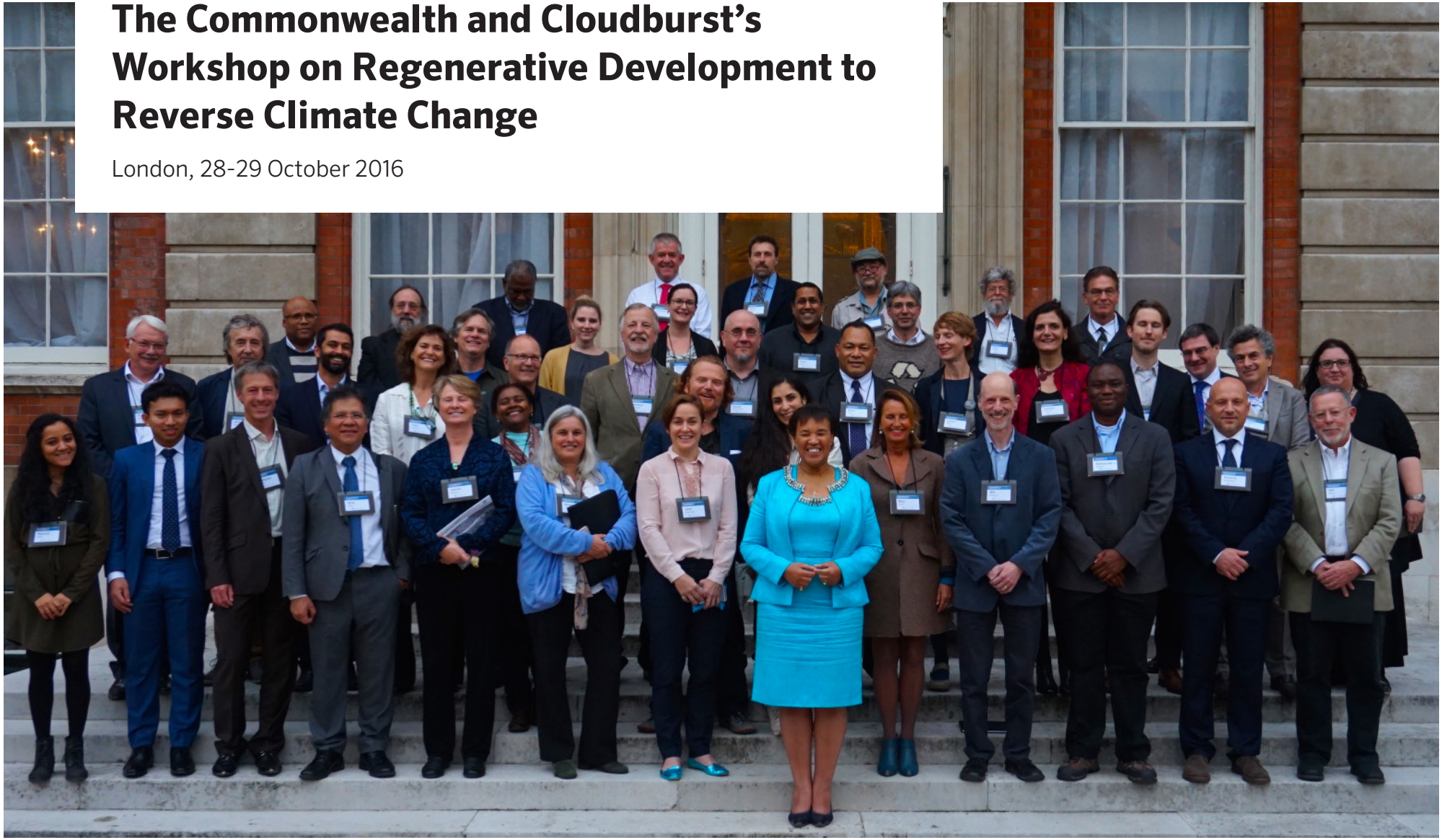
# The Commonwealth and Cloudburst's Workshop on Regenerative Development to Reverse Climate Change

London, 28-29 October 2016



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# Acknowledgements

Cloudburst Foundation extends a very special thanks to a number of people whose assistance in this regenerative development project has been invaluable and deeply appreciated.

Daniel Wahl, David McConville, Bill Reed, and Ben Haggard have provided essential wisdom and expertise as they helped shape the best workshop content and gave us the confidence to proceed with this endeavor. Their input into this report has been invaluable, and moving forward, their support continues to be greatly appreciated.

Special thanks to Laura Winn, Janine Benyus, Isabelle Dellanoy, and Toby Herzlich for their confirmation of our vision, assistance in the initial crucial steps, and personal invitations to additional invaluable participants.

Warmest appreciation to the entire Secretariat-General team led by Baroness Scotland. Without the SG's strong leadership, courage, will, and passion to make a difference in the world, none of this would have happened.

Also, a huge thanks to the economic team of the Deputy Secretary-General, Deodat Maharaj and the Communication department.

Everyone demonstrated deep devotion, professionalism, careful and warmest attention to project development, and long vision as they helped bring this first step of the initiative to life.

Although they were unable to attend the workshop in person, the support of Paul Hawken, David Orr, and Paul Stamets is equally valued. Their support and vision continue to be a major and vital contribution to this process.

Finally, we are grateful for Antonio Bartesaghi, President of Cloudburst Foundation, without which none of this would have been possible. His financial support and trust in the vision have been the firm foundation for the process and the progress.

# Process Design & Facilitation

**Dan Newman**
The Value Web

# Vision 2017: A Message from the Cloudburst Foundation

Promoting the innovations, insights and initiatives that will enable a regenerative future for everyone on this planet, the Cloudburst Foundation aims to facilitate the collaboration and action that can make this dream a reality.

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# Introduction

Since the industrial revolution, human activities have profoundly impacted Earth's living systems. Growing population, intensive agricultural practices, increased land use, industrialization and the use of fossil fuels have all led to an overabundance of greenhouse gases in the atmosphere. Consequently, average global temperatures are increasing dramatically, resulting in such adverse effects as severe droughts and rising sea levels. In turn, these effects are negatively affecting human health and well-being by exacerbating water scarcity, species migrations and extinctions, forest fires, agricultural disruptions, spread of diseases, ocean acidification, human migrations, and other negative pressures on civilization.

Faced with the enormity of rapid climate change, 195 countries adopted the first ever universal legally binding global climate deal at the Paris climate conference (COP21) in December 2015. The Paris Agreement committed governments to a long-term goal of keeping the increase in global average temperature well below 2°C above pre-industrial levels. To this end, several countries have submitted national climate action plans – known as Intended Nationally Determined Contributions (INDCs) – outlining their policies to reduce greenhouse gas emissions.

The Paris Agreement and the INDCs are a positive step towards mitigating climate change but further action is needed. Indeed, it is widely recognized that mitigation alone will not prevent massive and widespread disaster. It is not enough to reduce the levels of emissions output. If humanity wishes to live in health and prosperity on this planet, it must actively seek to reclaim existing emissions and actively participate in the restoration and regeneration of healthy ecosystems.

**Regenerative development** is the use of resources in a manner that improves society's well-being by enhancing Earth's living systems. As a strategy for climate action, regeneration can build additional capacity into human and natural systems, while mitigation and adaptation, at best, can only limit their degradation. By redefining our relationship with nature, humanity will not simply be avoiding disaster – it will be setting upon a path for realizing new developmental potential. In principle, regenerative development offers the best pathway to a healthy and prosperous future and, after Paris, it is an essential step beyond mitigation and adaptation as responses to climate change.

Baroness Patricia Scotland, the Secretary General of the Commonwealth, is committed to taking this next step. With the support of the **Cloudburst Foundation,** the Secretary General organized the **Workshop on Regenerative Development to Reverse Climate Change** in London from 28 to 29 November 2016 to launch a process to develop a viable, comprehensive and effective program for regenerative development. From around the world, a group of over 50 leading experts from multiple fields came together to share and discuss ideas on policy, technology and best practice. Ultimately, the workshop marked the initial step in a process to inform the climate change action of the Commonwealth countries. A follow-up **climate change reversal lab** is planned for June 2017 to build upon the foundations established in the workshop.

# Introduction

The Commonwealth is well positioned to play a catalytic role at a global scale by demonstrating regenerative responses to climate change. Comprised of 52 countries spanning all six habitable continents, the Commonwealth accounts for approximately 32% of the world's total population with 2.2 billion people, of which more than 60% are under 29 years old. The countries that make up the Commonwealth are both large and small, have differing levels of development and encompass a vast range of ecosystem types. Though diverse, the Commonwealth has shared history, systems of law, and language, and has a central unifying belief; the need to collectively address climate change. Uniquely representative of the Earth's makeup, the Commonwealth stands poised to be a platform for leadership on climate action.

This report contains a summary of the initial workshop convened by the Secretary General of the Commonwealth and the Cloudburst Foundation. It also details the objectives and design of the workshop and highlights the preliminary results. Further, it contains a more granular account of the workshop process over the two days. This document is intended to inform readers of the regenerative development initiative spearheaded by the Secretary General and to provide information that can support complementary initiatives.

# Objectives, Desired Outcomes and Design

**Objectives and Desired Outcomes**

A preliminary event for a larger process, the objectives and desired outcomes of the workshop were reflexive in nature. As leading experts in their field, participants were invited to redefine the initial objectives and desired outcomes at certain junctures.

