



The Higher Ground Foundation

- stand up to climate change

Climate Vulnerability Reduction Credit (VRC) Tutorial



Karl Schultz and Linus Adler
The Higher Ground Foundation
23 October 2017



The Higher Ground Foundation

- stand up to climate change

Agenda:

- Introduction to Higher Ground Foundation. Why VRCs?
- Why VRCs?: A Case Study
- The VRC Concept
- Converting the Concept into Reality:
 - Interpreting Vulnerability Reduction:
 - The VRC Standard Framework
 - Pilot Execution and Partnership Phase
 - Testing and Refining the System in the Real World
- Questions, Answers and Discussions



Today's "Trainers"



Karl Schultz

- HGF Executive Chairman
- Creator of VRC Concept
- Co-Founder of HGF
- Co-Author of VRC Standard Framework
- Member of Secretariat for Framework Experts Review

Covering:

- *Introduction to The Higher Ground Foundation.*
- *Why VRCs?*
- *The VRC Concept*
- *HGF's Pilot Implementation and Partnership Phase (PIPP)*



Linus Adler

- HGF Technical Manager
- Co-Founder of HGF
- Co-Author of VRC Standard Framework
- Lead Co-Creator of Vulnerability Reduction Credit Project Manager
- Member of Secretariat for Framework Experts Review

Covering:

- *Project Case Study*
- *The VRC Standard Framework*





The Higher Ground foundation

- stand up to climate change

Module 1:

Introduction to The Higher Ground Foundation. Why VRCs?

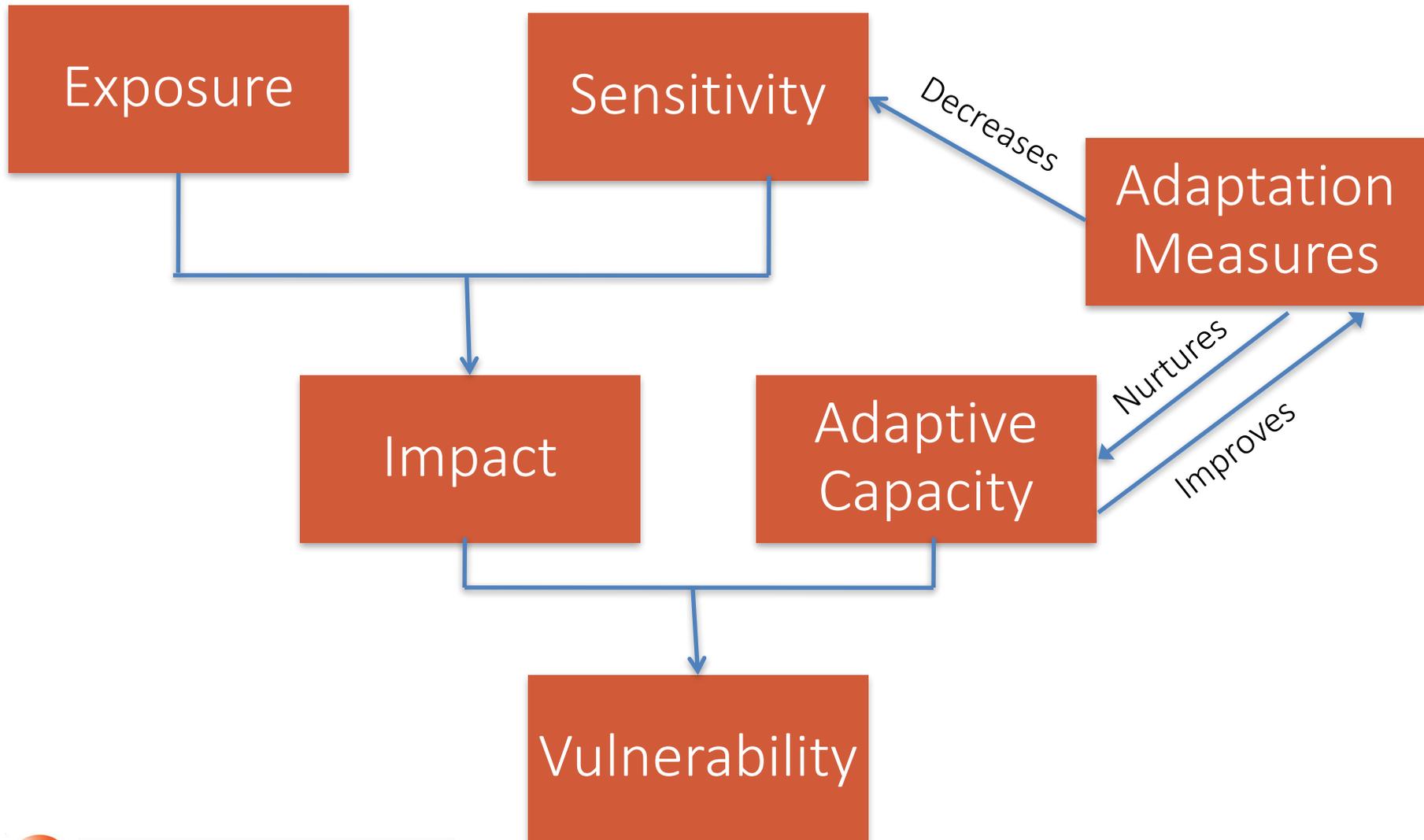
Karl Schultz



The Higher Ground foundation

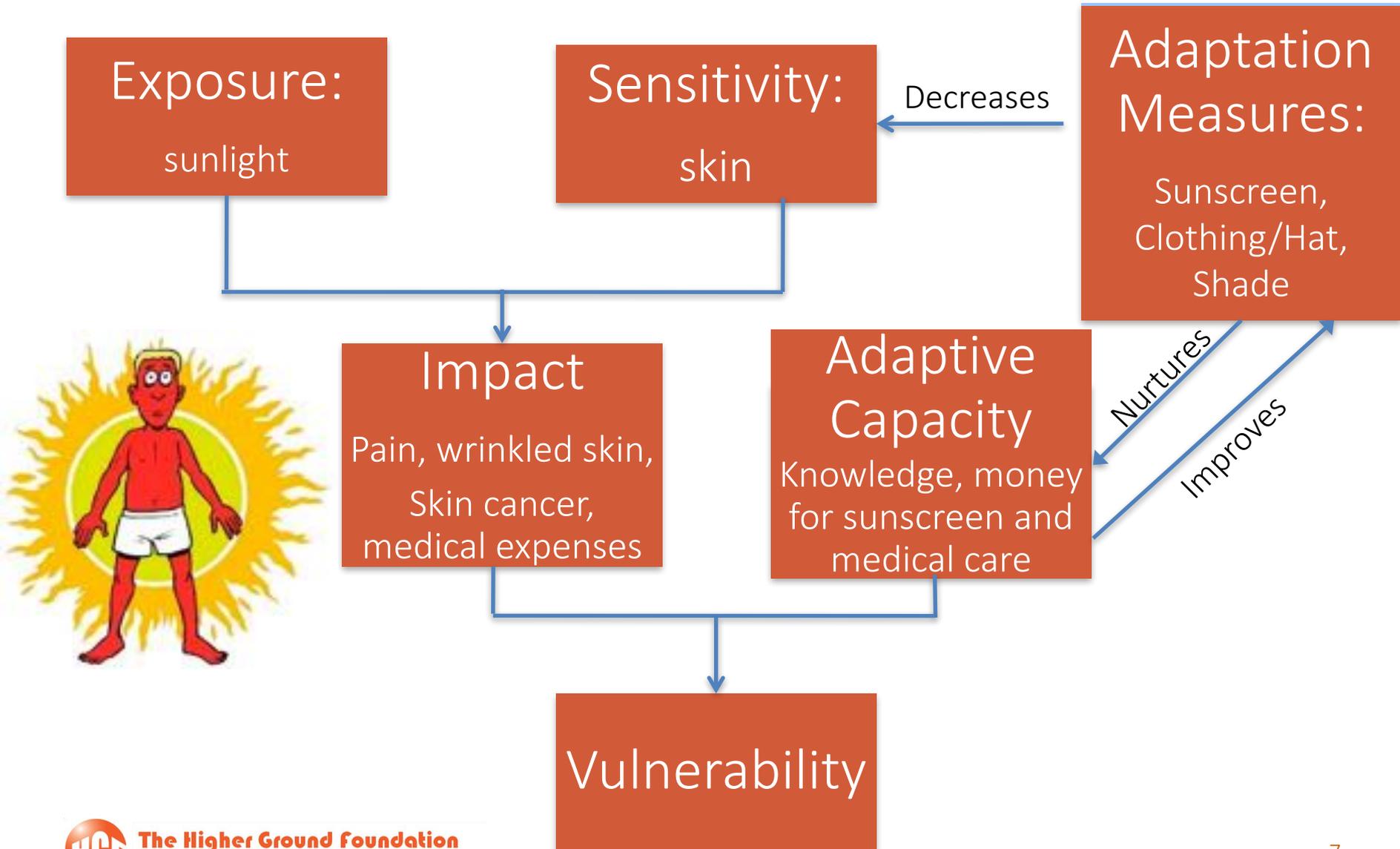
- stand up to climate change

What does vulnerability look like?





Vulnerability is a function of exposure, sensitivity and adaptive capacity....



Why Adaptation?

