
G - Gao Si, IVL Swedish Environmental Research Institute China Division; Mario López González Garza, Universidad Anáhuac Querétaro; Wan Azlina Wan Ab Karim Ghani, Universiti Putra Malaysia; Aleksandr Gorbachev, NGO Grassroots Alliance PERESVET and Coca-Cola HBC Russia; Aleksandar Goshev, Regional Inspectorate of Environment and Water - Blagoevgrad; Sarah Gorenflos, Ruby Cup; Susana Guerreiro, SEYN, Asian Institute of Technology; Georgina Guillen-Hanson, ConceptPlant/Collaborating Center on Sustainable Consumption and Production.
H - Carine Hakizimana, Gira Ineza Company; Chinmai Hemani, RuChiNi Environment Sustainability Planners; Roberto Hinestrosa, Manantial; Stephen Hinton, Stephen Hinton Consulting; Choo Hui Hong, Iskandar Regional Development Authority; Jen Horn, MUNI.

J - Trilok Kumar Jain, Director, EIE, Suresh Gyan Vihar University, Jaipur (India); Jeannie Javelosa, GREAT Women and ECHOsi Foundation; Ginte Jonkute, Kaunas University of Technology
K - James Mewa Kamaya, Chelsea International PNG; Yerri Noer Kartiko, Dinas Lingkungan Hidup Pemerintah Kota Metro; Victor Kawanga, Human Settlements of Zambia; Gertrude Kabusimbi Kenyangi, Support for Women in Agriculture and Environment (SWAGEN); Benson Alakonya Keya, Wamumali PWD Kenya; Khaing Dhu Wan, NEED Myanmar; Yaseen Khalid, ModulusTech; Nicholas Kiiza, Makerere University.
L - Le Thi Van Nga, ISPONRE Vietnam (Institute of Strategy and Policy on Natural Recources and Environment); Debora Leal, University of Siegen; Anne Leemans, Yellow design Foundation; Judi Lowe, Southern Cross University; Li Jiaqi; Li Jinju, Renmin University, China; Liu Bo, Renmin University, China; Liu Hejing, Renmin University, China; Seán Lynch, OpenLitterMap.
M - David Macek, Northwest Earth Institute; Pradeep Mahapatra, UDYAMA; Leo G. Mamipic, Friends of the Environment in Negros Oriental (FENOr); Théo Manesse, Aeromate; Cauvet Marion, University of Copenhagen; Hayley McLellan, Two Oceans Aquarium; Lathika Chandra Mouli, Vertech Capital; Francescah Munyi, KOFAR Kenya Ltd; Reuben Muzawazi, Terrestrialplan PTY (LTD).
N - Patrick Nganga, Ecocare Africa Limited; Ngo Thi Phuong Thao, Center for Development of Community Initiative and Environment; Natalia Morales Noreña, Secretaría Distrital de Ambiente; Mbunya Francis Nkemnyi, Resource Centre for Environment and Sustainable Development; Walusungu Trevor Nyasulu, Foundation for Equal Rights and Opportunities(FERO).
O - Mary Jane C. Ortega, CITYNET, FAWA (Federation of Asia Pacific Women's Association); Jacquelyn Ottman, J. Ottman Consulting, Inc. / WeHateToWaste.com.
P - Pan Xu, Renmin University, China; ; Socorro L. Patindol, Aboitiz Power Corporation; Paula, Earth Flora Inc.; Pavs Pillay, WWF-SA; André Francisco Pilon, University of São Paulo / Int. Academy of Science, Health & Ecology; Deependra Pourel, DESIGN Studio; Igor Prokofev, NGO Grassroots Alliance PERESVET.
Q - Qi Dan, Renmin University, China.
R - Kristof Rubens, Flemish Government - Department of Environment & Spatial Development.
S - Damitha Samarakoon, Janathakshan (Gte) Ltd; Meike Sauerwein, Hong Kong University of Science and Technology; Severe Joseph, Union des Amis Socio Culturels d'Action en Développement (UNASCAD); Gonzalo León Silva, Centro de Energía Universidad de Chile; Monish Kumar Siripurapu, Ant Studio LLP; Achmad Solikhin, The ASEAN Secretariat (ASEC); Eva Stützel, Ökodorf Sieben Linden.
T - Tang Yujia, GoZeroWaste; Firman Tatariyanto, GSAPS - Waseda University; Jim Taylor, WESSA Associate; Joseph Tembo, J T Development Consultancy, Ministry of General Education; Markus Terho, The Finnish Innovation Fund; Thu Ta, Asian Institute of Technology in Vietnam; To Ngoc Thang, The University of Kitakyushu; Toby Tshering, Doma Dhama Bio Plates.
V - Edina Vadovics, GreenDependent Institute; Lieke van Kerkhoven, FLOOW2 Healthcare; Vesela Veleva, University of Massachusetts Boston; Sep Verboom, Livable.
W- Darwina S Widjajanti, LINI.
Y - Yu Yang; Yunfei Gu, Dutch Awareness B.V. Muhamad Yunus, Forum Komunitas Hijau Kota Depok.
Z - Yassine Zegzouti, Association Mawarid Pour l'Environnement et l'Energie; Laury Zwart, HeelNederlandDeelt.

In thanking our kind collaborators and all those who have given their time, we note that all errors remain the responsibility of the authors. Involvement in the Envisioning Future Low-Carbon Lifestyles and Transitioning Instruments project, either as a member of the advisory group or through the submission of a case study, is not an endorsement of views contained in this publication.

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ABOUT THE ENVISIONING FUTURE LOW-CARBON LIFESTYLES AND TRANSITIONING INSTRUMENTS PROJECT

The 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) was adopted at the United Nations Conference on Sustainable Development (Rio +20) in 2012 and confirmed the commitment of UN Member States to the realisation of sustainable consumption and production (SCP). Under the 10YFP, the Sustainable Lifestyles and Education programme seeks to foster the uptake of sustainable lifestyles as the common norm, with the aim of ensuring their positive contribution to addressing global challenges, such as resource efficiency and biodiversity conservation, climate change mitigation and adaptation, poverty eradication and social well-being.

The Envisioning Future Low-Carbon Lifestyles and Transitioning Instruments Project under the Sustainable Lifestyles and Education Programme of the 10YFP (hereafter Envisioning Project) ran between September 2017 and January 2019. Its overarching aim was to understand the development and implementation characteristics of successful policies and instruments which are transformative and can support pathways towards lifestyles within ecological limits in order to inform the future actions of policy makers and advocates. In tandem, the project aimed to understand what the resulting lifestyles would look like, and the various future scenarios in which people can live sustainably and happily through an examination of the current literature and the creation of mash-ups.

This publication focuses on the current situation, with the companion report Sustainable Living Futures Report focusing on exploring novel ways of thinking about alternative futures.

In assessing the current situation, the project had three objectives:

1. Identify a variety of policies and instruments used to promote sustainable lifestyles, compile case studies from across the globe.

2. Gather transformational policies and instruments which can support pathways to 1.5 degrees.

3. Develop recommendations for the design of effective policies and instruments supporting pathways to 1.5 degrees

In order to facilitate the collection of case studies and the initial literature review, a preliminary framework was developed that considered case studies under three areas – (i) planning and implementation, (ii) assessment, and (iii) scaling.

The review encompassed formal peer-reviewed research and an environmental scan of sustainable lifestyles practices, including grey literature. In addition a call for case studies was undertaken with over 120 submissions received. Preliminary findings showed an enormous variety of on-going work in terms of scale, approach, stakeholders involved, and location but also frequently lacked critical information such as the approach used and impacts created.

Moreover, it rapidly became clear that where information was available, it was mainly concentrated in policies and practices within high income nations. Finding well documented examples in the Global South was no easy task. Moreover, the wide range of approaches which were uncovered defied simple categorisation, and concerns were raised that categorisation may exclude promising practices. This initial scan thereby uncovered the main messages contained in this publication, especially the concerns regarding the need for the linkage between ecological limits and wellbeing, the absence of the Global South and the difficulties surrounding implementation.

Following further discussions and a project workshop, the main messages of this publication were developed. In order to illustrate the challenges described, thirty case studies were selected from the examples gathered through the review and the call for case studies. As a comprehensive list of case studies was beyond the scope of the Envisioning Project, it was decided to select the case studies primarily on the basis of diversity of approach, scale, and geographic diversity. It was felt that thirty was a sufficient number to give a broad overview of current approaches across the world, while ensuring that the case studies would reflect the level of detail desired given the resource constraints of a small project team. These resource constraints also mean that they are not formally categorised, as the number of potential categories would mean that there would only be two or three examples per category.

Therefore, these case studies are not a comprehensive overview, but are intended to give a taste of activities underway globally and to highlight case studies that are often overlooked. Case studies are mentioned throughout the text to illustrate points being made. A brief box summary can be found in the main text, with the full case studies being found in the Annex.

Source: Dumaguete case study. Photo supplied by those involved in the case study.

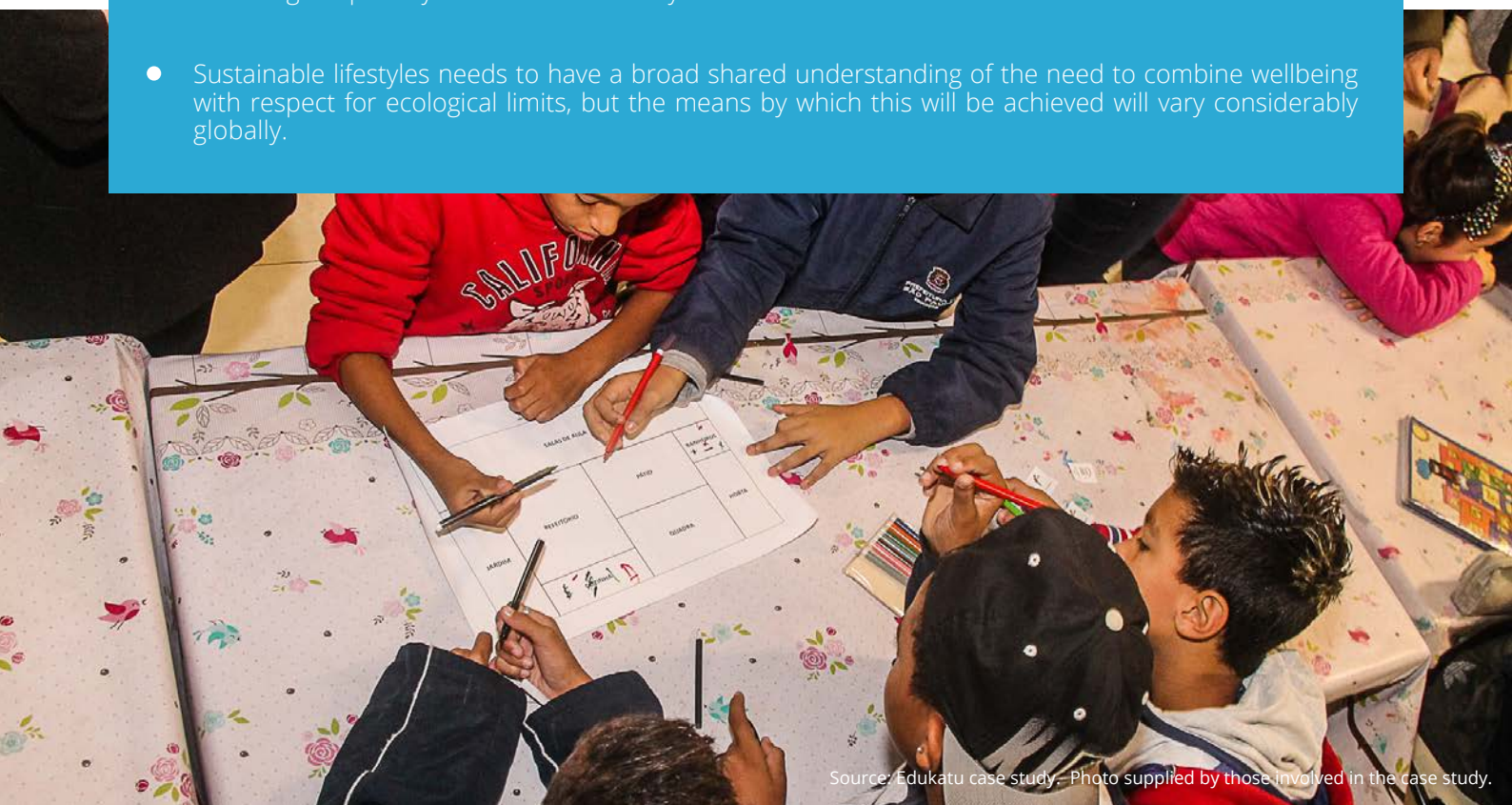
Source: Reverse Migration case study. Photo supplied by those involved in the case study.

