LEARNING *by* DOING

The Learning by Doing Project

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2022 ACTIVITIES

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LEARNING *by* **DOING**

INTRODUCTION

For the things we have to learn before we can do, we learn by doing
Aristotle, Nicomachean Ethics, 110332

This second year consolidated the philosophy and methodology of the Learning by Doing (LbD) project, and further advanced the in-country activities. During 2022, the project further developed its thinking about what a good life meant in the context of the temperature limits and the circumstances of place and culture in which LbD operates. The project continued advancing and developing its own public and research philosophies, as well as a methodology that was compatible with them, exploring and examining their climate and public policy implications. The project also outlined the core of scrum activities to be advanced in the various countries, while preparations for regional consultations during 2023 continued.

From the outset of the project, its starting point has been the question of what a good life would look like circa 2050 in specific locations, within a carbon budget that is compatible with a 2-1.5°C temperature increase, and that recognises the associated climate impacts. To address this issue, LbD advanced both quantitative and qualitative approaches. It is not obvious that the climate problem, seen solely as 'reducing emissions' or 'adapting to climate change' incites enough social demand to make the necessary political, institutional and macro-economic changes that are necessary to meet the goals of the Paris Agreement. To address the scale and speed required in responses compatible with the requirements of the Paris Agreement, there is a need for attractive inspiration to be positively pursued; fear of failed transitions may not be enough. For this reason, LbD explores a route with greater social appeal: what could a good life in 2050 compatible with a temperature rise limited to 2-1.5°C look like?

To address these questions, during 2022, the project advanced an interdisciplinary and international approach, at cross project and in country levels. The relevance of different levels of conversation (philosophy, political economy and political and economic modelling) and that of different places and regions (Latin America, Africa, the MENA region) were both acknowledged. This entailed interaction between the social sciences, the humanities and different geographical and political contexts. Advancing the project along these lines aimed to answer both technical and political questions, as well as explore the deeper philosophical ideas that are necessary to ensure that the envisaged life is not only survivable but good. It was thought that an interdisciplinary approach to this subject would help to avoid certain climate modelling and policy making pitfalls, and avoid ultimately unhelpful shortcuts and wasted resources. For example, it considered that removing agency from the individual for the sake of collective efficacy would not be part of the good life; nor would seeking to increase the wealth and power of a party to influence outcomes, or relying mostly on the dangers that may come from a warmer climate to motivate action. Instead, it hoped that its 'solutions' rather than appearing as impositions, may emerge instead as opportunities and means to enhance collective action from the bottom up in the places where the project advanced.

PUBLIC PHILOSOPHY

In its search to address these questions comprehensively during 2022, LbD advanced cross project and ad-hoc meetings in Craiganour, Scotland, Mexico City and remotely, with strategic thinkers from multiple disciplines, from the humanities to economics (see below: Scotland Process). These conversations explored the issue of a desirable future, and how to learn how better to desire and to act so as to make it possible. Leaving for the moment the practical need to revisit what a good life is to one side, a key aspect of such a good life focus is the fact that being good people and leading good lives appeals to the aspirations of the majority and, as a result, a debate framed in such terms is one that will resonate with the greatest number of people as a result. The project sought to have this realisation as its aim, and then use this aim as a guide to imagine the associated emissions and impact profiles, and what might help for this future to come forward, from the bottom up.

Elements for a good life – cross project work

These meetings highlighted the importance in a good life of the pursuit of conviviality, creativity and contemplation. These elements should be considered as considerable aspects within the struggle towards climate justice, to ensure that the pathways leading towards a good life represent continuity, rather than rupture, with nature. As it emerged from these cross-project activities, a good life was perceived as a pursuit aiming at the cultivation of character, community and right desire. This cultivation of the common good would prioritise aims in life in a different way to that of secular liberal modernity, emphasising wherever possible a communitarian search for meaning through increased relationality, imaginative creativity, and convivial contemplation, embedded in social contexts. This aspiration would be aided by a social and institutional environment that fosters, rather than hinders, such a convivial search.

   It may be noted, in characterizing this search for a 2-1.5°C compatible society, that these aims articulated around the search for such a good life are valuable for most people in themselves, regardless of the climate related aspects of this search, or of any form of government intervention. On the other hand, this characterisation of a good life does indeed imply goals associated with less emissions and more resilience than more conventional climate policy thinking. The roles of consumption, extraction and economic growth, which frequently driver's emission growth, are not prioritised in any of these goals. We think of these aims as being compatible with a society that is carbon neutral and adapted to the climatic realities of a world 2-1.5°C warmer than pre-industrial levels. It may be understood being complementary to the implementation of nature-based-solutions and socially inclusive economic development, or the pursuit uptake of relevant SDGs. Crucially, it implies a society where a good life may be led.

   As meeting debates progressed, they started to outline some of the elements of an alternative and better form of modernity, more compatible with such a 2-1.5°C future. This modernity would emphasise a continuity rather than a break with nature, one where the interconnected role of nature is inherently valued rather than taken for granted or exploited. It would assume a role for creativity that perceives culture as building upon and continuing human interaction with nature, and provide a more salient role for human and natural agency. With its emphasis on human creativity, the value of imaginative world-building would be more widely embraced, and be seen as a faculty through which human beings co-create and complete reality by acting with each other and with nature. As Stephen Hawking so aptly put it, "many things are possible, but first, you have to imagine them.".

To convey its purpose along these lines, the project combined the creation of narratives, graphic art and illustrations with economic modelling and political analysis. These combinations highlighted the importance of more effectively using analogies to convey and deploy long term climate policy. Nevertheless, while partial and limited, such (analogical) approaches allow for the humanities and art to culturally mediate social relations with nature. This connection provides a sense of purpose and value where culture and nature are seen to be closely allied, rather than separated. Instead of apocalyptic narratives, visions including and promoting positive aspects would be explored. While recognizing the severity of the climate problem, this alternative encourages a pursuit, an adventure, an attempt to bring visions with appealing, engaging and beautiful aspects about them. It was hoped this would improve a sense of agency, and provide additional reasons to the urgency to act. Moreover, with its emphasis on localised bottom-up agency within societies and communities, this approach would align with supporting pathways that avoid increasingly damaging concentration of capital, resources and information associated with heavy environmental degradation.

A Good Life and a Public Philosophy: Politics, and Policy

This section outlines some of the characteristics of the alternative public philosophy that has been emerging during 2022 as LbD's vision of a good life in specific places consolidated. LbD approach to knowledge has probably been the most salient aspect of its philosophy. The project seeks to explore how to advance a transition towards resilient low carbon societies, with strong mitigation capacities that are attractive, appealing and pleasant to live in. This ambitious goal has yet to be achieved, so it seems one can only learn how to do it by doing it. LbD is therefore an attempt to learn by practising. It does not pretend to know a priori how to overcome the challenges of the next few decades. Rather than taking a prescriptive approach, it advances a process of discovery: one of learning through the interaction between people with different skills and mindset coming from different environments and, communities of practice and settings.

Participants are expected to know the principles they will follow but not the specific path that will lead to such end goal. The participation of people from different communities of practice and backgrounds is anticipated to include more holistic innovation and creativity. The project seeks to ask emerging questions as if truth mattered, and engage partners with a similar persuasion. Questions are framed in terms of how to learn and act in pursuing a good life and society, as climate impact and emissions-related issues are considered. This philosophy prefers a wider and wise empiricism, one that does not preclude in advance what would be allowed to emerge in the enquiry, but instead, embraces the wisdom of Elinor Ostrom, the Nobel Prize winning economist, who noted the need to "make room in theory for what is seen to be possible in practice". Knowledge and learning would thus become more of an event, well-rooted in local concerns and practices, and possible to be shared locally. Therefore, the knowledge management aspects of the project followed a similar open-ended approach, with the knowledge management advancing by coding results and findings, and then identifying which themes and aspects were emerging.

At this point in time, these conversations have also started exploring implications in terms of the location of good life considerations with regards to existing traditions of political thought. In this vein, the pursuit of a good life may result in an unexpected mix of otherwise unrelated aspects of the conservative, socialist or radical, and liberal political traditions. Given the current state of increasing political fragmentation, this approach is especially valuable as it creates opportunities for novel alliances across the political spectrum in aid of addressing the challenges of climate change.

In its political aspects, this public philosophy emphasized the importance of increasing the richness of the public sphere and of actions to support it, which go beyond the private dimensions of individual

behaviour and wealth. Local concerns were highlighted, and approached with a sense of subsidiarity that prioritised the lowest level of decision making wherever possible. The project's internationalism was rooted in these local concerns. As this public philosophy emerged, it seemed to be in dialogue with a politics permeated with a strong character of interrelation, reciprocity and mutuality, a politics where the search for beauty in different arenas was not entirely absent. Instead of solely relying on incentives to influence individual behaviour, the approach would prioritize enhancing agency, empowering individuals to strive to be their best selves alongside others.

In a time of social fragmentation, the goal of a good life might then translate into an unexpectedly realistic incentive and source for bottom-up action. It reflects the desire for ordering relationships that holds individual fulfilment in balance with mutual social, natural, and environmental flourishing. Personal well-being is inextricably related to communal well-being and the interconnected well-being of nature. This underscores the need to consider mutual benefits in society, rather than presuming that zero-sum approaches are the norm. To achieve this, policies would seek to enhance inter-relationality, including by expanding the number of groups, associations, and communities. This enhanced inter-relationality could operate at various levels, and could be consolidated and expanded by increasing interactions, not only through markets but also through gift exchanges. If one considers mutual benefits, the public realm is capable of accommodating legitimate moral differences, while articulating the pursuit of a life that is in accordance with 2-1.5°C futures. This can be enhanced if mutual flourishing is considered in specific contexts and accounts, and fed by a dialogue about the pursuit of such a good life. A focus on shared interests and common practices, rather than on divisive values, becomes crucial, both on society as in climate policy.

In terms of contemporary politics, public philosophy may start dialogues with various political approaches. In right-of-centre conservative terms, this approach would highlight the importance of long-term covenants across generations, a recognition of the bonds of family and friends, the biological facts of our own selves and nature, and how the constraints of law, custom and faith and our mutual obligations both limit our autonomy, but are also sources of stable communities, relational meaning and dignity.

In a left-of-centre, socialist sense, it highlights the importance of community, of the places people inhabit; the relationality of rights and the various bundles that form any given set of (property) rights, the inevitability of a shared fate by all groups in society, and the importance of focusing rather than ignoring the lower levels of income and least advantaged members of society and politics.

In a liberal sense, it underlines the importance of the liberal as an adjective, and not solely as a noun – a source of impartiality and generosity, while at the same time, a reminder of the importance of the rule of law, property, and of an economy that can operate freely, unburdened by increased big business monopoly and un-needed state power.

The project visions of future societies where a good life may be led by people in project countries, seeks to create demand conditions and designing of more ambitious policies and projects than those the governments currently consider. The project dual emphasis on governance and the good life has uncovered multiple co benefits in terms of governance, public services, urban planning and transport improvement, security, and local resilience and governance. The project reports, events and project activities in knowledge management are helping capture these co-benefits.

Thus, the project has now created qualitative and sectoral narratives and modelled both the expensive impact costs of not acting early, as well as the high political cost of doing so solely through carbon prices and taxes. It has discovered combinations of sectoral policies joined up with modelling and narrative exercises to identify alternatives to carbon prices and taxes working alone to make these visions of societies feasible, and a process to discuss this with stakeholders. Teams in the project have started using quantitative and qualitative information emerging from local work to illustrate a wider range of projects and innovation portfolios than originally envisioned.

The project has also started broadcasting activities – at the UNFCCC COP27, in Lima, at the CIES annual seminar, and in Santiago, at ECLAC. The project has also created a network of academics, researchers and practitioners in philosophy, economics, politics and climate focused on both the good life and climate, and its consequences in terms of economics and policy. This has gone beyond what we were expecting. Multiple calls from this network have now emerged to set up a "Good Life Policy" institute, joining up work on philosophy, politics, economics and policy that can join and advance the work we have already advanced. The institute would advance courses, events and policy advise with a focus on how culture, policy, governance, and infrastructure may help advance a good life - in the context of climate challenges. Some initial funding has already been identified, and branches identified in the UK and project countries.

The project also uncovered, through combinations of cross project and in country works, different ways of understanding collective action in ways that emphasized local agency in line and bottom-up engagement. Co-manejo (i.e., co-management, or participatory management) schemes were identified in country work, and shared through cross project exchanges. These proposals understanding of "co-manejo" were identified as a vehicle to create more inclusive economic development clusters. They were akin to the findings related to common pool resource management advanced economist Elinor Ostrom.

These *co-manejo* schemes were closely aligned to the more relational society described previously— one characterised by a capacity to communicate, to share information, to build trust and reciprocity, and by the co-creation by actors of means to coordinate and exchange actions jointly. This illustrated how the pursuit of a good life, and the successful management of climate change-related problems can complement and support each other positively. It also illustrated the importance of humbly and empirically examining problems, rather than presuming solutions based on predetermined theoretical menu.

Having relationality and teleology as core guiding principles similarly allows one to see where and how cooperative games on the international arena operate. It emphasizes how the management of the climate regime relies, when successful, on characteristics similar to those that both these co-management schemes and, as Ostrom noted: a kind of shared sense of transparency, mutual trust building, and information sharing as the underlying elements that facilitate the operation of the regime itself. These characteristics went well beyond the impossible centralizing role that any government or state might provide, or a world of universal rules asking equal tasks from everyone.

In fact, it was also argued that cooperation towards a stable climate benefit in the UNFCCC convention itself could well be taken to be ultimately teleological. The Convention declared its aim to be "avoiding dangerous anthropogenic interference with the climate". In pursuit of this aim, the other various principles –e.g., equity, common but differentiated responsibilities and respective capabilities, etc.– came into being as shared goals of the members of the convention. Akin to the project relational philosophy, the NDC themselves may be taken to be an *exchange of gifts* that parties willingly make to achieve a common goal.

Elements of Public Philosophy - In country approaches

In advancing responses to the range of issues raised by the project and its emerging public philosophy, the bulk of the LbD responses to these questions during 2022 were advanced by country teams, that either further developed many of these aspects (for instances in the work advanced by South Africa, Lebanon, and to an extent the Dominican Republic) or challenged aspects of it (as in Mexico, or, partially again in the Dominican Republic).

Throughout the project process, a core project team has been creating a supportive environment where country teams engage in iterative inquiries. Through dialogue that includes experts and academics, these

teams will collaborate to develop, test, and refine future visions of the good life, as well as the trajectories, policies, programs, and projects needed to achieve them.

These in-country activities had a dual focus. On the one hand, teams developed visions that explored what it meant to lead a good life in local circumstances, within the general outline of what a good life is, as described above. These visions were accompanied by analytical narratives meant to illustrate both what such a good life would look like by 2050, but also describe how it may be achieved collectively. On the other hand, country teams explored how would sustainable development pathways would look like if a just transition in the country pointed towards achieving those visions. In doing so, not only do technologies and financial and business models become relevant, but also the convivial, institutional, and social aspects of well-being. The understanding and development of these aspects were deemed to be supported in turn by policies across sectors which were deemed to be interrelated with the narratives. These narratives were not taken as predictions; instead, they are examples to learn from and expand the sense of the possible and feasible in the search for a good life in specific places compatible with 2-1.5°C temperature increase by 2050.
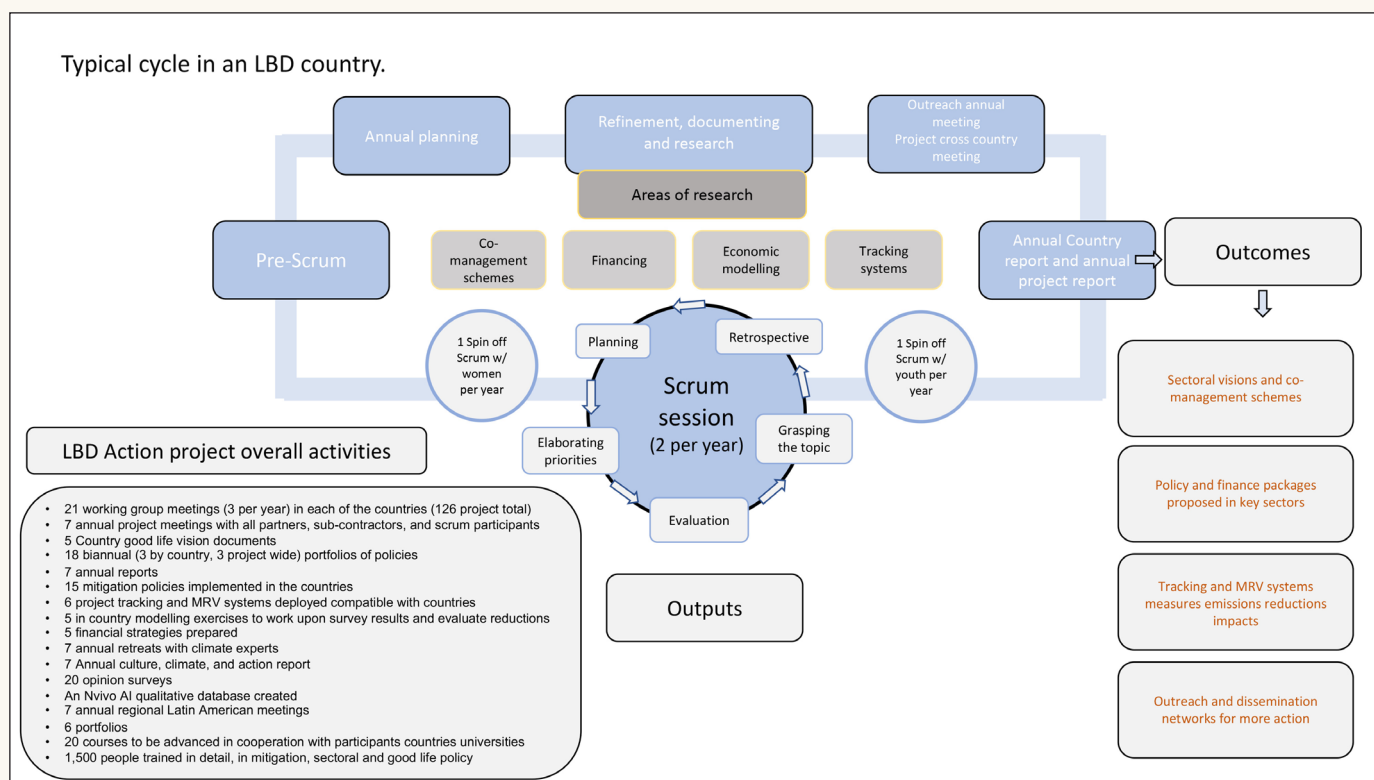
METHODOLOGY

The LbD methodology aligns with its own learning by doing Ethos. It advances through meetings described as 'Agile Scrums' to reflect the interdisciplinary mesh of different ideas clashing (much like a rugby scrum) to discover something new. It means that the project's methodology was committed to staying open ended, to learn rather than to pretend we already knew. Interdisciplinary dialogues with economists, climate experts, policy specialists, philosophers and theologians on what a good life would look would start the debate. From these more general contemplations, country teams would integrate and draw from this into the cultural contexts of their work. This would shed light on what a public policy aiming to enrich our lives could look like, instead of a public policy whose only goal was survival. Such a transition would have to address the demand of the people (therefore it must be appealing, so it must pursue a positive, good life) while it must be realistically achievable to be politically viable and this is the path LbD continued to explore in 2022.