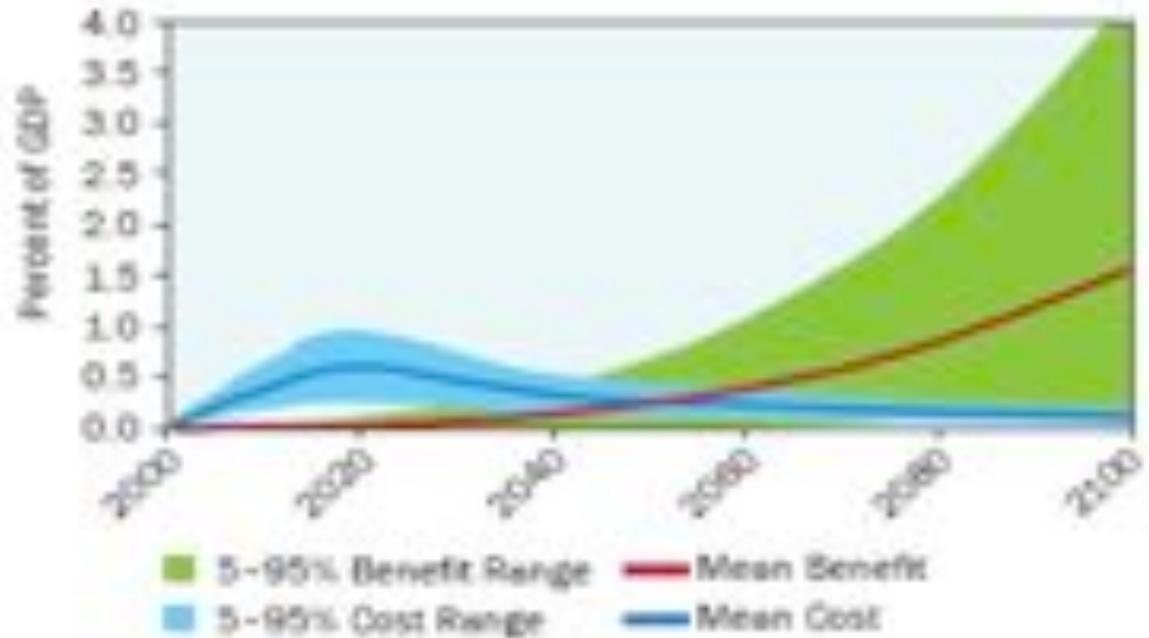
- Impacts of climate change are already happening, will get worse and disrupt economies and social systems
- More imperative: most vulnerable are those least responsible for climate change
- Global mandates:
 - Paris Agreement:
 - Art. 7.1 Adaptation Global Goals
 - Art. 8 Loss and Damage
 - Art. 9 Finance “balance mitigation/adaptation
 - Art. 6. Sustainable Dev. Mech. - includes adaptation
 - Inclusion of adaptation in most Nationally Determined Contributions
 - Sustainable Development Goal 13
- Adaptation (if done well) is a good investment
 - But: challenging in face of other priorities and limited up-front money

Adaptation Benefits Can Greatly Outweigh Costs: Example SE Asia Coastal Protection

By 2100:

Benefit: 1.9% of GDP

Cost: 0.2% of GDP



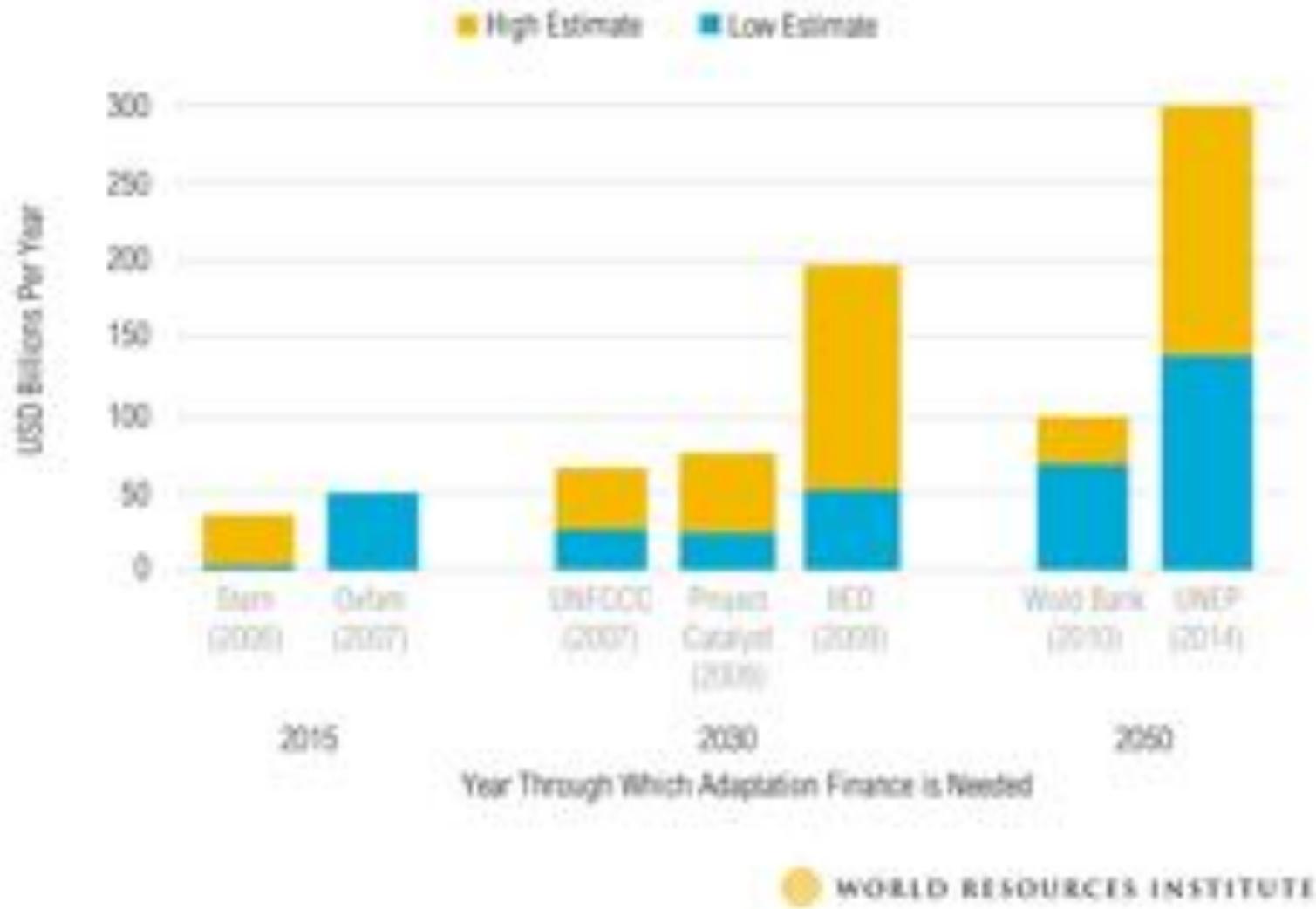
Note: 'Mean' indicates the average outcome of the simulations and the range of estimates from the 5th to the 95th percentile is the shaded area. Benefit in terms of avoided damage is based on A2 scenario.

Source: ADB study team.

Many Challenges for Climate Adaptation

- Inadequate *funds*
- No clear *role for private sector* to invest in scalable solutions
- *Comparability* of actions: are funds going for maximum climate vulnerability reduction?
- Identifying *good adaptation projects*
- *Robust baselines, monitoring and verification*
- *Sustainability* of vulnerability reduction measures

Estimated Annual Adaptation Finance Needs for Developing Countries Through the Years



Gap Between Estimated Adaptation Needs and Available Public Finance (2013-2050, Low Estimate)



Source: UNEP (2014), "The Adaptation Gap Report."
Note: This data represents conservative estimates; a high estimate of commitments in 2013 and a low estimate of annual adaptation needs by 2050, according to UNEP's 2014 "Adaptation Gap Report".

 WORLD RESOURCES INSTITUTE

What is missing?

- Independent, fungible mechanism that:
 - Acts as financing instrument
 - Offers evaluation framework for prioritizing investments
 - Currently price discover/cost curves are poor/nonexistent for climate adaptation projects
 - No generally agreed approach in place by climate funders
 - Tool to set targets besides dollars spent

Our Proposed Solution: Vulnerability Reduction Credit (VRC™)



- Investment Prioritization and Fundraising:
 - Mobilize public and private
- Efficiency:
 - Identify/develop/credit most cost effective adaptation measures
- Rigor and Creativity:
 - Demands quantified additional, measurable vulnerability reduction
 - Encourages creative discovery of adaptation measures through market incentives: unleashes entrepreneurial spirit
- Pro-poor:
 - Encourages direct community engagement; could undercut bureaucratic barriers to directly helping poor
- Sustainability:
 - Credits awarded during, not prior to project start-up based on past climate vulnerability reduction



Demand Drivers for VRCs

Market Drivers:

- Considerable resources are already spent on adaptation; VRCs can further validate these decisions and encourage more investment
- The use of VRCs as a **currency** for a public good can be used as an effective proof-of-impact instrument, providing real, measurable and monitored employment of funds.
 - Corporate Social Responsibility Objectives
 - Supply Chain Management Tool (reduce sourcing risks, improve productivity)
 - Market Assessment Stability Tool (reduce risks market fails owing to CC)

Demand Drivers

Institutional/Political:

- UNFCCC, Paris Agreement, Sustainable Development Goals all establish climate adaptation as an important pillar in the mix of instruments to deal with climate change

Social Security and Stability:

- Humanity, avoidance of (quantifiable) harm to people
- Reduction of stress in vulnerable communities leading to more social stability
- Domestic and international security

Environmental:

- Ensuring biodiversity
- Reducing climate change impacts on the eco system



Potential “Value-Added”

Uses	Benefits
Monitoring and evaluation tool	<i>Transparent standard to evaluate a project’s contribution to climate vulnerability reduction</i>
Traded/retired credit to leverage finance	<i>Mechanism to support and demonstrate support of adaptation projects, encourages sustainability</i>
International/Domestic policy target setting	<i>Targets set based on transparent, verified results</i>
Rating instrument/investment parameter	<i>Tool to show vulnerability of sovereign or company</i>

What's in it for:

Business solutions and opportunities:

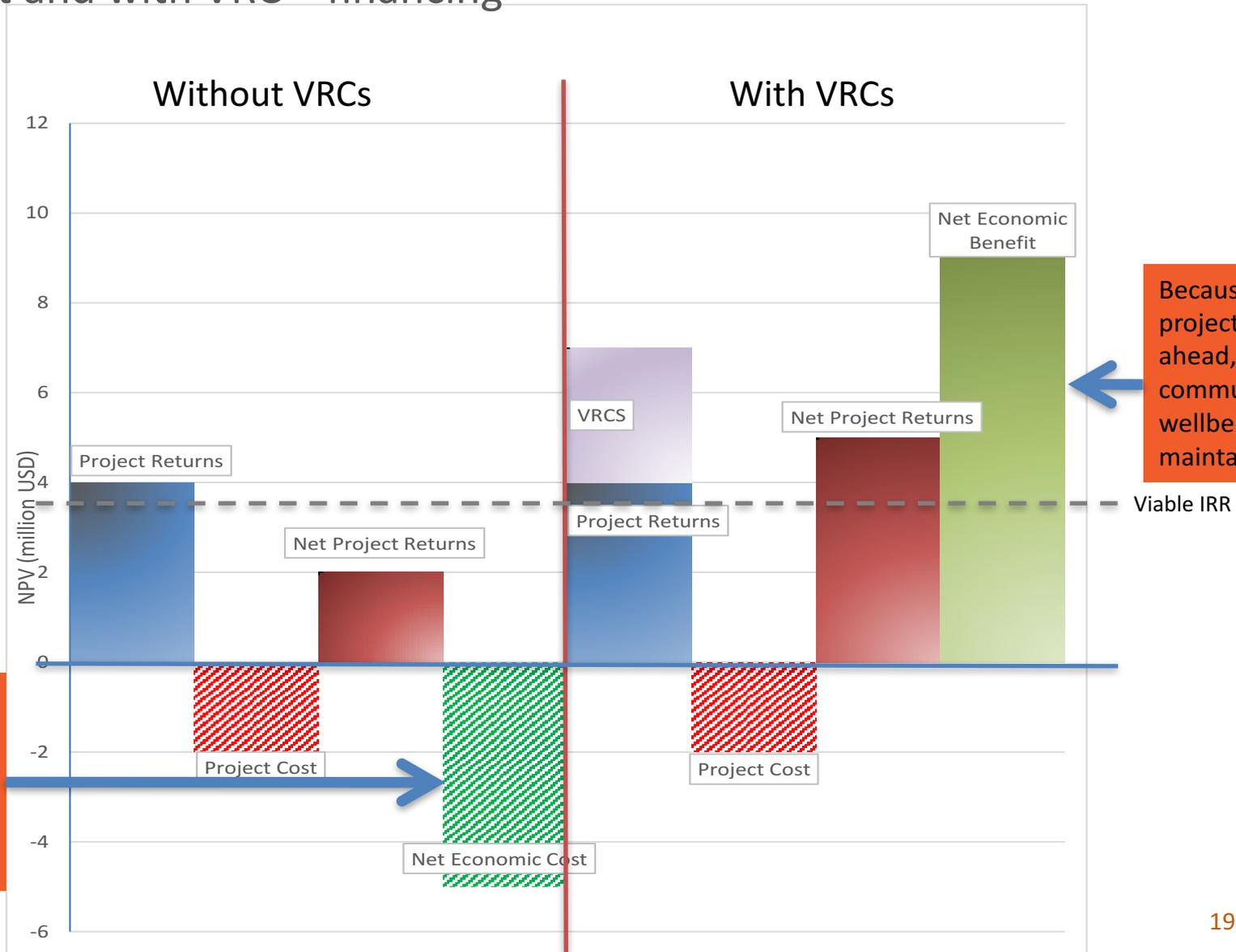
- Technology Innovation
- Project Development
- Finance
- Insurance

Governments:

- Meet financial commitments by leveraging private finance
- Improve accountability of adaptation measures
- Strategic benefits (energy security, defense, markets, etc.)
- “Black swans” may shift societal force for climate adaptation



Economic And Financial Project Returns: without and with VRC™ financing



Because the project doesn't go ahead, the community suffers loss and damage

Because the project goes ahead, community wellbeing is maintained



The Higher Ground foundation

- stand up to climate change

Module 2:

Why VRCs?: A Case Study

Linus Adler



The Higher Ground foundation

- stand up to climate change

VRCs: a potential tool to address African adaptation dilemmas

Challenges In African Context	VRC Opportunities
Lack of fungible, quantifiable, cross-sectoral means of prioritizing and setting targets for governments (e.g. Paris Agreement's Nationally Determined Contributions)	VRCs allow governments means of seeing impacts across sectors, and determining what may be most effective.
Lack of approaches to mobilize international climate finance (eg Green Climate Fund)	Could create VRC buying pools and encourage donors to buy VRCs
Challenge going from pilot project to scaling for entire economies, identifying good projects	Successful pilots could be then turned into national programs with VRCs the basis for budgeting and evaluating
Lack of robust, transparent means of identifying and evaluating projects	Transparent methodologies and project review/validation/monitoring and verification required, linking projects with climate change
Lack of means to engage with private sector and mobilize private finance	If price put on VRCs, stimulates innovation by private sector seeking to find (and find value) in most effective vulnerability reduction measures, gives revenue stream to back debt/equity



Company

Company Wants VRCs
600,000 VRC Demand

Identifies Project

Forward Purchase Agreement
£5VRC agreed

VRCs Bought
£300,000 paid

Company Has Demonstrated Real Support to Vulnerable Communities

Higher Ground

Project Review, Registration
Reg. Fee =£10,000

VRCs Awarded
Issue Fee =£20,000

Vulnerability Reduction Project

Rural Communities See Flood Damage
£1.27M discounted over 20 years

Project Interventions Identified
CAPEX = £80,000
VRCs Generated: 30,000/year

Prepare Project Design Document, Start Talking to Potential VRC Buyers
Costs £100,000 to do this including 3rd Party Validation, money paid by developer, in kind by community

Forward Sales Agreement
£5/VRC agreed

Project Implementation and Monitoring of Vulnerability Reduction, 3rd Party Verification and Submission to HGF
£1,500,000 Year One CAPEX, £75,000/year O and M; £10,000 for 3rd Party Verification

Rural Communities See Flood Vulnerability Reduction
Productivity regained at 15 year value = £19,000,000
Investment Value = NPV of £663,000 and IRR = 18% (unleveraged)

VRCs Sold
£3,000,000 received

Community/Project Secures Finance Based on Contract

Setting the scene

- Small subsistence agricultural community located on a river bank in Sahel
 - Millet, sorghum, rice, peanuts, tomatoes and livestock
 - Per capita income: \$200/year
 - Houses “maison en banco” and “semi-dur”
 - Climate change induced increased severity and frequency of droughts and flooding



Flooding and Drought Impacts

Quantifiable Impacts:

- Damage to houses, community spaces
- Decline in crop and livestock yield
- Decline in future income if livestock and/or land sold off
- Health impacts: loss of productivity and/or medical costs (water-borne disease, malnutrition, etc.)
- Decline in household income
- Children pulled out of school
- Migration, potential to be permanent and social implications

Impacts Reduced By:

- Soil water retention
- Hedge crops
- Different crop varieties
- Drainage/flood control
- Flood resilient buildings and infrastructure
- Early weather warning systems



Photo: Cassandra Nelson/Mercy Corps

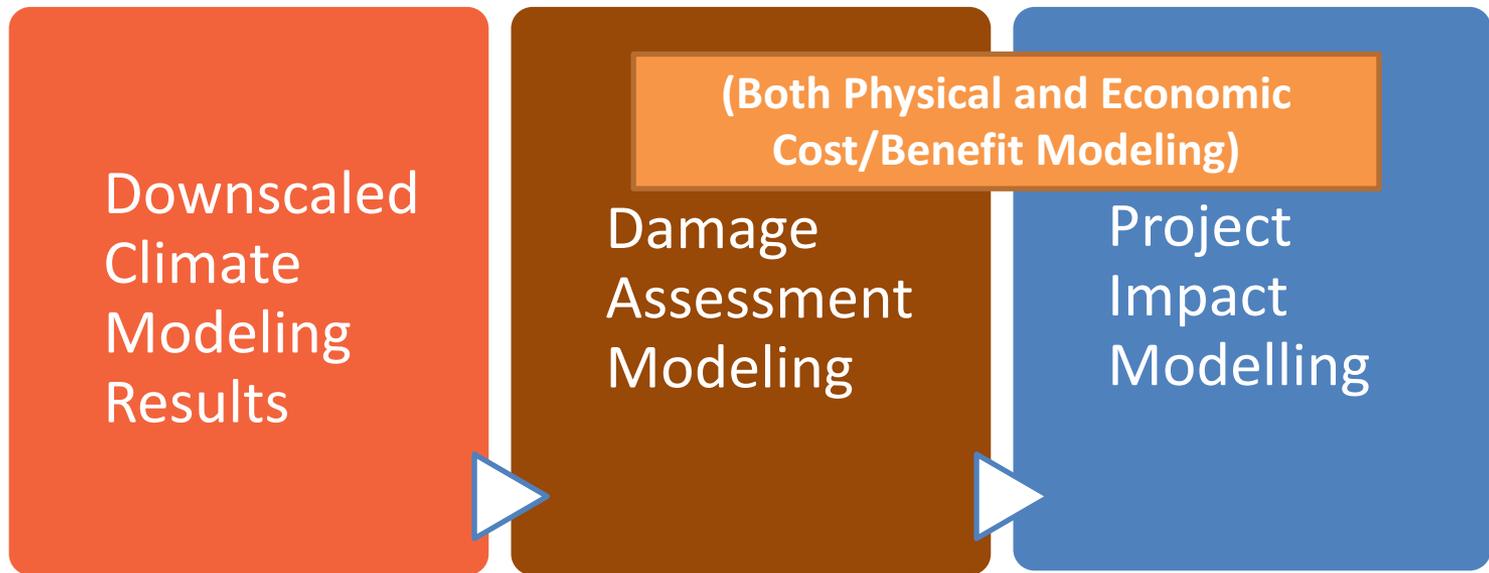
The Funding Problem:

- Cost prohibitive without external finance: €100,000

Proposed Project Activities

PROPOSED AND CURRENT ADAPTATION MEASURES	COSTS AND UNITS (IF AVAILABLE)
SINGLE COST STRUCTURAL MEASURES	
1. GABIONS (GABION)	\$250/UNIT
2. CORDONS PIERREUX (STONE BARRIERS)	\$65/200 M
3. DEMI-LUNES (HALF-MOON CATCHMENTS)	\$230/HA
4. PLANTATIONS	\$1,100/HA
5. BANQUETTES (DIKES)	\$500/HA
ONLY THE SIMPLEST OF THESE MEASURES (I.E., CORDONS PIERREUX) HAVE BEEN DEVELOPED BY LOCAL PEOPLE; OTHERS ARE IMPLEMENTED BY INTERNATIONAL ORGANIZATIONS	
SINGLE COST AGRICULTURAL MEASURES	
1. IRRIGATED FORAGE CROP	
2. DIKES AGAINST RISING WATER	
NONSTRUCTURAL SINGLE COST MEASURES	
1. EARLY WARNING SYSTEM	
2. INTERDICTIONS CONSTRUCTION IN FLOOD ZONES	
3. FLOOD ZONE DELIMITATION	

