Emergency plans for the restoration of a safe climate

Generic framework

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The latest version of this paper can be downloaded from: http://www.green-innovations.asn.au/RSTI/Generic-framework-for-emergency-plans.pdf

Exposure draft: This is a public draft. Suggestions for improvement are warmly welcomed – in terms of content, language, spelling or anything in fact! Please send suggestions to: *Philip.Sutton@green-innovations.asn.au*

This document is a generic framework to use for building emergency plans for the restoration of a safe climate. The framework can be used, with suitable adaptations, to develop detailed plans for:

- the climate movement
- political parties across the political spectrum, and
- governments.

This framework could also be adapted for application from the local to global scale.

The frame elements below provide the general guiding principles that each plan should adhere to.

Key principles	Details
Deep values	 The framework and its implementation is based on the protection of: all people and all species over all generations, or all people over all generations, with the necessary protection of ecosystem services; or our community over all generations, with protection, on the basis of enlightened self-interest, of other people and ecosystem services.
Double-practicality	This framework assumes double-practicality: ie. that every effort will be made to fully achieve the goals set (practicality 1) and that the goals will fully deal with the problems faced (practicality 2).
Strength of commitment	 This framework is based on: a strong and energetic commitment to harm prevention and recovery and a commitment to 'no major trade-offs', and aviation-industry-level standards of safety or acceptable risk.
Threat from current trends	Current action plans to tackle climate change, when summed globally, still make it highly likely that the world will be warmed by 3 °C or more over the 21 st Century and this level of warming will have a catastrophic impact on people and nature, exceeding the impact of World War 2.

Top level framing

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Opportunity	 To avoid over 90% of currently anticipated climate impacts
Commitment to the restoration of a safe climate	• To create a modern safe climate (sustainable) economy. The prime action goal of this framework is the restoration of a safe climate (and ocean acidity) at emergency speed. 'Safe' means preindustrial temperature and pre-industrial ocean heat content and acidity. See: http://www.green-innovations.asn.au/RSTI/A-safe-climate-is-still-possible.doc (This is not the conventional goal of stabilising global average temperatures, ocean heat content and ocean acidity at elevated levels)
The reference point for climate variability	Climate and ocean conditions should be maintained within the Holocene range and due to the diminution and fragmentation of natural habitats and the level of stress placed on them by human activity, the variation of environmental conditions should be maintained within half the range of the Holocene.
Current climate conditions are already dangerous	 Extreme weather events have already been amplified by human-induced climate change to unacceptable levels; Food production is already being impacted unacceptably; The melting of ice in the Arctic (ocean and land based) and the West Antarctic is already too much, as is the damage done to vulnerable habitat types (eg. polar ocean ecosystems, coral reefs, rainforests, etc.)
Key climate system parameters have already crossed acceptable thresholds	 The average global surface air temperature is already too high The quantities of greenhouse gases in the air are already too high The upwards <i>rates of change</i> of these parameters are already too high.
There is no further budget of fossil fuels that can be burned within acceptable environmental limits	If the atmospheric CO ₂ level is already too high, there can be no further 'carbon budget'. Any such 'budget' ran out <i>many</i> decades ago. Talking about such a budget for a 2°C world is counterproductive because it sets expectations about further greenhouse gas emissions and makes a 2 °C, or more likely a much hotter world, even more likely.
The transition to a safe climate restoring economy should be as short as can be made possible	The fastest large-scale economic transformations in history have been the transformations undertaken by catch-up economies in the early stage of the industrial revolution (eg. Belgium) and, later, the Tiger economies of Asia (eg. Japan in the late 1800s and economies such as South Korea, Taiwan, Singapore, Hong Kong during the 20 th Century) where the transformations took 20 to 30 years, and in many economies during World War 2 (where the physical transformation was compressed into 4 to 6 years). These models should be used as speed benchmarks.
The safe-climate restoring economy needs to be sustainable in broad terms	There is no point in fixing the climate in a way that creates other significant sustainability problems (eg. health and safety impacts, resource depletion, impacts on biodiversity). Concern for sustainability in general needs to be built into the safe climate solutions.
To break out of current unproductive mindsets requires strong individual initiative	To deal with an unprecedented problem will probably require unprecedented solutions. Breaking out of currently limiting mindsets will require, in the first instance, strong individual initiative to challenge dominant thought paradigms and to develop new ways of thinking.