Following its empirical, iterative methodology has allowed the project progressively to improve its understanding of growing nexus between the humanities, policy development, and environment. The novelty of uncovering this nexus is unusual for modern academic divisions. In further expanding the contours of this understanding, a post-liberal approach, one that goes beyond liberal aspects by also taking into account other radical and conservative aspects—perhaps closer to a classical philosophy approach—would help see this nexus, and what it means to lead a good life, in a more integrated way.

Scrum Methodology

As described below, the project advanced a response to its quest through an open and iterative methodology, one which does not presume to know the results in advance, nor has an a priori recipe for the solutions to be implemented. The methodology has evolved within some broad guidelines, with key aspects remaining fairly constant in the last 2 years, varying slightly across countries or regions. It has provided for a wide range of research and modelling approaches to emerge within its general guideline.

As designed, LbD methodology advances through successive iterations, which seeks to facilitate a process of agile learning, to adapt the direction of its activities to emerging findings by teams. This is done through the scrum methodology. This methodology consists of cyclical collaborative meetings whose outputs feed into the planning for the next set of meetings (called scrums, to reflect the intentional clash of ideas) to create a feedback loop.

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The iterative Agile / Scrum methodology is illustrated in Figure 1.

Scrums allow participants to exploit long term synergies and learning between projects on multiple levels. Scrums allow stakeholders to work together in cross-sectoral coalitions and participatory-management schemes around particular sectoral aims ("co-management schemes") to pursue and finance low-carbon public services where they live. Country teams use all these in turn to simultaneously develop visions, technical and convivial options, and policy and financial pathways for a good life in 2050, with key sectors moving to net-zero, and resilience for impacts in a 2-1.5°C world. Country visions are backcasted to the present as a guide to further develop policy pathways and projects, while country team experts calculate associated carbon budgets and reductions through emissions and cost modelling and tracking systems, in this vein, LbD-specific, appealing, and holistic visions of a good life become a central motive to enhance the speed and scale of transitions by wide range of stakeholders in key sectors.

Evolution of Methodology

Moving on from the development of narratives for possible futures under the Paris Agreement adapted to 2-1.5°C impacts, and delivering a good life to its societal members, the LbD methodology focused more on specific sectors and pathways, and the repercussions of actions on those pathways to the sector's participants. This, in turn, would give insights into motivational elements for sectoral policies and actions. This evolution stemmed directly from the backcasting approach that LbD introduced to its discussion of refining the visions previously put forward.

The project emerged after a long period of research starting in the mid to late 2000s, trying to calculate situations where societies could be modelled with very low emissions (70-80% below 1990 emission levels). As calculations go, 40-50% reductions may be possible by improving efficiency in technology, 30-40% by changing relations between sectors, transport and housing, energy and industry, etc. It becomes impossible to go further than that without modelling and understanding new ways of life. Global net

zero cannot be achieved without entirely different models of life, but it is what is required to stabilise the climate. Unavoidable climate impacts will complicate the picture. In all cases, it remains an open question to imagine what good ways of life would look like as societies emerge in the transitions towards these reductions and impacts. What we are thus pursuing is not only finding a just transition, but one that leads to a good life.

Backcasting vs. Forecasting Approaches

In this context, the importance of using a backcasting approach was immediately identified by the participants. On the one hand, it allowed a collective understanding of at least the medium term aims of a pathway and how actors in the pathway could identify and develop benefits for their own activities but in easy coordination with other actors. On the other, it provided a much wider canvas on which to examine the links of these pathways to good life considerations.

This approach was commented as functioning with perhaps fewer "carrot" incentives, as there was a clearer line to personal benefit—beyond simply "emissions reductions". Moreover, the *co-manejo* approach of participatory management also supports a reasoned engagement with actors, offering inclusivity and avoiding issues of perceived "hidden agendas" which were commented as driving anti-climate action in parts of Europe as a plot against farmers or other workers.

Within this methodological approach, country visions were backcasted to the present as a guide to further develop policy pathways and projects. Backcasting operates from a future endpoint (i.e., the vision of the good life in 2050 compatible with a 2-1.5°C future) towards the present. Backcasting is the reverse of forecasting methodologies, which advance from the present towards the future.

A backcasting approach expands the degrees of freedom available to examine different future, and allow for a wider range of options when discussing policy options. Backcasting provides a larger range of options to consider acting upon the present, as it is not the starting point for the analysis. Backcasting seems to be better suited to explore the consequences in the present of alternative futures, the role that a purpose may have on guiding actions, and how a good life is linked to climate action.

When contrasted with the more frequently used forecasting methodologies and results, forecasting serves as a contrasting check. It provides a sense of what might be feasible, if the discussion starts from the vintage point of the present looking towards the future. In discussions across modelling, Jose Alberto Garibaldi, Jongikaya Witti and Harald Winkler illustrated the option for backcasting, while Juan Carlos Belausteguigoitia, Maria Eugenia Ibrrararán and Alejandra Elizondo illustrated the options for forecasting. Harald Winkler pointed to literature that considered a 'golden diamond' that might combine both approaches, as illustrated in Figure 2.
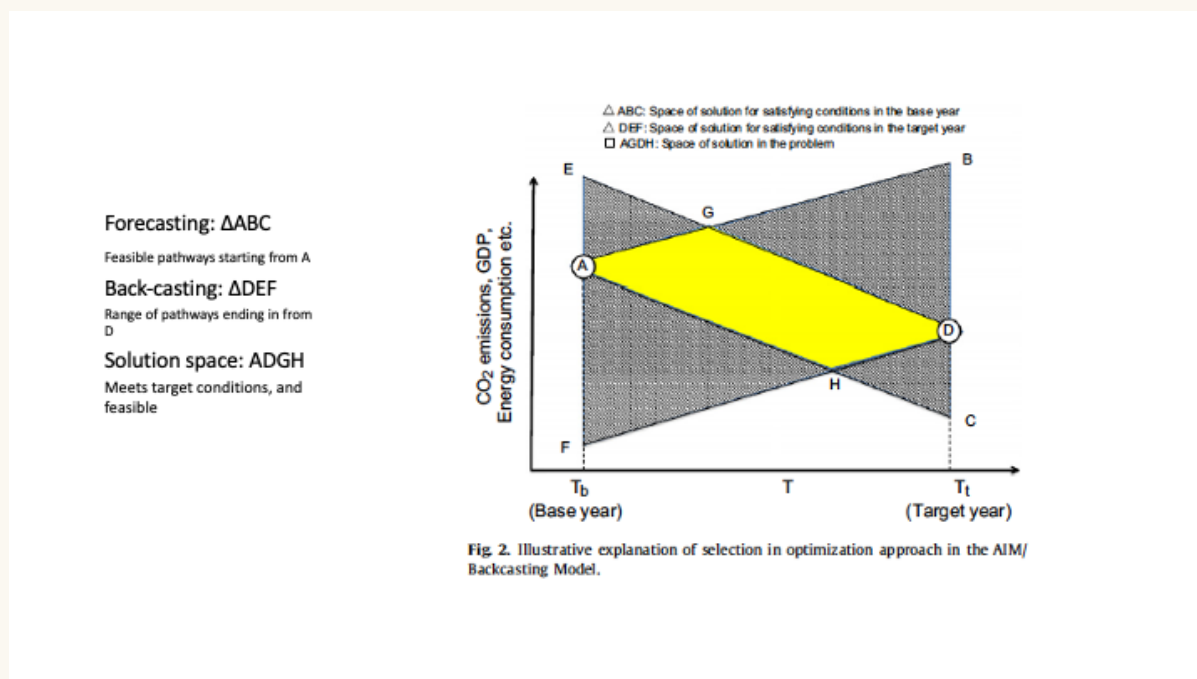
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Figure 2: Backcasting and forecasting (Ashina et al, 2012)[1]

With further engagement on contrasting back and forecasting as tools to identify trajectories, and considering good life elements within them, the LbD process then began quantitative approaches to the pathways and targets of the narratives. The project has been contrasting the merits of backcasting and forecasting through the approaches of the teams, with the Mexico and Lebanon teams starting with a forecasting analysis and then moving to use backcasting methods; the South African and Dominican Republic following in turn an approach that the reverse pathway. This exercise not only looks at emissions numbers and requirements to achieve given targets, but also opportunities and positive employment effects arising from the transitions embodied in the narrative pathways.

Moreover, when approaching the quantitative phase for the project, impact projections were also explored, so as to underline the message that a transition was in hand whether we liked it or not, what the project's approach delivers is an ambitious, but less antagonistic approach to the transition delivering not only resilience and low-carbon, but a better life for societies, especially to the most vulnerable. In this vein LbD-specific, appealing, and holistic visions of a good life both expanded the range of options for analysis, while at the same time providing a central motive to enhance the capacity of wide ranges of stakeholders in key sectors to address the speed and scale of the transitions required from our current lives.

Narratives and Analysis: Key definitions and roles

At this point, the South Africa team specified working definitions of key terms within the methodological process, that would eventually migrate across the whole project. Thus, for instance, scenarios: "Scenarios are stories told in words and numbers; with rigour and imagination" (GSG). Narrative: "painting with words the society we envision in future". Pathways: "Trajectory from present to future, or future to present, typically modelled, emphasis is on numbers". Storylines: can mean a) the narratives, or the story, or b) description

1 Ashina, S., J. Fujino, T. Masui, T. Ehara, and G. Hibino, 2012: A roadmap towards a low-carbon society in Japan using backcasting methodology: Feasible pathways for achieving an 80% reduction in CO2 emissions by 2050. *Energy Policy*, 41, 584–598.

of modelled pathways in words, then translated into numbers (qualify when you use this word). Methods to include qualitative aspects into quantitative analysis, and the role of good life considerations were also explored in particular, as well as how these fit into the quality of life in a specific place. These were considered to be an aspect distinct from low carbon and resilience, albeit including them. For instance, ongoing traffic jam with electric cars may have lower emissions, but are nevertheless not compatible with a good life.

Thinking within the scrums and cross project activities produced a matrix to develop the narratives. On the one hand, this considered good life in specific places, with high and low emissions, and or high of low levels of adaptation and international cooperation. This resulted in "Eutopian" narratives (by which it was meant to a beautiful, well ordered place, rather than a U-topian, i.e., non-existing place), and contrasted this with the "Dystopian" narratives (or those about living in dismal places. Emission levels and impacts and adaptation were considered in each case. This produced a matrix for analysis, which is outlined below in figure 3:

This matrix was used as inspiration in turn to develop further thinking about the combination of narratives and models as the scrums progressed.

Following these insights, all country scrums produced draft narratives—on a good life broadly in place more generally, and also some specific in various cases. Thus, there were complementary narratives about country cases, but also about aspects, such as public affluence, or transport. These project narratives sought to provide a vision of a route and destination; a sense of the good life in specific places in how it was achieved, and associated risks. It also helped outline a sense of continuity, place, agency and relation with nature. The scrums then examined specific routes –policy pathways– within sectors, and how does these pathways would happen. Scrum members provided input and suggested if and how drafts were to be combined. This enabled the Country leads and the core project team, together with support from Sonja Klinsky from the KM team in writing, to produce final narratives. These have been released on the LbD web-site,[2] with beautiful layout by the international LbD team.

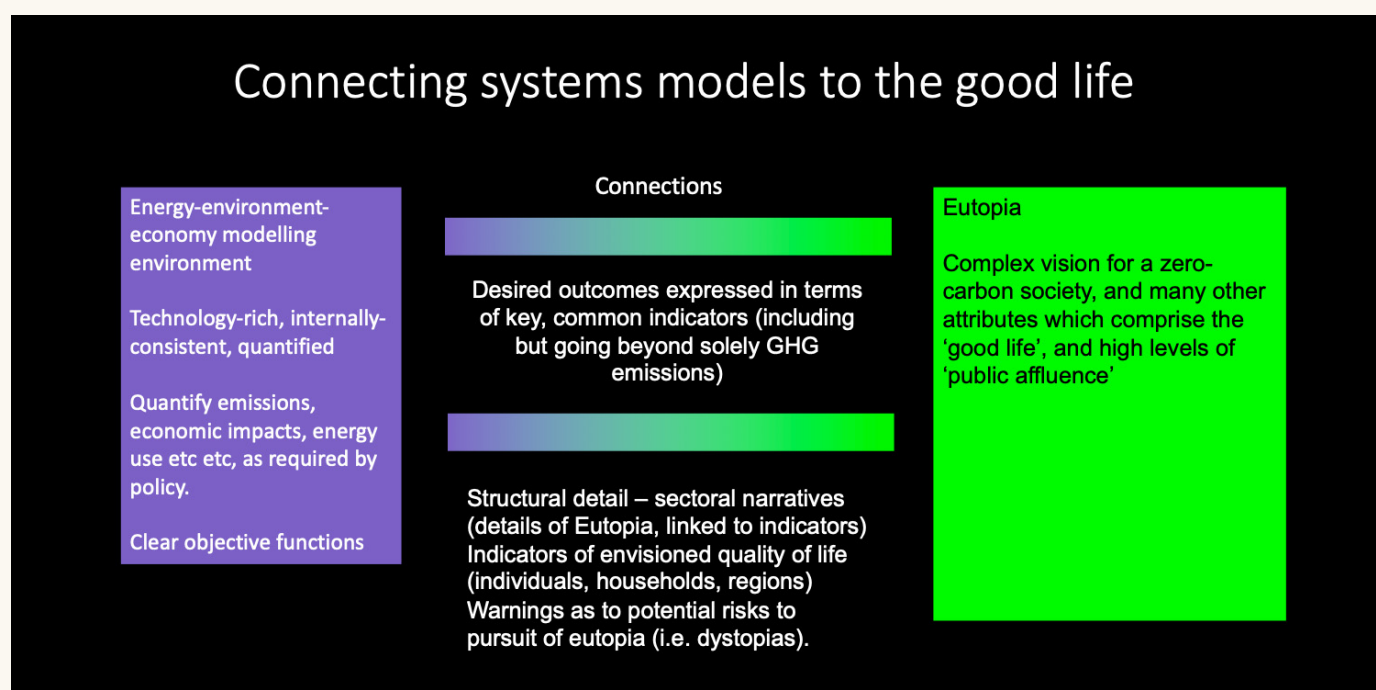2. https://www.learningbydoingproject.org/south-africa/

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More broadly, the scrums developed thinking about opportunities for cooperation. This focuses primarily at the national scale. A rich set of issues has emerged, mindful of what might be innovative beyond the existing national portfolio, and where this indicates opportunities for multilateral cooperation. In the context of a just transition, skills, capacity and knowledge at a systemic and institutional level have been highlighted as crucial to implementation. Indeed, the capacity of poor communities and workers to define their own futures if—and to ensuring that the transition indeed is foundational to ensuring that transitions are just. The good life cannot be a future vision *only*, the pathways of getting to such a future must become real and be considered part of the developmental path for sectors and communities.

Narratives and Modelling

Throughout 2022, most of the country teams advanced in developing narratives and sectoral storylines first, but restrained from diving into modelling at the outset. Instead, most of the work around narratives and storylines sought to provide first a shared starting point for subsequent modelling. This avoided a situation in which storylines advance only briefly, in the urgency to parameterise a model, do the hard work of collecting data and making the model run. There is also a view shared across various teams, that the modelling approach –its process and the model characteristics–, should not be taken as the key circumstance that defines what is identified as valuable in the discussion. Instead, it was preferable to have a process that outlines in a wider discussion what is important to consider, including elements outside the model (given a model's necessary simplification of complex social processes), rather than to take a model and base analysis principally on the model's variables. If the model defines completely the parameters on which the analysis is going to be tested, then any subsequent focus cannot be adjusted.

Across the project, the scrum members spent more time and care to develop narratives. As Kemp-Benedict (2004) argues, for many scenario analyses, models are best used to handle "complicatedness" while leaving complexity to the narrative. In this context, country and core team members started conversations on ways to combine qualitative and quantitative analysis, presenting existing methods to combine and prompting discussion on how to sequence qualitative and quantitative work. Figure 4 below summarizes some of the thinking (advanced by Andrew Marquard and Jose Alberto Garibaldi) developed with regards to the links between the qualitative narrative thinking, and quantitative modelling.

Connecting systems models to the good life

Energy-environment-economy modelling environment

Technology-rich, internally-consistent, quantified

Quantify emissions, economic impacts, energy use etc etc, as required by policy.

Clear objective functions

Connections

Desired outcomes expressed in terms of key, common indicators (including but going beyond solely GHG emissions)

Structural detail – sectoral narratives (details of Eutopia, linked to indicators) Indicators of envisioned quality of life (individuals, households, regions) Warnings as to potential risks to pursuit of eutopia (i.e. dystopias).

Eutopia

Complex vision for a zero-carbon society, and many other attributes which comprise the 'good life', and high levels of 'public affluence'

Through a series of scrums, discussions were held about these matters —the bulk of time was spent on writing narratives focusing on what a good life may be in specific sectors, and how these may combine to enhance various aspects which were deemed to be compatible with public affluence, cooperation and reciprocity, and other aspects of social and personal well-being. These conversations provided well-considered basis for storylines when the team turned to backcasting modelling. The pathways which the scrums expected to create could then help aid a comprehensive governmental 2050 vision, including as a possible audience the Presidential Climate Change Commission.

