

Global Adaptation & Resilience Fund Concept

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Contact:

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Executive Summary: Global Adaptation & Resilience Fund Concept

- + The Global Adaptation & Resilience Fund (“GARF” or “the Fund”) overcomes barriers to necessary investments in adaptation and resilience

ADAPTATION & RESILIENCE CHALLENGE

1 Substantial Underinvestment

- + Up to \$100 billion needed annually by 2050 for developing countries
- + <20% of public climate finance focused on adaptation and almost none from private sector

2 Uncertainty Deters Investment

- + Strong interest exists to combat climate change through adaptation and resilience
- + Involvement limited by uncertainty, short-term horizons and lack of technology

3 Lack of Investible Vehicles

- + No distinct investment vehicles offered to private investors
- + Lack of clearly defined investible products and opportunities

GLOBAL ADAPTATION & RESILIENCE FUND

1 Structure Catalyzes Private Capital

- + Public sector concessionary finance in GARF mobilizes corporate and financial investment into the Fund

2 Investment Maps and Addresses Climate Risk

- + GARF expects to invest in companies whose products and services identify and address climate risk
- + Investment across developed and developing countries transfers technologies across regions

3 Fund Unlocks Future Capital Flow

- + GARF investment expects to provide a roadmap to \$100 billion+ investments in infrastructure and assets
- + First successful investment could potentially mobilize future capital flows

Climate Adaptation & Resilience Challenges

Climate Adaptation & Resilience Investment is Needed Now



- + Climate change is already impacting water, agriculture, human health, coastal regions and ecosystems



“Every dollar invested in disaster prevention saves four dollars that would have been spent after a disaster.”

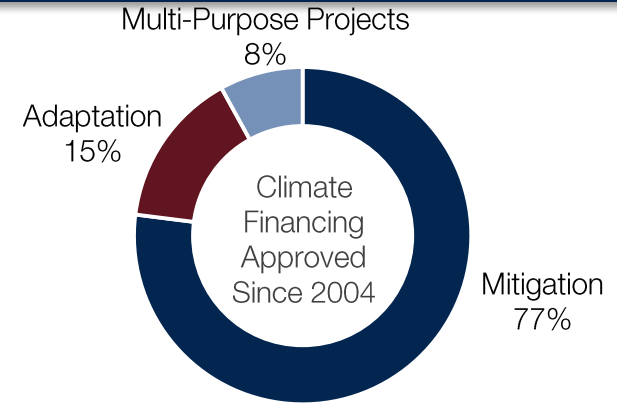
- Federal Emergency Management Agency (FEMA)

The Adaptation and Resilience Challenge

1

Substantial Underinvestment

- + The World Bank estimates that the cost of adaptation in developing countries alone will be **up to \$100 billion per year** by 2050 (UNEP suggested **two to three times** that amount)
- + Among special funds tracked by the Climate Funds Update, only **15% of funding** goes to adaptation
- + Private sector involvement or investment in adaptation is extremely limited



2

Uncertainty Deters Investment

Private Sector's Interest:

- + 86% believe that investing in adaptation presents an opportunity

Private Sector Corporations

Interest

Investment Challenges:

- + Uncertainty
- + Short-term horizon
- + Lack of technology

Current Situation:

- + Limited investments in adaptation



3

Lack of Investment Vehicles

- + No commercial vehicle to invest in for the private sector
- + Lack of clearly defined investible products and opportunities related to climate adaptation and resilience

Global Adaptation & Resilience Fund Solution



The Global Adaptation & Resilience Fund Concept

+ GARF is an innovative vehicle that would enable public sector investors, endowments, foundations, corporations and financial investors to overcome investment challenges and lack of opportunities

Innovation One: Focus

- ① Horizontal Investments: Climate Risk **Maps**
- ② Vertical Investments: Climate Adaptation **Tools**