Working with whole social groups (from small to large) opens up the potential for high rates of support and for stable commitment	Humans are social beings. Much of what we learn, we pick up from each other and to a large degree we take our cues from our social setting. To achieve a super majority of strong support for emergency speed restoration of a safe climate, we will need to engage people and win their support social network by social network.
The emergency plan to drive `local' mobilisation and catalyse wider engagement	The makers of each emergency plan should design the plan to maximise the effective mobilisation of a large super majority (aiming at 90%) within their jurisdiction and the people within each jurisdiction should take on a catalytic role to mobilise people and organisation and governments outside the jurisdiction.
Strong deliberative democracy is a better foundation for climate emergency action than dictatorship	If emergency action on climate is based first and foremost on coercion it will be unstable and unreliable – and more than likely impossible. Fast, coordinated and innovative action is best built on a foundation of deep society-wide understanding and commitment, opening the way to high levels of cooperation. (Although this latter mode of engagement could even be applied within existing dictatorships!)
Action to restore a safe climate must (eventually) be global or it will fail.	The climate system is global, and human-induced climate change is caused by actions across the globe. Therefore the restoration of a safe climate must in the end be accomplished by the adoption of solutions across the globe.

Top level actions

Action topic	Description
Research: Climate science	 The climate science around the following topics needs to be documented, continually updated and continually tested for validity: the current severity of extreme weather events the anticipated severity of extreme weather events over the next 30 years (under a range of scenarios – non-emergency response and emergency response) the current and projected state of critical climate system elements (eg. Arctic land and sea ice, West Antarctic land and sea ice, the Arctic permafrost, soil carbon retention, ocean heat content the current and projected state of important sensitive ecosystems (eg. cryosphere, montane, coral, rainforest, etc.) and regions subject to desertification or markedly intensified precipitation the impact of climate change on human well being the climate/environmental science of safe climate solutions – to create integrated safe climate restoration scenarios. Underdeveloped areas of science are: (a) the necessary scale, potential for achievement and feasible speed of CO₂ drawdown, (b) the net environmental benefits/costs of solar radiation management as part of an emergency-speed safe climate restoration package.

Research High-loval	High-level physical solutions need to be developed in 3 key
Research: High-level physical solutions	areas:
	 Don't make the problem worse – zero emissions
	 Don't make the problem worse – zero emissions (this is well covered now for Australia through technical systems design undertaken by Beyond Zero Emissions, AEMO, Mark Diesendorf and others, plus there is ample technology available for implementation) Unwind the legacy problems – draw down all the excess CO₂ in the air (Beyond Zero Emissions has begun work on technical systems design for Australia, plus there are researchers developing new technologies for application.) Provide safe passage for people and nature/ecosystem services through (possibly) temporary use of solar radiation management, and
	adaptation measures (Technical systems design and
	the development of application technology for solar radiation management is not well developed. Regulatory systems development to prevent misapplication is in very
	early stages.)
Research: High-level	There are two broad phases in activating an emergency
political solutions – for an	response: the first is the "getting to yes" phase where
emergency restoration of	society and governments form the view that an emergency
a safe climate	response is needed, and the second phase is when the emergency response is underway.
	There has been very little work done in this area as it
	relates specifically to the emergency restoration of a safe
	climate. In Australia some work has been done by the
	Climate Code Red team; Paul Gilding; Ian Dunlop; RSTI;
	and Laurence Delina & Mark Diesendorf. A major effort by
Implementation: Public	many people and organisations is needed in this area. Fast large-scale change is possible in wartime because the
education and deliberative democracy	need is overwhelmingly apparent and the threat is culturally and all too often experientially familiar. For very large-scale and very rapid economic mobilisation to be possible to tackle climate change, a high level of public understanding will be necessary. Very large-scale investments need to be made in public engagement, education and democratic deliberation (to involve millions of people) on climate, covering the causes of climate change, the impacts of uncontrolled climate change and possible technical, economic, institutional and social solutions.
Implementation: Physical solutions	To date, a <i>full</i> package of physical solutions for an emergency speed safe climate restoration and adaptation
solutions	[safe passage] has not been put in place anywhere in the
	world. However, some progressive countries, regions, and
	local areas (around the world and in Australia) have put in
	place solutions that are major contributions. These areas need to be documented and linked as a living updated
	database.
	See: <u>http://www.sustainable.unimelb.edu.au/content/pages/post-carbon-pathways</u>
	In Australia, BZE and 100% Renewables are promoting zero
	emissions energy systems. There is limited work being
	done on the implementation of drawdown solutions and on
	temporary solar radiation management.