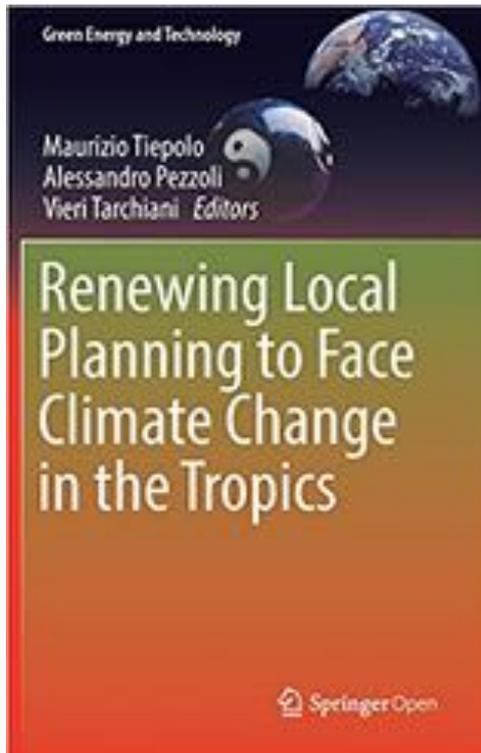
How VRCs will be generated by Project



How VRCs are Generated – The figures

	TOTAL DISCOUNTED CHANGE NET INCOME/WORTH OVER 20 YEARS (DISCOUNT RATE = 3%)
NO CLIMATE CHANGE, NO PROJECT	€20,270,700
CLIMATE CHANGE, NO PROJECT, (V_0)	€18,832,600
CLIMATE CHANGE, WITH PROJECT. (V_1)	€20,318,800
PROJECT COSTS	€100,000
AIC (AVOIDED IMPACT COSTS)	$(V_2) - (V_1) = €1,486,200$
IEF (INCOME EQUALIZATION FACTOR)	20 [BASED ON P.C. INCOME OF \$200]
NO. OF VRC'S	$(AIC \text{ (AVOIDED IMPACT COSTS)} \times IEF) / €50 = 600,000$
PROJECT COST PER VRC	$€100,000 / 600,000 = €0.16/VRC$
<u>VRC "PRICE" OF €0.16+ REQUIRED</u>	

For further reference



Chapter 16: “Addressing Climate Change Impacts in the Sahel Using Vulnerability Reduction Credits”

https://link.springer.com/chapter/10.1007/978-3-319-59096-7_17



The Higher Ground foundation

- stand up to climate change

Module 3:

The VRC Concept

Karl Schultz



The Higher Ground foundation

- stand up to climate change

Origin and evolution of the concept: Exploring how a universal measure of adaptation results might look



policy analysis



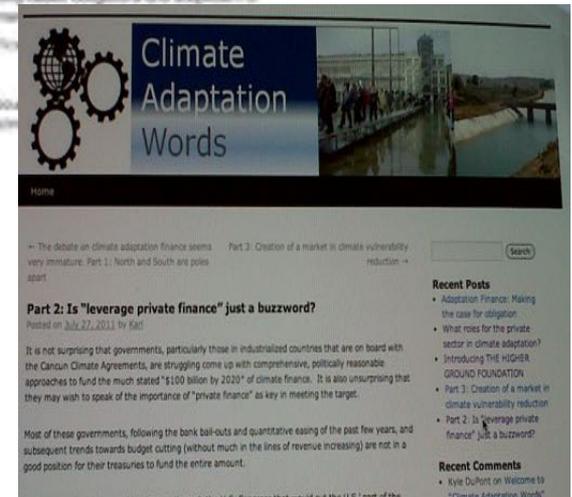
Financing climate adaptation with a credit mechanism: initial considerations

KARL HARVEY SCHULTZ*

Climate Migration Alma Limited, PO Box 4000, London N1 4QD, UK

Climate mitigation credits have mobilised considerable resources for projects in developing countries, but unlike funding to adapt to climate change has yet to emerge. The Copenhagen Accord targets up to US\$50 billion per year in adaptation funding, but commitments to date have been trivial compared to what is needed. Although there are some studies and suggestions, it remains unclear where the money will come from and how it will be disbursed. Beyond this, many development experts believe that the main hurdle in climate adaptation is effective implementation. A framework, based on the polluter pays principle, is presented here regarding the mobilisation of resources for adaptation in developing countries using market mechanisms. It is assumed that mitigation and adaptation are at least partly fungible in terms of long-term global societal costs and benefits, and that quantifying climate vulnerability reductions is possible at least sometimes. The scheme's benefits include significant, equitable and flexible capital flows, and improved and more efficient resource allocation and verification procedures that incentivise sustained project management. Challenges include overcoming political resistance to historical responsibility based obligations and simplification of market returns, and critically quantifying climate impact costs and verifying investment.

Keywords: adaptation finance; adaptation policy; Climate Investment Funds; economic effects; impact mechanisms



Premises of VRC Analysis:

1. Economic impact costs correlate with human vulnerability
2. Impacts can be equalized for poorer communities by factoring in per capita income
(Economic wellbeing \neq human wellbeing)

What is a VRC?

- A measure of the *outputs* of climate adaptation projects
- A single measure: a fungible unit crossing sectors/project types
- Issued for post hoc activity
- May be used with other evaluation tools
- VRC certificates are transferable, and a price may be put on them

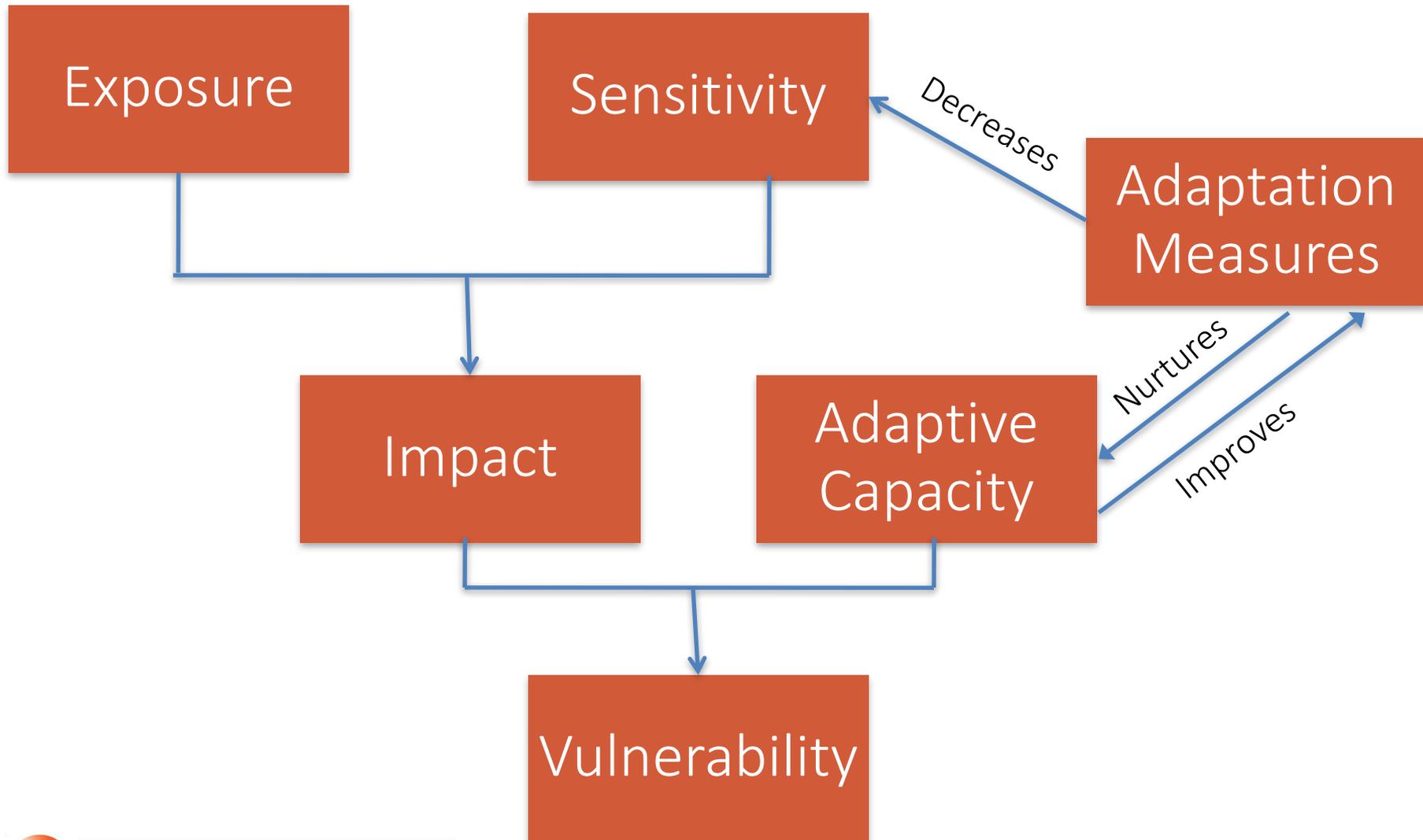
VRC's Supporting Institutional Infrastructure

- Higher Ground Foundation has created a VRC Standard Framework that has finished review by outside “experts group” and is now being launched
 - Public Consultation is underway until 28 February
- We are now launching our “Pilot Implementation and Partnership Phase” (PIPP) where projects will be eligible for “early action credit”
 - Methodologies and Project Documents to be jointly prepared by project proponents and Higher Ground: hands on relationships

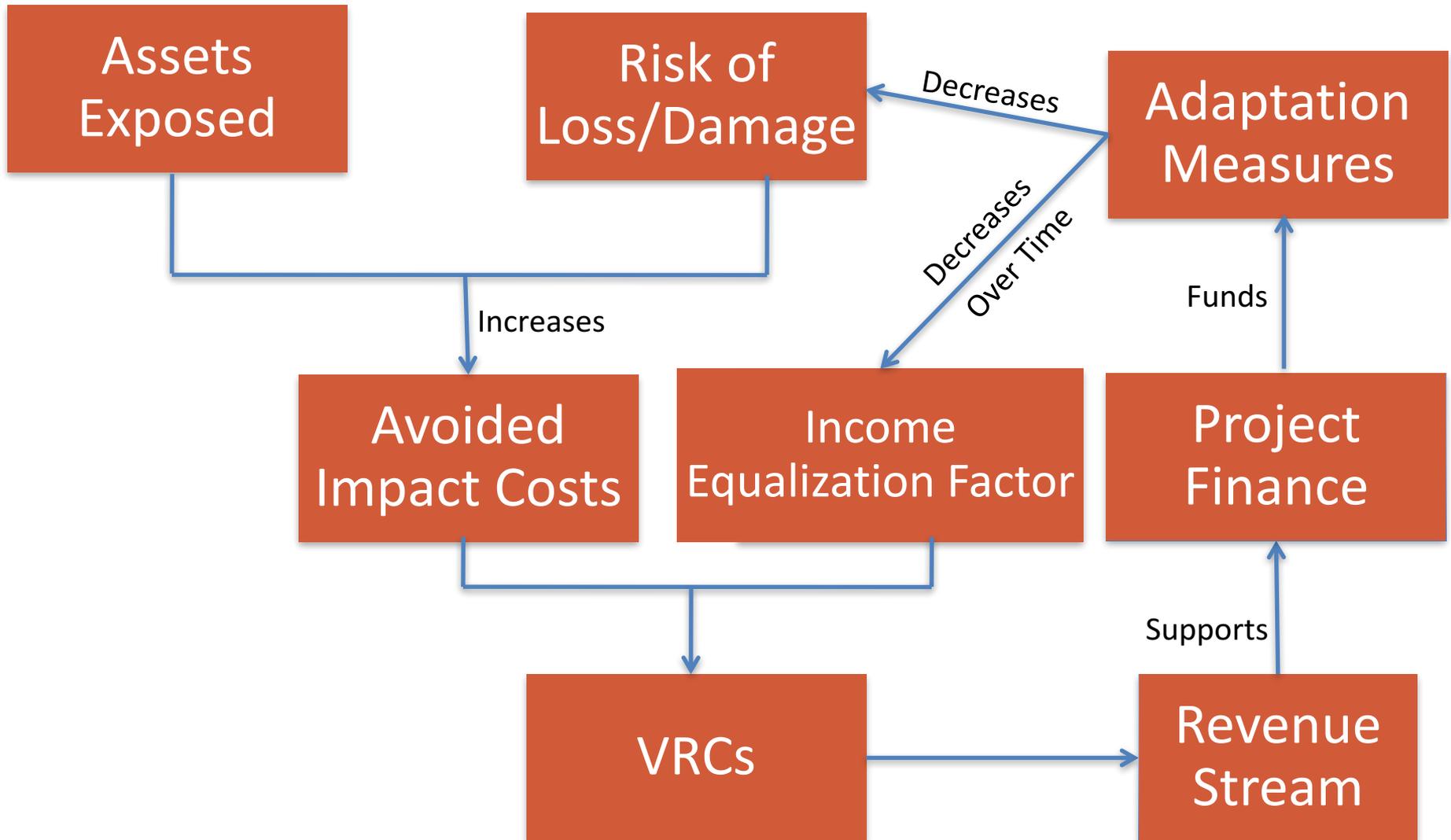




Remember this?



