

Report One - May 2016



Guidance for resilience in the Anthropocene

Workshop report



Sigtuna - February 2016

Collaborative activities: building the GRP learning agenda

GRAID
At Stockholm Resilience Centre

Funded by the Swedish International Development Cooperation Agency (Sida)
through GRAID at Stockholm Resilience Centre

GRAID workshop report May 2016 - Sigtuna February 2016: Collaborative activities:
Building the GRP learning agenda

A publication of the Stockholm Resilience Centre

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Background

Following on from the inaugural meeting of the Global Resilience Partnership (GRP) Council in November 2015, and the launch of the Sida-funded GRAID program at the Stockholm Resilience Centre (SRC) in September 2015, the GRP executive partners came together in Sigtuna, Sweden, 22-24 February 2016. The aim was to build the collaboration and explore directions to implement the partnership strategy, discuss learning from science and practice, and share ongoing planning within GRP and GRAID. Participants from each of the executive partners and staff from the GRP Secretariat and the SRC were invited to participate in the workshop (Table 1).

Table 1: Participants attending workshop

Surname	First name	Organisation
Alinovi	Luca	GRP
Andrén	Ulla	Sida
Beck	Thomas	USAID
Boltz	Fred	RF
Bridgett-Jones	Sundaa	RF
Carter	Sam	RF
Enfors	Elin	SRC
Folke	Carl	SRC
Garnier	Karine	USAID
Granlund	Anders	Sida
Jonsson Cissé	Kerstin	Sida
Mattioli	Laura	GRP
Reyers	Belinda	SRC
Rockstrom	Johan	SRC
Olsson	Olof	SRC
Olsson	Per	SRC
Westley	Frances	SRC board

Workshop facilitator: Fredrik Moberg - Albaeco, Stockholm

Workshop objectives

The workshop brought together members of the Global Resilience Partnership in order to:

1. Identify collaborative activities around critical knowledge, tools, and processes required to build resilience thinking and capacity for successful investments in development.
2. Explore new collaborative opportunities to develop the GRP's learning platform and learning agenda and the role that the SRC and other partners / networks can play.

Intended outputs

The workshop aimed to produce a set of concrete outputs to enable further development between partners. These outputs included:

1. A set of learning questions related to programmatic priorities to guide collaborative activities
2. A set of short and longer term collaborative activities with associated products / papers
3. An agreed format for the learning platform

Workshop hosts

Stockholm Resilience Centre and Sida were co-hosts of the workshop meeting, Stockholm Resilience Centre served as the local organizer.

Resilience for sustainable development in the Anthropocene

In 2000, Nobel Prize Laureate Paul J. Crutzen proposed that Earth has entered a new geological epoch, the Anthropocene, where humanity constitutes the largest force of change on the planet. This is not the result of some gradual transition over the 200,000 years since we emerged from the plains of Africa. We became a phenomenal global force in a single lifetime – since around 1950, with most change happening in the last few decades, in a process called “the great acceleration”.

In the Anthropocene, emissions of greenhouse gases are changing the global carbon cycle. Damming, water extraction, irrigation and climate change are affecting the global water cycle. We move more sediment and rock than natural processes. Biodiversity loss is reaching mass extinction rates. The oceans are becoming more acidic at a rate not seen for at least 55m years.