PART 1.
KEY MESSAGES

Sustainable lifestyles are a means by which we can bring sustainability into the every day, and understand what kind of lives people would lead in a sustainable world. By examining people's habits and behaviours, as well as the environment that they live in that drives them, we can more easily understand the challenges for the public in pursuing sustainability.

However, sustainable lifestyles policies and practices are starting to become stuck in a number of ways. We are not fully considering how to bring together ecological limits and wellbeing, and we are not fully considering the wide range of options available to us in this endeavour. The purpose of this publication is to illustrate a number of challenges for sustainable lifestyles and suggest ways in which they could be overcome. This is done through a broad assessment of the current policies and practices, highlighting challenges in both conceptualising and implementing sustainable lifestyles. Some of these issues have been highlighted by policymakers and implementers themselves, others have been uncovered by researchers, and some are the findings of the implementing team and the advisory group. These issues are further highlighted by a collection of thirty case studies, which both underline the points made but also give examples of the work being undertaken that can serve as a foundation for a transition to sustainability. The key messages of this publication are:

- There are challenges in conceptualising and implementing sustainable lifestyles. **Although there are many promising policies and practices, sustainable lifestyles is not currently always considered from a holistic perspective and frequently suffer from approaches that overly emphasise one method or theme.**
- Ideas such as wellbeing and planetary boundaries are not fully included, consideration of urban middle class lifestyles remains dominant and thinking is too frequently focused on typical consumption domains such as buildings, consumer goods, food, mobility, and leisure.
- **Moreover, there are considerable challenges in implementing sustainable lifestyles policies and practices both in evaluation and scaling.** There are a number of means of evaluating sustainable lifestyles policies and practices, however the adoption of such methods is not widespread and are frequently complex and labour intensive.
- There are a variety of possible means of scaling. **The most promising means of scaling appears to be what is referred to as scaling deep – that is scaling through changes in norms and values.** This publication finds that due to the tremendous variety of approaches and contexts globally, this concept of scaling deep is key for sustainable lifestyles.
- Sustainable lifestyles needs to have a broad shared understanding of the need to combine wellbeing with respect for ecological limits, but the means by which this will be achieved will vary considerably globally.



Source: Edukatu case study - Photo supplied by those involved in the case study.

Source: iShack case study. Photo supplied by those involved in the case study.

PART 2.
INTRODUCTION

It is the best of times and the worst of times.

At a global level, humanity is on average more prosperous than it has ever been. There have been marked increases in human wellbeing in recent decades across a range of indicators such as poverty, health, and access to education. Across the world, people are on average enjoying higher incomes, increased access to education and longer lives (United Nations 2018b). The shift in global wealth towards the Global South has led to the emergence of a global middle class and higher standards of living (OECD 2019a).

However, such averages and indicators mask a range of growing problems. Even in countries that have managed to establish higher levels of material well-being, there are growing indications that all is not well. Increasing populism and extremism is becoming evident in many Western countries, highlighting a profound unease and unhappiness for many with the current state of affairs. High levels of gross domestic product belie major social issues such as high rates of youth unemployment, underemployment (OECD 2018b), obesity, mental illness and drug addiction (OECD 2017a), underpinned by a persistent issue with economic inequality (World Inequality Lab 2018) and a hollowing out of the middle class (OECD 2019b).

In addition, the price of economic growth has been massive increases in greenhouse gas emissions, and significant environmental strain with intensified land, air and water pollution as well as issues with desertification, deforestation, droughts, and flooding, all of which are associated with human activity (UNEP 2019). Action to alleviate the problem, particularly regarding climate change, are currently inadequate with the targets set by the Paris Agreement being insufficient to limit warming to 1.5 degrees Celsius above pre-industrial levels (IPCC 2019; UNEP 2018). We have pushed our planet to breaking point without being able to ensure lives of wellbeing even in the richest countries.

How then can we find the balance between respecting the physical limits of the planet and pursuing lives of meaning? This report, Sustainable Lifestyles Policy and Practice: Challenges and Way Forward, sketches out some of the current approaches to this dilemma in both the policy and practice spheres. It finds challenges in existing thinking and suggests possible alternate approaches. It presents 30 case studies to illustrate the current thinking around sustainable lifestyles that can be built on to deepen and broaden our approaches.

We find that typical sustainable lifestyles approaches have four clear conceptual challenges.

First, linking the science of planetary boundaries to wellbeing has not been fully mainstreamed into sustainable lifestyles thinking. Consideration of the physical limits of the planet (Rockström et al. 2009) has not been fully linked to wellbeing (OECD 2011). In recent years, there have been increasing efforts to bridge this gap (Raworth 2017) but investigations appear to be mainly at the conceptual or macro-level. We need to develop a more holistic, systems based understanding through understanding the links between ecological limits and wellbeing.

Secondly, we need to develop an enabling environment for sustainable lifestyles. Infrastructure or policy changes are not sufficient without behavioural change, but individual behavioural change is not sufficient without an enabling environment (Jackson 2008). A potential answer is a greater emphasis on the collective, and empowerment of communities and groups. By bringing people together we can develop new norms and values based on sustainable ways of living, which in turn can drive demand for policy and infrastructure changes.

Third, action on and understanding of sustainable lifestyles are often reduced to standard domains. Currently much of the focus within sustainable lifestyles are around domains such as food, buildings, mobility, consumer goods, and leisure (UNEP 2016). Although consideration of these areas is vital, an overemphasis may prevent proper consideration of the richness of different lifestyles (Dumitru and Mira 2017). There are a range of cross-cutting entry points that show promising signs of giving us the holistic and compelling approach that is needed.

Fourth, currently there is too much focus on middle class urban lifestyles. Much of the discussion has been focused on the urban middle class need to make reductions while maintaining high living standards. However, such reduction based approaches are not aspirational, and in addition, the traditional "good life" promised to all is unaffordable for many. A re-consideration of this model of middle class life is needed (WBCSD and Havas 2017). Moreover, in much of the world there is an explicit need to improve wellbeing while remaining within planetary boundaries. Explorations of low impact approaches, the aspirations of the growing middle class, and the possibilities afforded by traditional ways of living could help reveal potential pathways to living well within planetary

Source: BioSzentendras case study. Photo supplied by those involved in the case study.

From an implementation perspective, understanding how to measure and scale sustainable lifestyles remains challenging. The means of measuring sustainability at the global or national level are well established, but tools for individual or household level are not as well developed. There are a variety of means of measuring environmental impact at the individual level, but there is a lack of a tool that can help people understand their personal pathways to a sustainable way of living. Measuring wellbeing is also not an easy task – quantifying wellbeing is controversial and in-depth approaches through focus groups and questionnaires are time and resource intensive (King, Renó, and Novo 2014; White 2010). In both cases, measuring sustained impact is frequently challenging due to the need for continued monitoring.

There are a variety of ways in which sustainable lifestyles can and are being scaled. One way of examining scaling is to conceive of it as scaling out, scaling up, and scaling deep (Westley et al. 2014; Riddell and Moore 2015). Scaling out is conceived as spreading an innovation through replication, growth or functional scaling, or by spreading principles. Scaling up is through changing institutions or policy at higher scales of governance or geography, based on the recognition that the roots of social problems transcend particular places, and innovative approaches must be codified in law, policy and institutions. However, the key means of scaling that needs to be supported is deep scaling – that is scaling which alters the norms and values of society.

A sustainable lifestyles approach is not a one size fits all approach – it is a mentality and a filter that should be applied differently within different contexts. Contexts and resources vary considerably across the globe, as do the type and scale of policies and interventions. Although we can and should learn from others, it does not seem wise to attempt to categorise activities in such a way that would lead others to believe that examples can be picked up and brought in wholesale in a new context. We have therefore decided not to offer a simplified categorization but instead allow the case studies to reflect the variety and place-based expressions of sustainable lifestyles in action. This report highlights common challenges while allowing for grounded interpretation of how these insights can be applied.

This report does not supply ready-made solutions. This is because there are no ready-made solutions, simple slogans, or ten point action plans that would work globally. We need to truly act locally while thinking globally, which means understanding and considering problems through a sustainability lens. This will require bringing people together in order to consider and co-create the means for sustainable ways of living. The task may seem daunting, and the pathways may not always be clear. However, there is much evidence that sustainable lifestyles are not simply a means of finding a way to live within planetary boundaries but a means of finding richer and more meaningful ways of living our lives.

This publication is primarily aimed at researchers and practitioners working in sustainable lifestyles, but can also be a primer for those interested in the topic but are currently unfamiliar with current thinking and activities around sustainable lifestyles. Part of the aim of this publication is to bring attention to aspects of sustainability that are well documented by other researchers, but as yet not fully reflected by non-academic researchers and other stakeholders within the sustainable lifestyles area. Moreover, it can provide a greater understanding of sustainability, particularly around the emissions levels associated with various lifestyles and the on-going work on wellbeing. In highlighting challenges around current approaches we hope to inspire further, wider ranging work.

Source: Ruby Cup case study. Photo supplied by those involved in the case study.

PART 3.
CHALLENGES IN CONCEPTUALIZING SUSTAINABLE LIFESTYLES

This section describes the four challenges that have been identified by our research, through the development of our case studies, and in discussion with our advisory group in conceptualising and taking action on sustainable lifestyles: 1) linking ecological limits to wellbeing; 2) enabling sustainable ways of living; 3) the limits of the lifestyle consumption domains-based approach; and 4) focusing on urban middle class lifestyles. For each of the four challenges identified, the section below introduces the challenge, outlines some of the related research, describes current policies and practices, and makes recommendations on the way forward. For each of the sections, the following questions are addressed.

Linking ecological limits to wellbeing.

What are the ecological limits of the planet, and how might we find ways of living well within those limits? What approaches are currently being undertaken and what ways of measuring progress might be available to us? How should we define sustainable lifestyles?

Enabling sustainable ways of living.

How can sustainable lifestyles be implemented in reality? What are the current ways in which stakeholders are trying to enable sustainable ways of living?

The limits of the lifestyle consumption domains-based approach.

What are the limitations that are imposed by the standard domains of buildings, consumer goods, food, leisure, and mobility? What alternative entry points might there be?

Focusing on urban middle class lifestyles.

How has consideration of the urban middle class become prevalent? Are urban middle class lifestyles delivering high levels of wellbeing? How might we bring in greater consideration of the Global South and other ways of living?