What do Vulnerability Reduction Credits look like?



Vulnerability = Exposure x Sensitivity ÷ Adaptive Capacity

VRCs = (Avoided Impact x Income Equalization Factor) ÷ 50

E = Exposure	the total stock and flow in a system	= Impact Cost (Avoided)
S = Sensitivity	the potential for loss and damage to exposed stock and flows	
AC = Adaptive Capacity	the wealth, wealth generation capacity, cultural/social capital, governance	~ Inverse of Income Equalization Factor



Turning Climate Vulnerability Into An Asset

Vulnerability Reduction Credits (VRCs™)





The Higher Ground foundation

- stand up to climate change

Module 4:

Converting the Concept into Reality: The VRC Standard Framework

Linus Adler



The Higher Ground foundation

- stand up to climate change



The Higher Ground Foundation

- stand up to climate change

Higher Ground Foundation VRC™ Standard Framework

Draft Version 1.17: August 2016
Working Document with Annotations

CONFIDENTIAL, PROTECTED BY NON-DISCLOSURE AGREEMENT



“VRC” is a trademark belonging to Climate Mitigation Works Ltd., sponsor of The Higher Ground Foundation initiative.



Copyright © The Higher Ground Foundation, 2016.

The Higher Ground Foundation

- stand up to climate change

Standard Framework Principles

**Avoidance of
Catastrophic
Harm**

**Community
Acceptance**

Accuracy

Self-Sustaining



Completeness

Consistency

Transparency

Conservativeness

How are VRCs created?

Activity	Defined as:
<i>Baseline Vulnerability Defined</i>	Net projected change in asset base with climate changes: using downscaled climate outputs and impacts assessment, plus other demographic, economic, local conditions and trends
<i>Intervention Impacts Assessed</i>	Expert evaluation of how adaptation intervention reduces climate-induced changes to asset base
<i>VRC Quantity Calculated</i>	Based on anticipated assets protected/time divided by VRC factor
<i>VRCs Issued Periodically</i>	Based on % of project vulnerability reduction efficiency, from monitoring reports and 3 rd Party Verification

VRC Project Process



The Higher Ground Foundation

- stand up to climate change

- stand up to climate change

VRC Standard Framework Experts Review

Main

Content * Comments * Resources Activities Manage *

Public Page

- Message to Reviewers
- 1 Introduction to the VRC Standard Frame
- 2 Scope of VRC Framework
- 3 Principles
- 4 VRC Methodologies and Methodology R
- 5 Project Guidelines
- 6 Annex: Impact Cost Estimation Confider
- 7 Annex: Standards for Indigenous Comm
- 8 Annex: Standards for Calculating VRC P
- 9 Annex: Methodology Approval Guideline
- 10 Annex: Project Validation and Verificati
- 11 Annex: Auditor Accreditation Requirem
- 12 Annex: Approvals Price Schedule
- 13 Annex: Inter-Project Pool for Project R
- 14 VRC Methodology Template
- 15 VRC Project Document Template
- 16 Approved Downscaled Modelling Tools
- 17 References

Message to Reviewers

Updated 4 months ago by Higher Ground Secretariat

Edit History Comments 0



The Higher Ground Foundation

- stand up to climate change

Welcome to the Main section of the VRC Standard Framework review platform. This is the [confidential] draft Standard Framework, the basis for review. Note there are 4 different tabs on the right hand side of your screen:

1. Main - the draft VRC Standard Framework, and the expert review period.
2. Rationale - thoughts by the Higher Ground team on why they chose to draft sections the way they are drafted.
3. Usage - thoughts on information and dialogue that may help inform the expert review, along with links to the internet and Climate Adaptation Scholars pages on Collaborase.
4. Guidance - questions and issues that may help guide the review.

You may navigate through all of these four issues by clicking on the dropdown on the Content tab in the upper left area of the page, click on the right hand tabs in any given section.

We are fortunate to have Tom Bauman, founder of Collaborase, as a fellow expert reviewer. Tom has graciously agreed to help experts with questions regarding the platform. He may be reached at baumann@interactiveladder.com

For the list of tasks and timeframes for review periods (also listed at top of each subsection), click here: [VRC Review Tasks and Timeframes](#)

For a list of subgroups and their coordinators, click here: [Experts List/Subgroups](#)

Ma
Ra
Us
Gu

Contents of VRC Standard Framework:

Table of Contents

Message to Reviewers	4
Terminology	5
Abbreviations	5
Definitions	6
1 Introduction to the VRC Standard Framework	12
1.1 Acknowledgements	13
1.2 The Higher Ground Foundation and the VRC Standard Framework	13
2 Scope of VRC Framework	14
2.1 The VRC Project Process	14
2.2 Applicable Sectors	15
3 Principles	16
4 VRC Methodologies and Methodology Review and Approval	17
4.1 VRC Methodology Templates	18
4.2 Sectoral Scope and Scale	18
4.3 Project System Boundary and Leakage	19
4.3.1 Quantifying Project Related Greenhouse Gas Emissions and Offsetting Requirements	20
4.4 Baseline Scenarios	20
4.5 Revising Baselines for New Project Periods	22
4.6 Project Design	22
4.7 Confidence in Avoided Impact Calculation Validity	23
4.7.1 Avoidance of Catastrophic Harm	24
4.8 Estimating Avoided Impact Costs	25
4.8.1 Projects' AICs Only Consider Climate Change	26
4.9 Income Equalisation Factor	27
4.10 Additionality	27
4.11 Local Stakeholder Consultation	28
4.12 Methodology Review and Approval	29
4.13 Methodology Revision Process and Approval	29
5 Project Guidelines	30
5.1 Project Document Template	30
5.1.1 Project Start Date	31
5.1.2 Timing and Approach to Crediting	31
5.1.3 Project Crediting Period	32
5.1.3.1 Activity Periods and Renewal	32
5.1.3.2 Permanence	32
5.1.4 Project Location and Physical Boundary	33
5.1.5 Right of Use, Ownership and Legal Title/Property Rights	33
5.1.6 Community Acceptance	33
5.1.7 Addressing Leakage	34
5.1.8 Deviation from Methodology	34
5.2 Validation and Verification	34
5.2.1 General Requirements	34
5.2.2 Validation and Verification Standards	35
5.2.3 Project Document Validations	35
5.2.4 Monitoring	35
5.2.4.1 Data and Parameters	35

5.2.4.2 Monitoring Plan	36
5.2.4.3 Monitoring Report	36
5.2.5 Accreditation of Validation and Verification Bodies	36
5.3 Project Non-Compliance	37
6 Annex: Impact Cost Estimation Confidence	37
6.1 Confidence Standards	38
6.1.1 Model Reliability	38
6.1.2 Model Robustness	38
6.1.3 Model Flexibility	39
7 Annex: Standards for Indigenous Communities Consultation	39
7.1 Principles, Terms of Use, and Legal Status References	44
7.1.1 Standard 1: Indigenous Community Assessment	48
Standards for Indigenous Communities Consultation	48
Standard 1: Assessment of Indigenous Communities	49
7.1.2 Standard 2: Prior Consultation with User Groups	50
Standard 2: Prior Consultation with User Groups	50
7.1.3 Standard 3: Prior Consultation with the Indigenous Community	51
Standard 3: Prior Consultation with the Indigenous Community	51
7.1.4 Standard 4: Free and Informed Community Consent	52
Standard 4: Free and Informed Community Consent	52
7.1.5 Standard 5: Recording Consultation Findings	53
7.1.6 Standard 6: Rights & Responsibilities during VRC Project Implementation	53
Standard 6: Rights & Responsibilities during VRC Project Implementation	53
7.2 Standard 7: Property Rights and Indigenous Customary Land Use	55
Standard 7: Property Rights and Indigenous Customary Land Use	55
7.3 Standard 8: Multiple Use Areas and Multiple Users	55
Standard 8: Multiple Use Areas and Multiple Users	56
7.4 Standard 9: VRC Ownership for Indigenous Communities	56
Standard 9: VRC Ownership for Indigenous Communities	56
7.5 Standard 10: Valuation of Customary Land Uses and Cultural Heritage Sites	57
Standard 10: Valuation of Customary Land Uses & Cultural Heritage Sites	57
8 Annex: Standards for Calculating VRC Project GHG Emissions	59
8.1 List of project types not requiring emission calculation	60
8.2 List of approved sources of emission offset credits	60
9 Annex: Methodology Approval Guidelines	60
9.1 List of approved standard methodologies	60
9.2 List of approved small scale methodologies	60
10 Annex: Project Validation and Verification Guidelines	61
11 Annex: Auditor Accreditation Requirements	60
12 Annex: Approval Price Schedule	60
13 Annex: Inter-Project Pool for Project Reversals	60
14 VRC Methodology Template	60
15 VRC Project Document Template	60
16 Approved Downscaled Modelling Tools and Outputs	60
17 References	60



The Higher Ground Foundation

- stand up to climate change

- stand up to climate change



The Higher Ground foundation

- stand up to climate change

Module 5:

Converting the Concept into Reality (2): Pilot Implementation and Partnership Phase (PIPP)