The initial objectives of the workshop were:

- Lay the groundwork for June 2017 climate change reversal lab and thereafter;
- Clarify dimensions of change: scientific, legal, financial, socio-political, ethical;
- Develop language and models to reframe the debate about mitigation and adaptation to include potential reversal through regeneration;
- Lay out a precise role for the Commonwealth as change driver;

The initial desired outcomes of the workshop were:

- Develop a roadmap to the June 2017 climate change reversal lab and onwards, including roles, resources, and milestones;
- Draft value statements for key stakeholders;
- Identify linkages and synergies between various technological, economic and environmental models;
- Agree on funding commitments to take this process to the June 2017 climate change reversal lab and beyond;
- Identify potential technical partnerships;

**Design**

**Day one**

Mod 0: Arrival – Making the Difference
Mod 1: Introduction
Mod 2: Welcome to the Base Camps
Mod 3: Learn and Simplify
Mod 4: Constellations of Solutions
Mod 5: Fail Fair: Barriers to Change
Mod 6: Regenerating the System
Mod 7a: Preparing the First draft

**Day two**

Mod 7b: First Draft – Reporting Out
Mod 8a: Moving Forward: Synthesis Conversation and Redefining Objective and Desired Outcomes

# Objectives, Desired Outcomes and Design

Spread over two days, the workshop was organized around a set of design principles intended to generate forward momentum regarding the development of practicable solutions for a Commonwealth platform. In an almost Brownian motion, the process prioritized the formation of interchangeable participant groups over frequent plenaries. For each module, participants were broken into small, semi-random groups to collaboratively explore ideas before cycling into new groups. At various intervals, participants would return to a fixed "base camp" group where all members were encouraged to share the synthesised conclusions of their previous group activities. This process promoted knowledge transfer in a natural, flexible and, above all, engaging manner. With participants coming from often disparate fields, the process helped facilitate the intersection of perspectives from traditionally uncommunicative silos.

Additionally, the modules were designed to provoke creative, hypothetical thinking and problem solving. For example, introducing a light element of role play, each base camp was asked to approach the problems, ideas and issues raised throughout the event from the perspective of various key stakeholders. The approach also invited participants to take a novel and fresh look at longstanding issues.

Over the course of the workshop, particular emphasis was placed on the issue of language and terminology. To date, the discourse surrounding responses to climate change has been largely negative. Focusing primarily on the scale of the problem and the severity of its consequences, the language employed in the debate has often been alienating, effectively producing a general sense of apathy and disempowerment. In a reversal of this trend, the workshop emphasized a reframing of the debate from problems to potential, and the solutions that flow from potential. In doing so, the aim was to inspire a real call to action.

**Design Principles**

- Breaking down silos of knowledge
- Engaging problem solving
- Creative problem solving
- Reframing the discourse positively, simplifying the language
- Everyone is an expert

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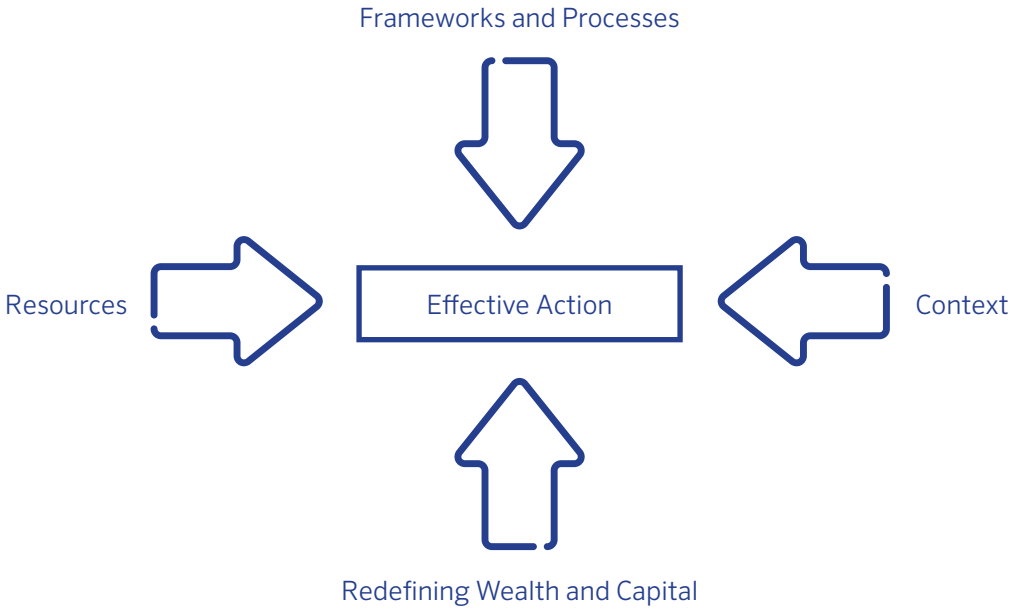
# Workshop Results

The essential goal of the workshop was to launch a process. By pooling talent and looking ahead, the aim was to start bringing together viable strategies that could be implemented by the Commonwealth as a driver of change and an implementer of effective climate action. Workshop results were distilled into a “first draft”, in turn acting as the basis for redefined objectives and desired outcomes moving forward with the process.

**Implementing Effective Action**

The primary result of the workshop was the consensus that there are proven techniques readily available to effectively address climate change and regenerate the capacity and capabilities of communities and ecosystems. Drawing on substantial bodies of evidence, recalling numerous success stories and outlining countless potential interventions, the participants agreed that the means to effect real change through regenerative development already exist. The real challenge of the workshop, therefore, was to identify ways to put these means into practice and mobilize action.

**Mock-up diagram**



# Workshop Results

To be effective, regenerative development requires the integration of several interdependent factors. From a social perspective, it is necessary to develop capabilities to use effective **frameworks and processes** to align political will and mobilize action. From technical and ecological perspectives, it is necessary to disseminate and evolve existing knowledge about how to reduce emissions, sequester carbon and increase biomass in a way that closes Earth's carbon cycle and increases the productive capacity of the biosphere. Finally, this increasing biological capacity needs to become the driver for economic and social development, at the local and global scale.

Effective implementation of the available knowledge, tools and solutions requires adequate multiplication and scaling. This process is underpinned by the need to appropriately adapt and apply techniques to fit a local **context.** Techniques that work well in one context may not be immediately transferable to another; Island nations, for example, have different regenerative needs and potential to landlocked nations. Techniques should respect and integrate traditional knowledge and localized processes with contemporary methods if they are to be truly successful.

A key finding from the workshop was that a shift in the definitions of **wealth and capital** is necessary to reverse climate change. The public needs greater awareness about the potential of regenerative approaches for increasing health and well-being. Further, they need to be informed about successful, real-world demonstration projects so they can be inspired by them. Business and governments need to expand valuations of costs and benefits beyond strictly financial metrics. As things stand, behaviors that increases energy consumption, extraction, production, consumption, pollution, and degradation are generally rewarded. Such activities are promoted as the basis of wealth creation, yet this is demonstrably false. Earth's natural resources and processes are the source from which all financial capital is derived. It's impossible for derivatives to be more valuable than their source. A system that places monetary value on products and services but places little value on their source is not sustainable, and it is necessary for humanity to redefine its relationship with the natural world accordingly. Education, information dissemination, and appropriate policy and economic incentive structures are critical in shifting individual behaviors and social ideals, to properly value natural wealth.

Finally, effectively reversing climate change will require **resources.** The reality is that any and all techniques must be economically viable and attractive to all stakeholders. A necessary challenge in achieving regenerative development and a healthier, more prosperous world, is securing financing and funding from both innovative and traditional channels.  Currently the focus of climate finance is on developed nations providing funds to developing nations, as outlined in the UN Framework Convention on Climate Change. In fact, climate finance can be drawn from several different local, national or transnational sources. Attracting finance means developing approaches that are not only effective at reducing atmospheric carbon, but also generate a realistic return on investment measured by the full range of current Capitals (natural, human, manufactured, social, and/or financial.)

Together, the participant experts and the Commonwealth have set themselves the task of realizing effective climate action and addressing these necessary factors. Ambitious yet feasible, the workshop laid the foundations of this task.

# Summary of Workshop Outcomes

### 1) If unabated, the effects of climate change will cause a catastrophe of unprecedented proportions. Averting this catastrophe requires more than adaptation and mitigation, it requires regeneration.

Adaptation involves taking practical measures to manage the impact of climate change, protecting and strengthening the resilience of communities at risk. Mitigation includes efforts to reduce or prevent emissions of greenhouse gases, thereby reducing the severity of the consequences of climate change. Though of course vital, these actions alone will not avert catastrophe; droughts will still occur, sea levels will rise, and people will suffer. A unanimous consensus was reached at the workshop that humanity can and must do more than simply reducing the enormity of climate change and learning to live with it.

The Paris Agreement adopted at COP21 has been described as an historic turning point. Now that we have agreed to turn, however, we must start going in a new direction. Regenerative development is this new direction. This involves not only limiting carbon emissions at their source but also sequestering them into standing forests, regenerated grasslands, improved soil and innovative production processes that lock carbon into materials. Through the adoption of regenerative approaches, climate change can be reversed through the recovery and regeneration of the biosphere. Redesigning humanity's presence on Earth to shift from extractive to regenerative is essential for realizing our species' potential for shared health and prosperity.

