



The Higher Ground Foundation

- stand up to climate change

Climate Vulnerability Reduction Credits

Standard Framework
Public Consultation Process

WEBINAR

Monday, January 29th, 2017



Today's "Speaker"



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)*



Today's Subjects

- Introduction and Objectives
- The Higher Ground Foundation
- Why a VRC, and what is a VRC?
- Review Aims
- Review Process
- Framework Overview
- Q and A/Discussion



The Higher Ground Foundation



About The Higher Ground Foundation



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

Diverse team of people interested in encouraging climate adaptation through a 'credit' instrument and governance regime.

Accomplished through:

- creation of standards and methodologies for a target setting and market mechanism enabling better adaptation investments
- formation of pilot projects in diverse, climatically vulnerable systems
- organization of a large-scale market in climate vulnerability reduction credits (VRCs™)

HGF organizational objective:

To register projects and issue credits, stimulating a global system for incentivizing good, verified climate adaptation projects through the exchange of credits.

Higher Ground Foundation's Activities

Past:

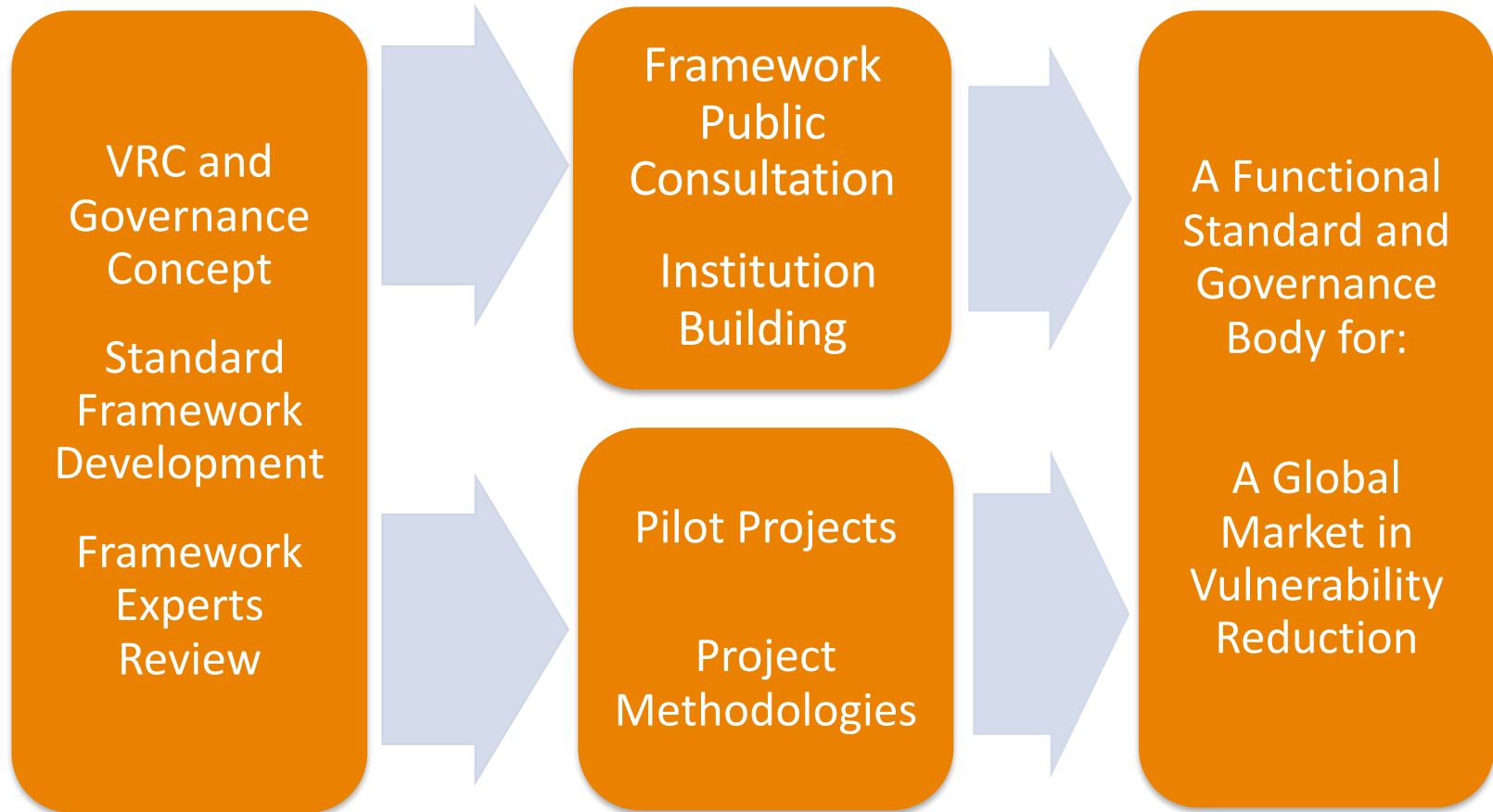
Development
Stage

Present:

Pilot Execution and
Partnership (PIPP)

Future:

Working VRC
Ecosystem



PIPP is a period to “get it right”

- HGF to be hands on with partners
- Early action credits in a world where institutional structures, reviews and approvals, and price discovery will be underway
- Pilot Projects, engagements with:
 - Community
 - Project Proponent (could be many different types)
 - Host government
 - Adaptation experts for methodology creation
 - Auditors: (organizing auditors working group)
 - Funders of adaptation
- Develop partnerships and build tools and portals:
 - Climate services/data providers : Portal for data needed for project documents (e.g. GEOSS)
 - Vulnerability reduction project manager (VRPM) tools for various types of projects
 - Online access to Framework, guidelines, methodologies, project documents, monitoring reports and credit issuance data
 - Integrate “Next Generation Governance and Technology” for adaptation/standards/exchange in world of blockchain, internet of things, big data analytics, artificial intelligence, etc.



The Need for a New Understanding of Urban Flooding Risks and Resilience
Global climate warming is to a greater or lesser extent, inevitable and its impacts on earth hydrological systems will include in the coming years and decades, urban populations will face direct threats to infrastructure and water supply as a result of increased and more erratic flooding along with changes in water tables, upstream ground water, and increased storm and sea level rise. VRPM Flood Defense is a tool for measuring the resilience levels of communities, especially in adaptation decision process and non-IPCC capacity measures, that will need to integrate the growing stresses of climate change into their flood prevention planning and infrastructure.

The Vulnerability Reduction Project Manager
Flood defense and control systems include levee infrastructure such as levees and drainage systems, ecological restoration such as green roofs and floodplain management, planning and building code systems, and disaster risk management planning. Together these systems can all be a part of an integrated flood reduction strategy for assessing on how the system are combined, then then for more or less effective flood reduction portfolio.

To help plan, implement, and measure flood adaptation project actions, we present the **Vulnerability Reduction Project Manager for Urban Flooding (VRPM-FloodDefense™)**. This is a comprehensive tool for planners and engineers needed to urban flood reduction to estimate system vulnerability and measure and prioritize the economic impacts of competing and integrated flood management approaches.

VRPM-FloodDefense™ Features and Uses
VRPM-Flood Defense is the most advanced tool to both compare and provide alternative flood control scenarios to manage rising sea-level, future urban development, and climate change. It gives the project

Why VRCs? What are VRCs?

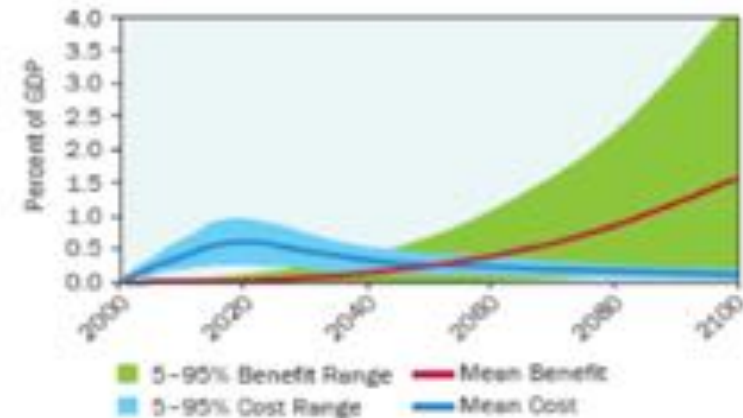


Why VRCs?:

Benefits > costs, but far from enough proactive adaptation

- Inadequate *funds* and *more immediate priorities*
(including *climate-change induced disaster response*)
- No clear *role for private sector* to invest in scalable solutions
- *Comparability* of actions: are funds going for maximum climate vulnerability reduction?
- *Robust baselines, monitoring and verification*
- *Sustainability* of vulnerability reduction measures

Example: Southeast Asia Coastal Protection



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.