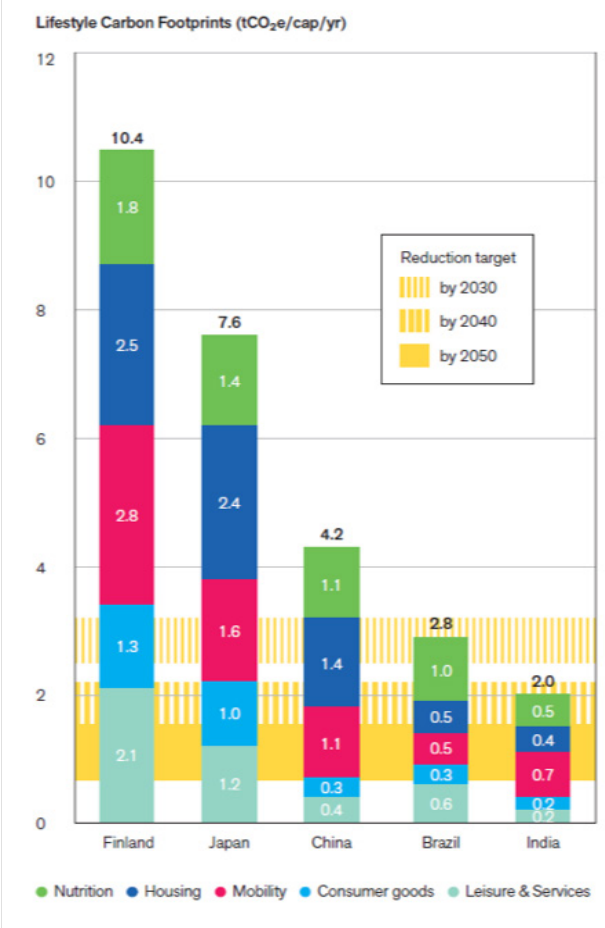
3.1 LINKING ECOLOGICAL LIMITS TO WELLBEING

3.1.1 Respect for Ecological Limits

The word sustainable is frequently incorrectly used to describe practices that have lower environment impact, it should be used in its proper meaning as practices that can be continued indefinitely. In order to describe lifestyles as sustainable, we must first understand and respect the physical limits of the planet. But what are those limits and how have we measured them?

Discussions of ecological limits have developed along a number of paths. Due to the threat of climate change, understanding, measuring and developing targets for greenhouse gas emissions has been the focus (IPCC 2019; UNEP 2018). However, there are others, such as the ecological footprint (which measures how fast we consume resources against how fast nature can absorb the waste produced and replenish resources) (Wackernagel and Rees 1996) and the planetary boundaries concept (which measures nine different planetary boundaries that should be respected) (Rockström et al. 2009). However, measurements have been mainly at a macro-level such as global or national with limited investigation of the individual or household level.

Research on the limits on a per capita basis has been undertaken using the ecological footprint (Moore and Rees 2013) and material footprints (Lettenmeier, Liedtke, and Rohn 2014; Lettenmeier 2018). The research by Moore Recent research analysing Lifestyle Carbon Footprints in five different countries (Brazil, China, Finland, India, Japan) estimates that equitably distributed individual level targets for carbon emission reductions are approximately 3 tonnes by 2030, 2 tonnes by 2040, and 1 tonne by 2050 (Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd 2019). and Rees indicates that lifestyles within ecological limits are currently primarily found within the world's poorest and least developed countries.



This research indicates that a sustainable lifestyle is achievable, but would require substantial lifestyle changes including low meat, plant-based diets; smaller and low-carbon housing; avoidance of private transport and flight; primarily local holidays; and a swift transition to 100% renewable energy. Technological innovation such as the development of cultured meats, zero carbon fuels for aviation and direct air capture of carbon may mitigate the need for lifestyle changes to some extent, but such technology is either theoretical or as yet unproven at the scales required. This research underlines two fundamental problems facing sustainable lifestyles – firstly, ecological limits at the individual or household level is not well understood even by experts, and secondly, many of the changes highlighted are not a simple matter of changing habits, but require systemic change.

Figure 1: Lifestyle Carbon Footprints (Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. 2019)

3.1.2 Living Well Within Ecological Limits

If the ecological limits of the planet can be seen as a budget for humanity, then how can we best spend this budget to ensure the best possible outcomes for everyone? **How can we live well, within the limits of our planet?** Living well, or wellbeing, including consideration of access and equity issues, has seen a growth in interest from policymakers in recent decades including the Human Development Index from the UN (UNDP 1990), Gross National Happiness from Bhutan (Ura et al. 2012), and the Better Life Index by the OECD (OECD 2011). The 7th Environment Action Plan for the European Union places "Living well, within the limits of our planet" as its overall aim (European Commission 2014). There have been efforts to link ecological limits to wellbeing through work such as the Happy Planet Index (New Economics Foundation 2016), which measures the ecological footprint against wellbeing and equity indicators, and the A Good Life For All Within Planetary Boundaries project by the University of Leeds (O'Neill et al. 2018), which builds on the doughnut concept (Figure 2) by Kate Raworth (Raworth 2012, 2017)that aims to describe the sweet spot between ecological limits and wellbeing through the development of indicators for the areas identified in Raworth's work.

Figure 2: The Doughnut of social and planetary boundaries (Raworth 2017)

There are two main approaches to measuring wellbeing, subjective and objective. Subjective measurements of wellbeing focus on life as it is experienced by people. This is often done through surveying people's mood (referred to as affect) over a given length of time or asking them to compare the life they are living to the best possible life on a scale of one to ten (known as the Cantril Self-Anchoring Scale) (Helliwell, Layard, and Sachs 2012)(Helliwell, Layard, and Sachs 2012). Objective measures of wellbeing are more focused on the determinants of wellbeing such as income, education and skills, social connection, environment, security, health, housing and similar metrics (King, Renó, and Novo 2014).

As with ecological measurements, quantified measures are primarily focused at the regional or national level with some sub-national work. These include work undertaken by the European Union (European Social Survey, n.d.) and the United Kingdom (Government of the United Kingdom n.d.) as well as efforts such as the Happy City Index (Wren-Lewis and Abdallah 2016; Hiscock et al. 2016) and bottom-up urban metabolism footprint studies (Moore 2015; Moore, Kissinger, and Rees 2013). Many activities that correlate with sustainable lifestyles such as connecting with nature, being involved with community activities, being active, learning, and sharing are also strongly associated with higher levels of wellbeing, whereas the pursuit of a materialist lifestyle is linked with lower levels of wellbeing. This has been shown through a number of reviews of wellbeing (Stoll, Michaelson, and Seaford 2012; Conceição and Bandura 2008; Dodge et al. 2012) and also research undertaken for the United Kingdom as part of the country's wellbeing activities (Aked et al. 2008). Moreover, it is increasingly accepted that improvements to wellbeing caused by economic growth level off at middle income levels, with gains to wellbeing through increased GDP being minor (Easterlin 2013; Graham 2011). However, although there are indications that high wellbeing is achievable at lower levels of ecological impact as the determinants of wellbeing do not inherently involve high impact activities (Assadourian and Gardner 2004)(Assadourian and Gardner 2004), this has not been fully explored.

Nevertheless, recent announcements by governments such as New Zealand, which has released a wellbeing budget explicitly placing wellbeing and not GDP at the centre of policy (Roy n.d.), and the United Kingdom, which is the first major economy to announce a net zero carbon by 2050 target (Harrabin n.d.), appear to be steps in a positive direction. However, it is worth noting that New Zealand is not the first country to place wellbeing at the centre of policy, but it was in fact Bhutan that pioneered the concept.

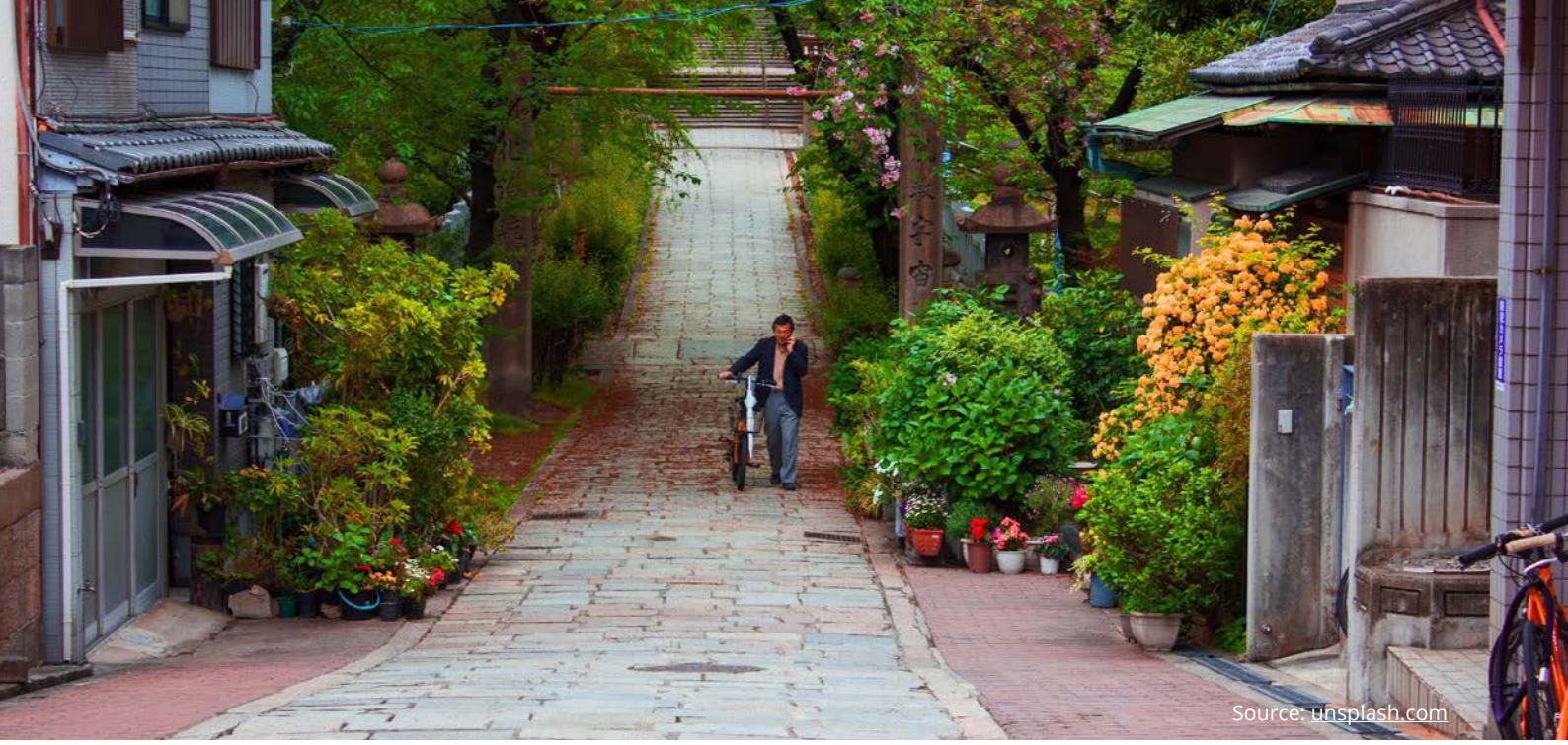
CASE STUDY: **GROSS NATIONAL HAPPINESS, BHUTAN**

The Gross National Happiness (GNHI) developed in Bhutan is a multidimensional measurement tool used by the government to assess the general level of happiness or life satisfaction. It recognizes happiness as a collective endeavour where different people in disparate circumstances can enjoy deep happiness. The Index draws on representative data from surveys conducted across Bhutan to generate a view of happiness that can be assessed at the national and sub-national levels. 151 variables are tracked under nine groupings. In 2008, the Government of Bhutan enshrined the GNHI in its Constitution and began publishing data and reports on the state of gross national happiness (GNH). The resulting data and analysis are used by various levels of government and by private and non-profit organizations to support policy and programme development. The GNHI has spread well beyond Bhutan, with many states, provinces, and cities around the world adopting versions of the Index for their own use. At the international level, the World Happiness Report, based on Bhutan's GNH Index, has become an annual publication of the United Nations presenting relative happiness data and rankings for the countries of the world.