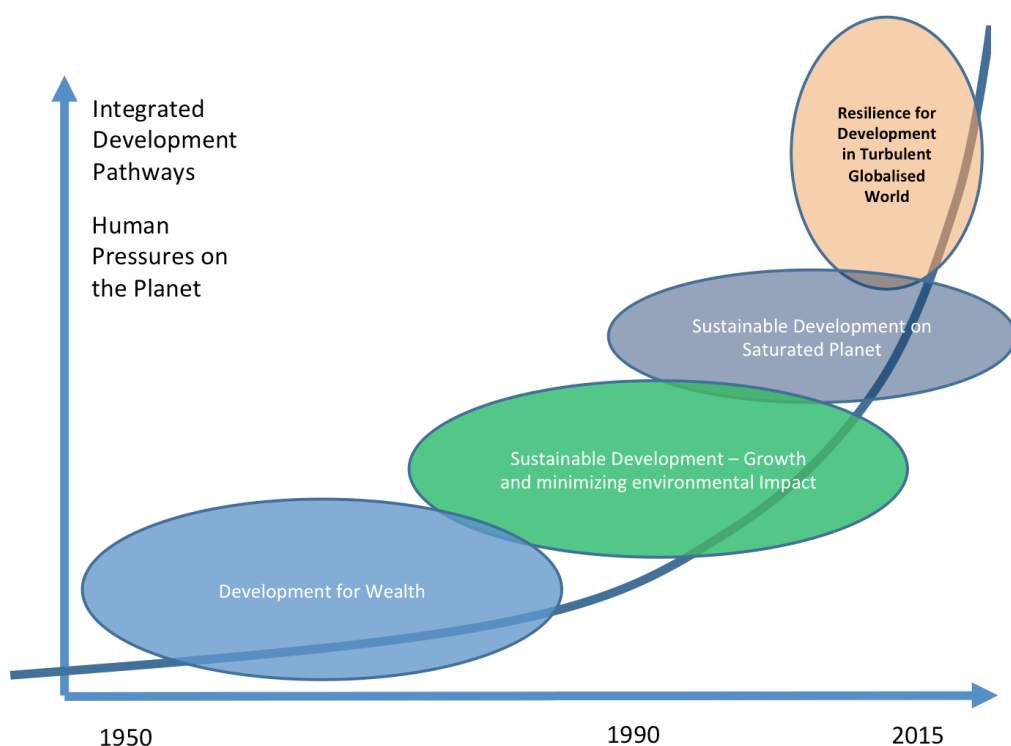
In this new context of global change, there is a rising recognition of the need to integrate resilience as a core strategy of development cooperation across multiple sectors, scales and regions. This recognition stems from the dual challenge of increased social and environmental turbulence in a globalized world, and the urgency of meeting development needs of the poor and vulnerable while maintaining our planetary life-supporting ecosystems. These natural systems provide a critical foundation for human well-being. For example, the polar regions regulate global temperature and ocean circulation; the oceans act as a heat conveyer and carbon sink; and the rainforests act as carbon sinks, provide moisture feedback, and banks for genetic diversity.

The challenge is that Earth’s ecosystems tend to respond in surprising ways to our exponential rise in pressure. Instead of incremental change, they can cross tipping points where we can expect abrupt and often irreversible change. This applies to the desertification of land, the collapse of fish stocks, and accelerated melting of ice sheets. We are already seeing warning signs. With just a 1-degree C rise in temperature there are strong indications that some parts of Antarctica are destabilising. This probably commits us, over the next centuries, to another one metre sea level rise.

Now, with the Paris climate agreement in place and the new global goals for sustainable development (SDGs), the priorities of the UN are finally becoming more aligned with science. However, combining the aim of the Paris agreement (to stay within a 1.5-2 degrees safe operating space) with the ambitious SDGs (end all forms of poverty, fight inequalities and tackle global environmental change) requires nothing less than a new way of thinking for rapid transformation. Incremental change is not enough.

In summary, addressing poverty and inequality, and advancing human well-being in the 21st century needs to take into account that development must happen in an increasingly complex, dynamic and hyper-connected world characterized by accelerating climate change, political turbulence, financial instability and growing pressures on fisheries, forests, freshwater and other natural resources fundamental for securing human well-being now and in the future.

The topic of resilience has emerged as a possible avenue to address these challenges of development in the Anthropocene. There is a growing need for a new development paradigm where resilience is seen as a prerequisite for continued development in an increasingly turbulent and globalised world. Previous development paradigms, from the 1950s and onwards (development for wealth; growth while minimizing environmental impacts; sustainable development on a saturated planet), will no longer suffice to secure human development in the Anthropocene (see figure below).



Reconnecting to the biosphere to build resilience for development

Poverty alleviation and future human development cannot take place without a wider recognition of nature's contribution to our well-being, health and security. There is a growing need to realise that societies and economies are integral parts of the biosphere and start working on more adaptive ways of governing our natural capital, not for the sake of the environment only, but for our own development.

The biosphere, the thin sphere around the planet which supports all life on Earth, includes the life-supporting ecosystems that provide us with a hospitable climate, clean water, food, fibres and numerous other goods and services. In our globalized society, there are virtually no ecosystems that are not shaped by people, and no people without the need for ecosystems and the services they provide. People and nature are truly intertwined in so-called social-ecological systems.

Social conditions, health, culture, democracy, power, justice, equality, matters of security, and even survival are interwoven with the biosphere – in a grand panorama of local, regional and worldwide dependencies. Everyone is in everyone else's backyard, meaning that changes in one part of the world often ripple through regions, connecting across scales and often landing in far distant places ("teleconnected vulnerabilities").