Further modelling and analysis will start to address some interrelated issues emerging from the narratives. In Mexico the team will begin to consider costs of impacts, and costs associated by an international sector that would consider an unprepared or non-transitioning economy as a greater risk for long-term capital, and may over time put a different present value on assets such as fossil fuel infrastructure.

In South Africa, the modelling for the refinement of the narratives and pathways was directed to the transport sector, which harbours particular local complexities. Of interest was that the approaches being taken up by the Lebanon team were found to be of interest to South Africa—a clear example of the project's cooperative learning in practice. The results from the narratives and outputs from the transport modelling team will inform long-term development pathways for elements of the South African government's proposals; these outputs will be illustrated by narratives, a logic to the delivery over time of a good life to South Africans in an emissions profile aligned with the Paris Agreement and adjusted to impacts of a 2-1.5°C world in 2050.

The Latin America team supported the Dominican team, government, and outward-facing engagements by looking at analysis on the impact on particular demographics of the developmental policies. More generally, this team focused on developing emissions calculators for countries (the Dominican Republic and Mexico) and regionally (Latin America as a whole), costs calculators to estimate the cost of change in equipment and infrastructure, and initial assessments of the use of input-output analysis to estimate the change in the economy structure as demand changed.

This analysis led to the Dominican Republic's re-assessment of their projected energy needs, as the electricity transition needed to include higher demand because of the transport sector's transition, and future cost pricing was found to be based on historical costs for gas which had often been over-reached all elements pointing to a faster inclusion of renewable generation, not only to reduce emissions, but to smooth out the peaks of gas pricing and create a more stable energy pricing platform into the future.

Alongside this analysis in the Dominican Republic, LbD's modelling inputs showed material distributed economic opportunities arising from the narratives and transition pathways, to an extent where LbD was requested to advance further modelling work. LbD plans to develop further the modelling approach

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so as to consider a "synthetic" sector in its analysis of sectoral input-output modelling, to consider how employment is created in new sectors or areas as some existing economic activities progress through their transitions. This analysis is similar from an independent pathway to the core modelling by the Mexico team, and LbD has advanced discussions between those actors to explore and check approaches.

Similarly, the supporting economic team for the broader Latin America regional part of the LbD project is also advancing modelling to discuss fiscal risks associated with the transition, or with a slow transition. It is evident that costs to the evolution of climate will affect all countries no matter their pathway forward, and these can be mitigated or not. Presenting a model for these costs and risks, and so presenting an opportunity to manage these as part of the transition to a good life for Dominicans, supporting particularly the more vulnerable is another important concrete deliverable that LbD is presenting to the Dominican Republic in the evolution of its methodology.

As such, the more "metric" phase of the LbD project is moving to more concrete elements which open criteria for action in countries' long-term development pathways and commitments to, and engagement with, the Paris Agreement in a politically constructive manner *vis-à-vis* domestic policy.

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ACTIVITIES

The project continued applying and expanding its Agile / Scrum methodology in the participating countries, as well as in ad-hoc spin offs and other exploratory work to develop project and policy ideas (see separate section on this). Specific country activities are noted in the annexed country reports; however, we highlight the following project achievements.

The number of participants in LbD activities grew to nearly 500 persons in this period. Many individual discussions advanced, focusing on the developmental path-ways that each country team had envisioned. As part of LbD's ongoing work with the country teams, and as part of the multi-disciplinary approach to developing materials to bring long-term thinking to a broader audience, LbD continued to develop the illustration of country's narratives and envisioned futures.

As will be noted, and following the spirit of the project, each national team has followed its own approach from the bottom-up, while guided by principles derived from the project's own philosophy, and a methodology focused on iterative improvement. The expectation is that this will lead the project towards definitions of a good life in 2050, adapted to 2-1.5°C, and aligned with the Paris Agreement's emissions profile. In what follows, we outline activities within the countries.

Advancement in all countries moved very well and very promisingly, with countries taking advantage of their own engagement with the project mechanics, of outcomes from project outreach activities, and even from lessons learned and points of view from other countries—which was a welcome confirmation of the utility of the project in its more mature stage. In particular, advances in the Dominican Republic and South Africa highlighted the development of many spin-off meetings where participants refined their thinking on particular issues, including Transport, Energy, and co-management of public goods—issues mature in innovative thinking on long-term development. These discussions highlighted important overlooked insights, such as for instance the energy sources demanded in a future clean transport system, which hadn't necessarily been explored fully; or the need to combine carbon taxes and prices with sectoral policies, as the operation of only one of these aspects is unlikely to work on its own.

In what follows, specific activities are described for each country.
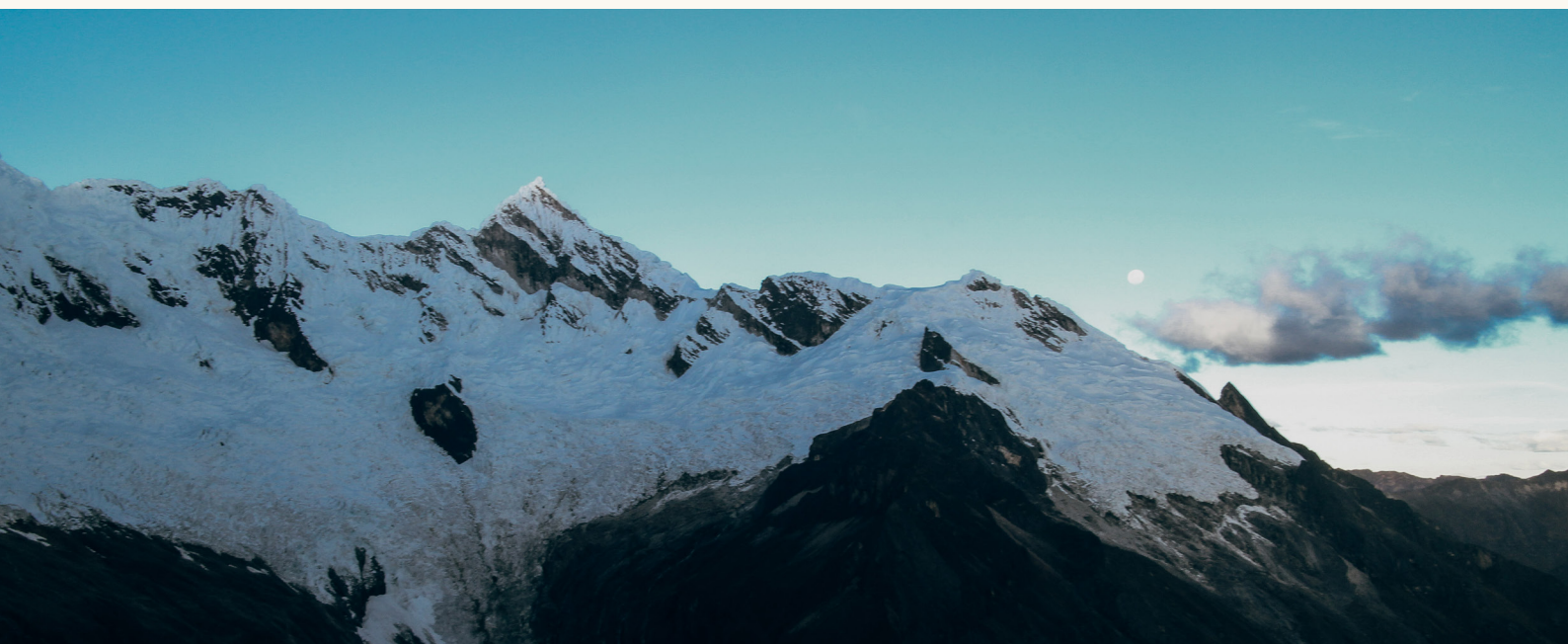
Dominican Republic

Scrum processes advanced well in the Dominican Republic, with the project also taking part in the Latin America and Caribbean Climate Week in 2022, and appearing at side events with Dominican ministerial company at COP 27. At both events the thematic lines of LbD were projected, and a number of inquiries about processes and findings were entertained. Activities started by validating the vison developed in the first year, and identifying components and developing sectoral narratives. The vision was summarized in the following graph, which sought to include the key aspects that emerged from this work:
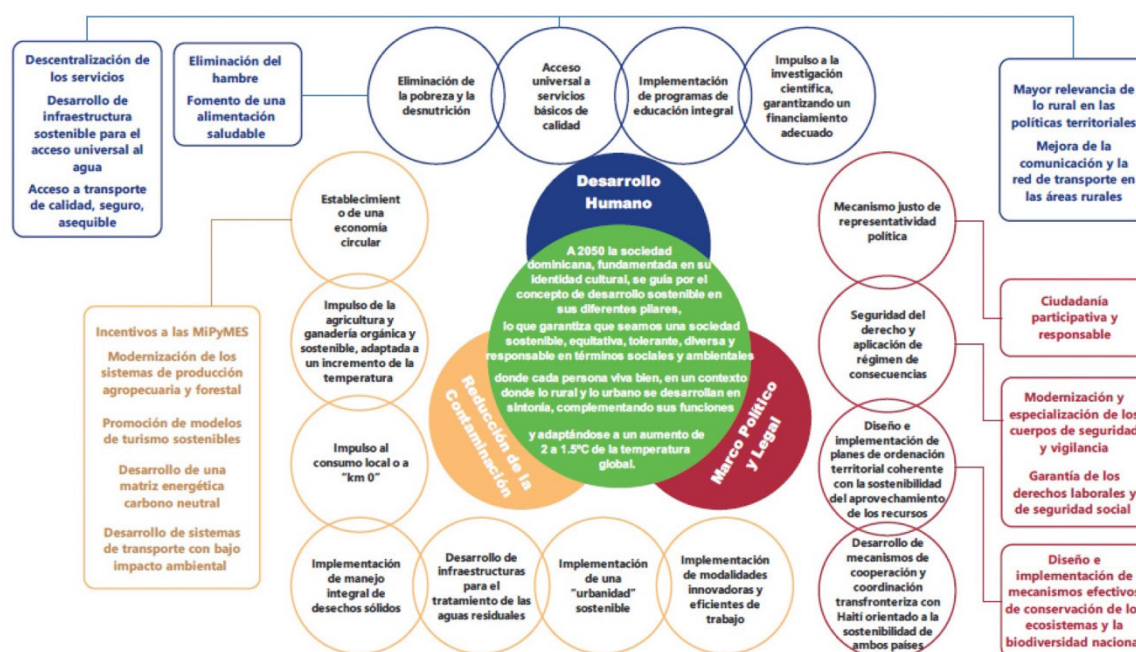

Figura 1: Resumen de la Propuesta de Visión de la República Dominicana al 2050
Fuente: Izzo (2021)

A first narrative, proposed by the team leader of the project on February 14, 2022, served as an input to illustrate the power of narratives to orient discussions in the project's scope, as well as to identify other sectorial narratives that can potentially be developed from the first. Based on this general narrative, additional sectorial/territorial narratives were updated by the country team and subsequent discussion with the relevant actors. The said narratives establish themselves around the sectors:

- Energy
- Built infrastructure and environment
- Transport
- Tourism and Coastal Zones
- Waste y Circular economy
- Agriculture, soil use and water
- Impacts, Adaptation and Resiliency

In the sectoral storylines, these illustrated changes in policy advanced described in 5-year periods starting from the 2050 end point towards the present, with inflection point noting changes which would have taken place in this period. In this context, two different models were prepared by the Latin America team. One group of models (regional and country based) used the Kaya equation, illustrating the relation between energy use, emissions and emissions intensity, and their evolution. This first group of models serve to calculate the speed at which the change of trajectory must proceed to arrive to net zero, and express this speed as changes in the energy matrix, and in energy efficiency. A second model with a different approach was used, calculating how many equipment must be changed by sector, and its costs; to calculate how this trajectory could be financed. Both were contracted to get a sense of the speed, scale and cost of the transition by sectors.

Modelling exercises illustrated opportunities and costs as sectors replaced current equipment, practices and infrastructure, and various associated policy and financing strategies leading to such an outcome. In particular, interaction with government actors in the Dominican Republic included meetings with Ministers or executive teams of the National Council for Climate Change, the Ministry of the Environment, and the Ministry of Economics, Planning and Development. In these interactions, real interest was registered on the approaches that LbD was bringing to thinking on development and sustainable development implementation in particular on priorities which used sustainable development programming to address not only emissions goals, but also societal needs.

These interactions also gave rise to an exploration of local programs of "*co-manejo*" as a vehicle to create more inclusive economic development clusters. As described further elsewhere in this report, the concept of '*co-manejo*' was found in a number of examples in conservation programs in the Dominican Republic and Central America; LbD's inquiries identified this as a functional vehicle to apply to other contexts and address not only the inclusion aspiration that came through the program's scrums, but also as a vehicle to address possibilities of sectoral and sub-sectoral development and governance.

Scrum processes:

The first scrum during 2022 evaluated the main results of the previous year, which were summarized in: (1) a proposal for the vision of the Dominican society in 2050, as well as a definition of its main components, elaborated with the participation of relevant actors at the national level and (2) the validation of the methodology on the part of the participants of the private sector, government, civil society and academia.

Lebanon

Faced with very difficult national circumstances, the in-country team noted that participants remain trapped in a negative outlook for development, making it difficult for participants to look beyond the current socio-economic environment. Nevertheless, the team confirmed initial advancement of storylines to move the country's development to a 2050 future, beyond current obstacles and ingrained structural development patterns.

"Despite all the political and economic challenges, and despite all the limitations, we managed to launch our project, draft preliminary sectoral storylines, and undergo a series of meetings, workshops and scrums as a prelude to initiating a national dialogue for the sake of one unified long-term vision, the 100% Lebanon vision."

The efforts in 2022 started by agreeing a workplan, engaging sectoral experts, and agreeing individual workplans to deliver sectoral storylines and conduct deeper research in five sectors (Circular Economy, Transport, Agriculture, Finance, Energy Sectors). These inputs were then collected and disseminated in

an online national public consultation questionnaire. With these results, a preliminary draft of Lebanon's Climate Prosperity Plan Result framework was produced, showing the objectives and targets of the modelling done by Aroha-CVF. In addition, scrums for two sectors (Circular Economy & Transport sectors) and sectoral storylines were presented as input and validation.

The Lebanon team advanced draft storylines for all sectors save "tourism", while conducting scrum meetings for two sectors –circular economy and transport–, and started modelling exercises regarding the impact of sectoral targets on economic indicators.

The team in Lebanon has begun trying to initiate conversations and form coalitions with a wide range of groups. It started developing an online platform to generate dialogue amongst the Lebanese public. This aims to measure public opinion regarding sustainable development and green economy issues to help raise more informed and realistic issues that affect actual individuals.

Furthermore, the Lebanese team was also coordinating closely with the Climate Vulnerable Forum and Aroha-CVF who are mandated to develop CPP (climate prosperity plan) for Lebanon. Aroha-CVF have agreed to integrate their work into the LEDS, and they will conduct modelling for some of the issues related to the Economic, Social, Energy, Environment, Investments & Findings, and SDG's assessment.

As this process advanced, new partnerships were created and old ones strengthened. This sought to find means to implement findings, and ensuring solid buying of the produced vision by relevant stakeholders at both political and technical levels. In addition, the simultaneous participation of a wide group of stakeholders from different backgrounds (both public and private sectors) allowed for innovative approaches to emerge, while ensure that validity of the approach in relation to local communities needs and aspirations.

More explicitly, in terms of impact beyond the LbD project itself, and in terms of development of proposals for ultimate implementation and refinement, the project assisted in the start, and continues to advise the process for the drafting and development of Lebanon's Long Emission Development Strategy (LEDS). Likewise, the team began creating links and initiating discussions with the world bank to develop a climate change plan for Lebanon and integrating them into the discussions to build country wide coalitions.

Scrum Events

As in other countries, the scrums included the participation, continuous coordination and follow-up with the Ministry of Environment Climate Change Team and other partners to ensure validation, alignment and synchronization in implementing the work. Continuous analysing of existing government strategies and plans with respect to a green economy vision in line with the 2-1.5°C trajectory and a good life for all Lebanese.

Scrums in Lebanon included Scrum 1 (Circular Economy): 21 participants (8 F, 12 M, 1 Other); 10 youth (under 35); participants include academics, civil society, NGO.

Scrum 2 (Transport): 21 participants (8 F, 12 M, 1 Other); 10 youth (under 35); participants include academics, civil society, NGO, government, and multilateral institutions

The Lebanon team also participated in a cross-project spin-off meeting with representatives from the Mexico and Dominican Republic teams discussing societal demand for a better environment.

Mexico

The Mexico team has simultaneously advanced its narrative and an underlying model. It has been developing a general equilibrium model to explore the national implications of policy action in Mexico, focused both on reducing emissions as well as on improving quality of life. Unlike in the other LbD countries, there is in Mexico a much close relation between the narratives and the model. The core of the question that Mexico is examining has to do with timing. The model will play out various scenarios to simulate the changes, from a 'disorderly case' considering a scenario where there is a slow uptake of carbon taxes, and then an abrupt change as radical action kicks in; and a more orderly case, were reductions advance slowly but non-stop. In parallel, the Mexico team has spent a lot of time questioning why there is no real social demand for better climate policies in Mexico. Being an issue that affects so many people, and being key to providing the pressure on politicians that is necessary for a transition into a good life within the remit of Paris in 2050, it is a crucial question that needs to be answered and serves as a starting point for further investigation by the Mexico team.

The general equilibrium model that Mexico is advancing takes into consideration economic activity disaggregated into 15 production goods, 4 household categories, 10 consumption sectors, a foreign sector and the government. Because of the importance of fossil fuels to the Mexican economy, and because so many of the policies which the team analysed have involved Mexico's energy sector, this model includes a number of fuels and stresses the energy sector's linkages to the nation's economy as a whole.

The Mexican team began the year by working through different approaches to the way they analyse possible pathways for Mexico. As was outlined by the team, they use general equilibrium analysis to understand how the economy responds to the transition to low-carbon—from that, the narrative starts weaving the non-quantitative elements of their transition.

As such, the Mexico team approach is uniquely valuable in the project, as it begins from where other approaches end, starting with forecasting and gradually transitioning towards backcasting. Using this information, it examines the qualitative elements of the transition narrative. Moreover, since the Mexico team is principally comprised of economists and modellers, their insights have proven helpful to other LbD teams and in outreach discussions to other countries.