### 2) Regenerative solutions exist right now.

Rather than simply aiming to stem the decline of the Earth's life support systems, we have the means to actively regenerate them. Participants brought to the workshop several innovative solutions supported by strong empirical data. For example, the principle of biomimicry – design inspired by learning from biological processes and systems – has shown promise in achieving efficiency gains in human production as well as sustaining and regenerating Earth's living systems. A scalable approach, it is possible to design solar cells that mimic leaves, buildings that mimic organisms and cities that mimic forests.

Likewise, circular economy solutions operate in a similar manner. Currently there is an emphasis on a linear economy, where resources are extracted to make products that are, eventually, consigned to the waste stream. Natural systems operate with circular economy, where carbon is automatically recycled and there is no such thing as waste. By building circular economy principles into policy, design and production, human waste and emissions can be dramatically reduced.

Participant experts further detailed how novel practices in agriculture and ocean management can restore ecosystems, act as important carbon sinks, and enhance the health and fertility of landscapes and oceans.

Epitomizing the confidence in available solutions was the presentation of Project Drawdown, a list of 100 practical technological, ecological, and social solutions. From educating girls, to commercial LED lighting, from household water saving measures to landfill methane capture, from carbon sequestration in soils and plants to oceanic freight improvements, the team at Project Drawdown have identified solutions to improve lives, create jobs, restore the environment, enhance security, generate resilience, and advance human health.

# Summary of Workshop Outcomes

**3) Paradigm shifting is not easy, it requires an understanding of human change and appropriate vision and leadership. The Commonwealth is ready and willing to provide these.**

Though the solutions exist right now, there remain challenges to implementing them effectively [see implementing effective action]. The Commonwealth is well positioned to overcome these obstacles and become the catalyst for widespread and rapid regeneration. Containing 52 countries and almost a third of the world's population (over 60% of which are under 30 years old), the Commonwealth is highly representative of the world's peoples and ecosystems. Acting together, the countries and communities that make up the Commonwealth can deliver the necessary direction and scale of action to reverse climate change. The solutions and strategies elaborated in the initial workshop and upcoming events can provide effective tools for the Commonwealth.

**4) Community-led initiatives are key. They will build local capacity for communities to help themselves and ensure the realization of regenerative potential within the unique conditions of local cultures and ecosystems.**

No two places are alike and solutions must strive to be as elegantly tailored as Earth's ecosystems themselves. Overly top-down, "copy and pasted" initiatives do not lend themselves well to effective change. Effective change is embraced by a shared adoption of the principles of how natural systems function. It is also essential to build on the local knowledge of communities that have been working the land and sea for generations.  Adapting and enhancing local solutions through ingenuity will be the key to effective and sustainable climate change action.

**5) National scale capacity building should go together with community scale capacity building.**

Appropriate national frameworks are needed to create a conducive environment for climate change action at the sub-national level. Making regenerative development viable and attractive requires the support of enabling policy. Accordingly, governments will need to attain the necessary capacity to know when and how to support regenerative initiatives.

**6) Building capacity and engendering regenerative approaches will require the development of knowledge, method, and outcome measurement sharing mechanisms.**

Disseminating the knowledge, tools, technologies and solutions across the national and community scales requires a dedicated approach. Innovative and accessible mechanisms – both physical and virtual – must be developed to build the capacity of both local and global communities. The most effective way to ensure knowledge and method transfer is though "learning by doing" approaches. To this end, an exponentially growing network of Commonwealth trainers, or "knowledge multipliers", can help train other trainers around the world. Importantly, tangible results from such initiatives will only serve to inspire further action.

# Summary of Workshop Outcomes

### 7) Regenerative development builds on and complements current efforts to fight climate change.

Current efforts to adapt to climate change and mitigate its consequences are important. Hard won successes such as the Sustainable Development Goals (SDGs) and the Paris Agreement are entirely complementary with regenerative development. A multitude of synergies exist at both the local and regional scales between regeneration and the SDGs. Working to integrate regenerative approaches into existing climate change initiatives is the most effective path forward.

### 8) A core advisory team will be needed to support and coordinate Commonwealth efforts.

Community-led initiatives and the mechanisms required to build local, national and regional capacity will benefit from an advisory body able to provide expert and timely support. Building a dedicated core team within the body of the Commonwealth organization itself will galvanize momentum towards climate change reversal.

### 9) Sourcing operational funds for regenerative development is a priority.

Even the most effective solutions in principle will, in practice, fail to materialize without adequate funding. Financing is necessary to coordinate, support and implement the necessary measures to reverse climate change. From the project side, all initiatives must be designed to attract investment and achieve productive returns. At the same time, funding mechanisms and a clear case for investment need to be developed to enable investors to direct their funds to this necessary work.

# Workshop Flow

***Friday 28 October (Day 1)***

## Module 0: Making a Difference

Kicking off the event at a high tempo, participants were asked to imagine that it was October 2020 and that not only is the idea of climate change reversal being taken seriously by world leaders, but initial signs of genuine, durable and systemic change have also begun to emerge. From this imagined vantage point, participants were invited to write down on a post-it note what, exactly, had happened in 2016 that made the difference. Participants stood and introduced themselves, presenting what they had written to the entire group. After every participant, had spoken, the group collectively organised the factors which had made the difference thematically.

## Module 1: Introduction

Baroness Patricia Scotland, Secretary General of the Commonwealth, formally opened the event. She welcomed participants and outlined the vision, objectives and desired outcomes of a Commonwealth led effort of regenerative development. The Secretary General underlined the urgency of the situation, and presented the strengths of the Commonwealth as a catalyst for action.

David McConville, Board Chair of the Buckminster Fuller Institute, followed the Baroness and introduced the idea of regenerative development. David described how humanity has, according to some scientists, entered into the geological era of the Anthropocene – a period of time where modern humans have radically influenced Earth's ecosystems. Nonetheless, the Earth is a total living system – a regenerative system – and one that we belong to. By integrating regenerative principles into the design of civilization, humanity can more effectively harmonize with the living systems that sustain it.

*"We are not separate from nature, we are nature".* David McConvile


# Workshop Flow

## Module 2: Welcome to the Base Camps

Following the introduction, participants were divided into “base camp” groups. The only fixed groups of the workshop flow, base camps were established with the aim to consider the problems, ideas and issues that would be raised during the workshop from the perspective of key stakeholders. With the majority of the modules taking place in semi-random or random groups, participants would later return to their base camps to take the learnings of each module and apply it in a manner that would leverage their key stakeholders into action.

**Base Camp Stakeholder Groups**

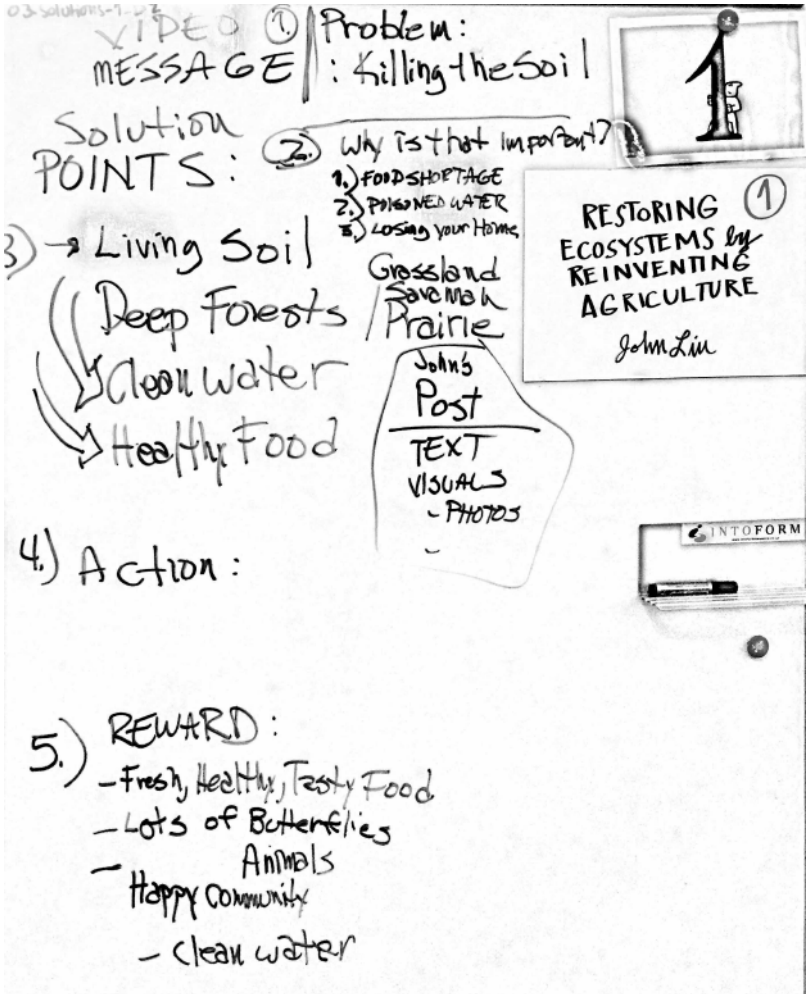
- Developing Country Government
- Developed Country Government
- Business Community
- Citizens
- Civil Society
- Local Communities
- Opinion Leader

# Workshop Flow

## Module 3: Learn and Simplify

Continuing with the theme of turning viable solutions into tangible action, this module invited specific participants to present their first-hand experiences in small breakout groups. Group members were encouraged to simplify the tools, methods and principles of each solution area, focusing specifically on the use of language. Operating under the assumption that the accessibility of solutions will ease widespread adoption of regenerative approaches, the key deliverable of this module was the production of short videos "that even a child would understand". Summary of Solution Areas

- **Restoring Ecosystems by Reinventing Agriculture (John Dennis Liu)**
    - At the invitation of the Chinese government and the World Bank, John Liu was asked to help document the rehabilitation of the Loess Plateau, an area of seriously degraded land the size of Belgium. Poor farming and land practices had severely diminished its health, fertility and productive capacity. By implementing practices that maintained an equilibrium of biomass, biodiversity and accumulated organic matter rather than practices than simply focusing on extraction, fertility has returned to the region.
    - The work of Liu demonstrates that areas that have previously been designated as unrecoverable can, in fact, be regenerated. Human practices do not inevitably have to degrade ecosystems. Degradation comes from a lack of understanding about natural systems. Cultivating awareness and knowledge creates scenarios for increasing the regenerative capacity of living systems.