Karl Schultz



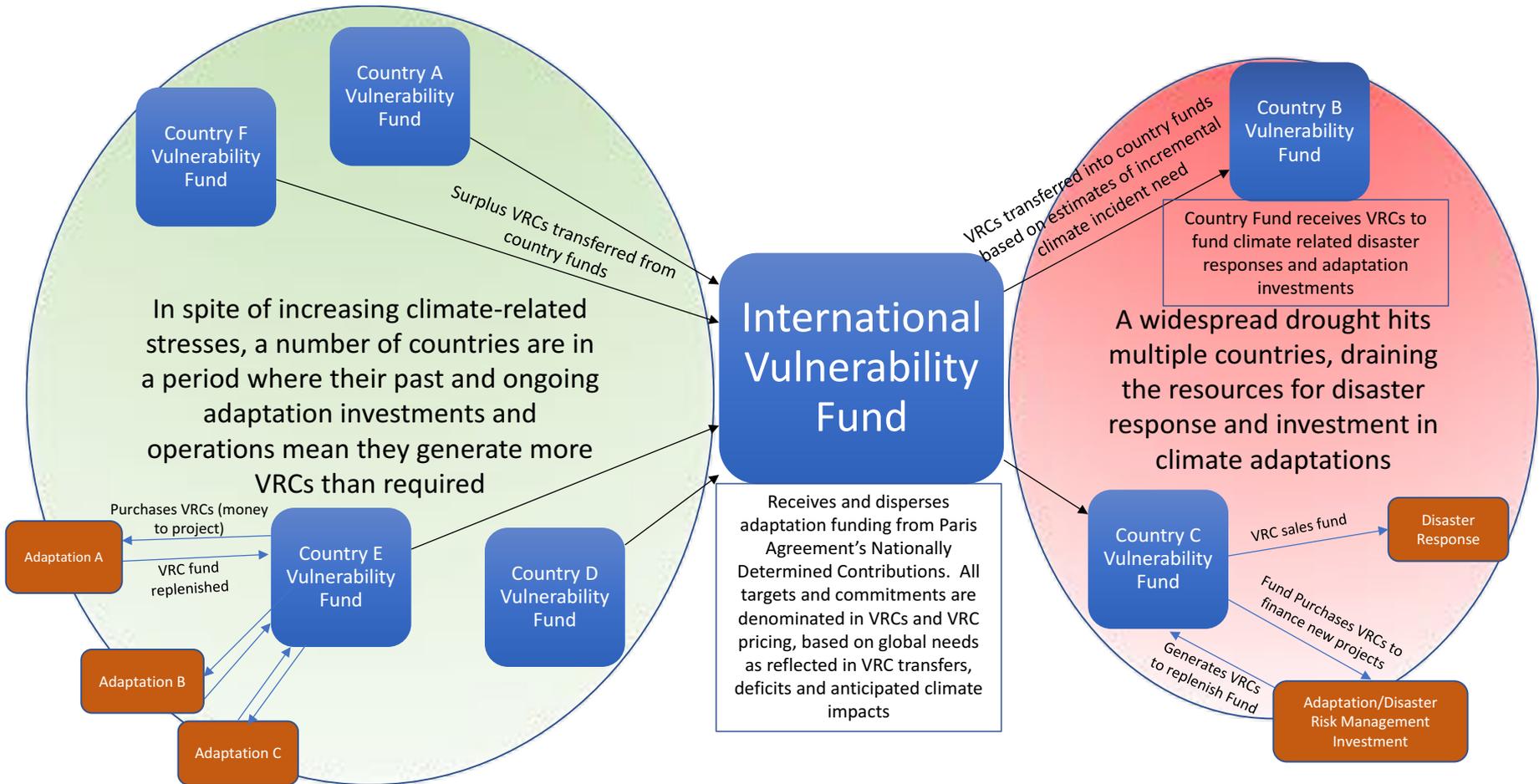
Our goal and the way forward

Our aim is to create a future where the best responses to climate change are the choices the world wants to make.

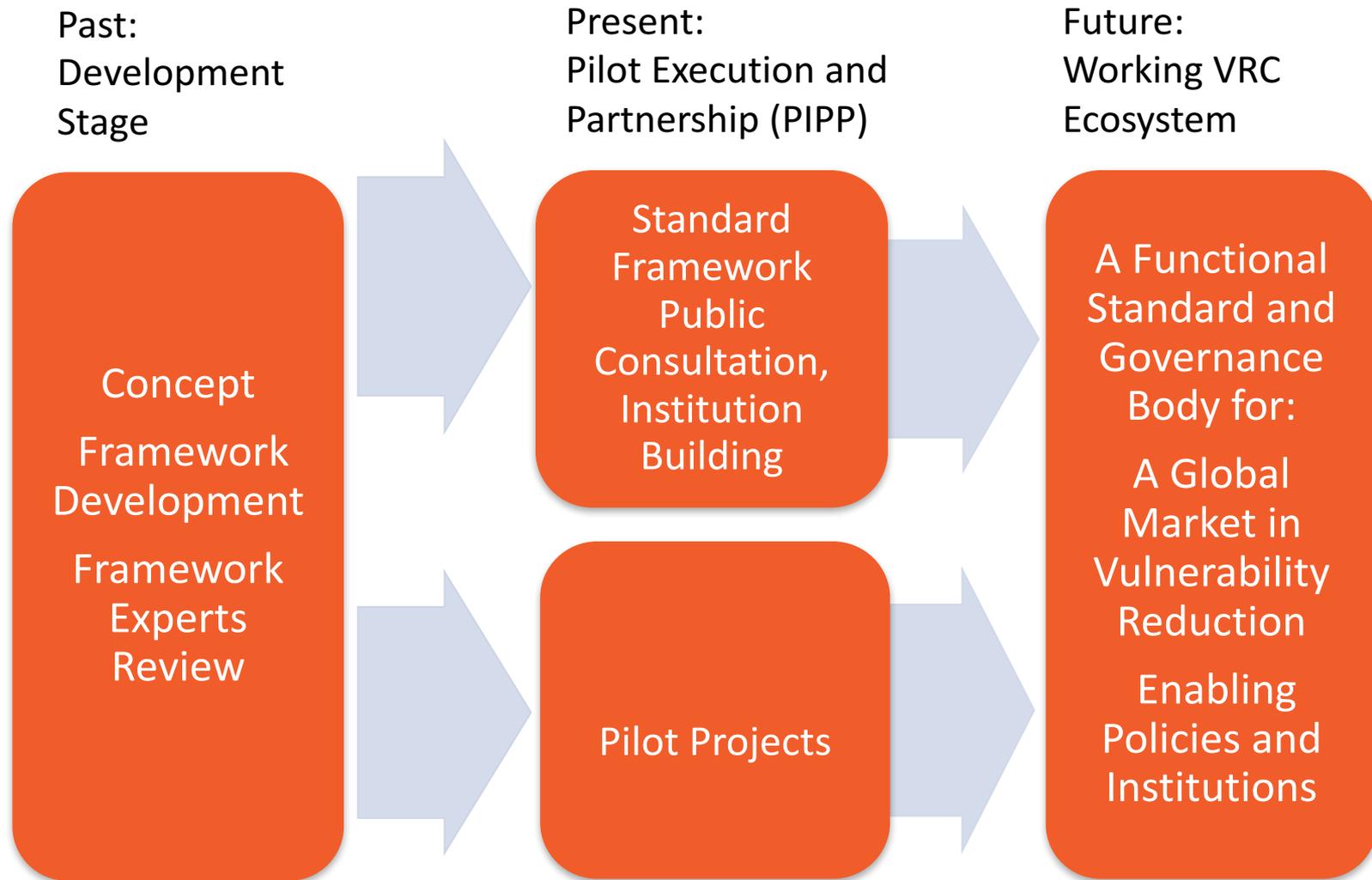
- VRCs become universally understood measure/unit of value
- Organic, Policy-Driven Growth: spread out to whole economies
- Linkage to overall development and global economic system
 - Building block for development
 - Supply chains and international financial flows
 - Tool for articulating international/national/local and business commitments
 - Potential for VRCs to become international “currency”
 - National and international climate risk management tool with appropriate governance regime



Possible Global Climate Risk Hedging Mechanism



Direction of Travel



Pilot Implementation and Partnership Phase (PIPP)

- Starts with Public Launch of Standard Framework
- Learn by doing:
 - HGF very actively involved with projects and methodology developments
- Early action credits may be issued for pilot projects, pilot transactions may take place
- Engage with all different groups needed for project implementation:
 - Community
 - Project Proponent (could be many different types)
 - Host government
 - Adaptation experts for methodology creation
 - Auditors
 - Funders of adaptation
- Develop partnerships and build tools and portals:
 - Climate services/data providers
 - NGOs, Governments, Funders of Adaptation, UNFCCC engagement and policy development
- Revise Framework and Guidance based on experiences and public consultation (starting soon):
 - Auditor accreditation requirements
 - Fee schedule
 - Standard Framework Revision at end of phase
 - Templates
 - Validation/Verification guidelines
 - Positive lists
 - Among others
- Create number of methodologies and “vulnerability reduction project manager” VRPM tools for various types of projects
- Create institutional framework for Higher Ground Foundation : non-profit organization incorporated by end of PIPP



How can I get involved?

You:	Action
Are looking for a way to better understand adaptation results for projects you manage or fund?	Ask us for a copy of our VRCs for M and E presentation, then contact us.
Want to improve your government's/corporation's adaptation target setting, increase project effectiveness, transparency, and efficiency, and incentivize results-based adaptation?	We are happy to email you a short document on this option. Then let's talk.
Think you have an adaptation practice or technology that is a real winner, and want to have it recognized through lots of VRCs	Consider co-developing a methodology based on our "VRC methodology template" that is being finalized. Then get in touch.
Have an adaptation project, or project idea you'd like to develop with VRCs?	Review the call for projects page and the project concept note criteria: http://thehighergroundfoundation.org/callforprojects.html Then get in touch with one of us.
Are an auditor wanting to gain status validating/verifyihng VRC projects	Review the VRC Standard Framework applicable sections, then get in touch to learn about accreditation.
Interested in following HGF's progress and learning of new opportunities	Join the "Friends of Higher Ground" at: http://thehighergroundfoundation.org/contact.html
Interested in joining the HGF team	Get in touch with one of us



The Higher Ground Foundation

- stand up to climate change

Please contact either of us if you would like to learn more!