In detail, the "Computable General Equilibrium Model" (CGE) developed by the Mexico team initially began studying the impacts of carbon taxes to different types of households. The analysis looks at all the sectors in the economy linked in a system where a change in any part affects prices and output economy-wide. The model is national in scope and Mexico's economic activity is disaggregated into fifteen production goods, four household categories, ten consumption sectors, a foreign sector, and the government; it is comprehensive, flexible, and adaptable to modelling a host of policy options.

Given the constraints of the LbD process as a whole—that the transition be to a Paris-aligned economy adapted to impacts at 2-1.5°C, the Mexico team developed two scenarios to study—both as pathways to the project's final position, and looking at these strictly in an econometric perspective.

The first of these scenarios was described as "orderly". In this scenario, carbon prices are driven up in an orderly fashion over an extended period of time. A carbon tax is imposed beginning in 2020 and gradually increase it to 300 dollars per ton of carbon by the year 2050; all new revenues collected as a result of the carbon tax and return them to consumers lump sum so as to make the whole exercise revenue neutral.

The second of these scenarios was dubbed "disorderly". In this scenario, in-stead of a slow gradual increase in carbon taxes, policy makers wait until 2030 to levy any carbon taxes at all. They then increase carbon taxes from zero to 700 dollars per ton of carbon over the following 20 years.

Qualitatively, the CGE model's results in the "disorderly" scenario are similar to those in the "orderly" scenario since the taxes are levied on the same sectors as before. Quantitatively, however, the effects are much more severe. This is due to the fact that, unlike in the "orderly" scenario, the taxes in the "disorderly" scenario are ramped up quickly and the economy does not have sufficient time to dissipate the severity of the initial shock. Investment is complexly choked off in the latter years of the analysis, the aggregate economy (as represented by GDP) stag-nates, and economic growth stalls.

In other words, their econometric analysis found that if the "orderly" analysis was deemed to be unpopular, the postponement of the measures would drive a transition to the "disorderly" scenario, which would be economically catastrophic, or to no transition, which would be worse still.

Following from this, the Mexico team called other LbD teams to consider how societal demand could be organised so as to create a sustained, effective demand for a better environment, and how discussions around the project's concept of a good life could be illustrated or advanced so as to stimulate this demand. The Mexican team then built from this to a more detailed analysis of how five sectors of the Mexican economy—energy, transport, industry, AFOU, and waste—evolve under Mexico's NDC and the above two scenarios. Specifically, the Mexican team analysed specific policy changes by sector that should take place to maximize the chances of Mexico fulfilling its NDCs and how these may be consistent with the LbD idea of a good life for Mexicans, and a consideration of political feasibility of these measures. This analysis was especially relevant in light of the lack of ambition noted in Mexico's updated NDC as presented in December 2020.

The continuing emissions from fossil fuels even today has an impact in Mexican society. From the Mexican team's report: *"As expected, these negative circumstances are taking its toll on the population. Diseases related to air pollution have significantly increased, such as asthma, acute otitis media, and conjunctivitis, with a regressive component on vulnerable populations, such as the children, the elderly, those with health pre-conditions, and the poorer in urban areas."*

The Mexican team also notes the atypical temperature rise already happening in Mexico, observing that Mexican's quality of life has already worsened in a number of ways, implying that delaying the transition is not a kind policy to the population.

Indeed, the economic costs of the transition—seen from the perspective of the overall economy—were found to be relatively benign—with sectoral variations, to be sure.

However, as is noted, a late deployment in the "disorderly" scenario implies that, while the rest of the world transitions, Mexican conditions increase the cost of in-vesting in Mexico, and domestic firms must then pay an extra cost for not switching to carbon efficient technologies earlier. In addition, economic agents stop saving in an attempt to keep consuming as before—even though costs are higher.

Note that behind these projections, the Mexican team noted multiple changes:

"... A significant transfer of resources across sectors–and, thus, across ac-tors, some more powerful than

others; a massive move of workers from one job to another, from one job to unemployment and vice versa; and, a deep change in people's mindsets and, more generally, on citizens' culture." The Mexico team then looked at the energy sector in detail, and noted that the types of measure required—advances in energy efficiency and substitution to cleaner energy sources—face the hegemonic opposition of the current government to measures of energy efficiency and energy-source substitution.

Subsequently, the Mexico team, following the rationale of LbD's methodology, refined their research to consider societal actors in the transition, noting that "even when they do not lead to unemployment, economic changes associated with de-carbonization will create both upward and downward mobility within Mexican society." The team then reviewed very specific projects across their identified sectors associated with a vision of Mexico in 2050 within the Paris Agreement and delivering a good life to Mexicans.

Scrum Processes

The ICM team led a series of working sessions with academics and technical experts (one workshop), civil society (one workshop), and youth groups (three workshops). These sessions, which had an average attendance of 25-30 people, reviewed the status of each GHG emitting sector and the main mitigation actions that should make up a decarbonization pathway aligned to a 2°C and 1.5°C trajectories. The discussion in the workshops made it possible to share the most updated information with the various sectors. This both helped feed to analytical work, both through economic modelling and political economy analysis. and to trigger a process to strengthen the capacities of those sectors that need to understand decarbonization better and to enhance the technical exchange between experts.

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South Africa

In South Africa, the project continued with its core actors, and expanded its participants for specific engagement in spin-off topics considering topics like electricity, public affluence, land, place-based solutions and transport.

The UCT team led by Prof Winkler and Dr Marquard, together with a great team of strategic thinkers in the scrum, developed thinking about narratives. South Africa developed narratives first before diving into parameterising models. Thus, the scrums spent good time on developing the SA narratives, which have significant power in their own right. The narratives of a good life have been taken up in further work, as will become clear below. The narratives were published online, 1 and the international team added further creativity by including the narratives in a graphic novel.

Backcasting from a desired future: Having thought deeply and carefully about a good life in the words of a story (a narrative), the scrums started thinking about modelling creatively. Jongikhaya Witi from the Department of Forestry Fisheries and the Environment (DFFE) was key in bringing in considerations of backcasting, working back from a good life, rather than the usual approach of fore-casting. Backcasting was applied through system dynamic modelling, in the transport systems (and sector) connected to broader systems, which produced a report on Transport Development Pathways (TDPs) – and more. The TDPs are examples of scenarios as stories told with words and numbers. More detailed reflections on the combination and sequencing of qualitative and quantitative analysis are shared in section 4, below.

"The baseline report (submitted by UCT team in March 2021) had highlighted the importance of the concept of a "just transition" (JT) within the development and climate change debate in South Africa. It is a concept embedded in the current discussions but more importantly it engages with the development agenda in the country. In 2022, in the broader context of South Africa, the Presidential Climate Commission submitted a Just Transition Framework to President Ramaphosa, who accepted it on behalf of government. Other stake-holders have developed their thinking on a just transition. COSATU published a blueprint for workers in a just transition, talking to other formations in organised labour. Its five top demands were employment-creating and sustainable industrial policy; a Universal Basic Income Grant for all aged 18-59; re-skilling and up-skilling; land redistribution; and ending austerity for a climate just macroeconomic framework. The inclusion of land was relevant to the spin off on land (see below). Business and civil society have also undertaken work – the key point here being that the context has changed since the outset – while the premise that a just transition is central to the public debate has been proven correct. Beyond the outputs of the project, notably the narrative so far, various scrum members are involved with government, labour, civil society and business discussions on a just transition. The scrum members, their interconnections, and the creative thinking developed in the LbD project in SA are, in our view, the most important 'output' of the project."

The electricity spin-off focused on issues of debt, just transition and increased demand for South Africa. The public affluence spinoff was inspired by scrum discussion on how to mirror the flourishing and enriching

private lives that South African have into a public life that achieves a similar result (including but surpassing just economic/institutional necessities). The land spinoff focused on land use/ownership in South Africa and entertained the potential of local cooperation to inform national policy debates. The place-based solutions focused on renewable energy projects that, although they may be initiated by private firms still nonetheless explore concrete renewable projects that engage with local communities on socio-economic development. The transport spin off considered various kinds of existing models with different approaches to transport to lay a good basis for the backcasting of development pathways.

A rewarding result to the project and its methodology for South Africa so far is that the spin-off meetings were principally engaged by project participants, and not exclusively by the core team meaning that the project's methodology and backcasting approach to qualitative and quantitative narratives is being internalised and of utility to the various diverse participating actors.

In particular, the discussions in the South Africa project on the Transport sector are rich enough, and the project's experience has been such a collective, cross-cutting learning experience, that government representatives have invited scrum participants to support the steering of the country's long-term planning for the sector.

The project looks forward to advance modelling approaches to the Transport sector, and engagement on other sectors in the coming period.

Scrum events

The SA project advanced with their principal 28 members, creating a mix of private and public sector members, supported by academics and specialised researchers for particular topics.

Scrums were held 7-10 February and 11-14 July, building on previous years' scrums, focusing on refining specialised aspects of narratives of a good life in SA in 2-1.5°C in 2050. The second scrum moved from broad narratives to an inclusion of considerations of public affluence as part of the good life narratives.

These produced a final narrative, supported by the LbD core and KM teams; the narrative was well received and disseminated across various channels in SA.

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Latin America

The Latin America process was different from the others in that it did not run specific country scrums, as this was a regional, rather than national, effort. However, this team did follow the same process of developing narratives and storylines, followed by quantitative analysis. This team also provided support to the other national country teams.

As the project advanced, a group of experts, at the UN ECLAC, at the UNAM, ITAM and across projects for critical comments and views, met with the purpose of improving the initial thoughts emerging from the country teams. Their work used emerging visions, narratives, and associated strategies already provide an overall view of the project's thrust, thus allowing for these initial views to be examined to draft a general regional view, which would then contribute to the analysis of national processes. These critiques would then be able to help improve the visions and trajectories emerging from the in-country scrum process.

As described above, two different models were prepared by the Latin American team. In analytical terms, the team articulated its work around an overall emissions calculator, and a wedge sector analysis to replace emission sources in one case and in an- other, on a general equilibrium model. Other approaches are also emerging, based on sectoral experts. Thus, one group of models (regional and country based) used the Kaya equation, illustrating the relation between energy use, emissions and emissions intensity, and their evolution. This first group of models serve to calculate the speed at which the change of trajectory must proceed to arrive to net zero, and express this speed as changes in the energy matrix, and in energy efficiency. A second model used a different approach, calculating how many equipment must be changed by sector, and its costs; to calculate how this trajectory could be financed. Both were contrasted to then get a sense of the speed, scale and cost of the transition by sectors.

Similarly, the supporting economic team for the broader Latin America regional part of the LbD project is also advancing modelling to discuss fiscal risks associated with the transition, or with a slow transition. It's evident that costs to the evolution of climate will affect all countries no matter their pathway forward, and these can be mitigated, or not. Presenting a model for these costs and risks, and so presenting an opportunity to manage these as part of the transition to a good life in Latin America, supporting particularly the more vulnerable, is another important concrete deliverable that LbD is presenting in the evolution of its methodology.

PORTFOLIO OF NATIONAL PROJECTS AND ACTIVITIES: ELEMENTS FOR COOPERATIVE ACTION AND JUST TRANSTION

The elements for sub-national, national, regional or multilateral cooperative action emerged through the project. Ideas for projects and policies were discussed at thematic spinoffs. This allowed to explore specific issues more in detail and develop a portfolio of projects, while learning in the process. Some initial views as to the coherence between potential synergistic lines to take across between mitigation, adaptation, and/or multilateral support, including a view to pathways and projects towards a local 2-1.5°C society, and expected emissions reductions, as well as observed and noted obstacles.

In all the countries, these discussions have tended to emerge in similar areas: Energy and Electricity (Mexico and South Africa), Transport (South Africa and the Dominican Republic) Land use (South Africa and Lebanon) -and interestingly, on the role of public affluence (South Africa, Dominican Republic). We will deal with each starting from last. Successful and discarded cases and options for increased ambition of projects and for further capacity building, development, were outlined above.

Public affluence was inspired by scrum discussions. In South Africa, Harald Winkler held a spin-off meeting on this concept, after it had emerged in scrum 1, together with Julia Taylor, who brought in other colleagues form the Institute for Economic Justice (IEJ). The IEJ has assisted the labour federation COSATU with a new blue-print for workers in a just transition that resulted in an explicit narrative, which was then included within the more comprehensive South African narrative. This draft would be subsequently used in country work in SA, the Dominican Republic, and regionally. Public affluence was seen as one of the project core basis, and indeed purpose, of cooperation at multi-lateral, national and local scale.

Electricity and Energy spinoff were advanced in Mexico and South Africa. They were led in both cases by colleagues from civil society with some participation by public utilities in South Africa and regulators in Mexico. Participants provided insight on the issues such as the advances (or retreats) on the regulation to promote renewables, on renewing debt, and on the just transition & increased energy demand. In the case of Mexico, the focus was on the shift away from the support to the promotion of renewable production by private parties, and a move towards further state support to the state-owned utilities (Comisión Federal de Electricidad, CFE). In South Africa, the focus was on the funding of Eskom and the just transition away from coal. Both developments have continued to be a major issue not only in energy, but affect the countries' economy and society as a whole. Mexico had been moving in the last two decades away from the state provision of electricity towards the provision through private parties. The current government has reversed the trend, and is now limiting opportunities for private entry into electricity markets, while increasing funding for CFE. In South Africa, the case is the reverse. The national utility has been the dominant player in South Africa's electricity supply industry (ESI). It has historically been dominated by coal-fired power, but in recent years started consider a just energy transition (JET). Yet views diverge, in particular whether Eskom should be unbundled and more private firms participate in the ESI, with the contrary view being that a developmental state must retain control over Eskom as a state-owned enterprise. In Mexico, discussions advanced as to potential ways in which more renewables could be advanced within the changed framework;

in South Africa, these activities have been overtaken by events: there is a JET Partnership between SA, four developed countries and the EU being announced in Glasgow, and an investment plan presented at COP27 in Sharm el-Sheikh after approval by Cabinet.

Land and climate change emerged in South Africa and Lebanon. An innovative element of the LbD scrum has been on cooperation between different communities of practice in a spin-off on land and climate change. In South Africa, it involved groups that oppose mining in communal land, on coal dependence and water quality, and academics working on the environment and climate change nexus. In Lebanon, people working on climate policy and land use researchers. Key takeaways related to understandings of communal land ownership as a spectrum of rights that allowed for various uses, and went beyond ownership This was all referenced in the narratives, as well as reaffirming that equity in access to land a crucial part of achieving a just transition. Ecological understandings of land use in regards to agriculture, was also mentioned in order to enhance sustainability.

P**lace-based solutions** discussions were advanced in South Africa, and the Dominican Republic. An initial explored concrete renewable energy projects. These may be initiated by private firms, but engage with local communities on socio-economic development. Cooperation at local level emerged as a key theme. Business and NGOs interaction emerged in both places as a way forward to bridge the gap between corporate social responsibility and actual community needs. In the Dominican Republic, a business model comprising participation from civil society communities and government and international support has also been very effective in deploying site specific renewable energy solutions.

Transport as a system connected to others has advanced both in South Africa and Lebanon. In South Africa. Harald Winkler convened a spin off on 15 August 2022, with participation from Marianne Vanderschuren, Tanya Lane-Visser, Andrew Marquard, Zane Simpson (Stellenboch University), Jongikhaya Witi (DFFE), Sizwe Tyiso (NALEDI), Richard Worthington, Jose Garibaldi, Natasha McDaid. Tanya, Andrew and Zane presented various kinds of existing models, with different approaches to transport. This laid a good basis for back-casting some transport development pathways – in a manner that connects to broader systems. In Lebanon, the country team coordinated a meeting with country experts. Their conversations focused on the relation between public and private transport.

Co- Management and agency as a collective action problem. LbD has been advancing work on how may collective action be considered in way that enhances proactive local agency, rather than solely respond to central incentives. This emerged initially from activities of the project advanced with the Minister of Environment, Dr. Miguel Ceara Hatton, and senior staff at the Ministry of Economy, Mr. Delio Rincon. The emphasis of the project on agency led the conversation upon the development of *co-manejo* schemes, where stakeholders self-organized to cooperate with government agencies in managing shared resources. These approaches were quite similar to those which Elinor Ostrom "Governing the Commons" approach had highlighted. They also contrasted sharply with approaches to collective action following the lead of Mancur Olson, with a more centralized use of incentives and the control of group size. This was further discussed in Latin America sessions, and in the South Africa activities.

Impacts and Adaptation: The project has also been advancing work on impacts and adaptation as part of the 2-1.5°C future. Again, this emerged from the work done in parallel and within the scrums in the Dominican Republic. The president of the Dominican Council of Climate Change, Dr. Max Puig and his

staff, Delio Rincon, from the Ministry of Economy, among Omar Ramirez, Michela Izzo and Jose Alberto Garibaldi participated. As a consequence of the project work on long-term climate projections (see below), discussions at the scrum and with the Ministry of economy focused on means to identify communities with higher levels of vulnerability and their characteristics and location. In this context, the project explored means to facilitate enhanced action in terms of low carbon adaptation in a sub group of communities with high levels of vulnerability. The methodology was used to identify a wider range of communities and a more general methodology to enhance collective action in underserved communities.

Some broader reflections on these insight allowed to identify in more detail exactly how a Just Transition (JT) is included in the pathway and the vision for a good life in 2050 that is compatible with limiting global warming to well below 2-1.5°C, in terms of mitigation, adaptation, and its synergies. Multi-lateral cooperation on the Just Energy Transition Partnership has the potential to show how multi-lateral cooperation (at least among some countries) can address decarbonisation in electricity while also supporting social justice. Whether this potential is realised depends on whether this is implemented in a transformative manner. While some individual scrum members are involved in further work, the scrum as a group has continued focusing on just transition to a good life. The work in the LbD scrum has raised broader issues, around electricity, supporting public affluence, the land issue and co-management (co-manejo) – and ultimately, whether the JETP contributes to a 'good life under 2-1.5°C in South Africa'.

The project also advanced with ideas for national projects through desk activities of the country and core teams. These activities comprised education, including contexts and proposals for activities with universities, nature-based solutions. Themes that had initially been identified in agriculture and circular economies were not developed further. Considerations of carbon pricing and policy packages associated with the transition of energy, and commercial and industrial inputs, were advanced explicitly, particularly by the Mexico team. These spinoff discussions helped to further advance desk work on the interphase between narratives, modelling, and policy.