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Research & promotion: Defining solution packages that can be acceptable to people in different locations on the political spectrum – without watering down the goals	Solutions packages, including economic and institutional strategies, need to be developed to suit people across the political spectrum (eg. a private-enterprise-maximised version, a mixed-economy version and a government/community (anti-private) version – each with no watering down of the climate goals.
Implementation: Cooperative unilateralism (coalitions of the willing)	Jurisdictions should aim for as full an implementation of an emergency speed safe climate restoration program as they can manage unilaterally, rather than waiting for laggards to join in first. Until there is strong support for an emergency/safe climate approach, 'all-in' agreements (like the UN brokered climate negotiations) can only produce lowest common denominator outcomes and will most likely slow down practical engagement with the emergency/safe climate approach. So in the early stage of developing support for the emergency/safe climate approach, cooperative ventures should be built around highest common denominator 'coalitions of the willing'. (All-in agreements could be negotiated, simultaneously with coalition-of-the-willing agreements, to bring up the laggards to some degree.)
Research: Develop a plan for pursuing the climate goals while protecting/recovering the economy from the Global Financial Crisis aftermath and from a potential Global Financial Crisis 2 (or any other major competing issue).	One of the surest ways to avoid effective action on climate is to adopt a 'first fix the economy (or some other major issue), then fix the climate" approach. Instead the solutions to the climate issue and the economic issue (or any other major issue that might distract attention from effective climate action) need to be developed together as (ideally) part of a mutually supporting package or (at worst) as two non-conflicting packages.
Methods & education: 'Backcasting from success' is a key method	With a challenging/difficult goal (restoring a safe climate at emergency speed) the strategy method of backcasting- from-success is critical. This method needs to be supported (but not overridden) by the strategy approach of "make it possible from here".
Methods & education: 'Complex project management' methods need to be used	Complex, fast, large-scale action programs, as is necessary for the emergency-speed restoration of a safe climate can only be accomplished using 'complex project management' methods. The methods of 'complex project (or program) management' need to be spread widely in the community and used for the action program for the emergency-speed restoration of a safe climate.
Methods & education: Incrementalism in the service of huge fast change, backcast from success	When applied in support of huge, fast change, backcast from success, incrementalism can be a powerful technique for breaking projects down into small enough pieces that are manageable with the available resources.
Research: Develop a "Getting to Yes" strategy to get commitment from government and the community for an emergency program	Taking on an emergency approach to the climate requires a 'mode shift'. For any individual, organisation or society, a build up process is needed before this mode shift can occur and the build up will be accelerated if there is a conscious plan of action based on effective strategies.

Research: Develop an "Emergency footing" economic mobilisation plan for delivering the safe climate solutions – ready to be implemented once society has "got to yes".	In World War 2 economies were redirected within 12 months. This happened because of the intense need, but it was also feasible because a large amount of planning had been done for years beforehand in order to be prepared for this contingency. Action on climate change will be faster when organisations and societies have switched into emergency mode and the effectiveness and speed of such a mode will be improved if the time spent in pre-emergency- mode is used to prepare, as strategically and thoroughly as possible.
Research & implementation: Ensure that proposed technologies and projects to build the safe climate economy are rigorously assessed and regulated for environmental impact.	If technologies and developments for the creation of a safe- climate-economy are pushed through with inadequate environmental/health & safety assessment and regulation, unnecessary environmental/health & safety damage will be done in the name of the environment and unnecessary opposition will be created. Technologies and developments for the creation of a safe-climate-economy need to be assessment and regulated to a high environmental/health & safety standard.

Getting to commitment ("Getting to Yes")

The "getting to yes" phase is the period in which society and governments form the view that an emergency response is needed.

Framing	Description
Strategy: A super-	If support for emergency action to restore a safe climate is
majority of strong support	not strong across a <i>large</i> majority of the community (of the
is needed, and this can	order of 70% to 90%??), it will mean that there are a large
only be successful if	number of people who are available to be recruited by
people are engaged across	vested interests to support their cause. Engagement in
`tribal ² ' divisions	support of the emergency speed restoration of a safe
	climate needs to occur across the political spectrum and
	across other social divides. Mobilisation of the grass roots is
	vital for achieving a super-majority of support.
Strategy: It is vital to	While some elite vested interests are trying to block
engage the elites	effective action on climate change, these forces are a small
	majority of the elites as a whole. Effective and fast change
	to restore a safe climate at emergency speed is much more
	likely and much more practically achievable if the bulk of
	the elites are engaged in support of the safe climate
	program.
Strategy: Empowering	The climate issue is so big and complex that it disempowers
leadership is vital	most people. The challenge of restoring a safe climate at
	emergency speed is an even harder job so it is, everything
	else being equal, even more disempowering <i>unless</i> there is
	a sufficient quantity and quality of empowering leadership
	trusted within the tribal divisions:
	to legitimise engagement
	to give practical hope
	 to structure engagement (using complex program
	management methods)

 $^{^2\,}$ Eg. across the political spectrum, across cultural, ethnic and belief systems etc.

Economy for restoring a safe climate at emergency speed

Talking about the question of what sort of economic system(s) can support a safe climate is critical in gaining acceptance and understanding of the climate emergency plans.

Framing	Description
Strategy: The economy for	Perpetual growth in the extraction, processing, use and
restoring a safe climate	disposal of energy and materials must eventually hit up
needs to be built on the	against ecological limits.
achievement of ecological	If the economy is framed to rigorously achieve ecological
sustainability and the	sustainability, and society is innovative, then it is possible to
pursuit of human	increase human wellbeing and this might be reflected in
wellbeing, achieved	increased output economic value from the economy.
through 100% decoupling	See: <u>http://www.green-innovations.asn.au/RSTI/100-</u>
	decoupling.doc



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The emergency plans project is a contribution to the Transition Decade.