Please see the annex for the complete case study

3.1.3 Systems Thinking Approach

In order to bring together the different elements of sustainable lifestyles, it is vital to use systems thinking – that is to understand that no one action or person sits in isolation, but is connected to a greater whole. Consideration of the elements of a system such as the actions and individuals is vital to understand their interdependence and interconnectedness, as these can often produce unexpected dynamics (Draper 2013). This not only needs to be considered in terms of rebound effects (whereby reductions in one area led to increases in another) or spillover effects (whereby behavioural changes in one area lead to behavioural changes in other areas) but also in terms of how concepts such as wellbeing and environmental impact interact (e.g. which actions boost wellbeing the greatest


Source: unsplash.com

amount while also being low impact?) and also how different stakeholders (such as government, private sector, non-governmental organisations and so on) affect each other. Even with consideration of the interlinkages between these different aspects of sustainable lifestyles, there are likely to be unforeseen impacts from any given activity, but a lack of consideration of these issues makes it almost certain.

One country that is using systems thinking to consider the interconnections between stakeholders and the elements of a system is Japan. Under the Fifth Environmental Basic Plan, the government aims to create a circular and symbiosis-driven society by considering the interactions between the environment, economy, and society and between the different stakeholders that influence them.

CASE STUDY: **FIFTH ENVIRONMENTAL BASIC PLAN, JAPAN**

Japan's Fifth Environmental Basic Plan, approved in April 2018, is intended as a comprehensive, long term plan that considers interconnections between issues in the environment, economy and society and aims to bring about a paradigm shift towards a circular- and symbiosis-driven society through a systems approach. Through forming partnerships with different stakeholders its multiple aims include stimulating innovation, solving socioeconomic issues through environmental protection, positioning Japan as a global leader through a 'living in harmony with nature' culture, sharing its experiences in overcoming environmental pollution, and introducing its environmental technologies via international cooperation and partnerships. The plan is also designed to support instruments such as policy, financial incentives, and infrastructure that can advance sustainable lifestyles, and demonstrate that focusing on sustainability can solve other social issues to bring about an improved, more sustainable society.

Please see the annex for the complete case study

3.1.4 So How Can We Define It?

Understanding that sustainable lifestyles should seek to integrate ecological limits and wellbeing through employing a holistic systems approach, in this report we define sustainable lifestyles as follows.

> *A "sustainable lifestyle" is a cluster of habits and patterns of behaviour embedded in a society and facilitated by institutions, norms and infrastructures that frame individual choice, in order to ensure that the use of natural resources and generation of wastes are within the regenerative and assimilative capacities of ecosystems, while supporting fairness and prosperity for all.*

This builds on a previous definition given in "A Framework for Shaping Sustainable Lifestyles - Determinants and Strategies" (UNEP 2016) in order to fully acknowledge the limits of our planet and the absolute need to remain within them. It places in the foreground the systemic aspects of sustainable lifestyles, while acknowledging planetary limits and the need for access and equity.

A “sustainable lifestyle” is a cluster of habits and patterns of behaviour embedded in a society and facilitated by institutions, norms and infrastructures that frame individual choice, in order to ensure that the use of natural resources and generation of wastes are within the regenerative and assimilative capacities of ecosystems, while supporting fairness and prosperity for all.

Source: unsplash.com

3.2 ENABLING SUSTAINABLE WAYS OF LIVING

The previous section outlines the need to link ecological limits to wellbeing. But how can this be implemented in reality? What are the current ways in which stakeholders are trying to enable sustainable ways of living? This section briefly outlines various ways in which different stakeholders are attempting to enable sustainable ways of living, including international and national policy frameworks, infrastructure and urban planning, emphasising individual action, and community-based work. It is found that actions are invariably constrained by the systems that people inhabit, whether these are policy-based, dependent on the physical environment, or determined by social values and norms. While there have been efforts to shift in a sustainable direction, action has been insufficient to bring humanity within ecological limits, and it is clear there needs to be considerable additional work to achieve this goal. The transformation required is likely to need a significant shift in norms and values in order to create the demand for the policy and infrastructure changes required, but also to ensure that sustainable behaviour is normalised, and that the world is habitually viewed through a sustainability lens. The collective is one means by which norms and values can be shifted, as people tend to adopt the attitudes of those around them, and also tend to be more psychologically involved in activities that they feel they have ownership of. There have been a variety of community-based initiatives, both virtual and based in the real world, which have been exploring sustainable ways of living and hoping to show this double dividend of respecting nature and boosting wellbeing. Greater support for such efforts could help the shift to sustainable ways of living.

3.2.1 International and National Policy Frameworks

The two main international policy frameworks, the Sustainable Development Goals (SDGs) and the Paris Agreement, both support sustainable lifestyles. The SDG target 12.8 "By 2030 ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature" mentions lifestyles and sustainable lifestyles are part of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP), which is SDG target 12.1 "Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries" (United Nations, n.d.). The Paris Agreement has the aim of keeping temperatures to less than 2 degrees higher than the pre-industrial average, which would prevent the worst effects of climate change (IPCC 2019; UNEP 2018). However, although the achievement of the SDGs would undoubtedly increase wellbeing and be of great benefit to humanity, there is no clear means of establishing how far they would reduce humanity's impact on the environment. Nevertheless, there are ongoing efforts to synergise the targets of the SDGs and the Paris Agreement (United Nations, n.d.).

National policies suffer from the same shortcoming in that there is often lacking an explicit reference to ecological limits. However, some national governments have made this explicit such as the Government of Sweden (Government of Sweden 2016). Sweden's strategy for sustainable consumption mentions behavioural issues and focuses on the key domains of food, transport, and housing. This, in tandem with their aim enshrined in law to achieve carbon neutrality by 2045 (United Nations, n.d.), shows a clearer path to sustainability than many other countries. Sweden's national sustainable consumption strategy is one of our case studies, with further details being in the box below and the annex.

CASE STUDY: **NATIONAL SUSTAINABLE CONSUMPTION STRATEGY, SWEDEN**

The Government of Sweden has developed an ambitious policy agenda to support sustainable lifestyles. Its action programme defines a bold yet achievable vision for realising environmental sustainability both within and across its borders, setting an important global precedent. In promoting sustainable lifestyles, it argues, we need to be clear about ecological limits – the extent to which our air, water and soil can tolerate certain pressures without irrevocable damage.

Please see the annex for the complete case study

3.2.2 Urbanisation and Sustainable Lifestyles

At the sub-national level, one of the key areas for supporting sustainability is our physical infrastructure, which is increasing dramatically as our world undergoes a profound shift. For the first time in the history of humanity, we are now a primarily urban species, with the numbers of people moving from the countryside to the city ever growing. This transition is occurring in the Global South with local governments struggling to accommodate migrants and supply services required with limited resources (UN-HABITAT 2016; United Nations 2017). With a lack of knowledge and proper planning, these countries are suffering from increasing environmental deterioration in their air, land, and water. This creates immediate environmental issues within urban areas, but also leads to impacts both regionally and globally due to increasing the emissions from the cities, but also the resource extraction to build the cities and meet consumption demands. This problem is not confined to the Global South, with cities in high-income nations now suffering from immediate public health issues caused by poor air quality and increasing levels of obesity. Concerns regarding climate change have been a driving factor in urban sustainability with city networks such as the C40 Cities Climate Leadership Group, ICLEI, and UCLG highlighting climate mitigation as a means to drive employment, health and liveability efforts in cities (Day et al. 2018; UCLG 2016; ICLEI 2018). However, many cities are not facilitating sustainable lifestyles, but through their design are locking in unsustainable patterns.

There have been a wide variety of policies and concepts introduced to support a more sustainable approach to urban development. Found under a variety of monikers (De Jong et al. 2015), these approaches have not only included approaches such as transit-oriented development, as well as support for green buildings and renewable energy but also consideration of the impact of the city proper on the surrounding peri-urban and rural areas (Suzuki et al. 2010; OECD 2013a). The smart cities approach has also become increasingly visible in recent years and aims to incorporate ICT to improve planning and processes and harness technology to improve quality of life and build more sustainable communities. Accessibility and urban spatial planning are being increasingly considered, with a recognition that planning models of a primarily commercial urban centre with outer, sprawling residential areas are not only energy inefficient but also lack the flexibility required for the different modes of living that are becoming increasingly visible (OECD 2018c). Measuring the impact of the city is also moving from production based emissions, to including the embodied emissions of the residents through their consumption of imported goods (Moore, Kissinger, and Rees 2013; C40 2018; C40, Arup, and University of Leeds 2019). Further research in this area will be vital in understanding how cities can truly support sustainable living.

One country that has shown great interest in the eco-city concept is China, with over 280 cities declaring the ambition to become eco-cities in 2012, and China's 12th Five-Year Plan for Green Building and Green Eco-city Development chose 100 sites to test the concept (Deng n.d.). One of these is the Sino-Singapore Tianjin Eco-City. Built on reclaimed polluted land, the city aims to demonstrate a sustainable model for scaling nationwide. While the concept appears in-line with sustainability, some of targets such as 20% of the energy being from renewable sources appear to lack ambition. This is typical of many sustainable city developments, where although the cities are clearly an improvement on business as usual, they fail to demonstrate an ability to truly enable their citizens to live within planetary boundaries.

CASE STUDY: **SINO-SINGAPORE TIANJIN ECO-CITY**

Sino-Singapore Tianjin Eco-City is a bilateral top-level government cooperation between China and Singapore. It is envisioned as "a thriving city which is socially harmonious, environmentally friendly and resource efficient", and aims to be a model for other cities in China and other countries for sustainable development through highlighting practicality, replicability and scalability. Development of the eco-city has been guided by a set of key performance indicators (KPIs) covering environmental, economic and social aspects – 22 quantitative and 4 qualitative KPIs in total. The 22 quantitative indicators focus on four themes: "Good Nature Environment", "Healthy Balance in a Man-made Environment", "Good Lifestyle Habits" and "Developing a Dynamic, Efficient Economy". Tianjin Eco-City was planned as a model city for sustainable urban development and to test and demonstrate emerging sustainable technologies and solutions for future replication in other areas.

Please see the annex for the complete case study.

Source: Sieben Linden case study. Photo supplied by those involved in the case study.

3.2.3 Individual Actions Are Constrained

People are limited by the physical infrastructure, the policy environment, the market, and the social norms and values of the society they live in (Akenji 2014; Jackson 2009; Lorek and Vergragt 2015). Such considerations in the development of physical infrastructure are vital in the shift to sustainability because they lock in behavioural patterns. It is not possible for people to lower their mobility footprint if using public transportation or walking is not an option. Building footprints cannot be lowered without renewable energy or energy efficient products being available. But physical infrastructure is not the only issue – policy frameworks and the market are also key. If green building policies are not developed and supported, the market is less likely to offer them. If plant-based food options are not available for purchase, they will not be bought. People are also constrained by social norms and values. It is more difficult to become vegetarian if all of your friends and family are meat eaters, it is harder to lower your holiday footprint if you are used to vacationing in distant countries, and it is not easy to lower your material footprint if you have a strong interest in fashion. This is not to say approaches which emphasise individual actions such as SITRA's 100 Ways to be Smart and Sustainable (SITRA n.d.) are wrong headed or unhelpful – on the contrary, they are a vital part of necessary awareness raising. However, supplementing these approaches with an enabling environment is key for the further development of sustainable lifestyles.