As a result of the portfolio of projects these activities generated, the project has been selecting some specific areas for further project proposals.

In Lebanon, during 2022 the project continued working closely with local experts and groups, including the ministry of Environment and UNDP, working towards the economic reconstruction of the country. Its work has become one of the central aspects of Lebanon's new Long Term Low Emission development strategy, which will be developed further during 2023, which included aspects related to energy, transport, and land use.

Additional projects were also developed during 2022 in the Dominican Republic. These include the development with CIES of IKI project proposals for the country. These included biodiversity and adaptation proposals, particularly as they included aspects related to land and marine use, and which included participatory *co-manejo*. Other IKI projects were developed and advanced with ITAM and other Mexican universities (inter-sectoral arrangements), to develop in-country capacities.

There was also a project in the Dominica Republic with the CATHALAC, the Central American intergovernmental organization, on adaptation and resilience for the Dominican Republic and Caribbean region. This project was completed during 2022, and presented to government and society. This was the first project in the DR which included detailed temperature and precipitation projections and associated climate impacts for 2100 in the Dominican Republic and the Caribbean region. They were developed to confirm previous projected scenarios for adaptation and resilience. The report details drop in precipitation of 5-15%, with the greatest deficit in the central part of the country in the medium term, much greater in the longer term. This implies changes in land use projections, which affects the country's long-term planning, and is being taken up by discussions of the Council on Climate Change and other Ministries. At the time of writing, the results for this project were in discussion with Ministries about next steps.

In a similar vein, LbD also developed a proposal for the Dominican Republic to develop in-country capabilities with regards to Low carbon innovation and private sector participation as refined with the Ministry of the Environment, the Ministry of Economics and Planning, and the Council on Climate Change. These focused particularly in schemes to explore systems of *co-manejo* of public resources as a way to develop bottom-up ambition for sustainable development policies and projects.

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In addition, the Mexico project team, led by ICM, advanced consultations with Mexican experts and civil society, so as to develop a more ambitious NDC alternative, to illustrate how to overcome government policy backtrack on Mexico´s current NDC. The ITAM team calculated initial net zero scenarios for 2050. LbD completed with Mexican national country team a nation-wide student competition for ideas and concepts and open enquiry for a future sustainable and resilient Mexican society; and developed a civil society and academia contest of ideas and open inquiry on future society (Mexico) run by Mexico team in 2022.

Last but not least, the project also developed a proposal for a Good Life Policy Institute emerging from project.

This institute would comprise academics, policy makes and participants from the project countries, and seek to identify how policies be deploys that at the same time improve wellbeing and aim towards a good life while also reducing emissions and increase resilience. The institute will also develop a model to engage students from the humanities, architecture, engineering and the social sciences into the search for the climate solutions which at the same time will lead to a good life withing the LbD public philosophy.

The success of the project can be seen in the fact that subsequent work under the spinoffs has continued, advanced by members of the scrum, other than country teams and Energeia. This speaks to ownership of the LbD process by scrum members, and of the success of learning and knowledge activities related to the project. Some scrum members have particular expertise in modelling sectoral action, in various ways, and this may also reach out to other strategic thinkers (beyond the excellent scrum members themselves.).

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PORTFOLIO OF MULTILATERAL ACTIONS

Multilateral actions have continued advancing. From the portfolio considered initially, activities with AILAC are those which have advanced further. They include project proposals for regional capacity building; lines to take for United Nations Framework Convention on Climate Change (UNFCCC); coalition building and/or regional cooperation initiatives; and other activities at the UNFCCC. The project discussed proposals of negotiation and multilateral support to AILAC, the Dominican Republic and the Cartagena Dialogue during the COP28 at Sharm el Sheik. It also advanced side events and a proposal was circulated to parties, donors, and project members for further deliberation, action, and support.

Following concept development of these proposals, by 2022, the project has managed to get a commitment for additional funding from other donors (the Climate Change Emergency Group, CCEG, and the UK CASA program) for it to support the AILAC group. This funding would allow for the project to:

A) explain its methodology, findings and approaches to AILAC countries, with a particular emphasis on the existing negotiation teams;
B) Support the existing negotiation teams to coordinate positions and views, including through meetings and support to produce submissions
C) Build-up the capacity of new members within the negotiation teams
D) outreach and support beyond Latin America through multilateral fora in which AILAC or LbD partners are active.

If this goes well, we expect the cooperation approach with AILAC have the following components:

• Increase cooperation between LbD countries and AILAC, and particularly between the Dominican Republic, Costa Rica and Guatemala, who will be AILAC president during the 2022-23 period.
• Provide in situ support for AILAC countries at the UNFCCC SBs.
• Help provide initial and/or additional support for coordination of UNFCCC negotiation positions, drafting of submissions, continuous creation of capacities in AILAC countries, and expansion of UNFCC outreach in the second half of 2022 and for 2023. This may include activities to mobilise these resources and through local and international means. It may also cover support to organise in-person meetings at the UNFCCC and associated fora (e.g., Cartagena Dialogue).
• Help create in interested partner countries' 2050 visions of a good life in societies compatible with 2-1.5°C temperature goals, with a capacity to respond to associated climate impacts, and identify both trajectories leading to them as well as approaches to increase capacity in these societies so as to continue developing these visions and achieving these trajectories in the long term.
• Help AILAC countries to calculate the costs of the transitions to 2035 and 2050 futures, outline required capacities and the associated adaptation and impact costs, using integrated climate and economic modelling from LbD teams and research, and contrast these costs with existing literature and UNFCCC estimates.

In addition, the project will start supporting those participant countries that so wish at the UNFCCC process. At a first stage, this will entail the Dominican Republic which may serve as a pivot with the AOSIS group; and with Costa Rica, which will serve as a pilot with AILAC countries. Initiatives to engage other countries will also be launched.

LEARNING *by* **DOING**

The project has continued developing methods and research processes to create evidence and develop capacity that could be used in a Latin America and Caribbean context, as described in this document. The project also has specific teams and funding to develop costing of regional approaches, inclusive of those in a UNFCCC context, and a portfolio of multilateral approaches –at multilateral, regional, or sub-national levels– that supports emerging findings, as well as to develop projects that may support those multilateral approaches and translate them into submissions. The project may also support fellows based in participant countries and/or AILAC. There are currently Latin American quantitative and qualitative research teams and fellows working in Mexico, Chile, the Dominican Republic, the UK, alongside other like-minded project teams working in South Africa, Lebanon, and the US.

If the agreements with these donors are completed by early 2023, LbD cooperation activities with AILAC countries may start towards the end of the spring 2023, and last through 2025. In keeping with the project focus, activities will seek to expand capacity to achieve the project ends both within society and government. The project may include more specific activities with selected AILAC countries but should have an AILAC wide component. The project will seek to include participant countries in subsequent funding rounds. Project activities may be agreed upon in advance with the whole of AILAC and/or with Individual countries. To proceed, terms of cooperation with the LbD project would need to be agreed upon with AILAC in early spring 2023.

In addition, as detailed below in the outreach section LbD ran a series of remote meetings during 2022 at the Economic Commission for Latin America and the Caribbean to discuss the scope of multilateral proposals in light of LbD research; and advance a regional meeting at ECLAC in 2023, advanced an in person meeting at CIES, and an in person meeting at the UNFCCC Latin America and Caribbean regional climate week where the project's program and findings were presented, and discussed regional activities. LbD also fully planned a regional in person meeting to take place at ECLAC during early 2023, to present findings and engage non-member country delegations to interact with the different levels of knowledge-creation developed.

Following the activities planned and project and innovative proposals advanced, LbD has received request to extend work. In South Africa, the project has been invited the steering committee of the presidential climate change commission, and to advance further work on modelling and transport. In the Dominican Republic, three ministries approached us for the project to review their policies; in Lebanon, the project has become part of the country´s Long Term Low Emission Development Strategy (LEDS), with the Lebanon LbD project team, consultation process and emerging findings now forming the back bone of Lebanon´s LEDs; while in Mexico there is further work advanced on the relation between taxes and low carbon public services and infrastructure. There is also interest by other Latin American countries (Argentina, Bolivia, Costa Rica, Cuba) in learning from the project findings and participate in the project.

KNOWLEDGE MANAGEMENT-
A REVISION

Knowledge Management plays a central role within the overall outputs of the project. Given that the project does not assume at the outset what the outcome will be, it places a great deal of importance in the process of learning. Through the Knowledge Management process, all the written material as well as discussions, in group or one to one are meticulously documented to ensure that the Project captures the full depth and breadth of the themes that emerge. As the thematic diversity of the project expands through discussions, conversations, and interactions the richer the information is collected and the more complete the output is.

Towards that aim, LbD has built in a mechanism which tracks systematically the learning pathways and thematic progression of the project as it evolves, allowing the KM team to map out the thematic evolution across time and countries. In addition, the project has been able "to learn as is does" by continuously feeding back the "learnings" emerging from the data to the teams' discussions. As exemplified by the discussions between the KM team and the SA team in the context of the scrum discussions.

Sonja Klinsky and Snigdha Nautiyal set up the process and identified the software with which the KM managed this process. They developed the foundations of this work, from the choice of software to the development of the coding and assessment framework. In addition to that, they developed the very first analyses from the data accumulated at the start of project and supported the elaboration of subsequent analyses.

Nvivo and the codebook

The key tool used as part of this integral aspect of the project was a qualitative research analysis software called Nvivo. With a relatively straight forward interface, this software allows the coding or tagging of all material emanating from the project, written and oral (but transcribed), thematically. In other words, through the process of tagging words, sentences and/or paragraphs, the discussions (transcripts) and written outputs from LbD have been captured and catalogued in Nvivo. A very methodical process was followed to create the codebook, as the addition of new codes was discussed amongst coders before being entered into the code-book.

In essence the key purposes of this workstream was to:

- Understand what themes were emerging from the project;
- Track thematic evolution of project across time;
- Compare/contrast topics between countries;
- Find thematic intersections;
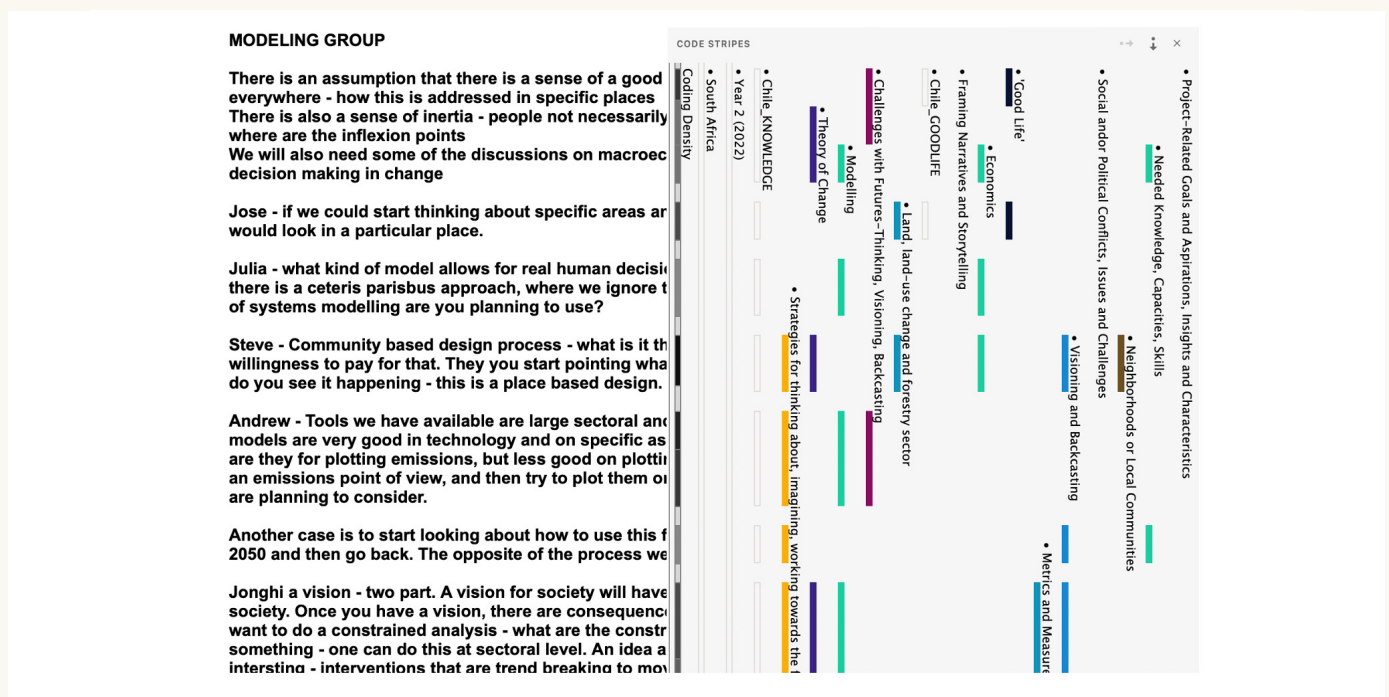- Understand how the project was learning.

In its first two years, LbD has accumulated almost 150 documents (transcripts of meetings/interviews, written outputs etc.) which have been coded according to some 50 cases and almost 250 codes, this constitutes the codebook.

The process followed is schematized in figure 1 below:

The interface is shown in figure 2 below. On the left hand side of the screen is the document that is to be

DESIGN	DATA	ORGANISING	NEXT STEPS
Work with core team to design baseline intervews	Conducted 1st round of interviews (Spanish/English)	Coding all material (ongoing)	Exploring data Analysis of Nvivo
Work with core and KM team to develop ethics protocoles and document management systems	Currently finalising 2nd round of interviews (Spanish/English)	Developed initial code book (based on coding a first set of documents)	Cleaning up codebook/
	Collected documents/interviews/minutes	Continuous refining/fine tuning of codebook (ongoing)	Developing family of themes

coded and on the right hand side the coding depth of the documents. In other words, the codes attributed to each of the sections of the document. The length of the coloured lines reflects the length of the text in the documents coded against the particular code.

Figure 2. Nvivo Interface

One of the most innovative aspects of LbD is that by coding all the material being produced, and analysing the data, country teams have been able to identify themes not immediately apparent. This has supported their own work in refining visions, by feeding into the scrum processes. This is particularly the case for South Africa who has distilled the information coming out of Nvivo to nourish its own reflective process.

Data extraction/ Analysis example

For the Learning by Doing meeting in Santiago, Chile at UNECLAC the Knowledge Management Team carried out an analysis to find out what project participants talks about when they talk about "A good life". For this analysis, the Knowledge Management Team merged a number of codes which were related to the notion of a good life and created a "super code" called "CHILE_GOODLIFE". Figure 3 below shows some of the codes used to create this supercode.

Figure 3. Inputs to Supercode

Following this, the KM team carried out a cross tabulation analysis between this "super code" and other high-level themes. It found that there are a number of themes discussed when touching upon the notion of a "good life". These notions are for instance "living with nature", the "nature of work" and "inclusivity and equity" to name just a few. The results are depicted in the figure 5 below:
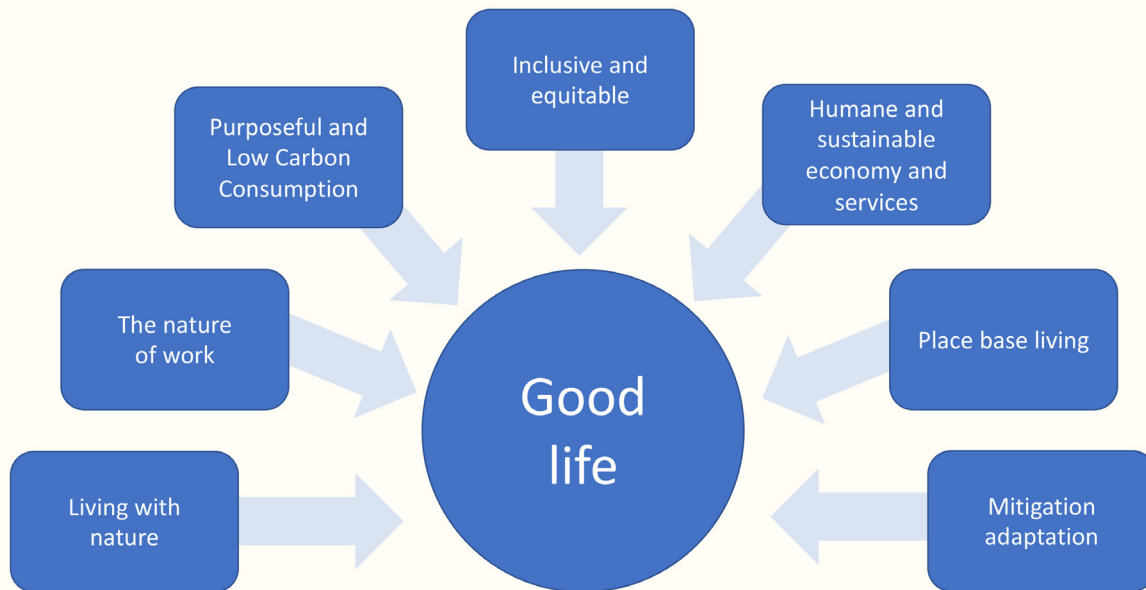
Figure 4. Good Life thematic intersections

Delving deeper into the intersection of notions, the underlying text which captures this intersection of themes. For example, an extracted paragraph from an interview carried out on a member of the core team, and one from a Lebanese report which showcases the intersection of a good life and the nature of work. The extracts are below:

"... this should include very drastic change in the way people live and in the way people work. In the way that we're producing the economy and the trade relationships between countries, the countries themselves.". (Core team interview)

"In the delivery of these aspects, topics to be considered may include consideration of welfare as well as on the roles that work and skills, social living conditions, natural endowments, institutional settings and living arrangements can play, including within circular approaches, what technology can contribute or detract to these approaches." (Lebanon)

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COMMUNICATIONS

While in year one the project focused on establishing a strong brand identity encompassing logo, website, and deliverables, laying the foundation for cohesive communication across all project materials, during the second year, we have strengthened LbD's image by consolidating fundamental aspects of the project on the website: deliverables, illustrated visions both in drawings and videos, and the graphic novel. We used the components that we have worked on to launch the social media campaign, aiming to strike a balance between our own work and some external accounts with which the project identifies.