By 2100:

Benefit: 1.9% of GDP

Cost: 0.2% of GDP

$$\#VRCs = (AIC \times IEF) / \text{€}50$$



Avoided
Impact Cost



Income Equalisation
Factor



Nominal Value

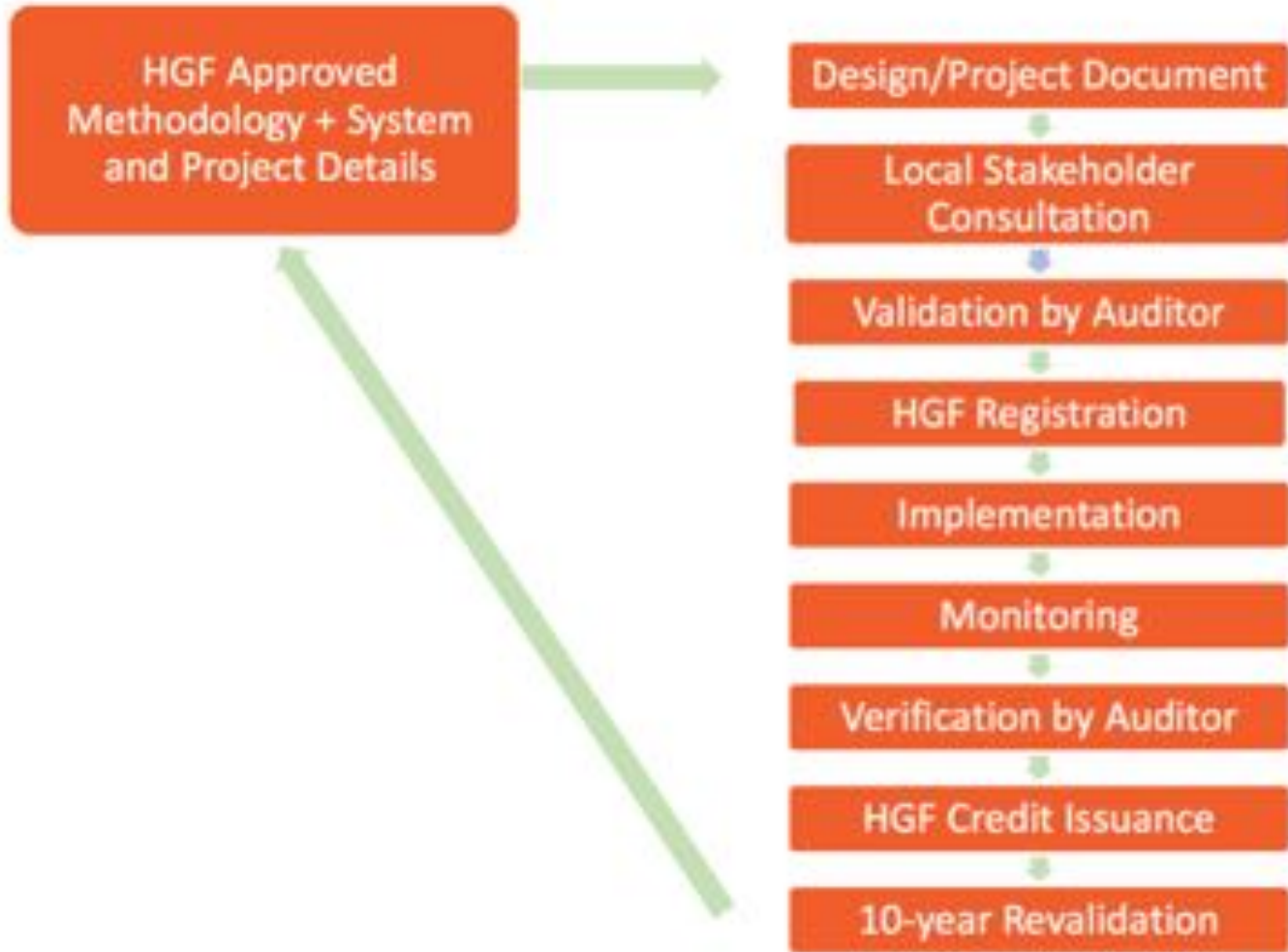
Premises of VRC Analysis:

1. Economic loss and damage embodies most (*easily measurable*) value for human vulnerability
 - Important to remove co-dependency of different factors, just focus on most universal
 - Using economic cost : benefit analysis tools (e.g., use and non-use values, etc.) is an established approach
2. Loss and damage can be equalized for poorer communities by factoring in per capita income
 - Economic wellbeing \neq human wellbeing
 - What matters is the relative value for communities, households, and individuals of their loss, not the absolute value
 - Beyond middle income status, however, research shows income does not correlate with wellbeing

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 and community income |
| <i>VRCs Issued Periodically</i> | Based on % of project vulnerability reduction efficiency, from monitoring reports and 3 rd Party Verification |

VRC Project Process



VRC roles

| Uses | Benefits |
|---|--|
| Monitoring and evaluation tool | <i>Transparent standard to evaluate a project's contribution to climate vulnerability reduction</i> |
| Archive of climate, impacts, and adaptation solutions | <i>Support virtuous circle of learning and innovation</i> |
| Traded/retired credit | <i>Mechanism to prove support of adaptation projects and leverages private finance</i> |
| Policy target setting | <i>Targets and VRC funds based on transparent, verified results for sustained vulnerability reductions</i> |
| Investment parameter | <i>Quantify vulnerability reduction outlook within sovereigns, corporates and projects</i> |



Review Aims



Aims (1) “Understand and Consider”:

- Understand HGF’s intentions for the VRC and Framework
 - A tool for comparing and prioritizing adaptation projects based on their impacts/outcomes
 - Ability to compare between different project types that adapt to different climatic stresses is key
 - An instrument that may help with outcome-based target setting, funding/investment decisions, project finance, and evaluations
 - Underlying premises/proxies are “good enough” for reasonable people to see value in creating/using VRCs
- Consider how the draft Framework meets or does not meet these aims

Aims (2) Improve:

- Identify critical issues that impact the VRC Framework's ability to deliver:
 - Possible,
 - Realistic,
 - Fair,
 - Consultative, and
 - Efficientrules and approaches towards the registering and awarding of VRCs that reasonably(!) reflect the results of adaptation measures.
- Forward informed and defensible improvements to the Framework terminology, principles, approaches, and interpretations of reasonable standards.

Aims (3) Validate:

- Use collective and inter-disciplinary know-how, to forward and where alternatives exist, debate with peers the best approach and language, considering, again:
 - Possible,
 - Realistic,
 - Fair,
 - Consultative, and
 - Efficient

The Review Process



Collaborase:

The screenshot shows a web browser window with the URL <https://collaborase.com/random/1/1/1?type=section>. The page title is "1 Introduction to the VRC Standard Framework". The left sidebar contains a navigation menu with the following items: "Terminology", "1 Introduction to the VRC Standard Framework", "2 Scope of VRC Framework", "3 Principles", "4 VRC Methodologies", "5 Project Requirements", "6 Project Document Validation and Monitoring", and "7 Annex: Vulnerability Indicators Outcomes Criteria". The main content area features a section header "1 Introduction to the VRC Standard Framework" with a sub-header "Updated about 1 month ago by Linus Adler". Below the header are buttons for "Edit", "History", and "Comments". The main text includes two references: "[1] From: [http://gghinstitute.org/wp-content/uploads/content/GHGMI-AdditionalityPaper_Part-2\(ver3\)/FINAL.pdf](http://gghinstitute.org/wp-content/uploads/content/GHGMI-AdditionalityPaper_Part-2(ver3)/FINAL.pdf)" and "[2] From: [http://gghinstitute.org/wp-content/uploads/content/GHGMI-AdditionalityPaper_Part-3\(ver3\)/FINAL.pdf](http://gghinstitute.org/wp-content/uploads/content/GHGMI-AdditionalityPaper_Part-3(ver3)/FINAL.pdf)". The text describes the VRC Standard Framework as a global, unified standard for quantifying the outputs of projects that reduce vulnerability to the effects of climate change. It also mentions that the Framework provides requirements for developing projects and methodologies, including clear baseline regimes, as well as the requirements for validation and monitoring of projects and verification of the project outputs. A VRC is defined as the monetised cost of the estimated impact of climate change, adjusted for the income level of the community, which will be avoided as a result of the project. VRCs are issued based on the % of effectiveness of actual activity or level of service of the adaptation activities as defined in the VRC methodology and delineated in the project document.