However, this integration is often not reflected in either policies or human behaviour. Globalization is one explanation for the disconnection between humans and nature. During the last 200 years, and particularly after World War II, economic development, international collaboration, technical and social innovation, improved health and wealth have all contributed to boost the standard of living for most people.

Over the same period of time, the Earth's ecosystems have started to show signs of fatigue and strain, not only at local levels, but also at larger geographical scales. More than half of the planet's ecosystem services that support human well-being have been assessed as being degraded or used unsustainably.

It is increasingly clear in this context that there is a need for reconnecting to the biosphere to build resilience for human development. Resilience thinking has indeed become part of practice, policy and business across the world, ranging from poverty alleviation to political frameworks and business strategies to anticipate and respond to change and crisis, not only to survive, but also to evolve.

Resilience is, however, a concept used in several areas and disciplines. It has a strong tradition in psychology and human development and in ecology, ecosystem science, environmental management and more recently social-ecological systems. These different communities have defined and used resilience in different ways, as illustrated with the following examples.

Development resilience

- The capacity over time of a person, household or other aggregate unit to avoid poverty in the face of various stressors and in the wake of myriad shocks. If and only if that capacity is and remains high over time, then the unit is resilient. (Barrett and Constanas 2014)

Community resilience

- Community resilience emerges from four primary sets of adaptive capacities, namely economic development, social capital, information and communication, and community competence and as a whole they help provide a community with the capacity to deal with change, like disasters. (Norris et al. 2008)

A resilience-based approach to development

- Radically transform responses to climate change, to the dilemmas of managing ecosystems, and to rural and urban poverty in the developing world. Everyday forms of resilience as part of a new development agenda with three core components; resistance, rootedness, and resourcefulness. (Brown, 2016)

Social resilience

- A systems view of social resilience emphasizes adaptation or transformation over return to an earlier state. Understanding how wellbeing is secured by groups of people in an organization, class, group, community, or country. Achievement of wellbeing even when that entails significant modifications to behaviour or to the social frameworks. (Adger, 2000)

Resilience of social-ecological systems

- Resilience of a social-ecological system - the capacity of a social-ecological system to sustain human wellbeing in the face of change, both by buffering shocks but also through adapting or transforming in response to change. (Biggs et al. 2015)

In some fields, the term resilience has been used in a narrow sense to refer to the return rate to equilibrium upon a perturbation. Others tend to interpret resilience as bouncing-back after disturbance or recovery time, or recovery to what you were before in more general terms. In this way of looking at the world there is often an implicit focus on trying to resist change and control it to maintain stability. The resilience approach used to study social-ecological systems within GRAID, and other programs at the Stockholm Resilience Centre (SRC), is more encompassing. It deals with complex adaptive system dynamics and true uncertainty and how to learn to live with change and make use of it, clarifying the dynamic and forward-looking nature of the concept.

As such, resilience is the capacity of people, communities, societies, environments and cultures to persist in the face of change, to continue to develop with ever changing environments. It includes both adaptation, which refers to human actions that sustain development on current pathways, as well as transformation, which is about shifting development into other emergent pathways and even creating new ones.

Based on this understanding of resilience, the research by SRC and colleagues around the world has resulted in a set of emerging key principles for building the resilience of ecosystem services in social-ecological systems. The seven principles are: (1) maintain diversity and redundancy; (2) manage connectivity; (3) manage slow variables and feedbacks; (4) foster complex adaptive systems thinking; (5) encourage learning; (6) broaden participation and; (7) promote polycentric governance

(see – applyingresilience.org and the accompanying brochure for more information)

Workshop outcomes

The workshop began with scene-setting presentations exploring the GRP vision, priorities and perspectives on resilience for development. An update was also provided on the GRP's learning agenda and vision. Partners also presented on their organisational learning platforms of relevance to the GRP. From these discussions three broad priority areas were identified for further elaboration at the workshop:

1. *The evolving context of development: resilience and development in the Anthropocene*

There is a need within GRP to set the stage and communicate the perspective of the GRP for a larger audience. This includes: clarification of the evolving context of conflict, fragility and protracted crises, the exploration of future trends and developments in this context, and the demonstration of how a resilience approach to development aims to address these. This perspective of development in a complex world, with large - and cross-scale interactions, and turbulent dynamics is central to the GRP and its contribution to development.