Deliverables

The project has continued to work on a graphic identity that distinguishes it. For this purpose, the deliverables of year two are based on the illustrations created for the graphic novel, taking advantage of the different geographical areas where the project is being developed. Thus, each of the 2022 annual reports was created with an illustration of the represented country. The project has also continued to update the blog constantly, with contributions from the four participating countries.

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HOME ▾ PERSPECTIVES ▾ THEMES ▾ LEARNING ▾ BY ▾ DOING ▾ 🔍 Keyboard
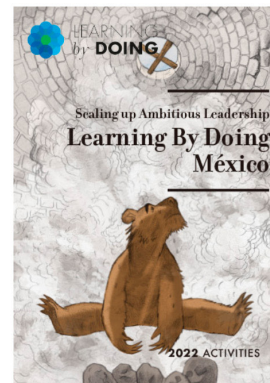
LBD 2022 activities.
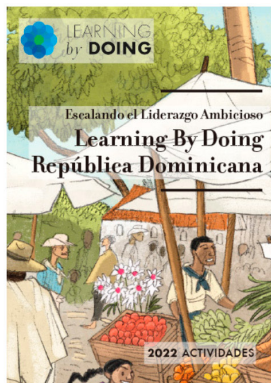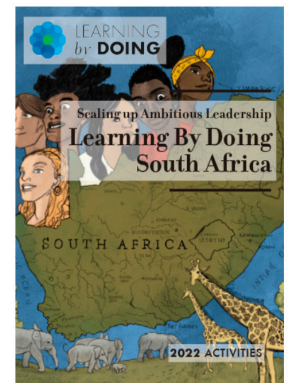
LBD 2022 activities Dominican Republic.
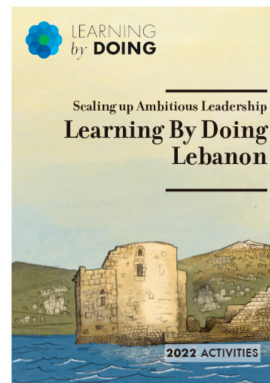
LBD 2022 activities Lebanon.

LBD 2022 activities Mexico.

LBD 2022 activities South Africa.

TRANSFORMING THE WAY **WE ACT**

Visions and scenarios

In the pursuit of showcasing the findings of the project, three specific scrums within the project worked to develop visions ranging from the present to the dystopian and utopian scenarios that we have identified and present them online. The teams from Mexico, the Dominican Republic, and Latin America have worked together to envision these scenarios, write texts about them, and support the illustrator in their task of depicting them. These drawings have been used to create an app that is hosted on the website. The app is interactive and allows users to engage with different scenarios and comprehend the process through which Learning by Doing arrived at the conclusions presented there.
The app can be accessed at this link.
The app was launched during the sessions of the meeting in Santiago, held by Learning by Doing with the collaboration of ECLAC, in Santiago de Chile.
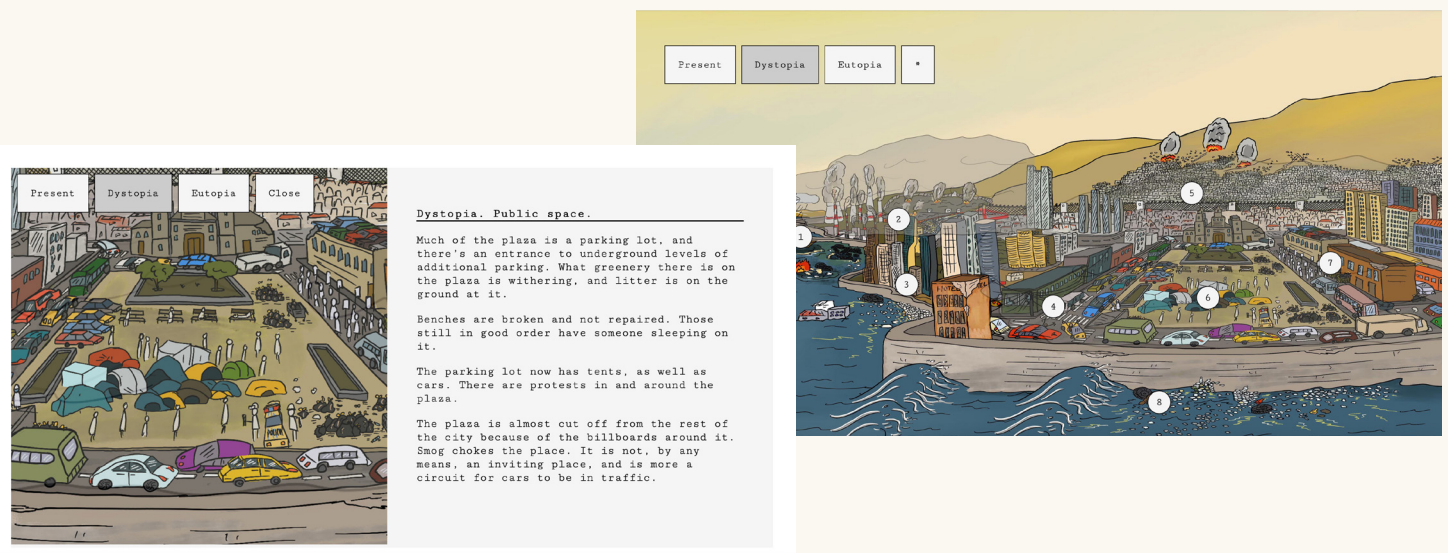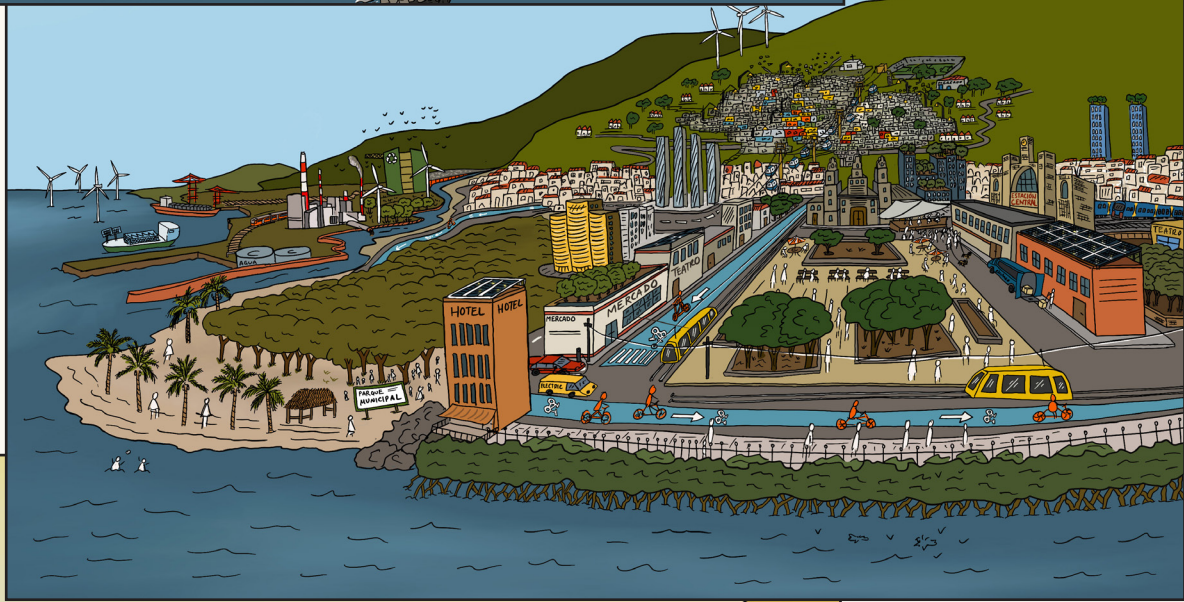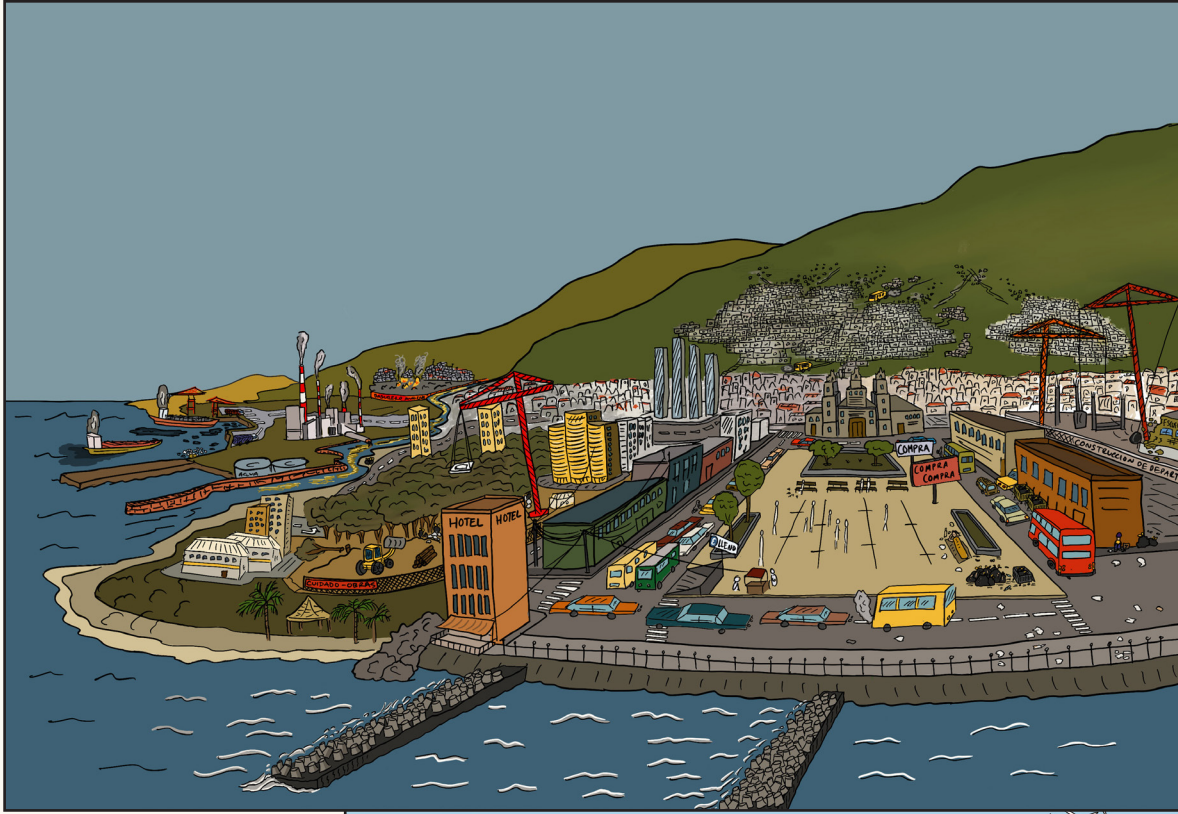
Another important element was the creation of a video that illustrates the narrative produced by the Dominican Republic during the first year of the project. We formed an alliance with a local artist, Kilia Llano, who created 10 illustrations based on the narrative text, which in turn were used to generate a video that frames the work of the first two years in that country.

In South Africa, we created an illustration that allows users to see, in a single image, a dystopian and a utopian future, and it was used to illustrate the work of the South African team in the Development of transport storylines for the transition from the current modus operandi to a good life.
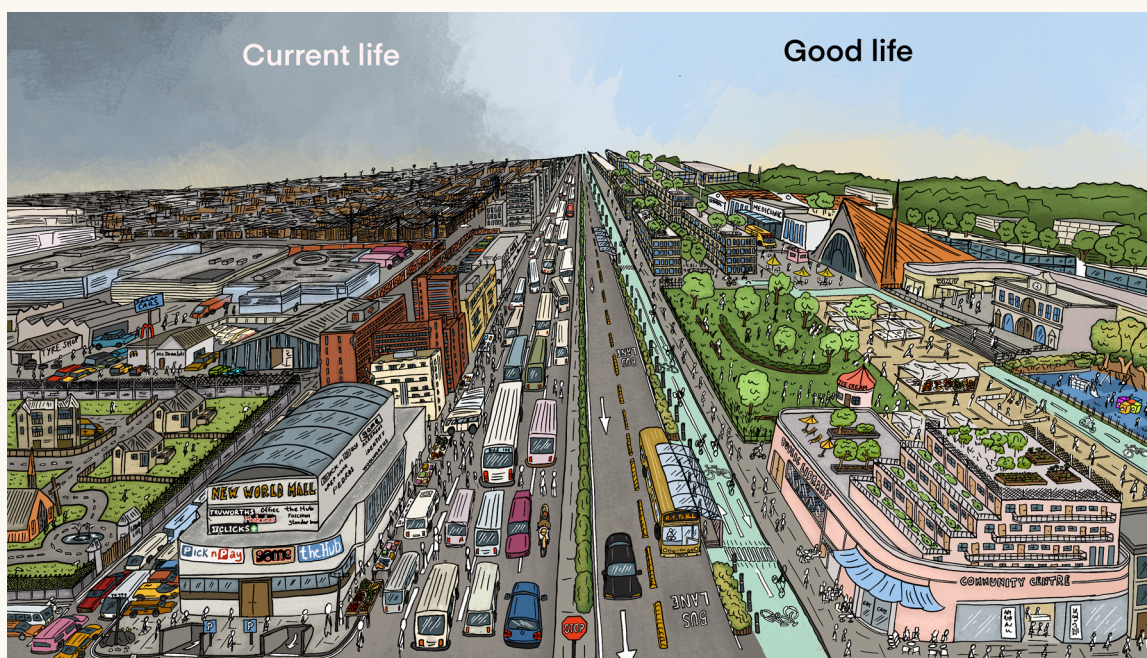
The making of the graphic novel

In the spirit of "Learning by Doing", the project has been working on a graphic novel based on the findings that the different activities of the project have been producing and will produce in the future. The graphic novel will reflect/incorporate the different activities and outputs from the project.

We started with a series of interviews with members of the project to gather base-line information and generate a first script, sketching the overall content of the book.

Why did we make a graphic novel? Once it became clear that LbD was in the business of imagining narratives it seemed appropriate to illustrate our imagined visions. Therefore, the graphic novel was devised as an exercise to depict the different possible scenarios in the future. Each depends on how well humanity adapts to the new environment and its consequences, as it seeks to mitigate the effects of global warming. Here, findings and discussions from the Project serve as input to the GN. For instance, the Project has been developing narratives or descriptions about the notion of the good life in several countries, in 2050. These discussions (fictional but based on actual information shaped by members of the project) are being incorporated into the narrative of the graphic novel. Therefore, it seemed appropriate to tell a story because LbD was in the business of imagining stories and backcasting narratives, so it was decided to help the ambitious public policy proposals become more accessible, they would be lived out through Joe, an Andean bear that is the protagonist of the story, who, like so many people in the world, finds himself in need of migrating to improve his life conditions, but also to seek answers. Through his voyages, Joe encounters many people and enrich his knowledge of himself, but also the way he understands the Climate Crises, and by doing so, he shapes his way of dealing with it. Joe grapples with the ideas of modernity that led to the climate crisis. Like us, Joe is born with the ideas of the current age, he feels the same despair many of us do when we think of climate change and is struggling,

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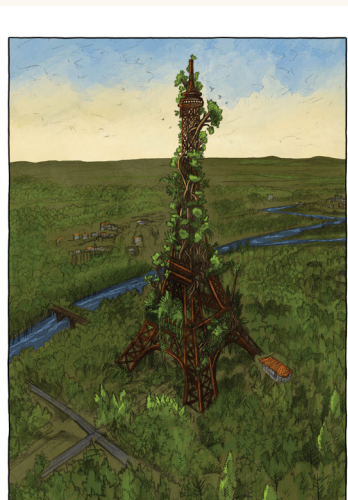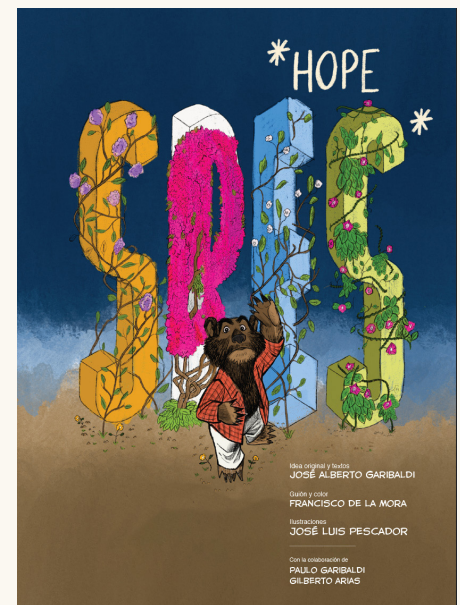
like many today, to find a hope amongst it all. He has several dreams that allow him to "live in" these different scenarios. The first apocalyptic dream shows Joe in Paris (where the famous Paris agreement was reached in 2015), uninhabited and fully reclaimed by nature. He sees examples of flourishing and failure. Of famine and of street festivals. Of community and catastrophe and through it begins to ask questions about the approach we want to take and the world that would lead to in 2050.

Joe investigates the genealogical trajectory that led us here, watching the handing down of our ideas from the enlightenment to today's collective action impotence. The graphic novel wrestles with these ideas. Do these create a world that fosters a good life? Are these the doctrines that can allow us to survive the climate crisis in a fruitful manner? How can we rethink our relationship to nature? How can we rediscover a public policy that is not the application of a priori plans? How could we live out a different philosophy and public policy that can lead to real, potent and actionable hope for 2050?

The graphic novel wields together the philosophical arms of the project together with the concrete storylines of the countries upon a spirit of learning and discovery (the heart of LbD). To create a story of 'what ifs?' What ifs, with hope without ignoring the what ifs of failure. It tells a story to allow us to think and understand the great narratives of the project in a concrete way.