One means by which people have endeavoured to create an enabling environment for sustainable lifestyles has been through the creation of intended communities such as eco-villages. Sieben Linden is one such example. Located in rural northern Germany, the village started in the 1990s and currently has a population of 140 people. It has pursued sustainability through a wide variety of activities including growing their own food, low impact building construction, ride sharing, amongst others. While such communities are great examples of efforts to live sustainably, they are also a reflection of the fact that sustainability has yet to break through as social norm and value.

CASE STUDY: **SIEBEN LINDEN, GERMANY**

Sieben Linden is an ecovillage of around 140 people, located in rural northern Germany. When it started in 1997 the initial plan was to have an ultimate population of 250–300, to demonstrate the possibility of living in a long-term sustainable community with a low ecological impact and high wellbeing. The ecovillage acts as a microcosm of society, supporting employment and establishing communal buildings on-site for a variety of needs, aiming for the maximum possible self-sufficiency. It disseminates knowledge about sustainability through community seminars, which also serve as a source of income. With its multi-decade experience as an attempt to live sustainably, the ecovillage provides an excellent example of the joys and sorrows of the road to sustainable living.

Please see the annex for the complete case study.

3.2.4 Collective Action as a Potential Means to Change Norms and Values

From the above, we can see that there is a broad, on-going shift towards more sustainable practices both through the introduction of international and national frameworks, and the development of infrastructure that is more sustainable. However, this will need to be underpinned by public support, which likely necessitates a shift in norms and values.

So how can we shift norms and values? In order to understand how they can be shifted, let us first examine some of the issues involved. Research on the factors for shifting norms and values towards more sustainable behaviour has led to the identification of several key issues within behavioural change being identified – the value-action action gap, rebound effects, moral licensing, and spill-over effects. The value-action gap is defined as the gap created when people who describe themselves as pro-environment or pro-sustainable fail to follow through on these intentions and undertake actions which reduce their impact (Kollmuss and Agyeman 2002; Sustainable Consumption Roundtable 2006). Rebound effects are when increased efficiency leads to greater usage that offsets the efficiency savings. For example, if someone buys a fuel efficient car, but then because of the perceived lower cost of running the car drives it so frequently they use the same or more fuel overall than with their previous, less efficient vehicle. Moral licensing is when someone does what they consider to be a good action, which then makes them feel it is ok to commit a bad action. For example, if someone decides to become vegetarian for the environment, they may then decide that other anti-environmental behaviours are acceptable or justified, such as frequent long-haul flights or excessive consumption. Spillover effects are when a change in behaviour in one area "spills over" into other areas. For example, if someone becomes interested in recycling or reducing their waste, and this leads them to taking up other pro-sustainability actions such as cycling rather than using a car, or switching to renewable energy. There is a lot of continuing debate concerning how issues such as the value-action gap, rebound effects, and moral licensing might be reduced, and how spill-over effects might be increased. One way in which governments are trying to encourage sustainable behaviour is through nudge theory, which uses indirect suggestions to make it more likely that the public will choose more desired options. An example of this is Nudge in a Green Direction by the Flemish government, which undertook a number of experiments in this area with promising results. Nevertheless, there is the potential for nudging to be manipulative in certain situations, and steps should be taken to avoid such risks (Sunstein 2015; Selinger and Whyte 2011).

CASE STUDY: **NUDGE IN A GREEN DIRECTION, BELGIUM**

The Nudge in a Green Direction (NIAGD) was a series of behavioural interventions in nudging consumer behaviour toward lower environmental impacts commissioned by the Flemish government's Environmental, Nature and Energy Department and conducted by the Marketing Department at Ghent University. The experiments were carried out in 2016 over the course of three months and involved several supermarkets, a canteen of a private company and the student canteen at Ghent University. The aim of the Flemish government in carrying them out was to determine the extent to which consumer behaviour could be influenced by gentle nudges designed to help close the intention-behaviour gap. The results of the interventions were a 20% reduction in the weight of sausage purchases, a tripling of sales of vegetarian alternatives to traditional meat-based spreads, and a 19–29% increase in sales for more sustainable dishes at canteens.

Please see the annex for the complete case study

Part of the reason for the interest in techniques such as nudging is due to the ability to intervene in habitual behaviour. Much of daily activity is undertaken without conscious thought or effort, and if these practices can be altered without directly targeting motivational or individuals, then there appears to be an opportunity for increasing sustainable behaviour without needing to alter norms and values (Darnton et al. 2011). However, there are limits to the amount of behaviour that can be influenced in this way – many high impact options such as food, mobility, housing, and leisure involve deliberative behaviour. High cost purchases such as housing and cars lock in consumption patterns for years at a time.

This being the case, a shift of norms and values appears necessary in order to influence such deliberative action. There are promising signs that the development of a sustainability mentality alongside a sense of ownership and mutual support can lead to significant changes in behaviour (Sustainable Consumption Roundtable 2006;

McLoughlin et al. 2019; Carragher et al. 2018). These approaches focus less on the individual, but on the group, showing that changes are possible through the development of social networks, group learning, and due to the emergent properties of systems (Darnton 2008). Collective approaches should be seen as a key component in the shift to sustainable lifestyles.

One example of this is our case study MUNI Meetups, which offers monthly sustainability themed meetups giving the opportunity for young Filipino urbanites in Manila the opportunity to further understand and support each other. However, while the meetups are helping create a community of like-minded individuals, the lack of an enabling environment and an easy means of monitoring personal sustainability constrains efforts. Other examples included in our case studies are Car Free Day Marrakech, BioSzentandrás, Hungary, Green Belt Movement, Kenya, Incredible Edible Todmorden, UK, SWAGEN, and Zero Waste Activities, Dumaguete, Philippines, all of which have utilised collective action as a means to try to shift norms and values towards sustainable lifestyles.

CASE STUDY: **MUNI MEETUPS**

Based in Manila, Philippines, MUNI Meetups are designed to be fun and friendly, yet insightful and action-oriented learning and networking events on sustainable living, organised by MUNI Cultural Creatives Inc. Based on developing a culture of conscious consumption, and showcasing available solutions, they aim to inspire attendees to take action and maximise their influence as well as create meaningful collaborations between like-minded individuals.

Please see the annex for the complete case study

Another means of boosting collective action has been through encouraging children. One of our case studies, Edutaku is an online platform in Brazil that has been encouraging knowledge exchange and practices dealing with conscious consumption and sustainability among teachers and students aged 6–15 in schools throughout Brazil. Since its inception in 2013 it has enrolled over 40,000 users across more than 3,800 schools all over the country.

This shift to the collective has additional positive wellbeing effects. One of the overlooked aspects of wellbeing is social connection – it is one of the few aspects of wellbeing not explicitly measured in the sustainable development goals. Social connection is a key human need (Aked et al. 2008; OECD 2011), with research showing that although life satisfaction is strongly associated with high income, it is not correlated with happiness (Kahneman and Deaton 2010). Pursuit of a materialist lifestyle also frequently correlates with unhappiness, with personal relationships and connections being a strong determinant of happiness (Speth 2012; Gerzema and D'Antonio 2010; Dolan, Peasgood, and White 2008). Happiness has strong social foundations, and pro-social behaviour tends to promote happiness (Aknin et al. 2019; Helliwell, Huang, and Wang 2017). One of our case studies is the National Loneliness Policy of the United Kingdom that has been developed to address what is viewed as an increasing problem of lack of connection with other people and wider society. A focus on connectivity and the collective can help bring together the top-down with the bottom-up. Key to this is understanding the constraints of the systems that we build, and what can be done within them to live more sustainably. Once this is understood, then individual action, multiplied by collective action, becomes meaningful.

Changing norms and values is important as it can create demand for and lower opposition to sustainable policies, infrastructure, and products. As the reductions needed go beyond what technocratic solutions can provide, behaviour change is important. However, a focus on individual action places too much burden on the individual and appears to have a limited effect – a shift to consideration of the collective is needed to bring about the level of change needed.

Actions are invariably constrained by the systems that people inhabit, whether these are policy-based, dependent on the physical environment, or determined by social values and norms. While there have been efforts to shift in a sustainable direction, action has been insufficient to bring humanity within ecological limits, and it is clear there needs to be considerable additional work to achieve this goal.

Source: unsplash.com

3.3 LIMITS OF THE LIFESTYLE DOMAINS BASED APPROACH

3.3.1 Understanding lifestyle domains

The need to try to measure impact and to identify hotspots has led over time to sustainable lifestyles being seen as composed of domains (OECD 2002; Druckman and Jackson 2009; Lettenmeier, Liedtke, and Rohn 2014), with one of the most common categorisations being a division into buildings, consumer goods, food, leisure, and mobility (UNEP 2016). Dividing a lifestyle in this way can be an effective way of highlighting hotspots and understanding overall impact. For example, a recent assessment of five different countries demonstrated how differences in consumption led to different impacts. Brazil, being much more of a meat-eating society than Japan, would benefit much more from a shift to a plant-based diet. Such considerations are important to identify the low-hanging fruit and potential key areas for intervention (Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. 2019).

However if we not only use domains as a means of measurement, but also as the sole focus for action we may miss the complexity of lived experiences. Although a great deal of attention is given to co-benefits such as the health benefits of plant based nutrition (WBCSD 2018), the cost savings of energy efficient buildings (Sustainia 2016, 2017), or the greater sense of community that can be fostered through walkable neighbourhoods (Stoll, Michaelson, and Seaford 2012; UN-HABITAT 2016; United Nations 2017), such efforts run the risk of not connecting to consideration of lifestyles as a whole. We also run the risk of rebound effects and the behavioural issues outlined above such as moral licensing and by considering the issues in isolation spill-over effects may be harder to achieve. And, as we saw earlier, an emphasis on reducing consumption can seem austere and be counter-productive. Viewing our lives as the sum of our consumption does not do full justice to the richness of human experience (SPREAD - Sustainable Lifestyles 2050 2012). For example, the GLAMURS project examined choices people make for their time-use and the reasons for them. By separating out these decisions from consumption, the project was able to understand how more sustainable patterns of consumption can be possible, while following the same goals and motives (Dumitru and Mira 2017).

3.3.2 Expanding Our Entry Points

How then, do we expand our understanding and approach expanding on these standard domains? We can do this by considering other aspects of our lives and the ways in which they can directly contribute to sustainability. For example, thinking about the preservation of the environment, the greening of public spaces and urban gardening initiatives can be an entry point to fostering more inter-linked and holistic activities, such as the creation of livelihoods, growing healthy, organic food, forging deeper social connections and the provision of free low carbon leisure options. The standard domains of buildings, consumer goods, food, leisure, and mobility can also serve as entry points to wider thinking, but by over-emphasising these areas we run the risk of confining ourselves to them. The case studies supplied with this report illustrate potential examples of approaches that supplement the domains approach. In this section we conduct a brief overview of a number of additional approaches that can be used as entry points for sustainable lifestyles.

Consideration of livelihoods can help demonstrate how sustainability investments can be leveraged to provide jobs and income, and can help to identify opportunities for sustainable production. One of our case studies, San Carlos, a small city in the Philippines, has embraced a pro-environmental approach to city development, not only as a good in itself but also as a means to boost employment and livelihoods within the city. Another of our case studies, the Green Belt Movement, started not only as a response to environmental degradation, but also as a means for women in rural Kenya to improve their livelihoods. Another angle to consider for livelihoods is work/life balance with arguments being advanced that a reduction in working hours is needed to bring us within ecological limits (Schor 2005). Another of our case studies, National Work-Life Balance Policy, Korea describes how the Republic of Korea is looking to lower working hours in the notoriously hard-working country. It also has a strong gender perspective, as part of the rationale is to allow more women to enter the workforce so that they can have professional careers as well raise children.