2. *Evidence of the resilience dividend: demonstrating resilience as a development strategy*

The GRP aims to move beyond sustainable development to a resilience approach to development. This is based on an understanding that resilience as an approach is different from sustainable development and will have different outcomes. There is thus a need to measure and prove where and how a resilience approach adds value, i.e. to measure and demonstrate the resilience dividend. The GRP, its partners, and its investments offer a diverse portfolio of interventions from which to draw such evidence through data, monitoring and evaluation.

3. *Learning across regions, partners and signature solutions*

The GRP learning agenda will benefit from learning that cuts across interventions, regions and organisations. This cross-regional learning supports the intentional informing of investments in one context and their ability to be promisingly reshaped for use in another context. This supports the GRP's search for "signature solutions" and the intention to scale out and up. The GRP also recognises the need to grow systems thinking and planning within the GRP partners and the challenges that the partners address together.

The GRP partners explored these priorities during the workshop to develop collaborative activities, plans and outlines of products. Three clusters of collaborative activities emerged and were further refined. These clusters are outlined below as an initial proposal to take forward for resourcing and planning within partners, the GRP and GRAID within 2016.

Collaborative Activity 1 - Viewpoint series: Resilience and the Evolving Development Context

Description: There is a need for a series of papers / viewpoints which synthesise and present aspects of the evolving development context, what these changing dynamics mean for the GRP and what a resilience perspective contributes to this context. This series should capture recent experience and new understanding of the dynamics and interactions involved in the development context of protracted crises in certain regions including, migration, emerging diseases, El Nino etc.

Objective:

1. To build GRP consensus understanding of the evolving context;
2. To frame recent research advances for the GRP; and
3. To provide material for partners to use in different audiences.

Products: This viewpoint series will include scoping, in-depth, as well as position papers. The development of this series will build the GRP collaboration and shared understanding of these topics, as well as provide consolidated material from which partners can draw for talking points, interviews, presentations and other communications material.

Plan: The SRC will provide in 2016:

1. An initial thought-piece based on recent research on resilience for development by May 2016 for review and inputs from other GRP partners;
2. A scoping paper on large-scale dynamics shaping the evolving context of the Anthropocene by end 2016; and
3. Based on these, a proposal for future series of viewpoints / papers from the GRP by end 2016.

The GRP and partners will:

1. Use these inputs and papers to develop materials for communication to specific audiences and contexts;
2. Work with the SRC to prioritise and plan this series of viewpoints beyond 2016.

Collaborative Activity 2 – Towards a resilience toolbox: developing GRP capacity in systemic planning

Description: The learning agenda for GRP focuses on developing capacity of GRP partners, as well as in the GRP challenge community, in the area of systemic planning. GRP partners already have courses and tools for aspects of this learning which could be used as foundational material for this activity.

Objective: This activity aims to:

1. Develop a GRP curriculum;
2. Review and refine existing tools and approaches;
3. Through a variety of convening platforms develop this systemic planning capacity within the GRP;
4. Use this experience to refine tools and curricula in the longer term; and
5. Influence future challenge projects.

Products: Curriculum design, new capacity, and convening events and new criteria for future challenge calls.

Plan: The RF will:

1. Explore convening the challenge projects in June 2016 with a Resilience Academy.

The SRC will:

1. Through existing tools and materials aim to support this Resilience Academy

The GRP will:

1. Beyond 2016 develop a curriculum for building this learning in the partners and the next set of challenge projects, including the design of these, their review, and their capacity.

Collaborative Activity 3 – Resilience dividends: Synthesis and analysis of evidence from a resilience approach

Description: The GRP is based on an understanding that a resilience approach to development is different from a sustainable development approach. While there is quite a bit of theory on this difference, the GRP presents an opportunity to collect, analyse, synthesise and communicate the evidence for this resilience dividend and substantiate the difference. There are several avenues to set up such an activity. Whether this is through the challenge projects or through broader synthesis will depend on resources available. Some of collaborative activity 2's convening platforms could play a role in collecting some of this evidence. This will also inform the GRP learning agenda on how we are moving towards the goals.

Objective:

1. To design a series of approaches to collect evidence of resilience dividends in the GRP.
2. To use the GRP partners and challenges experience and investments to capture this evidence.
3. Building on this, to analyse and synthesise major findings and progress, as well as to communicate these findings.