Karl Schultz

karl@thehighergroundfoundation.org

+44 (0) 207 3543 595

Skype: karl.schultz1



Linus Adler

linus@thehighergroundfoundation.org

+44 (0) 7928 759874

Skype: linus.adler1

www.thehighergroundfoundation.org



The Higher Ground Foundation

- stand up to climate change



The Higher Ground foundation

- stand up to climate change

Module 6:

Questions, Answers and Discussions

Participants, Linus and Karl



The Higher Ground foundation

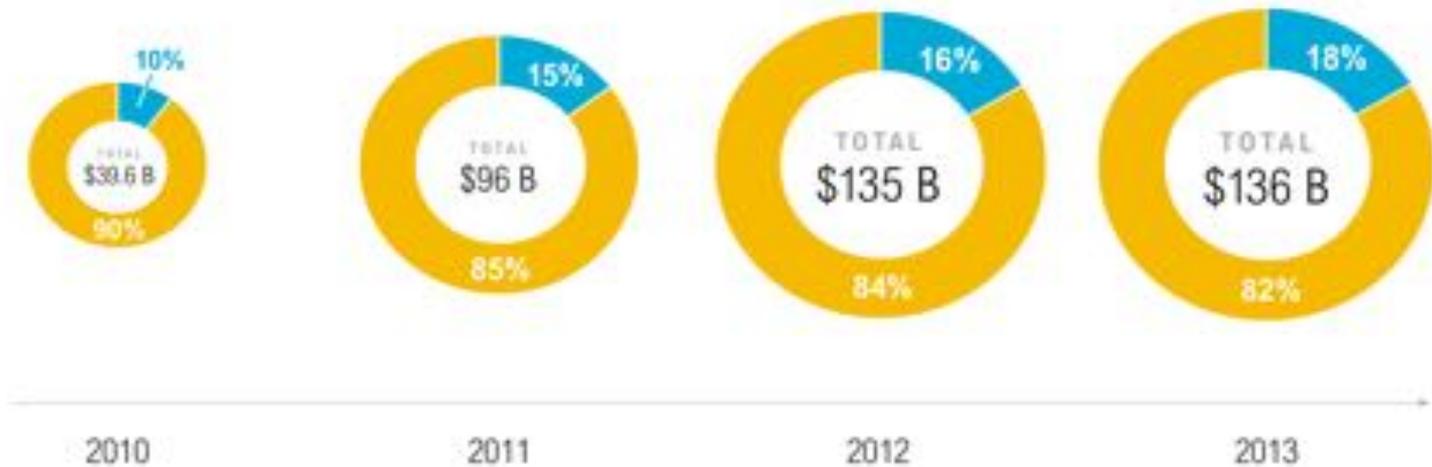
- stand up to climate change

Extra Slides



Mitigation and Adaptation Finance Commitments from Public Sources, 2010-2013 (in USD Billions)

■ Mitigation ■ Adaptation

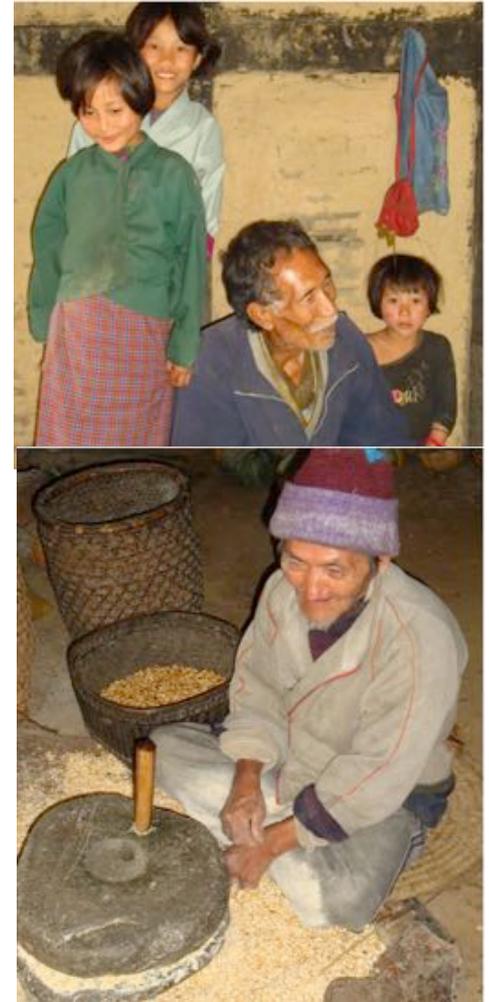


Source: Climate Funds update,
The Landscape of Climate Finance 2010-2014.

 WORLD RESOURCES INSTITUTE

Corporate Demand Drivers

- Corporate Social Responsibility
 - Direct action in vulnerable communities: the human touch
 - Robust accountability and linkage to climate vulnerability reduction
- Supply Chain Management
 - Commodities, Communities along chain are vulnerable
- Market Risk Reduction
 - Markets are vulnerable
- Adaptation Skills
 - Need to know risks and gain skills to be resilient to future market conditions

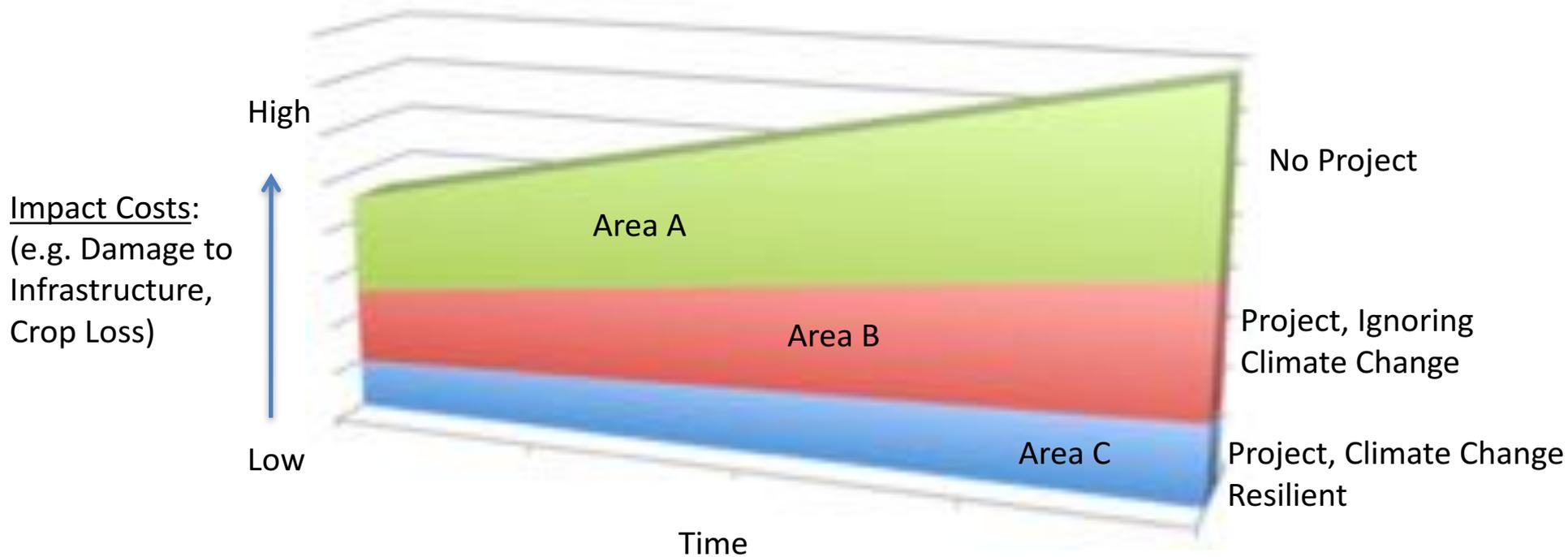


International Climate Policy Demand Drivers

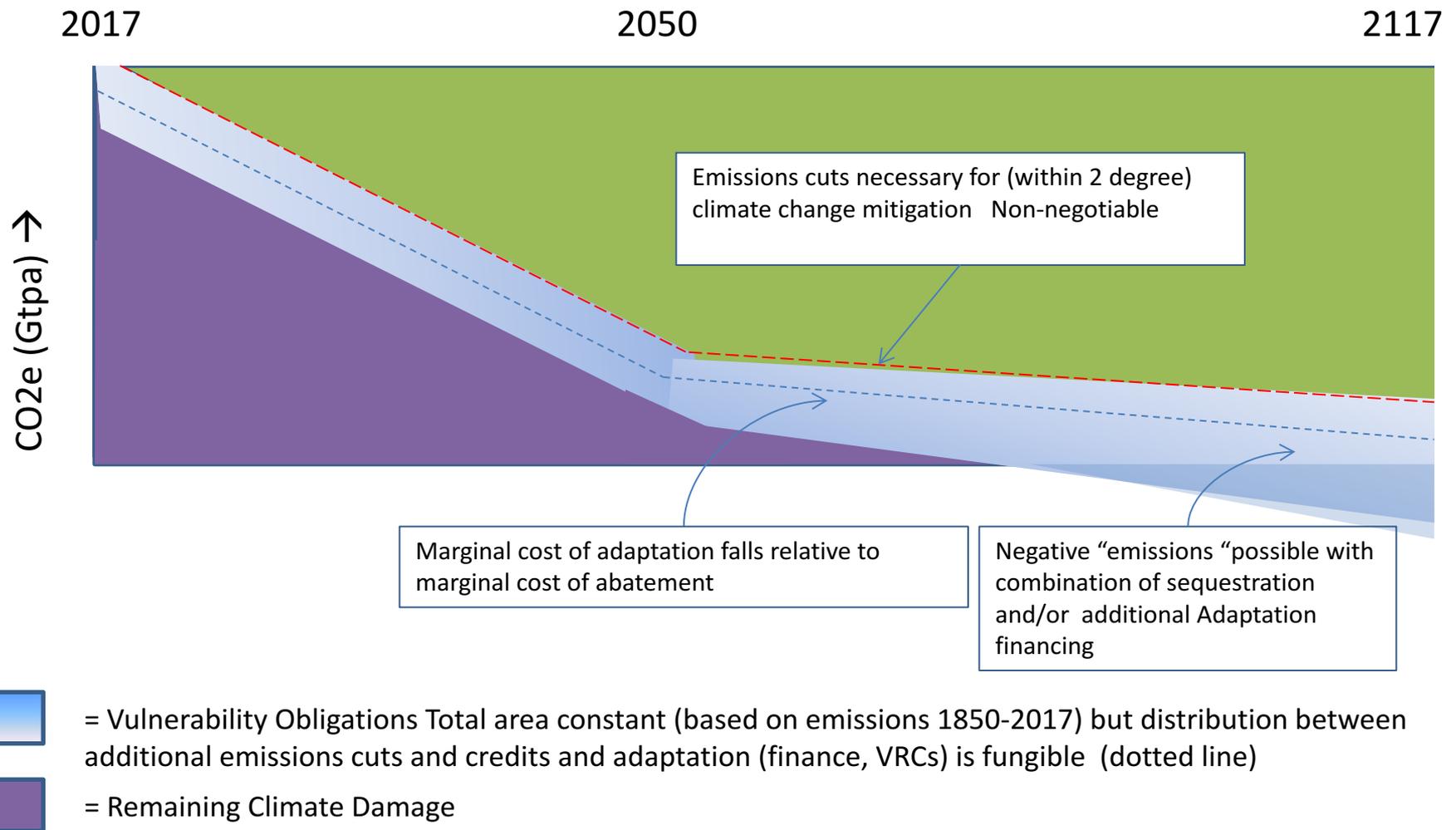
- The challenges:
 - Funding \$100,000 billion/year in age of fiscal austerity,
 - That is additional (goes beyond development assistance),
 - Prioritizing communities in greatest need,
 - Transparency of funding,
 - Scaling up throughout economies,
 - Good value for money, and
 - Sustainability of climate resilience.
- VRCs meets these challenges:
 - Possible that \$10 billion (purchase of VRCs) could leverage \$40 billion private finance (considering leveraging potential of Clean Development Mechanism)
 - Income Equalisation Factor (IEF) makes projects in poor communities attractive and a mechanism to scale up successful pilots
 - Robust baseline, additionality requirements, monitoring regime and transparent documentation
 - Sustainability incentivized because credits issued only after activity monitoring reports verified.