CASE STUDY: **SAN CARLOS, PHILLIPPINES**

San Carlos City, located in the centre of the Philippines, has won national and international awards for its environmental and development work across a wide range of areas from fisheries and watershed management to eco-schools and solid waste management. The city is one of the first in the region to undertake a greenhouse gas inventory and is a carbon sink in terms of emissions produced within the city boundaries. Under the slogan "Vamos San Carlos! Where Green is Go" the city aims to develop into a city where quality of life is increased through government services, jobs, and housing, properly integrating green and open spaces, expanding businesses, and supporting education and local culture and traditions, all under an over-arching pro-environment vision.

Please see the annex for the complete case study

Source: San Carlos City case study. Photo supplied by those involved in the case study.

Design and technology is another entry point, from the development and use of more eco-friendly materials, to energy and material efficiency for consumer goods and buildings. Big data and machine learning can not only be used for the assessment of global and large scale issues, but can also be used at the micro-level through the development of community apps, trading, sharing and other e-commerce transactions, as well as highlighting community activities and providing information and educational opportunities. Uses of technology can be relatively simple. Our case study, Ruby Cup, demonstrates how a simple silicone design of a menstrual cup can help women manage their menstrual cycle in a way that is affordable, environmentally friendly, and helps maintain their dignity and independence. At the other end are complex information technology solutions such as our case study Sidewalk Toronto. Led by Google's parent company, the project aims to use cutting edge technology to improve the lives of residents and visitors. However, the use of such technology can be a double-edged sword, with concerns being raised regarding data privacy issues (Bendix 2019).

Local sustainability and local issues have also been a frequent entry point for activities relating to sustainable lifestyles often starting with issues such as local waste management, community revitalisation, or other environmental issues. Case studies that incorporate this perspective include Incredible Edible Todmorden and the reverse migration initiative by Swades Foundation. Incredible Edible Todmorden started as an urban gardening project, but with urban revitalisation at its core. The reverse migration initiative by Swades Foundation is another, whereby an Indian foundation has sought to further advance its rural development project through encouraging migrants to cities to move back to their villages and start businesses.

Pursuit of personal development through embracing a simpler life including ideas such as pursuing minimalism, decluttering, tiny houses, handcrafted products, artisanal foods, organic food gardens are also seen. Our case study, Rizoma Field School is one such example. The school is a small farm in Uruguay that was established by an American couple seeking to live a more sustainable lifestyle. In addition to working on the farm, they have established links with American universities, which are sending groups of students each year to study and learn from them. Rizoma Field School contends that simpler lifestyles found in the Global South are not only better for the environment, but also offer high levels of wellbeing.

CASE STUDY: **RIZOMA FIELD SCHOOL, URUGUAY**

Initiated by an American family who immigrated to rural Uruguay in order to demonstrate the possibility of living a life of high wellbeing in harmony with nature, the Rizoma Field School was established to pair ideas with experiences in order to facilitate meaningful long-term changes in thinking and behaviour of undergraduate students. The ultimate goal is for students to leave Rizoma not indoctrinated with philosophies, but with an intellectual and experiential toolkit with which to take to their part of the world and their life's work. Rather than viewing the Global North as a model for the rest of the world to follow, the Rizoma Field School aims to demonstrate that many of the answers to living sustainably can be found in the Global South.

Please see the annex for the complete case study

By being based in additional entry points that appear to be compelling and popular, and that which are cross-cutting across the different domains, these expanded entry points show a promising means of opening the conversation on sustainable lifestyles. Such entry points should be further explored and supported. Our case studies here can be the start of a conversation and a foundation for a way forward.

Source: Rizoma Field School case study. Photo supplied by those involved in the case study.

3.4 FOCUSING ON URBAN MIDDLE CLASS LIFESTYLES

3.4.1 Development of the Urban Focus

Consideration of sustainable lifestyles started both within the research community and through the development of intended communities such as eco-villages, or community groups such as Transition Towns in the UK, which aim to re-think the way we are living and ground it strongly in sustainable thinking. Other areas have developed over time in parallel such as lower impact consumerism and ideas such as eco-cities, as well as becoming increasingly geographically diverse. Nevertheless, the common denominator remains a focus on urban, middle class lifestyles, with the focus on climate change and reductions as the clear message. The purpose is to retain a high standard of living with a reduced environmental impact.

However, these approaches do not always involve a deep consideration of lifestyle changes that reflect behaviour change and change in day to day choices that people make, but seem to present a more superfluous greening of current lifestyles. Sustainable lifestyles visions that are presented frequently look highly affluent, drawn from the West imagery and are not in keeping with much of the lived experience of many people. Despite being the most well-educated generation in history, young people are facing persistent rates of high unemployment and underemployment across the world (OECD 2018b). Many countries also burdening their young with high tuition fees in order to attain undergraduate and postgraduate qualifications (OECD 2018a). Home ownership, a benchmark of membership of the middle class, is out of reach for the young across many Western countries such as the UK (Cribb, Hood, and Hoyle 2018). It is not only the young who has been affected. Productivity has decoupled from wages across OECD countries for the last two decades, and involuntary part-time employment is on the rise (OECD 2018b). The middle class across OECD countries is in decline, with middle class incomes showing signs of being hollowed out (OECD 2019b). Levels of mental illness are increasing in many countries, and diseases of affluence, such as obesity and diabetes are on the increase. In line with this issue are high drug and alcohol dependency rates (OECD 2017a). In the United States for example, suicide and drug overdoses are seen as major contributing factors in a decline in overall life expectancy (Centers for Disease Control and Prevention, n.d.). In addition to these present issues, the future looks bleak for many of the young. In addition to concerns of the impacts of climate change, there is the immediate issue of increasing automation and impact of artificial intelligence, which are predicted to destroy millions of jobs by 2030 in the United States alone and 3 to 14 per cent of the global workforce will need to switch occupational categories (Manyika et al. 2017). Considering these facts, the images of sustainability currently presented looks like the greenwashing of Instagram lives that do not exist. High income countries are able to supply high levels of material standards, but are struggling to ensure access and equity.

3.4.2 But Other Regions of the World Require Different Approaches

On the one hand we have unsustainable urban lifestyles, with indications of limits to wellbeing. In the Global South conversely, there have been significant improvements in human wellbeing in recent decades. Absolute poverty, hunger, child mortality, maternal health, and major diseases have dropped significantly in the past few decades, with access to education increasing and the impact of a burgeoning middle class being felt across the world (United Nations 2018b; OECD 2019a). Although absolute income inequality has increased, relative global income inequality has steadily fallen (Niño-Zarazúa, Roope, and Tarp 2017).

However, there remain considerable challenges. The increased prosperity comes with significant environmental issues posing not only the long term threat of climate change but also short term health issues due to polluted air, land, and water (United Nations 2018a). Moreover, the implementation of necessary infrastructure still remains problematic, both in terms of the needed funding and investment with a predicted shortfall of US$18 trillion by 2040 (Oxford Economics and Global Infrastructure Hub 2017), but also concerns as to the sustainability of urbanisation itself (IRP 2018). Although access to education has increased and literacy improved, high quality education for sustainable development remains a challenge in many countries (Didham and Ofei-Manu 2018). Although incomes are increasing, high quality and secure employment can be elusive. Good quality housing, comprehensive and affordable public transit, solid waste management, sanitation, and a reliable energy supply are still out of reach for many. However, the development of such infrastructure is energy and resource intensive (IRP 2018), meaning that

much of the urbanising world needs to find ways of achieving higher wellbeing and quality of life without emitting large amounts of carbon dioxide. A pursuit of urban middle class lifestyles in the style of high income nations using current approaches does not look feasible.

We have previously seen the example of San Carlos, Philippines as one way in which a city is increasing wellbeing with a sustainability focus. Another example of how attempts are being made to improve living standards without negative environmental impacts is our case study iShack, a project in South Africa that is supplying energy services to informal settlements.

CASE STUDY: **iSHACK, SOUTH AFRICA**

The iShack Project is a social enterprise based in Stellenbosch, South Africa with the purpose of demonstrating the feasibility of creating a sustainable business providing energy services to informal settlements in South Africa. The project currently supplies solar electricity to over 4,500 residents in three informal urban settlements while creating employment opportunities for the local community. In addition to the ongoing installation of solar energy systems to provide a basic level of energy access, the project is working with communities to push the policy framework around energy access in South Africa to recognise that off-grid energy access, such as solar home systems, are a viable solution for communities waiting to be connected to the national grid.

Please see the annex for the complete case study

Source: iShack case study. Photo supplied by those involved in the case study.

3.4.3 Low Impact Approaches and Traditional Approaches to Wellbeing

Increasingly there are variety of ways being developed to meet needs without the attendant carbon emissions. A variety of low impact housing designs have been developed using traditional methods, recycled waste, refurbishing heritage buildings and advanced methods such as 3D printing. Bus rapid transit is becoming more commonplace globally and improvements in IT are leading to the possibility of the integration of taxis and ride sharing into other modes of public transportation. Affordable and low-tech approaches for solid waste management, sanitation, and supplying energy are being implemented globally with promising results. With ever declining costs of computers, tablets, and smartphones as well as rapidly advancing Internet coverage, there is a potential for education to be expanded to include life-long learning and into remote rural areas where IT can support teaching in areas where it is difficult to recruit and retain teachers.

In addition to these technological approaches, there are a number of approaches based in society and culture. With the environmental cost of urbanisation becoming apparent, there has been a growing interest in increasing wellbeing and revitalising rural areas. One such concept is reverse migration, by which migrants to urban areas are encouraged to return to their native villages in order to start new business using the knowledge and skills they have gained in the city. A similar concept in Europe has been another of our case studies BioSzentandrás, Hungary, whereby a small rural village has been revitalised, boosting self-sufficiency and supplementing low incomes through organic food and craft products.

CASE STUDY: **REVERSE MIGRATION, INDIA**

The Swades Foundation works in rural Maharashtra near Mumbai pursuing a holistic development strategy incorporating health and nutrition, education, water and sanitation, and economic development. An integral part of this has been the promotion of and support for reverse migration through which migrants to major cities such as Mumbai and Pune have returned to their rural villages in Raigad. These returnees have benefitted through an increased income, wellbeing and social standing as they are mentored by the Swades Foundation team to start with an income generation activity which helps most of them develop/acquire the skillset and technical know-how to become first time entrepreneurs in most cases.

Please see the annex for the complete case study

One of the reasons for this increasing interest in rural life is a dissatisfaction with aspects of urban existence – not only with environmental issues and frequent fast paced stressful way of life, but also due a commonly felt sense of alienation from society and difficulty with forming meaningful relationships. This absence of social connection is a particular symptom of urbanised life where despite close proximity to each other, people rarely know their neighbours. The development of more closely knit societies, more similar to traditional ways of living, can help offset this issue. Traditional ways of living potentially offer a slow pace of life and one that places nature much more prominently within its thinking.

However, we should not over-romanticise traditional ways of living. The primary reason why traditional societies respected and venerated nature and attempted to live in harmony with it is because they were always at its mercy. With limited abilities to protect themselves in the event of a bad harvest and vulnerable to unpredictable natural disasters, traditional societies needed to ensure that they respected the natural resources on which they relied otherwise their continual survival would clearly be at short-term risk. Low impact approaches does not mean zero technology approaches. With the expanse of the Internet and the decreasing cost of sophisticated technology, there is an opportunity to combine technological solutions with traditional way of life to bring many of the benefits of urban life such as ready access to education and information, more efficient production methods, or general healthcare assistance into rural areas. However, the challenges of such approaches should not be underestimated – proper implementation of technology is time and resource consuming.