Innovation Two: Structure

- ③ Blended Investors
- ④ Technology **Transfer**
- ⑤ Measurement System



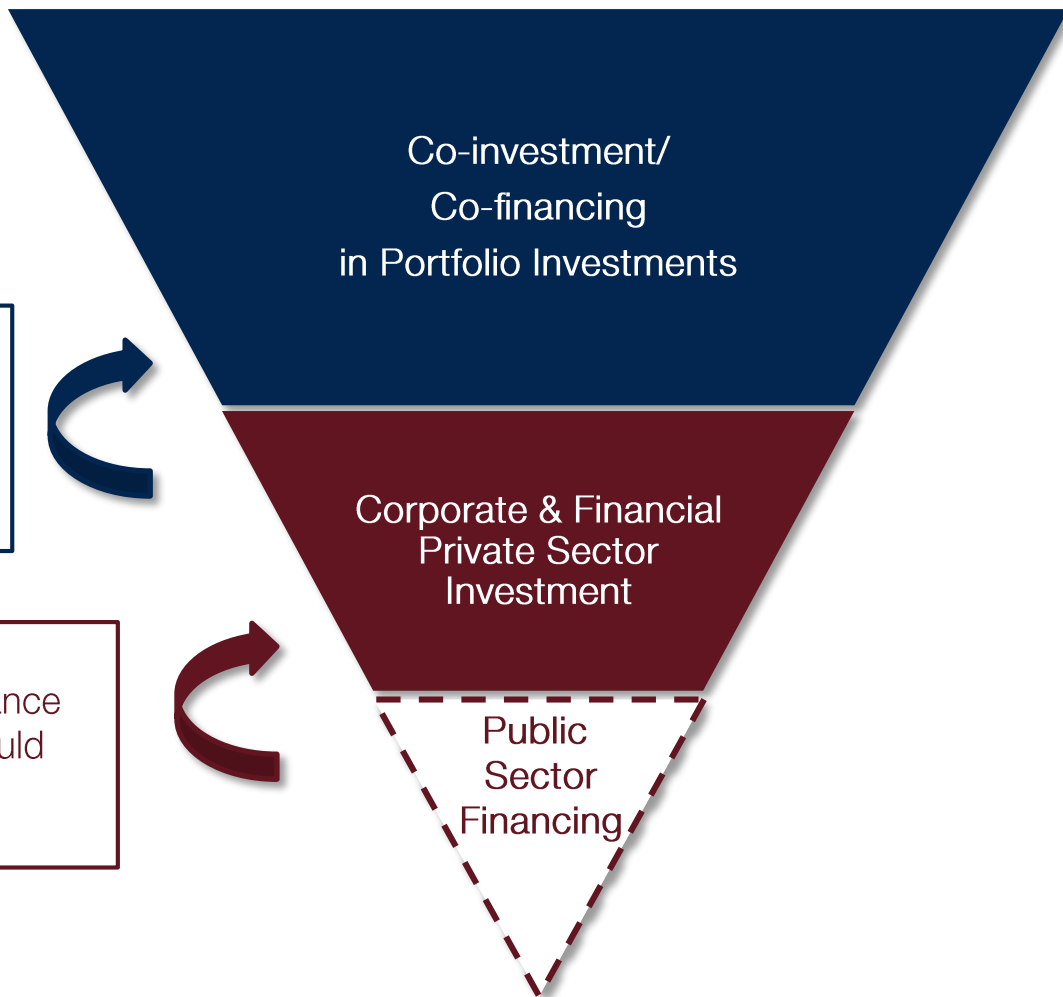
Public Sector Financing Could Mobilize Private Investment



+ Public sector financing of the Fund could mobilize private investment in two ways:

2 **Portfolio Investment:**
The Fund's financing of underlying investments will likely be co-financed or co-invested in by additional private capital

1 **Fund Investment:**
Public sector concessionary finance or co-investment in the Fund could mobilize corporate and financial investment into the Fund



Horizontal Investments: Climate Risk Maps



- + The Fund intends to target horizontal investments across climate adaptation (services, data and technology), which provide visibility on vertical sector-specific risks and opportunities

Horizontal Investments

+ Sample Sub-Segments:

- + **Services:** Engineering, consulting, forecasting, modeling
- + **Data & Technology Development:** Local climate and weather modeling, sector-specific data aggregation and analysis
- + **Products:** Insurance, re-insurance, risk-management and monitoring products



+ Examples of Identified Companies:

- + Technology company that models floods and catastrophe risks around the globe
- + Technology and services company that maps wind and solar services internationally
- + Weather analytics company that helps improve operational and capital expenditures