# Workshop Flow

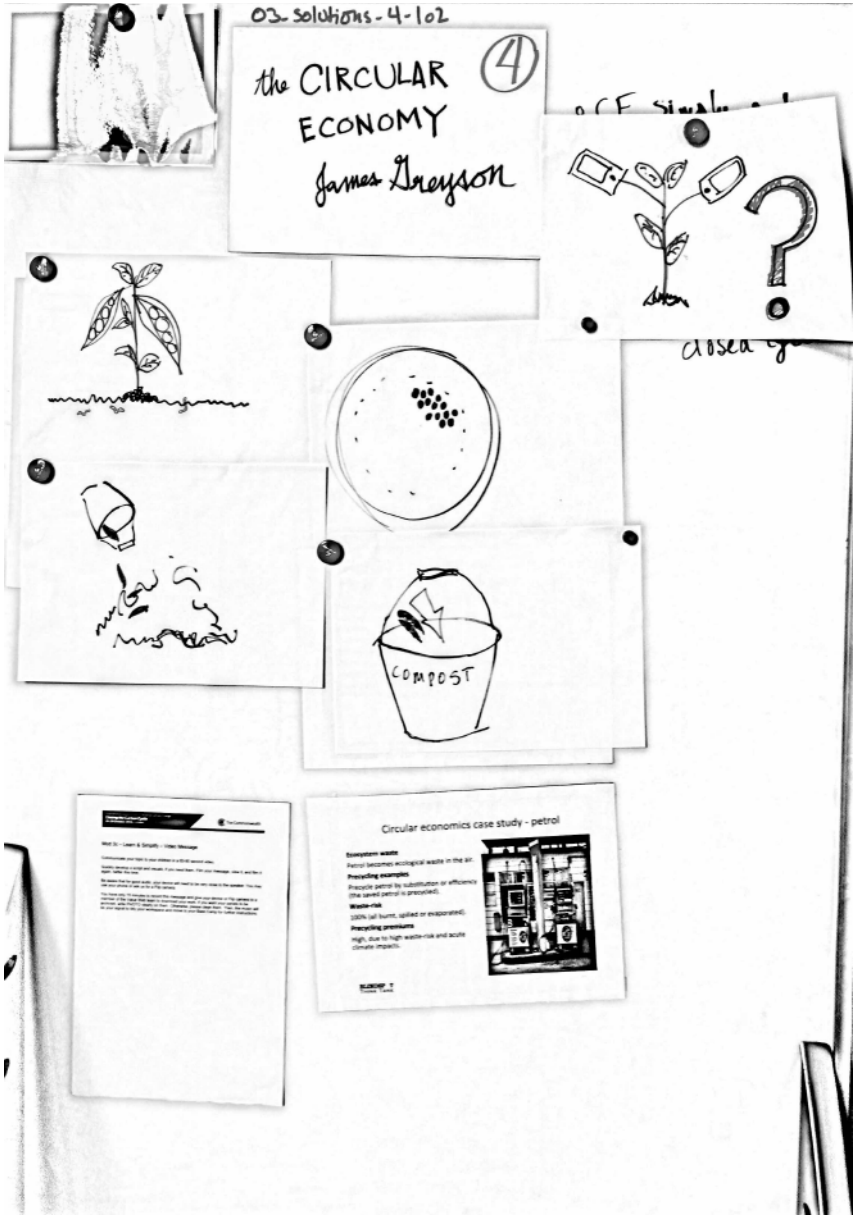
- **Regenerative Design & Development: Working with Wholes (Bill Reed)**
  - Taking a step back, Bill Reed led discussions on both the philosophy and the methodology of regenerative development. Developing a conscious awareness about the mutual dependence of human health and the health of natural systems, human structures and productive processes can actively regenerate the health of the places they inhabit. In turn, healthier ecosystems can raise the health and prosperity of human communities.
  - Though focusing on addressing whole systems, there are practical implications for design that can be scaled down to a more granular level.
  - The benefits of this process include higher efficiency, lower costs, reduced waste, faster time to market, and the realization of exponential value to the social, ecological, financial and human qualities of a project, the community, and its ecosystem.

- **Bio Inspired Solutions & Systemic Biomimicry (Janine Benyus)**
  - Janine Benyus is recognized as popularizing the field of biomimicry – design inspired by examining and learning from natural systems, processes and structures.
  - Billions of years of natural evolution have proved to be the ultimate in research and design. By mimicking this, humans can utilize more efficient, more sustainable and, ultimately, more productive designs.

# Workshop Flow

- **The Circular Economy (James Greyson)**
    - In biological systems, carbon is naturally recycled and there is no such thing as waste.
    - Human waste and emissions can be dramatically reduced. We can build circular economy principles into policy, design and production.
        - Examples: Using waste glass as an input for concrete; making companies internalise the cost of waste (discouraging planned obsolescence); promoting “doggy bags” at restaurants.
        - Ethos: reduce, recycle, repurpose

- **Education, Implementation and Capacity Building at Community Scale (May East)**
    - Conscious and informed citizens are necessary to effectively address climate change. The first step is understanding humanity’s relationship with natural systems, and the severity of the consequences of ecological degradation and climate change.
    - Informed publics and conscious stakeholders, however, will need to know what actions are available to them and will need educating on how to implement change.
    - The means of education must be engaging and empowering. Incorporating storytelling with powerful visual and verbal elements, active learning methods can galvanise entire communities while simultaneously building their capacity for action.



# Workshop Flow

- **Climate Finance: Investing in Regeneration (Jane Wilkinson)**
  - Currently the focus on climate finance is on developed nations to provide funds to developing nations, as outlined in the UN Framework Convention on Climate Change.
  - However, in fact, climate finance can be drawn from a number of different local, national or transnational sources.
  - Attracting finance means developing solutions that are not only effective, but also promise some return on investment, in forms of capital, sustainability or productivity.

- **Sustainable Watersheds Management – Oceans (Thomas J. F. Goreau)**
  - Countless tried, tested and simple techniques exist to regenerate watersheds and oceans.
  - Techniques such as reef restoration and salt grass cultivation can prevent degradation and erosion on watersheds, re-establish biodiversity at land and sea, and capture carbon emissions.

- **Project Drawdown: Closing the Carbon Cycle (Katherine Wilkinson)**
  - Backed by empirical data, Project Drawdown is an initiative that has identified 100 diverse technological, social, and ecological solutions that can be made right now to close the carbon cycle.
  - Educating girls, renewable energy sources, recycling waste, growing forests and shifting food sources are just a few practical solutions that can regenerate the Earth.

- **Open Source, P2P and the Collaborative Economy (Isabelle Dellanoy)**
  - Reversing climate change will need vast numbers of people who do not necessarily know each other to collaborate. It requires solutions properly adapted to diverse places.
  - Open source and P2P is an approach by which information, lessons and solutions can be freely exchanged.
  - Online platforms can detail areas of potential for regenerative development. Transparent and verbose, they will allow collaborators from around the world to pick up the most practical and effective solutions for their own contexts.

# Workshop Flow

## Module 4: Constellations of Solutions

For this module, groups were formed in such a way as to contain at least one participant from each of the solution areas of the previous module. The aim was to synthesise the models, tools and knowledge from module 3 into thematic, “constellations” of solutions. Participants were encouraged to search for overarching patterns and common language that could form linkages.

- Educational Solutions
- Whole Systems Solutions
- Ecosystem Restoration Solutions
- Finance Solutions
- Place-based Solutions
- Communication Solutions
- Solutions via the Commonwealth


# Workshop Flow

## Module 5: Fail Fair: Barriers to Change

With modules thus far framed positively around identifying the potential of regenerative development, module 5 provided space for participants to reflect on the ways in which current practices, approaches and strategies of climate action may have failed to realise this potential. Packing away notebooks, participants split into several groups and were invited to candidly share their personal experiences of failure and their own interactions with barriers to change.

## Module 6: Regenerating the System

Returning to the realm of potential, module 6 once again broke teams into new groups to discuss how different sources of capital can be leveraged by the Commonwealth to implement effective regenerative development. Employing the Five Capitals Model (see box), participants chose to focus on either natural, human, social, manufactured or financial capital.

Participants working on natural capital underlined the fact that natural capital is the source from which all other capital flows. Despite this fact, natural capital is only valued to the extent that there is demand for its derivatives; it's essential function is undervalued by traditional economic thinking. The group postulated the establishment of a "biologically based" economy which would place a financial cost on negative externalities that threatened to undermine natural capital. Potential actions of the Commonwealth included member states moving to evaluate carbon in all its forms; taking a strong advocacy position; encouraging "bio-principled" innovation.