It is clear from the science that a shift to sustainable lifestyles involves a significant departure from previous modes of development. However, as the context across the world is so variable, different ways of living within planetary boundaries will need to be developed in line with local norms, values, and resources. Greater exploration of the different contexts and potential means of living sustainably is required.

Source: unsplash.com

PART 4.

CHALLENGES IN IMPLEMENTING SUSTAINABLE LIFESTYLES INITIATIVES

The section describes three challenges found in the implementation of sustainable lifestyles initiatives. The first challenge is evaluation. There are three main approaches used for evaluation (summative, formative, and developmental), each being appropriate in different contexts. However, resource constraints are a key challenge for formal and well-structured evaluation due to the length of time and staff requirements that are frequently required. One particular challenge is the lack of funding for long-term impact studies, which makes understanding long-term shifts more difficult. Increased support for evaluation would enable greater understanding of impacts and help identify best practices.

The second challenge is in the use of indicators for the measurement of environmental impact, and of wellbeing, equity, and other social indicators. In terms of the environment, it is found that while macro level efforts such as national policy and large scale initiatives can and are measured through indicators, estimating impact at the medium or small scale is often challenging and context dependent. Wellbeing measurement tells a similar story, with wellbeing effects being measured and documented at the national level, with less data at sub-national levels and difficulties with measuring the effects on wellbeing within projects, often due to difficulty in clearly demonstrating causation rather than correlation, and also in being able to measure wellbeing over significant lengths of time to demonstrate impact. In addition, the use of quantitative indicators for wellbeing has been challenged, particularly regarding projects undertaken at the community or micro-scale.

The third challenge is scaling. As with evaluation, scaling is context dependent. Not every example can or should be scaled. We examine three different types of scaling (out, up and deep) and observe that greater attention needs to be given to scaling deep – scaling that occurs at a cultural level, shifting norms and values. It is this type of scaling that will give the impetus to establish the enabling environment that sustainable lifestyles need.

4.1 UNDERSTANDING EVALUATION

4.1.1 Summative, Formative, and Developmental Evaluation Approaches

Evaluating sustainable lifestyles is indispensable for promoting effective initiatives and instruments that support its achievement. However, the process is complicated and resource intensive, and there is often a trade-off between rigorousness and the required amount of financial and human resources. An appropriate consideration of the purpose, research design, and indicators for evaluation is necessary.

There are three main approaches that are commonly used during the evaluation of projects and programmes – summative, formative, and developmental evaluation. The three different approaches are summarised in the table below.

Table 1: Evaluation Types (from Gamble 2008)

TYPE	SITUATION
Summaritive Evaluation	- At the end of a programme or initiative when key decisions about its future are going to be made. - When judging the model's merit or worth for continuation, expansion, going to scale, or other major decisions.
Formative Evaluation	- When fine-tuning a model. - When a future summative evaluation is expected and baseline data will likely be needed.
Developmental Evaluation	- When working in situations of high complexity. - When working on early stage social innovations.

There are a variety of means available for the assessment of sustainable lifestyles. For emerging sustainable lifestyle initiatives where workable solutions are yet to be identified and developed, developmental evaluation appears to be an appropriate approach. It focuses on improving the implementation or understanding if impacts are occurring rather than making post-project judgement, with the results of the measurement being instantly fed back to the project implementer and community (Watabe and Koide 2018). This approach is complementary with the need for participation to realise sustainable lifestyles as discussed above. However, where there is greater confidence that the project methodology is proven, summative and formative evaluation is more appropriate. Although it is possible to measure the impacts of projects, it is frequently challenging to do so due to the resource intensive nature of such measurements. This issue is further discussed in the indicators section below.

4.1.2 Research Design

Once the broad approach has been determined, there are a variety of means by which it can be evaluated. Here, consideration of the type of project or programme being implemented such as whether it is a totally untested innovation, or whether it is a promising practice or improvement that has had its effectiveness proven to some degree (Hancock, Proctor, and Csaki 2003) is key. If there is a high level of confidence in the practice being evaluated due to a large evidence base, then estimation of impacts can be achieved by using existing information such as existing information and project records.

If however the evidence base is lacking then further research is required and a more rigorous design for impact evaluation should be adopted, selecting an experimental, quasi-experimental, or non-experimental design (Sept, Naylor, and Weston 2011). For some projects, lifestyles can be assessed before and after the interventions to understand the effects of the intervention and/or to measure against targets. This type of non-experimental design uses a business as usual scenario and compare it with the end line impacts. Although these methods can measure the actual behaviours, assigning attribution can be difficult as other factors such as macroeconomic conditions and other external factors can influence behaviour.

To combat this issue, quasi-experimental design can be used to survey two different groups, one that participated in a given project and one that did not, with conclusions being drawn based on the differences between the groups. Experimental design is the most rigorous method as it uses randomized controls trials, where participants are randomly assigned to project and non-project samples, which creates much greater certainty and accuracy. However, the more rigorous the methodology becomes, the required resources for data collection and analysis increase. This means that there is no one approach that will work for all initiatives, with the selection of methodology needing to reflect the needs of the project.

Source: Muni Meetups case study. Photo supplied by those involved in the case study.

4.2 UNDERSTANDING INDICATORS

4.2.1 Types and Selection of Indicators

Indicators generally fall into three main types: outputs, outcomes, and impacts. Outputs refer to direct results of activities. Outcomes refer to direct changes in behaviours and systems that occurred as a result of the activity being measured, whereas impacts are longer term and broader sustainability gains (Watabe and Koide 2018). Measurement of these indicators tends to be more resource intensive as measurement targets become longer term and broader. There is a progression from measuring outputs, which is often straightforward, to outcomes and impacts, which are often more difficult to measure.

This is in line with the situation for sustainable lifestyle initiatives more broadly. In many cases, the indicators for projects or programmes tend to be limited to output, such as the number of events or publications, or outcome level indicators, such as intermediate changes in behaviours and practices towards impacts. Our collection of case studies reflects this trend, with few of them having gone through complex, formalised evaluation. However, due to the complexity of human behaviours and societal systems, generation of impacts are uncertain unless they are verified. Therefore, measuring impacts is important for sustainable lifestyle initiatives, especially for emerging or untested instruments, to understand the effectiveness of the instruments and further develop the interventions. Although the means to measure are available, time and resources are significant barriers. However, one example of a successful intervention is our case study, Ballina. The project was implemented over 5 years, with the intention of enabling a community to live more sustainably. The project was seen as successful, achieving a 28% footprint reduction, and also seeing subsequent scaling to over 90 other communities. This was primarily done through community story-telling, with school children competing to create slogans to promote sustainability. In this case, measuring outputs such as the number of community meetings or competitions held would be relatively simple. However, outcomes and impacts in this case were measured by multi-year footprint assessments, which would not be possible without on-going support and technical knowledge. Ballina indicates the clear possibility of evaluating projects with limited resources, if properly planned and embedded into the project lifecycle.

CASE STUDY: **BALLINA, IRELAND**

Using sustainability drivers at the local level a community group in Ballina, Ireland reduced their ecological footprint by 28%. They achieved it through meaningful measurement of consumption and the power of storytelling to reinterpret technical messages. This footprint measurement and the subsequent storytelling gave a sustainability uplift to local norms, and the strong, committed local participation through bringing people together has led to big reductions in resource, waste and energy use.

Please see the annex for the complete case study

4.2.2 Environmental Indicators

To measure environmental impacts, some projects use direct emissions from activities as indicators, such as vehicle fuel use or domestic water consumption. However, this approach does not consider the hidden burdens of the consumption (i.e the environmental damage caused in countries of production not felt by the end consumers) or leakage through the global supply chains (Boitier 2012). Environmental foot print methodologies such as carbon footprint, material footprint, ecological footprint, and water footprint have benefitted from development in the past few decades and are more comprehensive (Weinzettel et al. 2011) as they measure impacts throughout the lifecycle, from production, to usage, and final disposal.

Footprint are used to measure the impacts at the variety of levels ranging from a single product or service, to the activities of an organization, the lifestyle of an individual or household, to cities and countries (Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. 2019). Of these, footprints of individual or household lifestyles are useful indicators for sustainable lifestyles. As noted earlier rebound effects, whereby a reduced footprint in one product category or domain can be partly cancelled out due to increased consumption in another domain or product enabled by the saved expenditure or time, can be an issue (Buhl et al. 2017).

Source: Ballina, Ireland case study. Photo supplied by those involved in the case study.

An example of this would be the purchase of a fuel efficient car leading to more car use which cancels the reduced emissions due to the perceived lower cost of driving. This means that evaluating sustainability impacts of a single product or single domain may not ensure the reduction of the total footprint of a single person's lifestyle. Therefore, evaluating the impacts of sustainable lifestyles should ideally cover footprints of lifestyles as a whole (Moore 2015).

Another important element when considering indicators is the establishment of targets. In many cases, targets are set as a change from the baseline or business as usual scenario. This type of target is useful in evaluating the impacts of individual product or initiative and confirm the relative size of contributions. However, the environmental side of the sustainable lifestyle challenge requires a further progressive step due to the need to consider planetary boundaries (Steffen et al. 2015). From the lifestyle perspective, global boundaries can be converted to the per-capita level, as shown by the concepts of One Planet Living (BioRegional and WWF 2004), Ecological Footprint (Wackernagel and Rees 1996), and 1.5-Degrees Lifestyles(Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. 2019). Ideally, indicators should be selected with due consideration as to whether they can contribute to calculating whether a given lifestyle is within planetary boundaries.

4.2.3 Wellbeing, Equity, and other Social Indicators

There have been a variety of ways in which wellbeing has been measured. Except for the Happy City Initiative (Wren-Lewis and Abdallah 2016), these wellbeing measurements appear to be conducted at the national level. The OECD Better Life Initiative is a typical example of the approach, considering quality of life (health, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, subjective well-being) as well as material conditions (income and wealth, jobs and earnings, housing) (OECD 2011, 2013b, 2015, 2017b). In addition, there has been some research at the community level on wellbeing with indicators specifically developed for the study (Mulder, Costanza, and Erickson 2006).

Such measurements are data heavy. That said, with the localisation of the sustainable development goals (SDGs) on-going there should be increasing opportunity to be able to monitor wellbeing at the local level. However, the SDGs do not fully overlap with all common wellbeing indicators, most notably they do not measure social connection and life evaluation or affect. Data here can be collected, but it represents an additional burden. There are continuing struggles with collecting and measuring the data for the SDGs, due to both the large number of indicators and also the fact that 34 of the 232 indicators lack an internationally established methodology or standard (United Nations, n.d.) as of the timing of writing (April 2019). Measurements regarding access and equity can also be covered by these wellbeing indicators and SDGs. Nevertheless, if certain aspects of wellbeing are carefully selected when considering a project and are in-line with the project requirements, and the necessary resources are in place then it is possible to measure these kinds of social impacts. However proving correlation of wellbeing improvement against project activities is likely to be problematic. This kind of data gathering is also relatively rare and tools and capacity building for project implementers would likely be needed. In addition, it should be noted that quantitative approaches to wellbeing are not universally accepted, with some researchers strongly emphasising the need for qualitative approaches and consideration of context to complement quantitative methods (White, Gaines, and Jha 2012).