Vertical Investments



Water



Agriculture



Healthcare



Energy



Coastal Area









Insurance / Financial

Vertical Investments: Climate Adaptation Tools

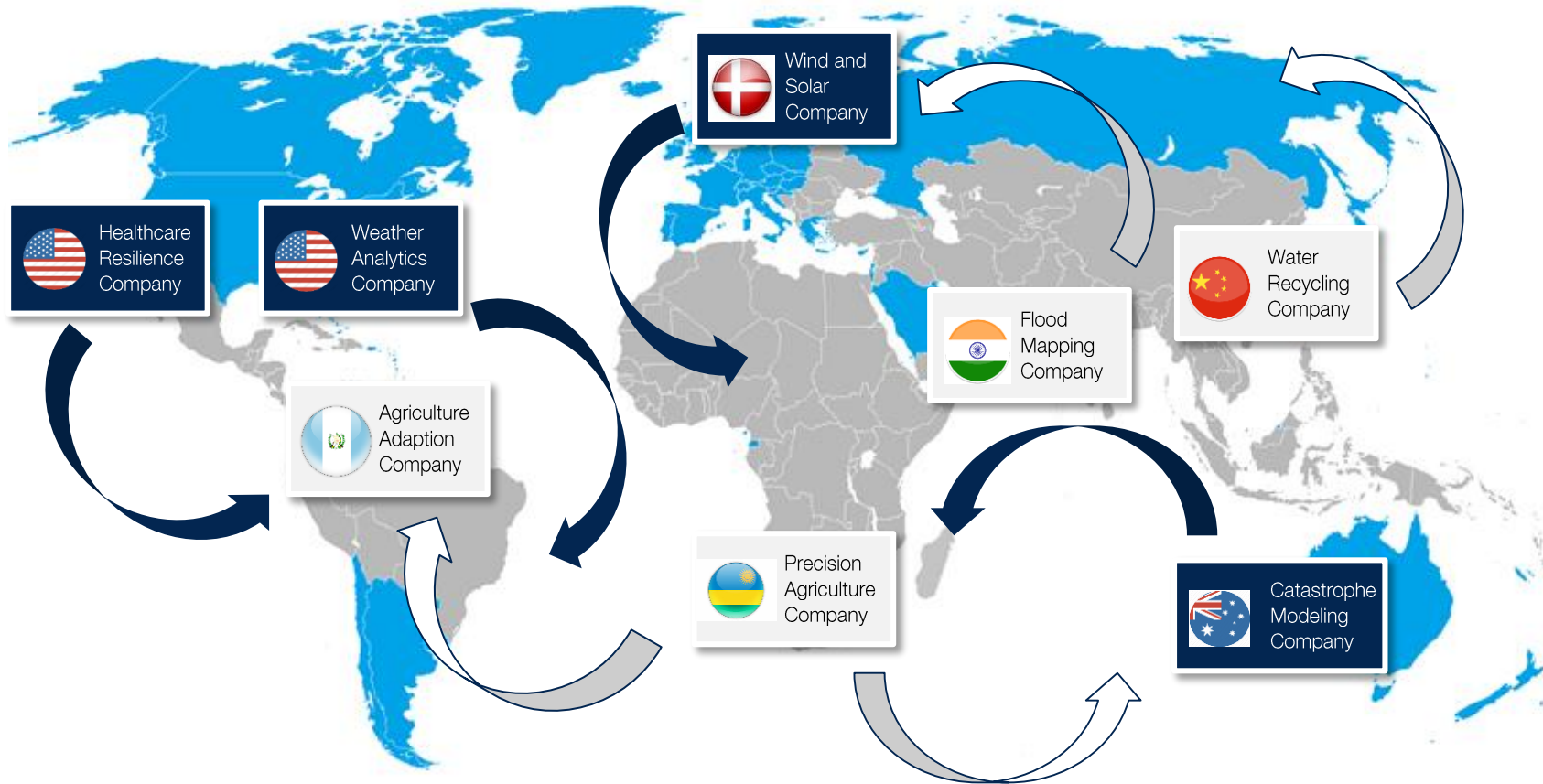


- + The Fund intends to target vertical investments such as products, services and projects in specific sectors

Vertical Investments	Sample Sub-Segments	Examples of Identified Companies
 <p>Water</p>	<p>+ Water efficiency products (low flow, loss reduction), desalination and re-use</p>	<p>+ Company that treats and recycles water</p>
 <p>Agriculture</p>	<p>+ Drought resistant seeds, drip irrigation, precision agriculture, resilient food storage & logistics</p>	<p>+ Company that examines weather data to provide insurance to farmers</p>
 <p>Healthcare</p>	<p>+ Pharma, vaccines vs. new disease vectors (e.g., blue tongue, dengue), resilient facilities for extreme weather events</p>	<p>+ Company that provides climate health analytics to hospitals</p>
 <p>Energy</p>	<p>+ Resilient generation: CHP, distributed, backup; Resilient distribution: micro-grids, storage and disaster recovery</p>	<p>+ Company that manufactures systems for wind and solar assessment</p>
 <p>Coastal Area</p>	<p>+ Early warning systems, advanced weather/ climate resilient materials, design tech</p>	<p>+ Company that provides flood maps for coastal regions</p>
 <p>Insurance / Financial</p>	<p>+ Specific climate related risk insurance, risk assessment, micro-lending and micro-insurance related to adaptation efforts</p>	<p>+ Company that provides parametric insurance services</p>