As its development advanced during 2022, the graphic novel expanded to twice the original size and consolidated in a single document; likewise, during the year all the illustrations of the novel were completed.
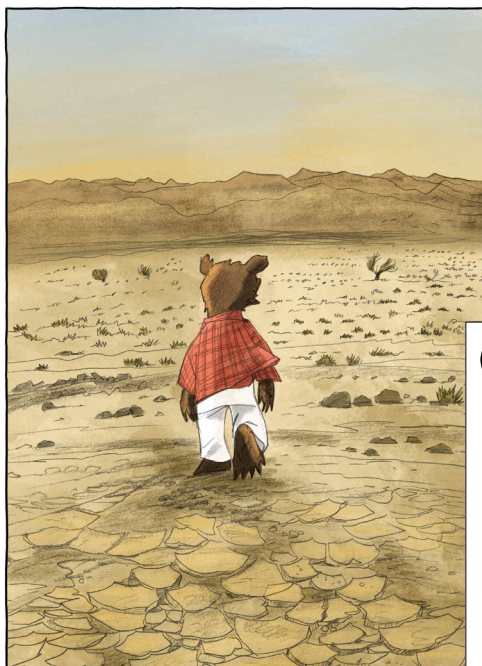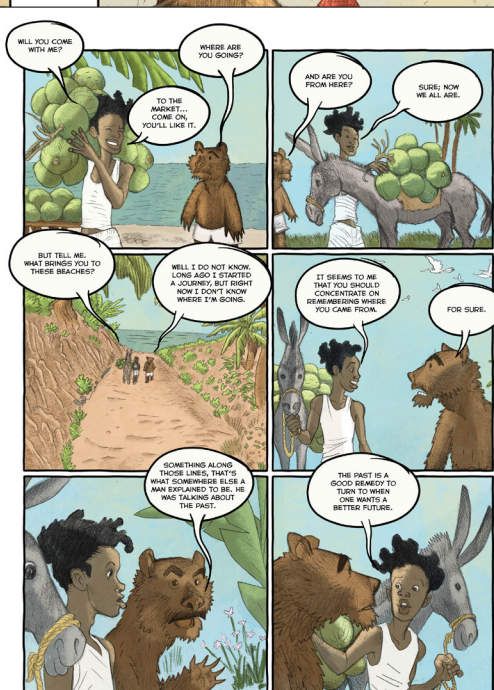
EXPERT CONTRIBUTIONS, PEER REVIEW AND INTERDISCIPLINARY DIALOGUE – SCOTLAND PROCESS

Critiques and comments emerged in three areas — 1) on the overall vision and emerging narratives, 2) the collective action approach they embodied, and 3) the sectoral approaches and their relation with specific aspects. Each is addressed in turn.

More general comments – good life and climate action

The emerging project philosophy, and its associated initial visions and narratives were improved through the inter-disciplinary review and dialogue mentioned above, including by invited academics, researchers, and country team representatives. Their conversations further developed the LbD motto of "Changing the Way We Think and Act". In line with this motto, interdisciplinary reviews focused on renewing the project understanding of the question of how the way we tend to act, and how action is in turn associated with the way one tends to desire, value and think within the liberal societies most project participants live in. While climate change has many more dimensions, this aspect of the project sought to ask the question if the problem of climate change was not related in some way to how some forms of modernity think about the climate problem itself; and consequently, how it frames the purported solutions. The critique challenged the project to go beyond the limits of liberal ways of thinking and desiring, so as to address more radically climate action.

There was a sense that the most market-advancing dominant liberal modernity tends to presume that most agents are for the most part at odds with each other and with nature, with no substantive good life considerations beyond subjective and individual value constructions. In this position, private individuals are deemed incapable of advancing any collective purpose beyond those related to self-fulfilment—in competition with others—and these goals are advanced by fighting or controlling nature. This liberal modernity position takes persons as individuals constrained by multiple restrictions, arising from history, place, or nature. In this understanding, legislation and regulation advanced by governments guide the creation of markets, as government "liberates" individuals from these constraints.

Beyond these modern liberal visions, this critique outlined that there were other ways of defining the good life, including its more public and collective aspects, as these affect the climate crisis. Rather than liberating individuals form constraints, these other ways would work side by side with those constraints, in particular those aligned with low carbon futures, so as to enhance climate action. Thus, common good traditions centred around substantive political values, and metaphysically and theologically high conceptions of a substantively moral and devout way of life compatible with essential human dignity are, for example, still a living feature of Western culture's Aristotelian and Christian heritage. Many cultural and wisdom traditions alive in Africa, Asia and Latin America likewise share more plural visions of what a good life is meant to be, different to those of liberal modernity. In Latin America, there are society wide approaches focusing on a good life, such as *Pura Vida* (Costa Rica), *Buen Vivir* (Ecuador), *Vivir Sabroso* (Colombia). *Vivir con Dignidad* (Dominican Republic). Indigenous approaches likewise include visions of a good life advanced in concert, rather than in conflict, with nature. Feminist approaches also highlight the

role of agency, creativity and shared creativity. In economics, the institutional economics school has also considered the role of constraints, taken as institutions, which his school takes to be constraints to action.

These critiques provided means to approach the meaning of a good life in a manner more plural than that of the dominant individualist secular modernity. Rather than being characterized as an expansion of consumption fuelled by individual desire, a good life might be understood instead as a pursuit – an expansion of agency- but one aiming at the cultivation of character, community and right desire. This would imply on the one hand, aspects linked to culture and education, more related to individuals and groups. On the other, hand, however, it would also involve institutions and practices, but also technologies and infrastructure, as they relate to the public and collective aspects of climate action. In this understanding, inter-relationality, conviviality, and agency as the pursuit of productive creativity in our relation with each other and nature, and a search for opportunities for contemplation, become key in a good life. These aspects would be aided by a social, institutional and physical environment that fosters, rather than hinders, such a convivial and creative search, advanced from the bottom up, by more diverse groups and individuals. While these aims of inter-relationality, creativity and contemplation and the association conditions for agency directed towards them may be for the most part appealing in themselves for most people, they also imply less emissions and more resilience than the more bipolar – state / market climate thinking, with its entailed focus on consumption and its -mostly- regulatory constraint.

Collective Action, Public Services, and Low Carbon

This critique also highlighted the importance of how collective action was conceived. As it emerged from the conversation, developing an understanding of collective action aligned with the public philosophy above would entail advancing more plural and bottom up versions. A mainstream vision of the logic of collective action, as advanced by Mancur Olson for instance, is a *theory* that takes individuals as inherent free riders that must be constrained through incentives, group size, and continuous central, top-down supervision and monitoring. Elinor Ostrom´s version, in contrast, is the study of *practices,* a enquiry that illuminates how effective collective action emerges embedded within existing arrangements that facilitate transparency, enhance trust, and allow for skills, crafts, and local concerns with a direct interest in the management of shared resources to flourish. The Ostromian version may be ignored at the peril of missing its potential substantial contribution to a vision of a good life in climate.

This critique also highlighted, secondly, how a strategy for the provision of public services in a way that reduces emissions and increases resilience, while increasing combinations of groups and actors at different levels. Rather than relying solely on state of market forces, this might entail the provision of low carbon services by plural combinations of public and private groups, so that these replace, at much lower levels of emissions, the purely private provision of education, transport, infrastructure, and energy. This might also increase the disposable income of those who would otherwise spend in the purely private provision of these services. It would also imply a focus of more plural ways to use that disposable income beyond consumption. It was expected this would renew the debate on the use of sectoral policies beyond the use carbon prices and taxes. Likewise, on how to compensate groups losing out in a transition to garner support and alleviate opposition. Such an approach emphasizing public services is not new; nevertheless, it may hold promise, and seems to be in line with the overall project purpose.

Sectoral policies and technologies

Last but not least, critiques by external reviewers (from uN ECLAC, ITAM, and UNAM) added a new dimension to previous peer reviews, advanced during 2021. These focused on the role of sector policies and low carbon technologies.

A first aspect singled out was the support decarbonization would provide the help the people´s drive out of poverty thanks to decarbonisation (not with carbonisation) as a transition programme—an aim associated with a drive to higher quality and lower emissions public services as outlined above. Issues related to the development of a welfare state, and/or elements related to the provision of services were both mentioned. In the debate, what has emerged in this aspect are those related

If the combination of these services may be taken to be equivalent to the development of a welfare state based on the new economy; how would these developments be implemented?

The replacement of the energy matrix was an issue raised in the review. This coincided with the attention paid by the scrums and the spinoffs to these issues (i.e., the role of renewable energy and whether new infrastructure and/or new energy sectors will be introduced to deliver this energy — from improved networks to hydrogen). While the reviewers mentioned the role of infrastructure (electrification and hydrogen), only the issue of electrification and the clean energy public transport chain emerged in the scrums.

Likewise, external reviewers also raised value chain issues. Reviewers argued these would be related to electrification (affecting the transport system and the clean public transport production chain: bus, cable, metro, trolley, bikes, train). In a similar vein, reviewers raised issues about the role of electrification and other technologies in heavy transport, aviation, long-distance trains; as well as in associated services and industry. Summing up, they enquired how the narratives and sectoral storylines would imagine transport and public transportation, and how can this be redesigned for 100% quality.

Value chains were raised in a larger scope. This may take various dimensions: in the production of the wind, solar and marine renewables value chain likewise in the production of inputs, controllers, blades, and batteries. What emerged in the Dominican Republic and Mexican scrums, and the Latin American spinoffs, where issues related to the role that small and medium enterprises were already playing in the development of

The review also suggested items to address in the food system and in circular economics. The food system aspects asked how the visions and narratives accommodated issues related to regenerative agriculture and farmers, and what role is played by both man staples (soy, corn, potatoes) but also emerging boutique food: cof-fee, vanilla, cocoa, honey, exotic meats, amaranth, nopal, flowers?

In terms of recycling, there were issues related to the recycling of plastics and commercialisation of derivatives: chemical and mechanical; the recycling of electronics and their derivatives: computers, telephones, televisions; the recycling of organics: production of land, fertilizers, energy? There are also issues related to the elimination and processing of wastewater, and sanitation and landfill gap, including the management of waste, and/or the closure of landfills.

Last but not least, infrastructure and the built environment need to be improved — including addressing is- sues of emissions as infrastructure is developed and the housing stock is replaced.

Policy and program-based tools

There were also critiques regarding the need for a more thorough discussion about public policy issues and tools. These included the need for various programmes and policies which might be necessary in these contexts: e.g., a sector regulation modernisation program, and an associated public tender modernisation programme. In the context of this project, this may include a carbon disclosure, social price of carbon and zero waste.

Common Aspects

The critiques that emerged in these conversations eventually merged with various strands of work in the project. These included aspects related to the new public affluence narrative, policy and project proposals that highlight a low carbon and more convivial and resilient public sphere, including through key sectors, and its graphic novel. Further development of the narratives and strategies needs to consider how change or preservation would arise, through what agents, means and pathways the goals may be achieved, and the scope of those goals. A review of these narratives focuses on the impact of policies, as well as providing both a general view and sectoral development policies.

   The demand for the required change or continuities — including in environmental and climate policies— is likely to include considerations coming from both civil society and the productive sector. These aspects need to be further developed to examine how it is that demand for change (or preservation) is articulated constructively and moves the transition process forward.

Team meetings - Coordination/1st meeting Core Teams

The second annual Learning By Doing (LbD) cross-project meeting took place the 8th of December 2022, virtually over Zoom. The main purpose of the meeting was to present the LbD project to a wider audience and to showcase the key insights from the project after almost two years of work. At the meeting all participating countries were able to showcase the progress they had made to date to advance on the key deliverables of the project. At the end of 2022 all participating countries had concluded their baseline reports and had elaborated a number of iterations of their country narratives, key pieces in the LbD project.

   Furthermore, this annual meeting allowed for a discussion on the progress made in the Knowledge Management workstream as outlined above. At the end of 2022, a substantial number of documents and discussions had been diligently analyzed and coded by the team in charge. About 250 codes had been carefully selected to capture the plethora or themes that had so far emerged in the project and which allowed the KM team to start making some initial data inspections.

   This meeting also gave the opportunity to showcase the work done this far by the communications and graphical teams in relation to key deliverables of the project. The team presented on the preliminary work done to develop a social media strategy for the project as well as the work done this far on the graphical novel which was supposed to capture the depth and breadth of the topics, themes and discussions of the Project.

   This annual meeting concluded with a commitment to hold a physical meeting of all teams in 2023

Project Meetings and Training: Outreach and Embedded Capacity Building

 The project methodology has been designed so as to advance the development of the visions, policies and projects by local and project teams that learn about these issues while developing them – i.e. they engage in learning by doing through the agile scrum methodology.

The selection of participants is a crucial part of this learning by doing process of the project methodology. This selection has been advanced with the national teams and coordinated by the project lead. In doing this, the project continues its aim to have a good cross-section of interests, but in a limited participatory pool—to ensure active, vocal, substantive participation of all voices. Logged participants since 2021 are participants that have participated in the project "scrums"; gender is self-determined. As such, the project works with strategic and narrative thinkers in each country with a broad range of backgrounds—from labour unions to NGOs, from faith groups to business actors, as well as academics and researchers. The result is a holistic vision, which enriches the outcome while allowing participants form different backgrounds to learn from each other. Sectoral affiliation is verified by the local national team (e.g. academia, NGO, business sector, etc.). In 2022 the project also organized research seminars focused on understanding the idea of a good life with members of the scrums and academics, selected for their interest in this subject.

The selection of participants has ensured that the project works with networks of universities, and groups of universities, in target countries, as well as with other universities in other non-project countries. Faculty from these universities comes from economics, political science, climate, philosophy and theology.These combine with in country and regional researchers. Likewise, debates from these groups are later fed into regional and in-country activities. As of 2022, we have also added participants coming into the project from a regional basis, selected jointly between the project outreach lead and the Head of the climate change lead at UN regional bodies (UN ECLAC). As the project progresses, and its outputs evolve, project materials are shared more broadly, helping to mainstream a vision for sustainable development which is palpable in the present, though it aims for the future. If this engagement has included engagement on policy or project planning, please note. "Policy" in this sense includes private-sector cooperative climate action initiatives. The project advanced during 2022 activities with governments and NGOs, as well as at the UNFCCC COP and in other regional venues. In addition, the project has been exchanging views, during 2022, with other funders and participants interested in exchanging views about the UNFCCC process and the contribution of the project to this environment.

As part of its own scrum activities, by 2022 the project had already organized 16 Scrum meetings, as well as 4 spinoff meetings. In addition, and in parallel to its Scrum and spinoff meetings, the project participated in the Latin America and Caribbean Climate Week (LACCW 2022), which took place in Santo Domingo, Dominican Republic, where regional parties were introduced to the LbD project and its methodologies. The project also helped organize a meeting with civil society and the private sector in the Country, together with ECORED and the Low Emissions Development Strategy Network for Latin America (LEDS LAC) in Santo Domingo.
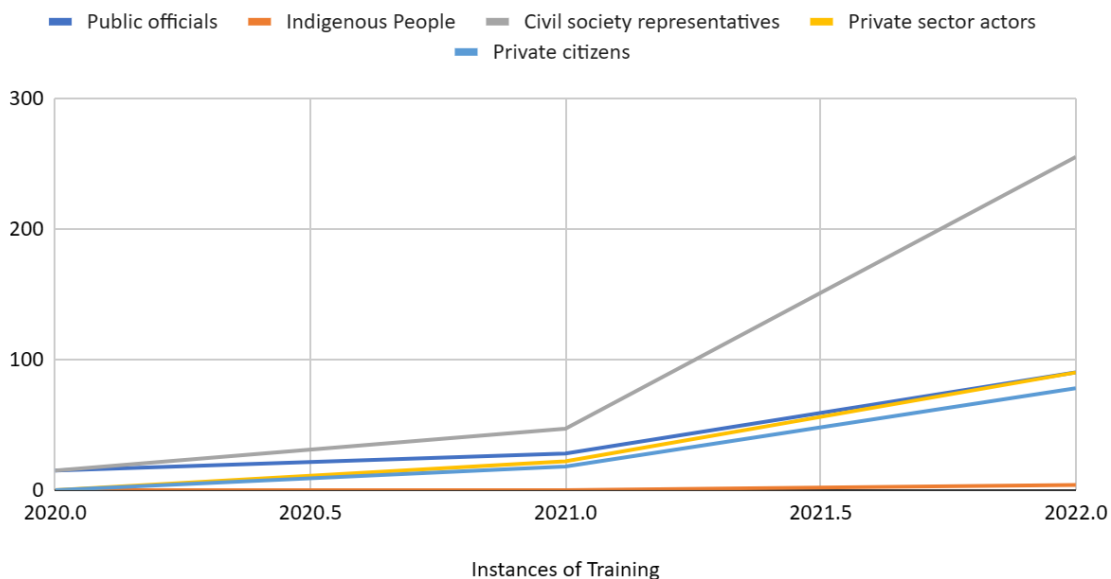
The project also organized virtual meetings with the Climate Change council on UNFCCC negotiation, as well as virtual presentations to the Ministries of Economy, Environment, and the Climate Change Presidential council, in the margins of the UN regional climate week for Latin America and the Caribbean. In South Africa, the project organized meeting with Steering committee for the Ministry of Environment Sectoral Planning project. In Mexico, the project organized an in person seminar on energy policy at ITAM. In London, the project organized an in person meeting with academics to explain the Good life approach of LbD, and a potential good life policy institute. At the Sharm el Sheik COP27, the project organized a side in Dominican Pavilion, and another with ECLAC, which was broadcasted. Likewise, it organized

another event in Lima, at the CIES research seminar, which was also broadcasted.
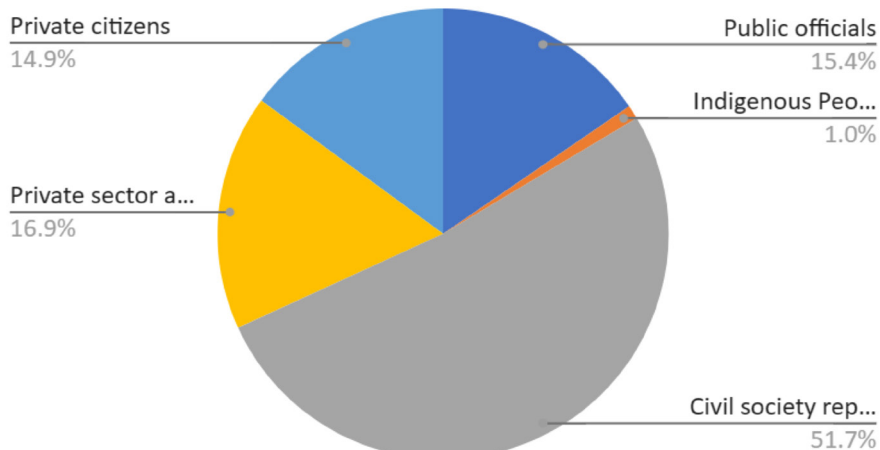
Project participants have been invited to cross country and regional meetings. This has included regional and multilateral events. In addition, the project lead and project participants also organized meetings and research side events at the UNFCCC COP 27 in Sharm El Sheik.