Products:

1. An approach for gathering evidence including potential indicators or key features,
2. A review of possible "seeds of transformations" within the partners and the GRP,
3. A workshop that brings together GRP partners with their best examples of resilience and development investments to explore mental / conceptual models of transformation,
4. Updates to the GRP learning agenda on how we are moving towards the goals,
5. Inputs into flagship reports and synthesis products

Plan:

The SRC will in 2016:

1. Propose an initial set of indicators / key features for resilience dividends by late 2016,
2. Develop a concept note for discussion at the SMT in May 2016 outlining the approach and timeline for a synthesis workshop with GRP partners + grantees.

The GRP (and partners) will in 2016:

1. Host a workshop in late 2016 or at a council meeting,
2. Make inputs into the GRP learning agenda and communication planning
3. Use these experiences and approaches to refine and develop future calls for challenge projects

Way forward

In putting these collaborative activities in place, regular communications and interactions between GRP, partners and GRAID will be essential. Options such as the SMT and other fora may provide a good avenue and will be explored. In addition, it is important that the collaboration plans similar face-to-face meetings in order to review progress, refine planning, and explore longer-term activities. These meetings could be planned around future council meetings, collaborative workshops, or alternative opportunities. It is proposed that the GRP secretariat includes this planning into the GRP schedule of meetings in advance, and communicates this schedule, so that adequate preparation and planning are made possible.

Appendices

Agenda

22 February

From 12:00 Arrival and check in

13:00 – 14:00 Lunch

14:00 – 14:30 Welcome, introductions and meeting objectives (Anders Granlund & Johan Rockstrom)

14:30 – 17:30 Scene setting presentations: Perspectives and updates from the partners (15 minutes each)

1. GRP vision & priorities (Luca Alinovi)
2. Resilience for development: advances, gaps and perspectives (Johan Rockstrom & Carl Folke)
3. Social innovation, resilience and development (Frances Westley)
4. General discussion

18:00 Drinks and dinner

23 February

08:30-09:00 Coffee

09:00-12:00 Building an inclusive GRP learning and innovation platform – Part I (20 minutes each)

1. The GRP vision for learning and innovation (Luca Alinovi)
2. SRC research themes and capacities (Belinda Reyers and Elin Enfors)
3. Reflections on learning partner role and the Resilience Academy (Sundaa Bridgett-Jones)
4. Learning platforms and initiatives (Tom Beck)
5. Plenary discussion to identify priority learning questions relevant to priority programmatic activities

12:00 – 13:00 Lunch

13:00 – 14:00 Walking excursion around Sigtuna (with chance to continue discussions)

15:00 – 16:00 Group work I to develop collaborative activities, plans and outlines of products

16:00 – 16:30 Coffee

16:30 – 17:30 Group work II to develop collaborative activities, plans and outlines of products