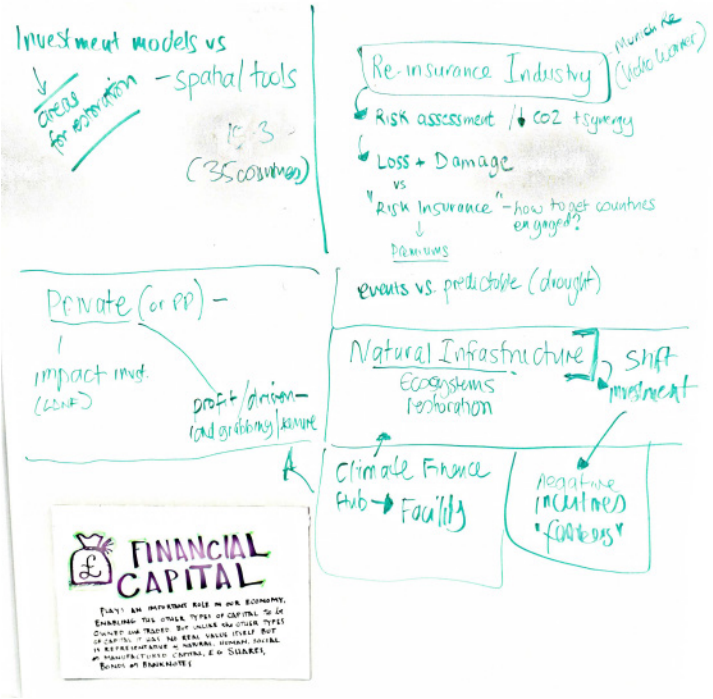
Those focusing on human capital looked at ways to internalize the concept of regeneration and climate consciousness into the public, particularly young people, and encourage adopters of regenerative initiatives. Inspiring climate action leadership was also identified as a priority by this group. This leverage can be best realized by developing networks through which tools and practices can be shared.

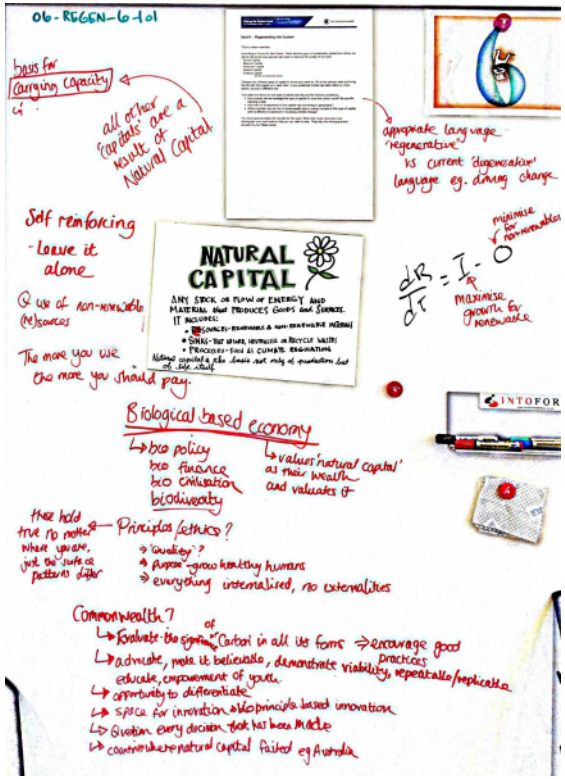
Similarly, discussions on social capital revolved around mobilizing action through collaborative relationships. The utilization of networks would facilitate the mapping of needs, the uncovering of potential and the building of capacity. As it is ultimately human collaborative action which will implement solutions and behavioral change, social capital is the vehicle through which other capitals are leveraged.

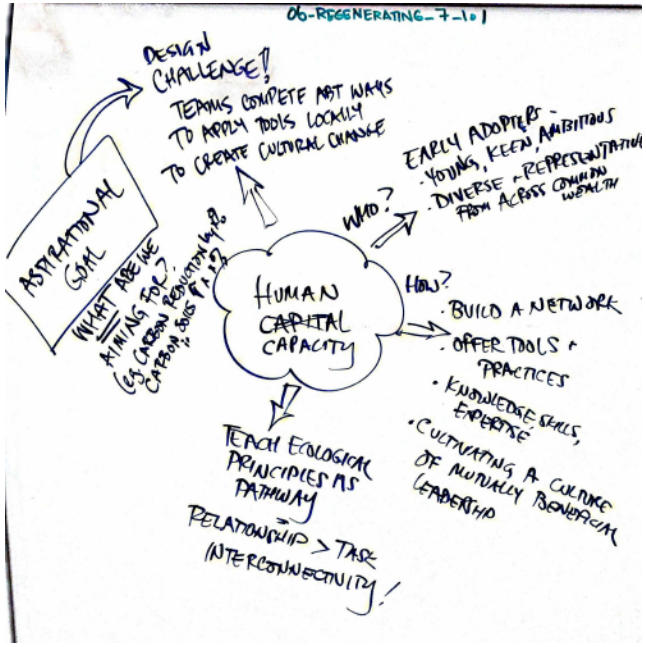
Participants analyzing the role of manufactured capital focused on the current, unsustainable bias towards placing manufactured capital on a pedestal. By conceptualizing manufactured goods as an endpoint, solely from a consumerist perspective, the regenerative potential of human activity will always be limited. Incorporating ideas from the likes of circular economy and biomimetic thinking, regenerative practices can be integrated into the production of manufactured capital

Finally, financial capital was considered from several innovative angles. Participants discussed how private and private-public partnership models could be leveraged to raise and redirect capital towards regenerative solutions. A climate finance hub, for example, could provide seed money for pilot projects which promised not only regeneration, but also monetary returns on investment.

# Workshop Flow



# Workshop Flow

**Five Capitals Model**

The Five Capitals Model provides a basis for understanding sustainability in terms of the economic concept of wealth creation or 'capital'. Sustainability in any operation, at any level, requires the maintenance, and where possible, the enhancement of these stocks of capital assets, rather than their depletion or degradation. The model allows a more comprehensive and systemic understanding of the dynamics operating within an economy.

- **Natural Capital**
  - Natural resources and processes required for production.
  - Includes:
    - Sinks that absorb, neutralize or recycle wastes (e.g. forests, oceans);
    - Resources, both renewable and non-renewable;
    - And processes, such as climate regulation and the carbon cycle

- **Human Capital**
  - The accumulated productive capacity of people, formed by the health, knowledge, skills, intellectual outputs and motivation of individuals.

- **Social Capital**
  - The value of human relationships, partnerships and co-operation
  - Includes such things as networks, communication channels, families, communities, trade unions, schools and voluntary organizations

- **Manufactured Capital**
  - Owned, leased or controlled material goods and infrastructure that contribute to production or service provision, but are not part of output.
  - Includes buildings, infrastructure and technologies

- **Financial Capital**
  - Assets that exist in a form of currency that can be owned or traded, including (but not limited to) shares, bonds and banknotes.

# Workshop Flow

## Module 7a: Preparing the First Draft

Synthesizing the activities of the first day, the participants worked on drafting concrete next steps for the June 2017, Climate Change Lab, COP22 and beyond. The draft was divided into 8 thematic sections, with a separate team for each.

1. Constellation of Solutions
2. Linking to SDGs
3. The Education Agenda
4. Objectives & Outcomes for June 2017 Climate Change Lab
5. Designing a Platform for Global Change
6. Draft COP 22 Communiqué
7. Regional Implications
8. Stakeholder Engagement

# Workshop Flow

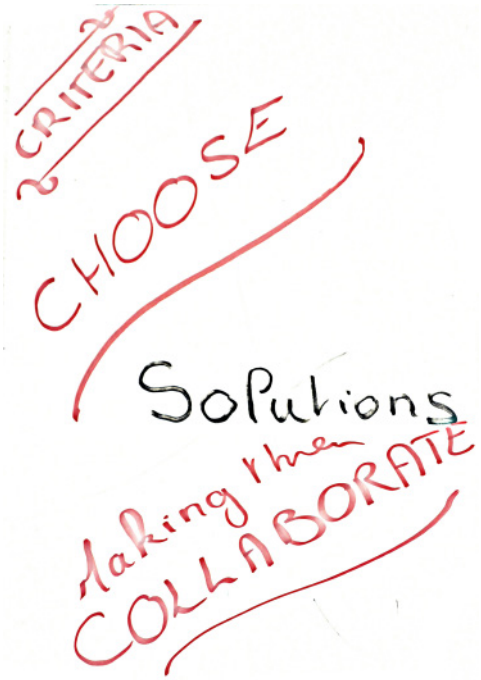
***Saturday 29 October (Day 2)***

## Mod 7b: First Draft – Reporting Out

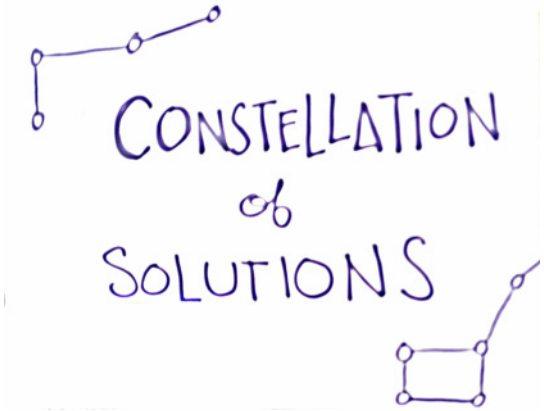
Continuing from the end of day 1, teams presented their syntheses to the wider group.