The following table oultines all the instances of training which the project advanced in the period, and the accumulated since 2020. The project started reporting these training aspects in 2021, and these numbers have continued to ramp up as the project continues; 2020 was largely in organizational and baseline development, while 2021 saw the beginning of the Scrum and spinoff activities, which grew much more in 2022.

Instances of Training From 2019-2022

People Trained in all 3 years

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Category of People Trained 2022

Private citize...
14.9%

Public officers
15.4%

Indigenous p...
1.0%

Private secotr
16.9%

Civil society
51.7%

Total Ratio

Male
53.5%

Female
46.5%

TRANSFORMING THE WAY **WE ACT**
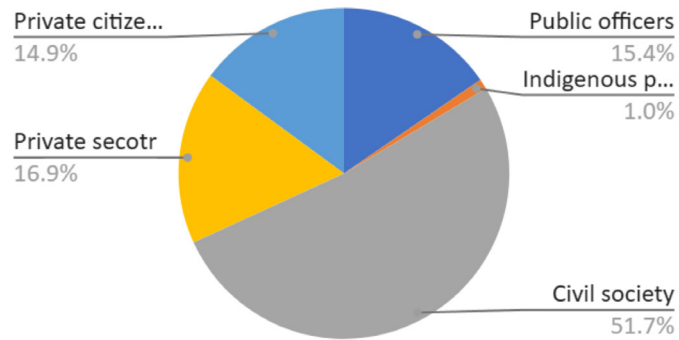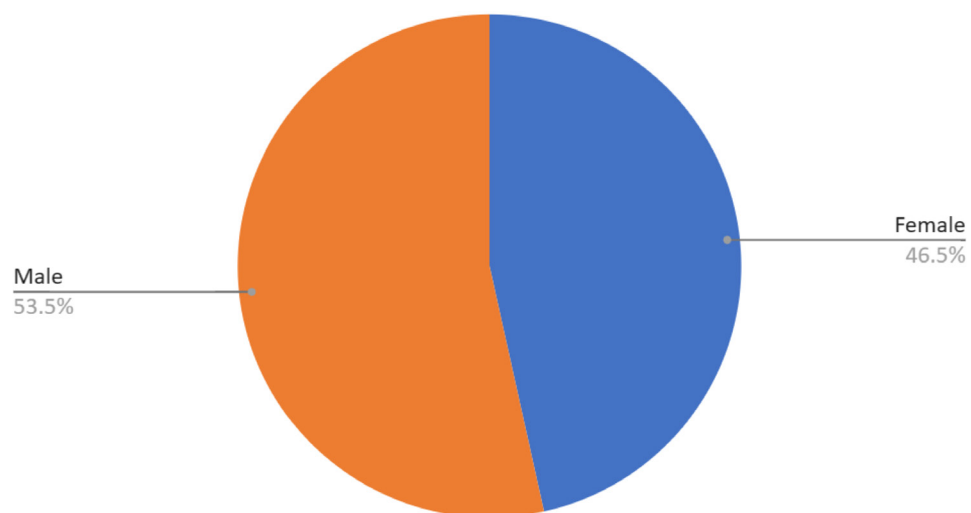
REFLECTIONS DURING 2022

The first element that the project's participants have taken on board is that a transition is ongoing—whether liked or not. As was highlighted in Scotland and the other cross project meetings, past economic development models may not fit the current economic pathways that we see developing as transitions away from fossil fuels advance. Rather than following a purely defensive pattern against change, it is important to see what changes need to be done, and what needs instead to be preserved, and where resistances may be on both sides. The vision, narrative and analysis of a purposeful and proactive vision of the what might be taken to be good, and unhelpful inertias or pressures.

On reflection, a key benefit of having a notion of a vision into the future for sectoral and sub-sectoral transition is that there's much greater opportunity for stake-holder-governance and cooperative innovation. If no such vision exists, then actors in a sub-sector are locked in a zero-sum market share exercise with other actors in their sub-sector, and could easily turn to "gaming" regulations in the sub-sector, or in interaction with other sub-sectors for individual gain—this process could slow the development of the sub-sector, and by consequence of the sector overall.

Moreover, if there's an opportunity for cooperative collaboration with adjoining sub-sectors, then financing for both sub-sectoral activities would be de-risked (to the extent that financing would affect both supply and demand for the actors), and would work better for both the financing entity and the financed actors.

Likewise, the analysis should see these impacts in their entirety, and not solely as a sort of "carbon and emissions" bubble, but rather in line with their environmental footprint, and their ability to contribute to GDP, employment and lower costs along the way. An approach based on the better provision of public goods and services may also contribute to increase the available income, both of the population that these goods and services address, as well as those who work in delivering those goods and services themselves. Further work along these lines seems to be promising. The scrum fits perfectly with this notion, to adjust over time.

In this context, the section outlines first key findings from the countries, then cross cutting findings, and finally those emerging towards 2023.

KEY COUNTRY FINDINGS

Mexico

In Mexico, one of the key findings has been the discovery that central policies alone, focusing on pricing and taxes, may not be enough for a transition, and that a coordinated array of sectoral policies and different means to advance collective action at various levels may also be needed. As Mexico considered its transition analysis examining carbon prices and taxes, it became obvious that even in the most orderly cases, the impact of large-scale climate policy is substantive as imposed through these means. This implies that substantive opposition is also likely to emerge. Consequently, more specific sectoral policies, compensation schemes, and additional public goods may be needed to compensate those which are most impacted. The provision of these public goods and compensation point in a direction that is not at odd with the emergence of a good life as the project public philosophy has outlined.

Dominican Republic

In the Dominican Republic, the teams used the countries own published long-term transition plans and those that emerged from the country´s NDC to see how these overlapped with the narrative of the good life. Replacement cost and emission calculators examined the costs of the transitions in the key sectors as these narratives outlined. In addition, a more specific input output analysis was advanced in key sectors, particularly considering the relation between energy and transport. As it stands, there is barely enough electric energy for the Dominican society to address its growth. Demand for electricity would grow further if the transport sector becomes increasingly electric, as it is likely to do. Thus, the project discovered that the transitions which the government was planning would result in damaging deficits in required electric energy. The situation gets worse if the full gamut of measures considered in the narratives are advanced. These findings are now being discussed in the new government planning and tracking tools.
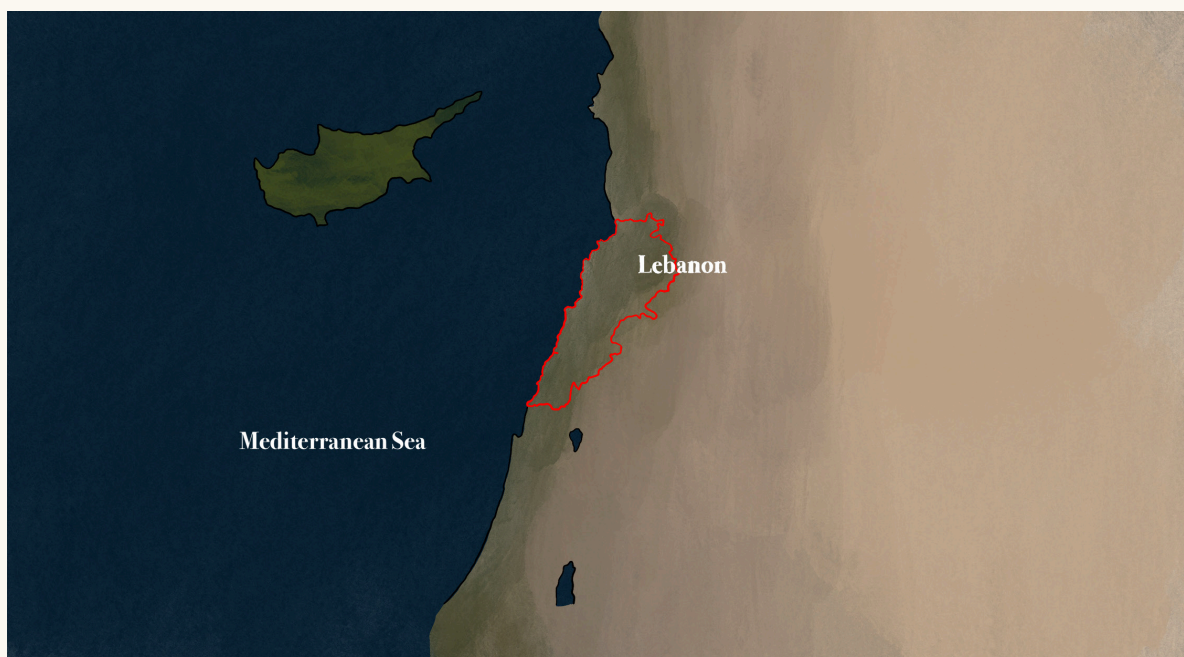
Lebanon

Lebanon had a series of interesting findings. The need for a sustainable and/or organic agriculture system with a specific food-security strategy. This will benefit other socio-economic issues in health, water availability, biodiversity, education, technology. These multi-sector benefits originating in the agricultural sector can also aid the tourism sector by branding Lebanon as a 'Land of Diversity' to celebrate its natural assets, diversity in culture, heritage, biodiversity, culinary etc. These advances can be compounded with gains in a transport sector that could flourish with a transport demand management strategy, aiming to reduce the length, frequency and time of land trips and reduce the use of private passenger cars. This could be achieved by reinforcing and supporting alternative modes of transport - walking, biking, motorcycles, mass public transport etc.)

South Africa

The scrum members, their interconnections, and the creative thinking developed in the LbD project in SA are, in our view, one of the most important 'outputs' of the project.

Scrum members thinking about systems and sectors might translate into an unexpected and important legacy of LbD. The several spin-off groups facilitated by scrum members, on diverse issues such as land, electricity sector reform, and place-based action, have showed that members are now taking the thinking from scrums into further discussions. In terms of content, the South African Baseline Report highlighted the importance of the concept of a "just transition" (JT) within the development, in order to build a credible fact-based narrative. Areas of investigation are malleable and used as a starting point. These areas were revised and refined along the way by the scrums. Specific attention has been paid in this work to sector contributions towards reaching the country's greenhouse gas emissions targets, while a good life is created for its citizens. In advancing this work, the scenario modelling results indicate that no single 'silver bullet' type of solution exists and that combinations of land-use, as well as transport energy management measures (representing avoid, shift, and improve measures) will be required to reduce emissions sufficiently.

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CROSS CUTTING FINDINGS AND EMERGING CONSIDERATIONS

- **Central Good life Aspects identified**: The project advanced during 2022 in its identification of the aspects which may be considered central of good life that simultaneously have low carbon and resilience aspects. In this vein, the project found that inter-relationality, creativity with other and nature, and opportunities for conviviality and contemplation, together with sense of agency and the struggle for a just transition to make these possible. These goals are deemed to be appealing on their own and associated with a good life, as well as with low carbon, climate resilience, and capacity building.

- **Changes in policy settings**: A key finding of the project by 2022 is that the consideration of a good life along these lines sheds new light and frames differently what needs to be considered in climate policies, and why. Rather than solely considering economic, technological and financial aspects advanced from a central policy making process. When taking into account good life considerations, other aspects become more salient, e.g. those that consider the character and impact of the (just) transition, the associated capacity, education, and cultural aspects, the expected role of key economic sectors associated with these pursuits, the associated transformation and preservation of urban and local settings and the build environment to support them, the objectives of sectoral policies, and how and by whom is collective action to deploy them is advanced..

- **Public Philosophy and Collective Action:** As a result of the above, the policy emphasis and the expected outcomes and delivery changes when the pursuit of a good life is included in the mix, beyond those aspects that focus solely in reducing emissions or increasing resilience and capacity. The public philosophy and the collective action aspects that the project has been developing points in this same direction.

- **Quantitative and qualitative methodologies, together**: Another important finding is that there is a wide scope for thinking new solutions if qualitative and quantitative aspects are not considered in isolation from one another when examining the objectives, content and delivery of climate policies. The discovery of methodologies that allow to both take into account good life considerations, side by side with more conventional climate policy issues, uncovers large aspects of mitigation, adaptation, collective action and capacity building which otherwise will not be acknowledged, let alone addressed if only mitigation issues are addressed.

- **Narratives and Modelling:** The project has also identified different means to showcase these different aspects, which operate in interrelation with each other. Thus, the use of narratives, of scenarios (in words and numbers) to handle complexities, and the use of models, to handle the complicatedness aspects. Together, they provide a setting, sense of purpose and character, and a content in which quantitative indicators provide a sense of magnitude and explain both complexities and complications. In this, again the project methodological discoveries provide a mean to both enquiry and present queries and findings, a sense of magnitude, of the purpose of actions, and what is deemed valuable in different ways that in the purely quantitative.

- **Back and Fore casting**: Likewise, this different approach also entail changes in how the modelling of the trajectories considered advance. These consider both forecasting and back-casting approaches. Forecasting methods address feasibility by starting from the present to move towards accumulative

progressive changes leading towards expected future with less emissions, and more resilience. In contrast, back casting addresses creativity by starting from the future and moving back to the present. This provides more degrees of freedom to imagine options for the future.

- **Prices and taxes with sectoral policies:** As policy aspects are considered in this context of feasibility and imagination, the project has identified that any transition needs to advance with some central price and tax policies applied from the outset, but deployed side by side with accompanying sector specific policies and (collective) actions considerations focused on the end point. This allows to address feasibility while not leaving aside good life and just transition aspects. If only central policies of tax and pricing are addressed, the magnitude of the economic impact makes it very likely that there will be massive opposition if centrally imposed. Delays may increase the size of the impacts. Sectoral and compensation policies may help address these transition issues.

- **Speed and Scale crucial:** The project has also found that there is a relatively short window of opportunity, with the speed and scale of action requiring to advance promptly and continuously to both transform and preserve what is needed in a transition to a 2.15 compatible future. In most cases, the possibilities of adverse reactions become even worse if the transition, rather than advance early on in an orderly fashion, becomes more disorderly one, with large sets of actions delayed until later.

- **Sectoral policy aspects:** Six sectors have emerged as central un various aspects as the project moves from its considerations of a good life towards sectoral policies. These sectors include energy, transport, agriculture, tourism and costal zones, waste and circular economies. These are in turn affected by aspects emerging from economy, infrastructure and the built environment, and the cultural and political economy aspects.

   Policy Road Maps: The project has also been developing roadmaps. As the research progresses, the project has discovered that it is important to garner as much support as possible, to consider both the areas and aspects that need to be transformed, but also those that need to be preserved. The former are the more evident in the scale of the changes required, particularly in terms of energy, transport, and land use. The latter, while less evident, is also crucially important, in that people want to preserve aspects such as common spaces and cultural traditions, but also natural resources and key aspects of the environment.

   Transformation and preservation: Consequently, the roadmaps developed so far suppose that in all scenarios that something changes, and something else is maintained. These sectoral policies have been used to design the specific steps embodied within plans for action and sectoral costs. Roadmaps have thus been designed to feed into collective action considerations – i.e. an examination of how various actors may come together to deliver the actions required in a specific place, and gain form it, on the one hand; but also what conditions need to be maintained and preserved for these actions to happen, and for aspects of the good life to be pursued to continue.

- **Synergies across sectors**: The country and project findings have also pointed out towards the need for actions in the various sectors to synergise and complement with each other if a good life is to be considered. This is so not only because they support each other to achieve climate goals, but also because their interaction may also be central for a good life to emerge in specific places, and thus make those climate objectives more likely.

- Policy coherence: The project more specific input output analysis has revealed the importance of planning for increased demand in one sector as expanded demand advances in another. The case of the relation between electric energy

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EMERGING CONSIDERATIONS – TOWARDS 2023

As 2022 has advanced, some additional thinking has emerged, which may be developed further in the context of the findings above. A key aspect that has come through our discussions throughout the project is the concern about transition and transition risks. This has been highlighted by the Mexican team's analysis of "orderly" vs. "disorderly" transition, and its effects in each case, and an appraisal that the need, pressure or urgency for the transition may not be exclusively determined by domestic demand.

The transitions that are being considered in this context are both adaptive to the climate and its impacts—which transition needs to happen, one way or another, no matter what policy pathway the country picks—and also adaptive to economic conditions both globally and abroad. No country is sheltered from these pressures to transition from their status quo—supply and demand for goods associated with a modern evolution to, for example, auto makers are transitioning to advance EV or HEV powertrains and components; this move is associated with anticipated demand, and a general industry evolution.

This industry move will force a re-think of energy supply and distribution, which is a transition at this sectoral level, and which will happen sooner, or later. The pressure for this transition will have an exogenous push—the transition from manufacturers to supply more EV and HEV vehicles—and endogenous—domestic demand for EV and HEV vehicles because of their total-cost-of-ownership improvements over ICE vehicles. In terms of transitions in production and industry, there would also be pressure to transition in line with broader international arrangements. This may not manifest itself as broad Border Adjustment Measures (BAMs), which may also exist in future, but, there are likely to be selective BAMs relating to the development of circular economy inputs and outputs. As a country moves to more circular approaches to life-extension or repurposing of used goods, there will naturally be pressure to adjust supply chains, and regulations will move to limiting the importation of goods which are not recyclable—to match what will be evolving domestic regulations in this respect.

All of these elements, and preparations for these, will have a reflection in financial markets—regarding private capital flows and public financing—as there will be preference for actors with more developed and coherent measures, track rec-ords, direction, and understanding and responsibility towards MRV of action. All of these elements are de-risking measures for the transitions that the given country, industry sector, or enterprise will go through.

The LbD project will continue asking different sorts of questions regarding the transition—so not just the pathways to the transitions, and what the mileposts are in that transition to a good life within the Paris Agreement and adapted to 2-1.5° impacts, but also what opportunities can be created in the transitions, and how are these coordinated. Moreover, the project is fleshing out what are the risks of non-transitioning, and what financial repercussions a disorderly transition may have.

In this approach, the move to quantitative analysis of the transitions—without losing sight of the ever-important qualitative aspects and aims of the transition—provide a richer argument base for societal and political demand towards an early, orderly, and deliberate signalling and movement forward.