Global Focus with Technology Transfer

- + The Fund intends to invest 50% in developed countries and 50% in developing countries, and will transfer technology and knowledge among them at the company level and through the use of technical assistance facilities



Developed Countries (High-Income Economies)

Developing Countries

The Impact



- + GARF could provide immediate direct impact and leads to significant long-term impacts

DIRECT IMPACT

- + \$500 million to \$1 billion
- + First maps and tools
- + 1:4 capital mobilization by concessional funds
- + Launch private sector climate adaptation investing



INDIRECT IMPACT

- + Unlock \$100+ billion investments
- + Mobilize private capital flow into market for climate adaptation investing

Global Adaptation and Resilience Investment Working Group

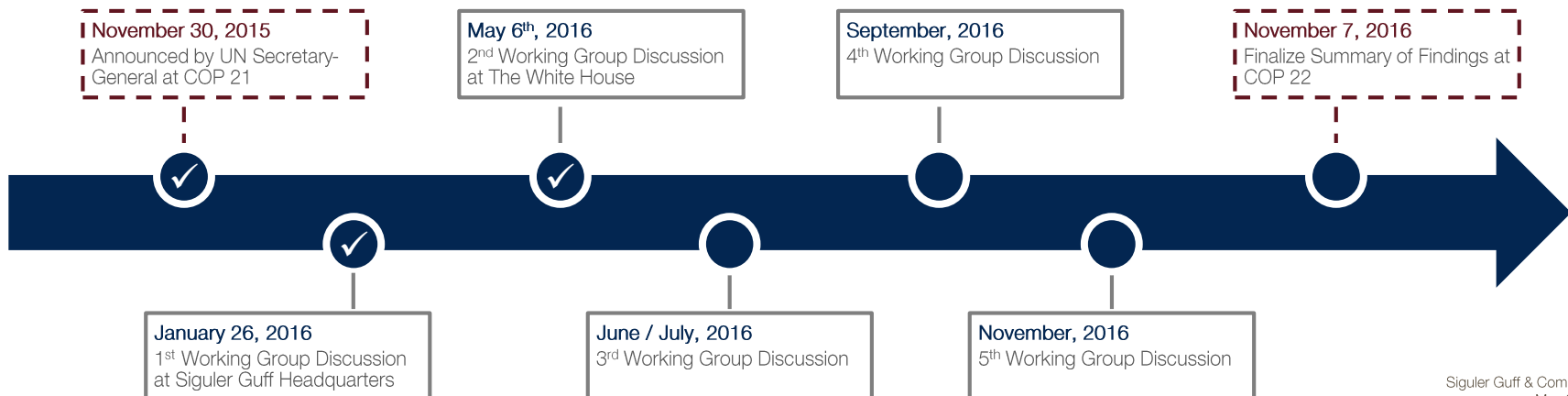
Overview

- + The Global Adaptation and Resilience Investment Working Group (“GARI”) is a private sector-led and launched initiative that was announced at the Paris COP21 talks in December 2015 by the UN Secretary General in conjunction with his Climate Resilience Initiative ([Link](#))
- + GARI seeks to bring together private and public sector investors, leaders and other stakeholders to discuss issues at the intersection of climate adaptation and resilience and investment with the objective of helping to assess, mobilize and catalyze action and investment
- + GARI planned a series of meetings over 2016 with discussions among the working group and aims to produce a summary document regarding two key topics (**Approach to Climate Adaptation and Resilience Risk and Identification of Investments in Climate Adaptation and Resilience**)
- + The first meeting was held at Siguler Guff’s headquarters in New York, NY and the second discussion will be held at a White House Round Table, as well as a follow-up meeting at ICF International in Washington, DC

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Timeline



Next Steps



- + The GARF concept seeks feedback and support from a range of stakeholders on the following areas:

Funding

- Sources of funding, including technical assistance from stakeholders – government, investors, strategics, financial

Expertise

- Expertise to shape the activities of GARF and the launch of climate adaptation and resilience as an investment sector

Entrepreneurship

- Apply ideas and drive to the creation of successful map and tool companies and great products companies

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