How we can accomplish the consultation:

People

- Secretariat
- Public Reviewers

Working together

- Secretariat to manage process
- But Reviewers are independent partners and collaborators
- Furthermore, reviewers invited to collaborate with each other
- Process through Collaborase

Documents:

- Overall Framework and Supporting IP
- Ancillary Documents
 - Project Document Template
 - Methodology Template
 - Standards for Indigenous Communities Consultation

Further Standards and Guidance Development

- Auditor accreditation requirements
- Fee schedule
- Standard Framework Revision following Public Consultation
- Standard Framework Revision at end of PIPP
- Templates
- Validation/Verification guidelines
- Additionality positive lists and for projects not requiring GHG estimation
- Approved climate model outputs and other data for VRC calculations

Where to focus?

We have suggested areas table: go to “Resources” in Collaborase

FRAMEWORK SECTION

| FRAMEWORK SECTION | Auditor | Adaptation professional | Community organizers/ communities | Project developers | Funders of projects/ financiers | Policymakers | Research Institutes |
|--|---------|-------------------------|-----------------------------------|--------------------|---------------------------------|--------------|---------------------|
| 1 Welcome | X | | | | X | X | |
| 1.1 Terminology | X | X | X | X | X | X | X |
| 1.1.1 Abbreviations | X | X | | X | | | X |
| 1.1.2 Definitions | X | X | X | | | | X |
| 2 Introduction to the VRC Standard Framework | X | X | X | X | X | X | |
| 2.1 Acknowledgements | X | | | | | | |
| 2.2 The Higher Ground Foundation and the VRC Standard Framework | X | X | | X | X | X | X |
| 3 Scope of VRC Standard Framework | X | X | | X | X | X | X |
| 3.1 The VRC Project Process | X | X | X | X | X | X | X |
| 3.2 Applicable Sectors | X | X | X | X | X | X | X |
| 4 Principles | X | X | | | X | X | X |
| 5 VRC Methodologies and Methodology Review and Approval | X | X | X | X | X | X | |
| 5.1 VRC Methodology Templates | X | X | | X | | | |
| 5.2 Sectoral Scope and Scale | X | X | X | X | | X | |
| 5.3 Project System Boundary and Leakage | X | X | X | X | | X | |
| 5.3.1 Quantifying Project Related Greenhouse Gas Emissions and Offsetting Requirements | X | X | | X | | X | |
| 5.4 Baseline Scenarios | X | X | | X | | | |
| 5.5 Revising Baselines for New Project Periods | X | X | | X | | | |
| 5.6 Project Design | X | X | X | X | X | | |
| 5.7 Confidence in Avoided Impact Calculation Validity | X | X | | X | | | |
| 5.7.1 Avoidance of Catastrophic Harm | X | X | | X | | | |
| 5.8 Estimating Avoided Impact Costs | X | X | X | X | | | |
| 5.8.1 Projects' Avoided Impact Costs Only Consider Climate Change | X | X | | X | | | |
| 5.9 Income Equalisation Factor | X | X | X | X | | X | |
| 5.10 Additionality | X | X | | X | X | X | |
| 5.11 Local Stakeholder Consultation | X | | X | X | | X | |
| 5.12 Methodology Review and Approval | X | X | | X | | X | |
| 5.13 Methodology Revision Process and Approval | X | X | X | X | | | |
| 6 Project Guidelines | X | X | X | X | X | X | |
| 6.1 Project Document Template | X | X | | X | X | | |
| 6.1.1 Project Start Date | X | | X | X | | | |
| 6.1.2 Timing and Approach to Crediting | X | | | | | | |
| 6.1.3 Project Crediting Period | X | | | | | | |
| 6.1.3.1 Activity Periods and Renewal | X | | X | | | | |

Framework Overview



Standard Framework Principles

0 Reduction of Vulnerability to Climate Change

1 Avoidance of Harm

2 Consultation

3 Sustainability

4 Completeness



5 Consistency

6 Accuracy

7 Transparency

8 Conservativeness

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Framework, Collaborase, and how to use (tour of Consultation Collaborase site)



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 |

Questions, Responses and Discussion





The Higher Ground Foundation

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Please contact Karl if you have further questions or ideas!

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VRC Standard Framework Public Consultation:

<https://collaborase.com/vrc-framework-public-consultation>