Other means of measuring social impact include Social Return on Investment (SROI) which aims to quantify social impact. It can be seen as similar to natural capital as it assigns monetary values to social and environmental as well as economic outcomes. It is a well-established methodology developed in the UK with government support. A network has been developed that is now present in several countries. The concept is to capture the social, environmental, and economic outcomes and represent those using monetary values. The framework uses evaluative and forecast methods to evaluate completed projects and forecast outcomes respectively. An example of its use is an assessment of Incredible Edible Todmorden, one of our case studies. The study measured six measurable outcomes as in the table below and calculated a net return of £878,609 against £159,512 worth of inputs such as volunteer time, leading to a SROI of 1:5.51 meaning that for every pound invested £5.51 was returned to the community (Morley, Farrier, and Dooris 2017).

CASE STUDY: **INCREDIBLE EDIBLE TODMORDEN, UK**

Incredible Edible Todmorden is a community initiative turned movement which aims to show the power of small actions for a kinder world through growing food and sharing. Starting in 2007 with a small group of dedicated volunteers it has grown beyond the confines of its small town and received national and international attention. A self-sufficient initiative reliant on volunteer action and donations, it has expanded beyond its initial urban gardening activities into working to create a kinder town through its three areas of work – community, business, and learning. In recent years it has broadened its focus to include working with the terminally ill and addressing loneliness.

Please see the annex for the complete case study

4.3 UNDERSTANDING SCALING

Scalability is also an additional concern which is not covered explicitly within the sustainable lifestyles. One way of examining scaling is to conceive of it as scaling out (impacting greater numbers), scaling up (impacting laws and policy), and scaling deep (impacting cultural roots) (Westley et al. 2014; Riddell and Moore 2015). There is a considerable overlap between these different types of scaling, particularly between scaling deep and scaling up/out, as if a concept is impacting cultural roots, then this would naturally lead to it being expanded outwards or upwards. However, with all of these different means of scaling, why hasn't sustainable lifestyles scaled anywhere nationally or across the planet? Firstly, prior to scaling out or up, it is necessary that sustainable lifestyles scales deep – that is, it is understood that there needs to be a shift from current development thinking to one that places wellbeing within planetary boundaries at the centre. Second, there appears to be a limited understanding of scaling as including scaling deep, with a tendency to concentrate on engaging greater numbers, or pushing promising practices to become policy rather than considering the wider issues represented by scaling deep.

4.3.1 Scaling Out

Scaling out is conceived as spreading an innovation through replication, growth or functional scaling, or via efforts to diffuse and influence (spreading principles) (Riddell and Moore 2015). More specifically replication involves disseminating and adapting practices in other geographies as well as in greater numbers; in other words, incubating, training or inspiring others to tailor the innovation to their context. This can also be a process of enrolling in which new partners become champions of the innovation. Growth or functional scaling involves expanding the scope of activities beyond the initial innovation to diversify a set of activities in an initiative. Diffuse and influence (spreading principles) is taking the essence of an idea or concept and spreading it through a variety of different routes. The purpose is to disseminate principles, with adaptation to new contexts via co-generation of knowledge. This leads to an expansion in number of people and communities impacted. One key challenge is maintaining the quality and integrity of the initial innovation as it scales across to different contexts. Another is in assessing which innovations are appropriate to spread and scale out.

Amongst the case studies, Incredible Edible Todmorden has been scaled out through the establishment of the Incredible Edible Network by one of the original co-founders (Incredible Edible Network, n.d.). This is similar to concepts such as Transition Towns, which have also grown organically through replication of principles with

handbooks having been written to assist with the establishment of activities (Transition Network, n.d.). At a larger scale, the concept of eco-cities and smart cities has grown considerably in recent years, with more and more cities looking to become more environmentally friendly (De Jong et al. 2015).

4.3.2 Scaling Up

Scaling up is through changing institutions or policy at higher scales of governance or geography (Westley et al. 2014). This may involve amplifying impact by changing the context which supports the innovation whether through developing enabling platforms (i.e., policies, resources, partnerships) or raising the level at which we work (i.e., broadening the boundary). This is based on a recognition that the roots of many social problems are not location dependent, and that innovative approaches must be codified in law, policy and institutions. Examples of this include boundary scaling and political scaling. Boundary scaling is the expanding the scope of the innovation by shifting to higher spatial and institutional levels, such as from household to neighbourhood scale. Political scaling is the extending efforts by engaging in the political process with a view towards directing political and institutional change. Such efforts may include new policy development, partnering, strategic advocacy and/or redirecting institutional resources. Accumulation is linking together of different innovations for wider influence, leading to transformation as linked practices can lead to wider institutional change (Naber et al. 2017).

Some examples of the codification of earlier efforts can be seen through the implementation of national level policies such as green building standards, which aim to build on previous research and private sector initiatives as an instructive guide regarding what is feasible for universal adoption. Another example would be Japan's Top Runner Program, which bases criteria on the most efficient in the market and requires producers to meet the criteria by a given year (Government of Japan 2014).

4.3.3 Scaling Deep

Scaling deep is the means of impacting cultural roots, including organizational, cultural and personal transformations, as well as relationships and values. This involves the recognition that culture plays a powerful role, and change must be deeply rooted in people, relationships, communities and cultures. This is frequently done through spreading big cultural ideas and using stories to shift norms and beliefs; and investing in transformative learning and communities of practice. Such practices not only look to alter norms and values, but also often provide opportunities for personal reflection and transformation. Almost all of the case studies listed have aimed to shift norms and values and can be seen as efforts to scale deep. This commonality amongst such a diverse range of case studies is notable, and points to the feasibility of shifting norms and values.

Source: © Association Mawarid - by Moulay M. Saadi (Hibou)

Source: unsplash.com

PART 5.
WAY FORWARD

This paper has explored four challenges in conceptualising sustainable lifestyles, and three challenges in implementation. This section looks at the findings from each of these challenges, and makes suggestions for the way forward.

Linking Ecological Limits to Wellbeing. There are two issues – acknowledging the need for respecting ecological limits and incorporating wellbeing thinking, and also a need to understand better how to link ecological limits with wellbeing. Despite the lack of adequate action, there has been acknowledgement of the ecological limits of the planet internationally through the Paris Agreement and the increasingly urgent calls for greater ambition by a variety of global leaders. A number of countries are starting to consider wellbeing as a policy focus. There have also been efforts to explicitly link ecological limits and wellbeing by the European Commission through the Environment Action Plan. ***However, a far wider take up of the concept is required.*** While intergovernmental organisations such as the OECD have championed wellbeing, and the UN has linked climate and the SDGs, ***explicit endorsement of integrating ecological limits and wellbeing by intergovernmental organisations and other global leaders is needed*** to further raise awareness and assist in embedding the concept globally.

It is currently broadly understood that sustainable lifestyles correlate with wellbeing and that sustainability does not need to be view in terms of sacrifice. However, ***a detailed understanding of whether different types of lifestyles influence wellbeing to a greater or lesser degree is needed.*** As few people have been guided along pathways to sustainability, it is not yet clear what obstacles there might be in ensuring wider acceptance of sustainable lifestyles. ***Support is needed for experiments to enable a deeper understanding of the interaction between wellbeing and ecological limits in a wide variety contexts, including the Global South.***

Enabling Sustainable Ways of Living. The physical infrastructure, the policy environment, the market, and the social norms and values of a given society are all enablers for sustainable lifestyles. Governments are pushing ahead with an increasing focus on sustainable infrastructure. However, ***it is not clear whether concepts such as eco-cities will truly enable living within ecological limits.*** Increased interest in urban density, transport-oriented development and similar are welcome developments.

As seen above, the policy environment is being increasingly supported through international agreements and the development of associated national plans including sustainable consumption plans. The number of countries undertaking such plans needs to be increased. In addition ***it will be necessary to incorporate an explicit lifestyles perspective into national plans*** – technocratic solutions will contribute to reductions, but the scale of the task makes the involvement of all of society absolutely key. Such plans must consider how to ***encourage and support bottom-up approaches that can help a shift in norms and values.*** The creation of this enabling environment is something that all society can contribute to, but it must be seen as primarily the responsibility of government to deliver, as it is government that creates the overall legal and policy framework under which all actors operate. ***It is not only national governments that should support sustainable lifestyles, but local governments should also be engaged in a lifestyles perspective.***

Limits of the Lifestyle Domains Based Approach. Currently much of the thinking around sustainable lifestyles is based around five domains – buildings, consumer goods, food, leisure, and mobility. ***These domains are extremely helpful for the measurement of lifestyles and identification of consumption hotspots***, but if used as the focus of policies and practice run the risk of silo thinking and missing the benefits of more holistic approaches. ***There are a wide range of entry points for sustainable lifestyles, including design and technology, local sustainability issues, urban greening, minimalism and personal development, livelihoods amongst many others.*** Practitioners, researchers, and other supporting organisations should not get trapped into viewing sustainable lifestyles through only these prominent domains, but call on the rich variety of entry points to inform their work.

Focusing on Urban Middle Class Lifestyles. Much of the current discussion is focused on a ***reductions agenda centred on the urban middle class in high income nations with an emphasis on finding ways to maintain wellbeing while reducing environmental impact.*** Not only are there indicators that wellbeing needs addressing within high income nations, but there is little investigation of this topic in the Global South. Moreover, the ***Global South needs to raise wellbeing while avoiding increasing emissions.*** This is an entirely different perspective, but one which is not fully explored. While the focus on the urban middle class of high income nations is understandable given their enormous contribution to our current unsustainable practices, ***with a fast growing urban middle class in the Global South ways of accommodating the demand for increases in quality of life*** will need to be found.

In addition consideration of rural lifestyles will need to be expanded upon. With signs that current trends in urbanisation will significantly impact on our remaining carbon budget, means of enabling sustainable lifestyles with high wellbeing within rural settings is needed. This further underlines the need to properly understand the link between limits and wellbeing. ***Lifestyles researchers and funders need to expand their focus from high income nations and further support investigating these issues in the Global South.***

Evaluation, Indicators, Scaling. In order to understand the effects of interventions in sustainable lifestyles, it is important to undertake comprehensive monitoring and evaluation. However, as establishing sustainable lifestyles involves long-term behavioural change, measuring impacts can be a multi-year task. An increased focus on such long-term evaluations is needed to be able to fully demonstrate what works within sustainable lifestyles. ***Correlations between high wellbeing and sustainable lifestyles has been established. Further work is needed to demonstrate causation.*** To achieve this, it is vital that funders support wide ranging and longer term research.

To support such work, further development on indicators is required. There are a number of environmental indicators available, but their usage is frequently not straightforward and requires technical expertise. Wellbeing indicators are even more difficult, with quantification being challenged and qualitative reporting being very resource intensive. ***Further development of easy-to-use tools will be required for implementers.***

In order to frame any action undertaken by individuals, ***it is important that lifestyles footprints are understood and what sustainable levels are.*** The lifestyle carbon footprint (Institute for Global Environmental Strategies, Aalto University, and D-mat Ltd. 2019) is an initial effort to capture the carbon footprint of an average household in a country, and measure them against sustainable targets. ***Further research is required to measure more countries, and to develop calculators that not only measure current footprints but can aid users in establishing their own pathways to sustainability.***

Scaling sustainable lifestyles will first require a greater understanding of ecological limits and how actions fit into overall lifestyle footprints, otherwise there is the risk of mainstreaming policies and practices that are not sustainable. Scaling deep, whereby norms and values can be addressed and shifted, should be the primary focus. This would require ***greater levels of attention for education for sustainable development as well as support for stakeholder engagement and inclusion*** to develop their own understanding of and pathways to sustainable lifestyles.

Sustainable lifestyles present an opportunity to provide a means of not only avoiding catastrophic climate change, but also to help answer questions regarding our wellbeing. They show a potential pathway to healthier, happier, and more fulfilling lives. However, in order to fulfil their potential, it is necessary to bring on board insights from other areas, expand our thinking, and develop tools to further support on-going and future policies and practices.

Source: unsplash.com

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