## Constellation of Solutions

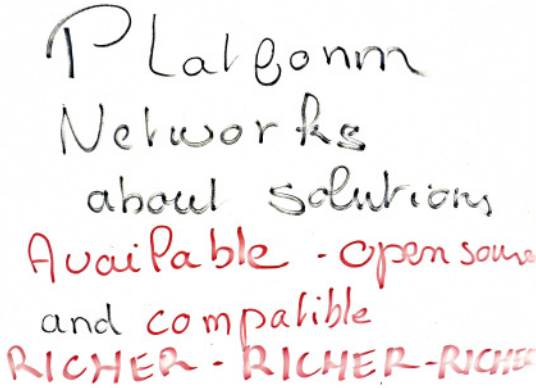
Those working on a constellation of solutions were looking to identify an overarching framework linking together the solution areas and strategies already discussed. Exploring the range and diversity of available solutions, the team identified different types of solutions; those that identify problem and action areas, those that implement positive technical, behavioral, or policy change, and those that motivate people to act. Fundamentally the team highlighted the need to ground solutions in local knowledge. Solutions, it was recognized, had to be disseminated via an effective platform, one that raised awareness and facilitated collaboration.











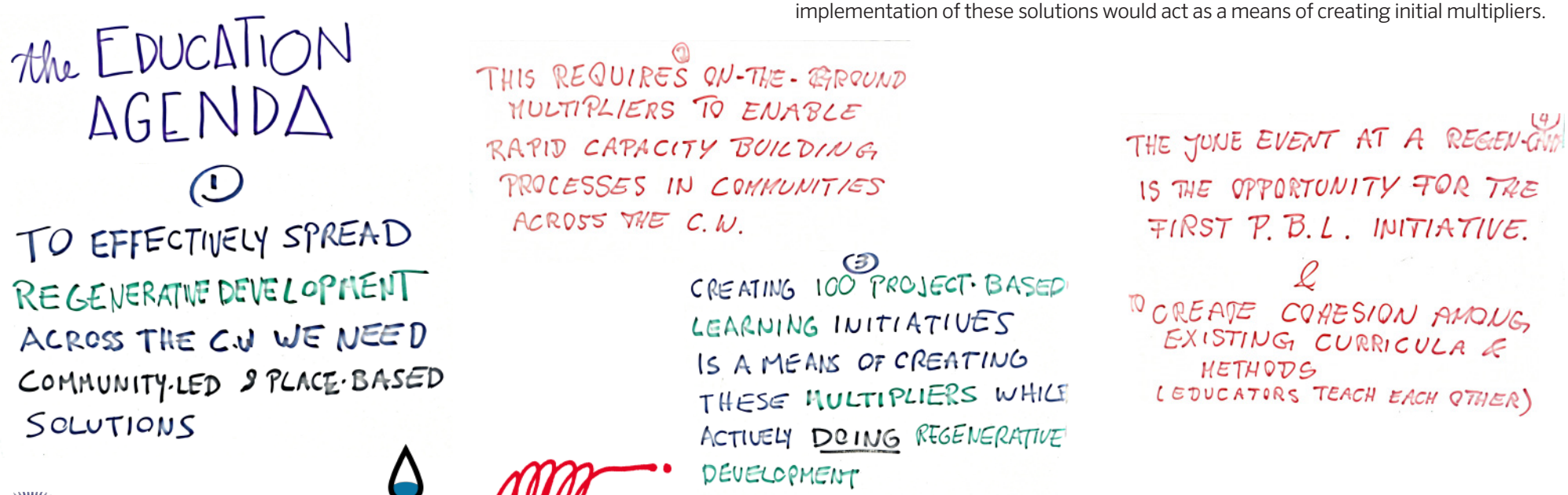
# Workshop Flow

## Linking to SDGs

The Sustainable Development Goals (SGDs) are a pre-existing framework for positive global change. Among these goals are those that focus on addressing climate change. The group worked to find ways in which the Commonwealth's regenerative development plan could dovetail with current efforts of the international community. The team emphasized the fundamental convergence of SDGs and regenerative development on healthier, happier and more prosperous nations and communities. Both the SDGs and regenerative development recognize the importance of human capital, the need to provide education (both in general and on climate change), the positive effects of gender equality and the imperative to provide jobs. The team underlined the central role that innovation and collaboration would have to necessarily play in realizing both SDGs and regenerative development.

## The Education Agenda

Informing stakeholders, not least the public, about the reality and potential of regenerative development is as much about method as it is about content. Noting that the necessary information was already available, the team focused on methods for translating this information into action. A top-down education agenda that fails to engage people would be ineffectual, instead what is required is a community-led and place-based agenda. The key objective for the new agenda would be to empower "multipliers" by providing individuals embedded in their local contexts with the mandate and means to rapidly build capacity for implementing effective action. Emphasizing a "learning through practice" approach, multipliers would pass on the means to educate to others in an exponential manner. The operative example provided by the group revolved around implementing the available solutions in Project Drawdown. Incorporating an educational agenda into the implementation of these solutions would act as a means of creating initial multipliers.

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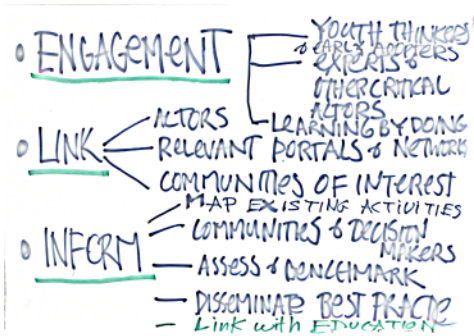
# Workshop Flow

## Objective and Outcomes for the June 2017 Climate Change Lab

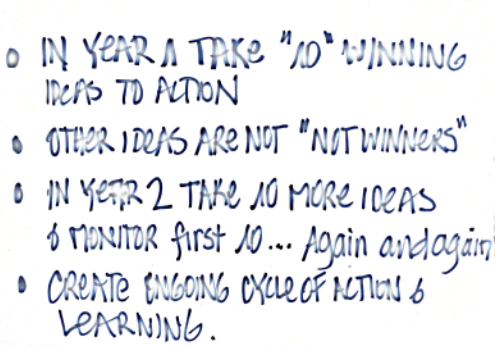
Participants drafted three objectives for the Climate Change Lab. First, it should serve to create a pathway for navigating a paradigm change, expanding current adaptation and mitigation strategies to explicitly integrate regenerative approaches. Second, the lab must evoke leadership on regeneration. Third, the group outlined the importance of the Commonwealth acting as both a catalyst and an exemplar.

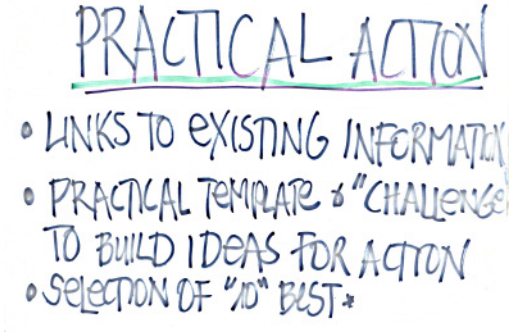
It was agreed that the Climate Change Lab should prioritize concrete outcomes. Strategies and appropriate metrics will be devised to promote the health and wealth of humanity as well as the natural systems upon which it depends. Projects should be settled on and accompanied with an engaging story, fitting into the programs of each Commonwealth nation


## Designing a Platform for Global Change

Plans were drawn up for the establishment of a “Commonwealth Online Incubator for Regeneration & Restoration”. The online platform is to focus on the practical and immediate implementation of regenerative projects, while simultaneously acting as an awareness raising medium and repository of information. The incubator will invite applications for projects, selecting and supporting the most promising on a yearly basis. Each year, new projects will be brought to fruition while the previous are monitored and evaluated, creating a continuous cycle of action and learning. Furnished with relevant information, the platform will map and detail the results of incubated projects, disseminating demonstrably effective approaches among communities and decision-makers.

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# Workshop Flow

## Draft COP22 Communiqué

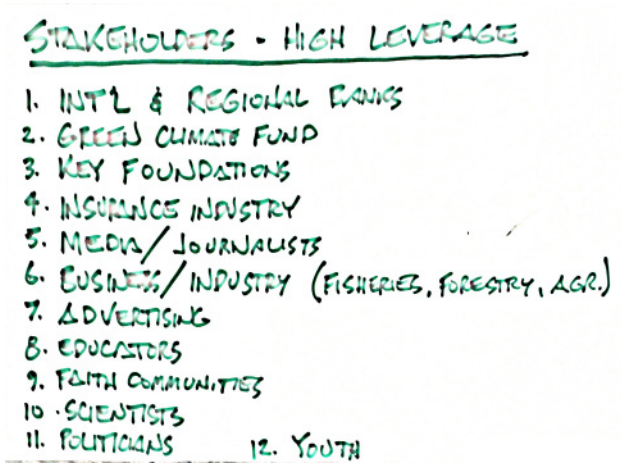
Drawing on the most salient issues and solutions emerging from the workshop, a principled communiqué to be presented at COP22 was drafted to represent the Commonwealth. The foundation of the communiqué was the imperative to include regeneration into modalities of climate change action that have thus far been focused on adaptation and mitigation. The communiqué highlighted how regeneration will be the means to build upon and achieve the goals of the Paris Agreement. Climate change must be reversed and, with human ingenuity and collaboration, it can be reversed. In doing so, regenerative development promises a range of ecological, economic and social benefits. Not only will there be healthier land and seas and greater biodiversity, regenerative development promotes job creation, food security, and the empowerment of women and girls. The Commonwealth, with its diversity and representativeness of Earth's peoples, landmasses and ecosystems, is uniquely placed to be a regenerative driving force.