How VRCs are Generated – Baselines

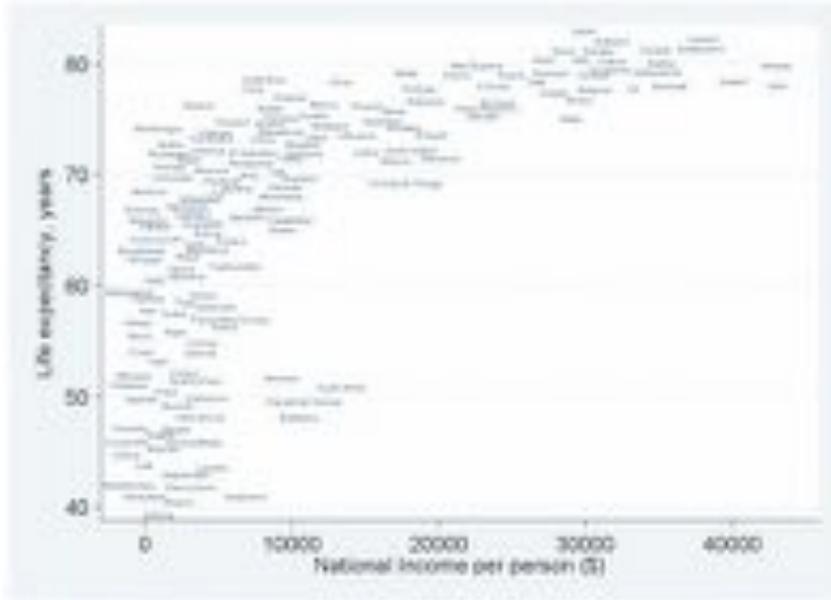


Building a Vulnerability Reduction Market: Adaptation Finance



Well being factors and income

Income per head and life-expectancy: rich & poor countries



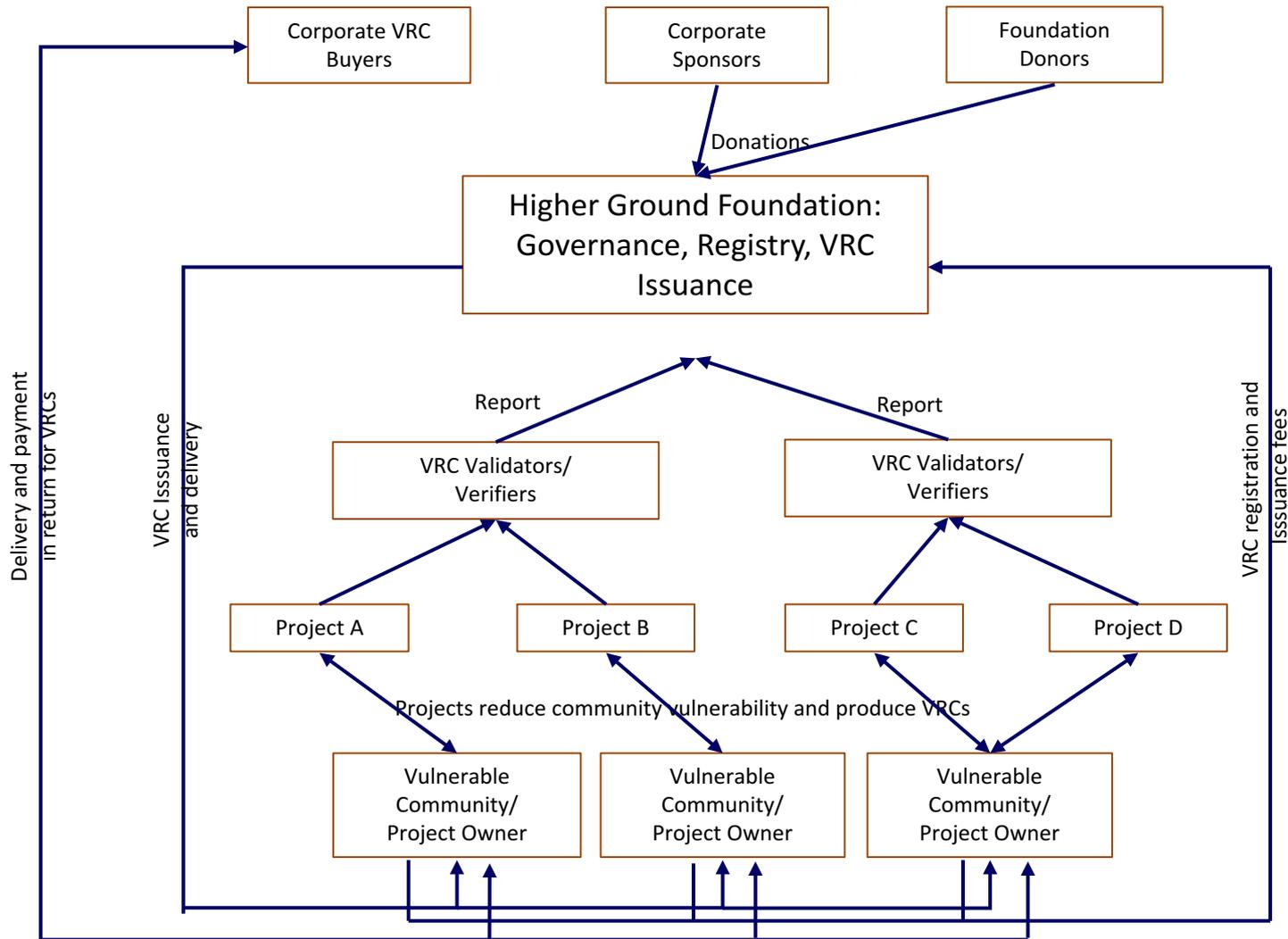
- Delinking of “wellbeing” factors with income growth
 - life expectancy
 - happiness
- So important to establish a “middle income” threshold:
 - This is point when stop factoring in income to VRCs

From Wilkinson, R., and Pickett, K. (2010) *The Spirit Level*, Figure 1.1

VRCs as a Currency: How may they be used?

Approach	Benefit
Project monitoring and evaluation tool	Allows for funders to evaluate, based on transparent standards, a project's contribution to vulnerability reduction
Traded credit	Allows for project developers and credit aggregators to support projects and sell on to those interested in showing support for adaptation
Retired credit	For companies and individuals who want to show they are quantifiably reducing climate vulnerabilities
Consumer product linked to other products	An opportunity for individuals to purchase products that also help reduce climate vulnerability
Measure for International Treaty Obligations	Rather than focus on money, a treaty can use VRCs as the obligation, to demand outcome-based actions to quantifiably reduce vulnerability
International Climate Fund/National Climate Reserve currency	VRCs may be used to measure a nations vulnerability, and be banked in a fund to support actions to reduce vulnerability
Rating instrument (government, corporate)	May be a tool to show how vulnerable a sovereign or company may be. Rather than a credit, could be a measure of total "vulnerability expected" in the future
Government planning/cost:benefit tool	The baseline approach and means of estimating VRC generation potential could be effective in integrating into public investment planning to more accurately reflect real costs and benefits of alternative projects/programs
Investment parameter	Could be used to leverage finance, and determine the total revenue stream potential of projects
Insurance tool	Could be basis for quantifying climate-related hazards, used to set premium prices and also criteria for when coverage is triggered

The VRC Market in Practice



How does VRC Marketplace Develop?

- Standard Framework Experts Review is complete
 - Nearly 50 experts involved in different capacities
 - New creation of standards for indigenous communities
- Framework public launch (alongside public consultation) this autumn
- Next: Pilot Execution and Partnership Phase
 - Opportunity for project developers/adaptation projects in “early action credit” phase
 - HGF remains hands on to learn and improve system
 - Followed by more formal phase with HGF hands off as methodology/project registration/certificate issuance body

Ensuring Project Robustness

- The baseline is revisited every ten years
 - This serves as a corrective for improved understanding of climate changes;
 - It includes recalculating the Income Equalization Factor (IEF) which serves to reflect changes in a system's adaptive capacity (AC)
- The project may incorporate historical climate change into the Avoided Impact Cost (AIC) calculation
 - Provided that historical climate change is justified;
 - This increases the potential for VRC generation and is very important for project finance for important long term investments during early project periods

Mitigation vs. Adaptation

	1992	1995	1997	2000	2003	2005	2008	2009	2010
Climate:	Earth Summit Rio establish UNFCCC		Kyoto Protocol	U.S. Withdraws from Kyoto		Kyoto Goes into Force		Copenhagen COP	Cancun COP
Mitigation:	Non-binding limit emissions to 90 levels by 2000 Global Environment Facility Funds Mitigation +	U.S. Acid Rain Program: National Emissions Trading Swap SO2 Allowances for CO2 "VERs"	Binding Limits Agreed	World Bank Starts Prototype Carbon Fund		Phase I EU ETS CDM and Voluntary Markets Take Off	Phase II EU ETS	Emissions Markets Worth \$140 billion, about 2000 CDM projects worth \$11 billion in credits Targets \$100 billion/ 2020 Mitigation And Adaptation, \$10 bil./yr. 2000-12 Cancun Adaptation Framework Agreed Funds provide \$1 bil. for adaptation	
Adaptation:	Mainly scientific work assessing impacts Work by Nordhaus, Fankhauser, Perry, others on costs of climate change					Various GEF, OZ, UNDP/UNEP/UNCDF/ UNFCCC funds available, most projects technical assistance/capacity building			2000: Adaptation Fund First Project Supported