18:00-21:00 Dinner hosted by Sida DG

24 February

08:30-09:00 Coffee

09:00-12:00 Building an inclusive GRP learning and innovation platform – Part II

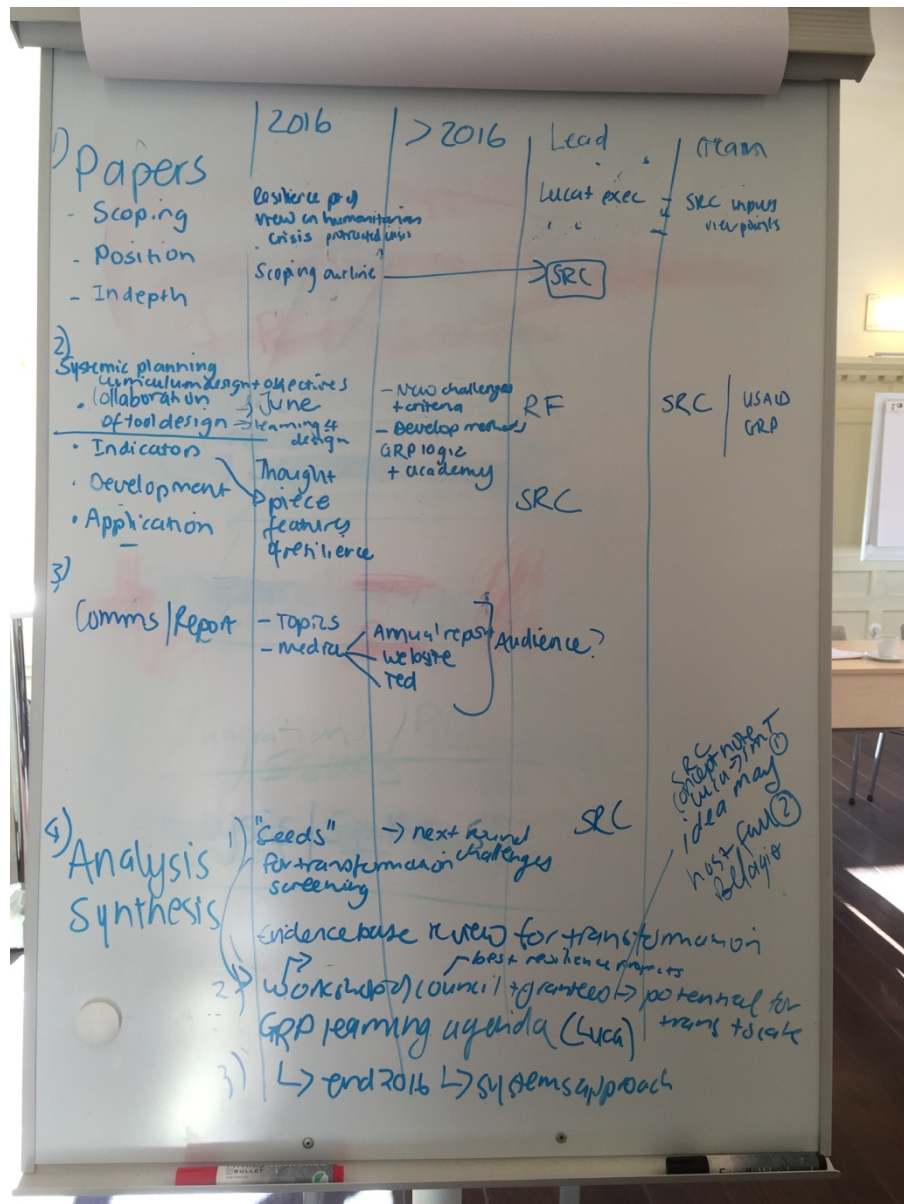
1. Plenary discussion on priority learning activities and potential partners around critical knowledge, tools, and processes required to build resilience thinking and capacity
2. Small groups working on developing learning activities and plans

12:00-13:00 Lunch

13:00-14:00 Plenary feedback and discussion on learning activities and way forward

14:00–16:00 Way forward and next activities for GRP

Workshop materials



IDEAS DUMP

- ① evolving context for resilience
- development why important time (mapping the anthropocene)
 - conflict & fragility
 - migration, refugees (75% of HA)
 - remittances
 - governance structures that can handle turbulence
 - emerging infectious disease

empirically measure difference between R + sustainable dev

- ②
- monitoring + evaluation - metrics aligned w/ learning agenda design interventions + innovations in r value = resilience dividend
 - comparative value of methodologies for resilience measurement
 - measure + prove where R adds value - learning cycle for GRP → response diversity - what is that process?
 - diversification of solutions - diversification of risk
 - risk of status quo - risk analysis framework
 - reflections on what we want to measure in certain timescales what are
 - exploring differences: adaptive + transformative capacities? specific vs general resilience

- ③
- Cross regional learning - intentionally informing how investments in one context must be reshaped for promise in another extent to which they are
 - challenges to moving to global scale Sited to... given evolving and changing context for R

Financing Resilience

1	2	3
Carl Ulla Tom*	Johan Elin Laura Sandra Kerstin Cliff Luca	Fred Karlie Belinda Tom* Sam

THIS ROOM

Duality

- | | |
|--------------|-----------------|
| Project | Process |
| Innovation | Transformation |
| Risk capital | Patient Capital |
| Linear | Systems |

On what aspects of the learning agenda should GRP take a role?

Downstairs
Liquor

GRAID - Guidance for Resilience in the Anthropocene: Investments for Development is a programme hosted by the Stockholm Resilience Centre and is funded by the Swedish International Development Cooperation Agency (Sida).

The Stockholm Resilience Centre advances research on the governance of social-ecological systems with a special emphasis on resilience - the ability to deal with change and continue to develop.

The Stockholm Resilience Centre was established on 1 January 2007.

The centre is a joint initiative between Stockholm University and the Beijer International Institute of Ecological Economics at The Royal Swedish Academy of Sciences. The centre is funded by the Foundation for Strategic Environmental Research, Mistra.

ADDRESS Stockholm Resilience Centre,
Stockholm University, SE-106 91 Stockholm, Sweden

VISITING ADDRESS Kräftriket 2b

TELEPHONE +46 8 674 70 60

info@stockholmresilience.su.se

www.stockholmresilience.su.se

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