## Regional Implications

Narrowing the scope of action from the global to the regional and local, participants developed a point-of-view on regional specificity, on alliance-building, and on local engagement.  In this group, the vital role of contextual appropriateness and local knowledge was highlighted. Bottom-up engagement is necessary for the sustainability of any project and the adoption of any regenerative principles on the ground. Regenerative development must reflect the range of regional ecosystems and existing bodies of knowledge. Importantly, a regional and local lens is essential for scaling and transferring solutions; project archetypes must be flexible enough to incorporate the realities of regional contexts.

## Stakeholder Engagement

Building upon the work of the base camp activities, an integrated approach to stakeholder engagement was discussed, focusing on aligning messages and strategies while respecting the varying needs of individual stakeholders where appropriate. The group advised the immediate commencement of stakeholder engagement, emphasizing the need for compelling storytelling to bring stakeholders on board with regenerative development and climate change action. Applying a positive frame accentuating the potential benefits of action over the disaster of inaction, the group recommended developing a framework of implementation that specifically assigned responsibilities for each stakeholder group, outlining the implementable strategies available to them right now. The group suggested prioritizing stakeholders with the ability to leverage the greatest action. Specifically, investors with considerable resources and the ability to mobilize large and powerful constituencies should be encouraged to comprehend the potential benefits stemming from systemic change.

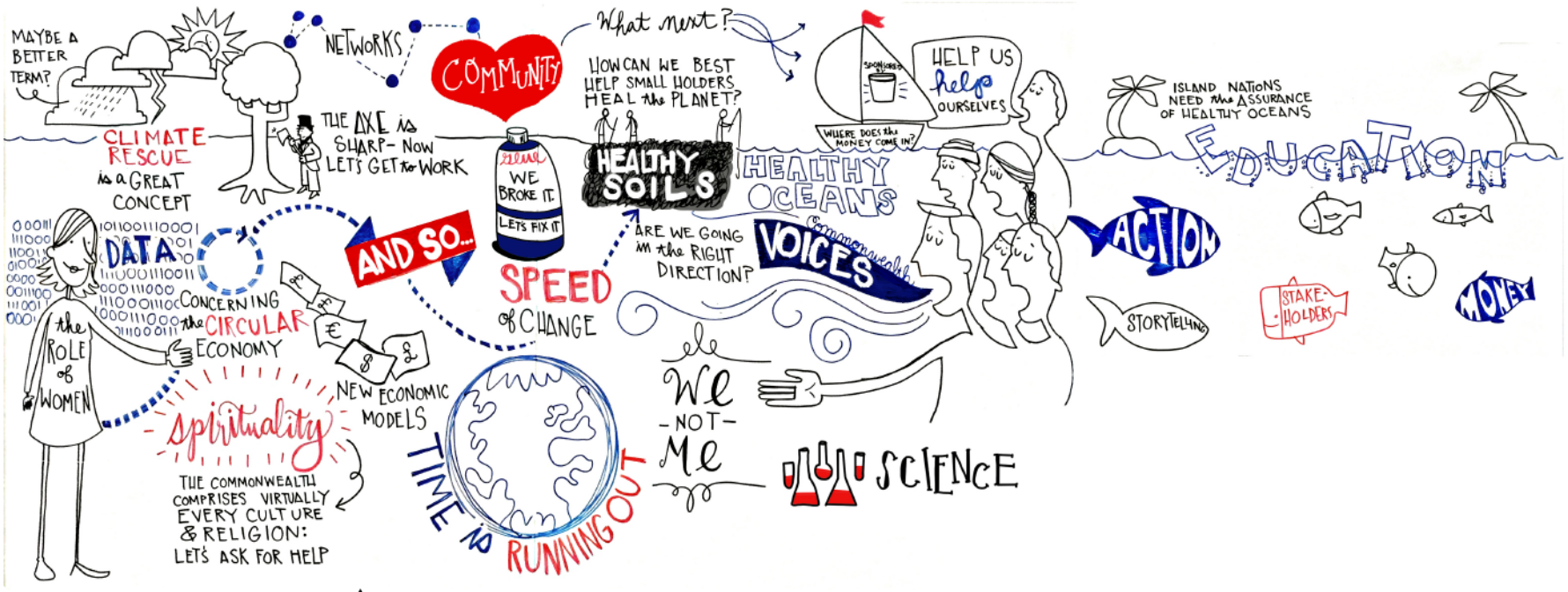


# Workshop Flow

## Mod 8: Moving Forward: Redefining Objectives and Desired Outcomes

As per the reflexive design, participants were invited to formulate redefined sets of objectives and outcomes to help shape the process moving forward.

Group 1 { • Speed and Scale - Systemic Changes
Group 2 { • Goals
Group 3 { • Metrics
Group 4 { • Timeline
Group 5 { • Principles and Manifesto
Group 6 { • Storytelling and Language



# Workshop Flow

## Speed and Scale – Systemic Changes

Regenerative development is the best approach to bring about change in a rapid and scalable manner. Yet, embedded in current modes of economic thinking and associated policy design, the current incentive structure for tackling climate change is not scalable and will not induce change rapidly enough to avert catastrophe. As things stand, effective solutions are limited to niche initiatives with limited market uptake. Therefore, regenerative development must be announced as the basis for a paradigm shift and systemic change. The Commonwealth can facilitate the spread of knowledge both within and beyond its borders and actively promoting the implementation of solutions (such as Project Drawdown).

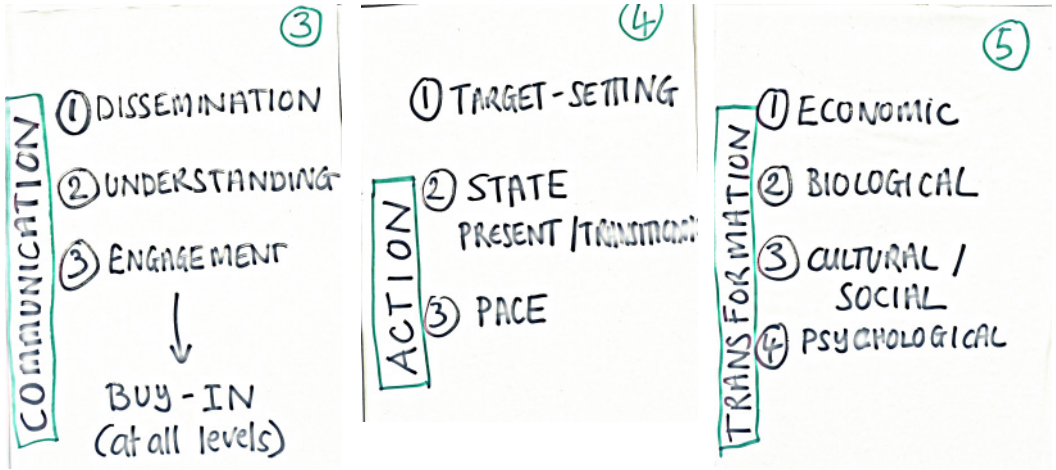
In doing so, these actions can cumulatively amount to a change at the systemic level systemic in a potentially short period.

## Goals

Goals were considered in close relation to metrics. There was a combined focus on reducing CO2 and other greenhouse gases and restoring Earth's natural resources and ecosystems. Further, a necessary goal is the creation and communication of a new sense of collective and individual responsibility. By taking a clear stance on these goals, the Commonwealth can establish itself as a leader in regeneration and reversing climate change. Using the principles of regenerative development, these goals can engender positive transformation, completely compatible with the creation of economic opportunities.

## Metrics

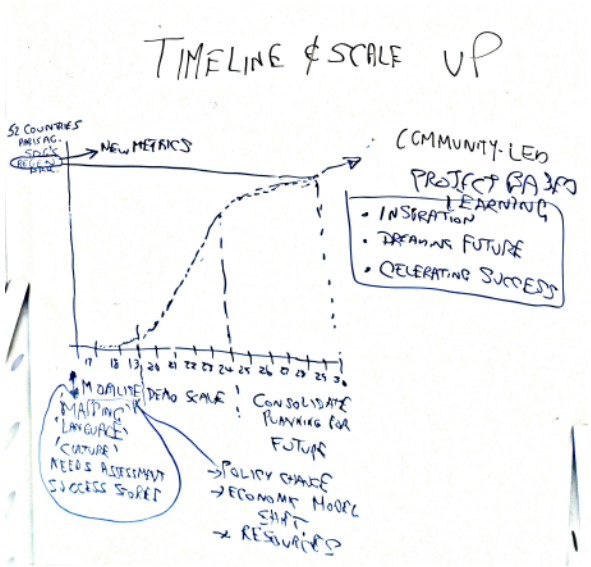
As a process to validate progress towards goals, three forms of metric were suggested to reflect three forms of goals. First, metrics of action should be developed. These should encompass target-setting (e.g. the reduction of greenhouse gases and increased carbon sinks and sequestration). Action metrics should be designed with an incentive for pace. Transformation metrics will also be needed to measure economic, biological, cultural, social and psychological changes. Examples of transformation metrics would be the job creation and levels of employment related to regenerative projects, or the total area of land and coral reef regenerated. Finally, there are communication metrics. These would be necessary to determine the buy-in of regenerative development, and focus on measuring dissemination, understanding and engagement. It is understood that metrics should not be considered perfect from the start and should be developed in the knowledge that they should be flexible and reflexive, with the potential to be adapted as time passes and circumstances change.



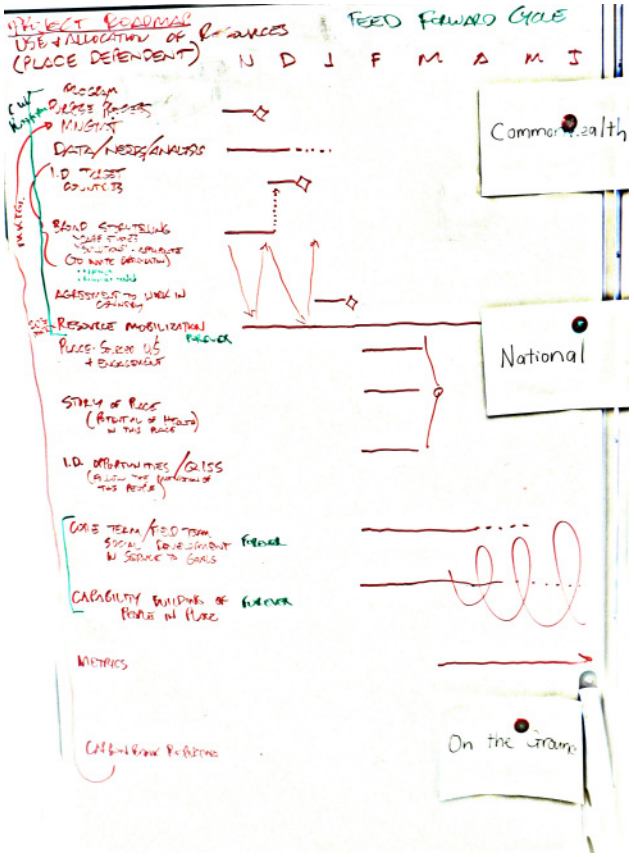
# Workshop Flow

## Timeline

A timeline was devised to obtain a critical mass of countries adopting measures to meet climate action targets by 2024. Taking all that was discussed in the workshop, the Commonwealth should mobilize its resources to make an immediate and concerted effort to identify, support, and cultivate regenerative development pilot projects. This mobilization phase will require policy change accompanied by a coherent and compelling story to induce a shift in economic models. After this initial effort, the demonstration of success stories from these projects will act as a signal to others to adopt regenerative practices, creating an increasing multiplier effect. With critical mass achieved in the demonstration phase, efforts should be made to consolidate progress and look towards even more ambitious measures.



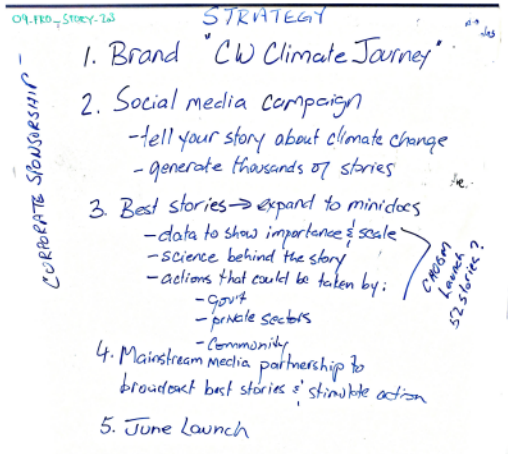

This timeline can be unpacked into levels of increased granularity, detailing a precise roadmap for the Commonwealth as an organization and for its members individually. The necessary activities to effect change can be broken down into individual responsibilities and arranged into month-by-month checkpoints.



# Workshop Flow

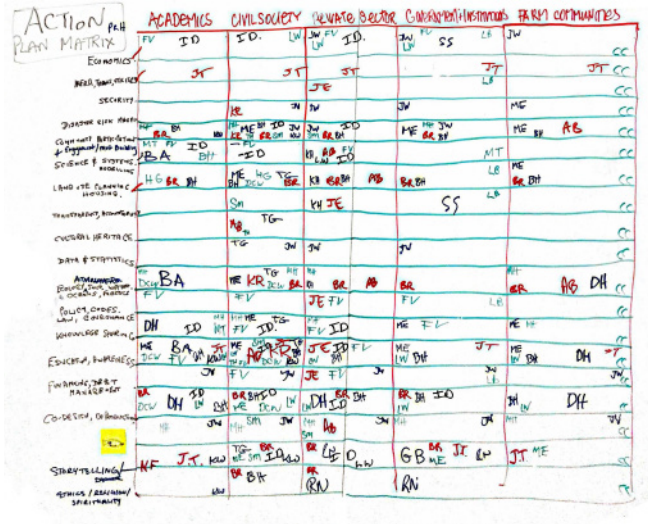
## Storytelling and Language

Storytelling and the use of language was, at all points of the workshop, pinpointed as a key element of raising awareness and mobilizing action at all levels. It was envisaged practically as a dedicated media strategy. The “Commonwealth Climate Journey” is a way of communicating how humanity can take the tools it already possesses to fight climate change and put them into effective action. With the June 2017 Climate Change Reversal Lab as a focal point, initial steps can be taken to launch a social media campaign inviting the public to submit stories about how climate change affects them. The most compelling stories will subsequently be developed into a series of mini-documentaries, demonstrating the importance and scale of climate change. In the documentaries, viable solutions will be explored, in turn being related to the immediate actions that different stakeholders can take – be they governments, businesses or local communities. To ensure maximum possible coverage, partnerships will be forged with mainstream media outlets to broadcast the best documentaries across the Commonwealth. In sum, the Commonwealth Climate Journey aims to create a sense of solidarity with the planet and to inspire responsibility and initiative.




**Action Plan Matrix for Individuals**

The gathered experts plotted their expertise on an action plan matrix in order for their capabilities to be employed and distributed effectively on the road to COP22, the climate change lab, and beyond.



# Regenerative Development to Reverse Climate Change Collaborative Manifesto

Edited version 01/02/17

Life is inherently creative. When humans create conditions that engender life, life itself responds exponentially.

We believe that we are able to fundamentally redesign the collective human impact on Earth, from being predominantly degenerative to being by and large regenerative. In doing so, we would not only be able to reverse climate change, but also achieve all the Sustainable Development Goals by 2030.

By learning from, emulating, and collaborating with other living systems, we pledge to bring excess atmospheric carbon back home, where it can become a nutrient for living soils, terrestrial and marine ecosystems, and our redesigned artefacts and shelters. This is the first step in a multi-dimensional whole-systems restoration for all species and habitats. It will bring new cycles of ecological, social, and economic wealth.

## We believe

We believe that the dynamic of climate change can, and must, be reversed, and that humanity has the potential to do this, by using our intelligence as part of life's genius. As living beings we can collaborate with living systems, ensuring mutually positive growth for humanity and flourishing natural ecosystems. Through this symbiosis we can co-create an ongoing equilibrium for life on Earth.

We believe that climate change and other global crises present an unparalleled multi-faceted challenge and opportunity to the creativity of our diverse nations. For diversity is our wealth, if we can offer it as a gift in our relationships.

We believe that the creation of wealth - true wealth that is shared by all – the wealth of healthy oceans and forests, grasslands and cities, biodiversity and vibrant cultures – is the proper work of our institutions and economies.

We believe that the Commonwealth holds the diversity, shared culture, and sufficiently agile political will to start releasing this potential as an exemplar for the world.

- We are 1/3 of humanity
- We are 52 nations, large and small
- Our ecosystems speak for the diversity of our planet's climates
- We are 31 of the 39 most vulnerable states in the face of climate change
- We unite all of the world's major faith groups
- We have shared history, culture, language, and law

Diversity is our common wealth.

## We pledge

We pledge to take bold first steps, knowing that some experiments may fail, but that we need to act now, and learn.

We pledge to seed a practical, full-spectrum programme of storing carbon in the soil and biomass, and restoring terrestrial and aquatic ecosystems. We will proliferate our actions by sowing seeds that acknowledge and respect a sense of place.

The Commonwealth cloudburst the value web

# Regenerative Development to Reverse Climate Change Collaborative Manifesto

Edited version 01/02/17

We pledge to listen to the voices of the vulnerable, and to provide a space where each human being has her role to play, her talent to express for the wealth of the community. We will work in ways which are open, and inclusive, so that we can learn from and build upon the work of others, and in turn share our knowledge and experience.

We pledge to seek to observe and understand nature as a rich source of regenerative insights and wisdom, and model these in our human-scale systems. We will use resources intelligently, and turn waste into components and nutrients. We will encourage and support diversity, design for resilience, and create feedback loops to creatively respond to change.

We will always aspire to do minimum harm.

## Ecosystems of solutions

Our people-centred approach aims to help local communities across the Commonwealth to help themselves, enabling them to create elegant ecosystems of solutions carefully adapted to the bio-cultural uniqueness of place. In doing so, we will:

- reverse climate change
- increase biomass and bio-productivity
- increase and protect bio-cultural diversity
- accumulate organic matter as a real store of wealth and health
- increase community resilience
- build food, energy, and water sovereignty at the community level
- leverage the power of collaborative abundance
- and address environmental degradation and the causes for hunger, poverty, ill health, migration, and war.

Our hope is to become a welcome species, functionally indistinguishable from the organisms and ecosystems we admire. We look forward to fitting in, at last and for good, on this home that is ours, but not ours alone.

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