Finance for Resilience:

Engaging Impact Investors
and the Private Sector

TOTAL IMPACT
ADVISORS

Forward

Recently, the Philippines was hit by a devastating typhoon, reminding us all of just how fragile global systems can be in the face of natural disasters. As is typical, the global community is responding as best it can to mobilize resources to assist the victims of the typhoon. Certain groups like the Red Cross, United Nations and others respond as per their own mechanisms, while other sympathetic members of the international community supply what aid/assistance they can. Private sector and citizen sectors contribute as they can. This is the status quo response, which is obviously welcomed and needed.

What if, however, rather than just implementing reactive, vertical responses, the global community worked through coordinated public, private, and citizen sector vehicles, institutions, and agents to put in place proactive measures to improve regional resiliency before disaster struck? These new systems, organized through regional hubs, would establish implementation tools and frameworks that could minimize the overall social and economic displacement of catastrophic shocks and long-term stresses. The tools would be designed to improve data collection and analysis and allow for more accurate and longer term forecasting. This would then be backed by comprehensive response mechanisms to create a shorter time to strategic intervention and mitigation for the vulnerable populations or geographic regions. While this may sound overly ambitious, the Rockefeller Foundation, in partnership with the private and public sector, is already taking this idea past the conception and into the real world.

Total Impact Advisors, with the support of a grant from the Rockefeller Foundation, has been tasked with analyzing possible resiliency tools and action mechanisms to realize this vision. We have initially focused on the financial tools and mechanisms that could be put into place to create better global resiliency in regions such as the Sahel, the Horn of Africa and South Asia. Having said this, the initial lessons learned and suggestions made are hopefully applicable both to the aforementioned regions and to others as well. This is only the beginning.

Signed:
TOTAL IMPACT ADVISORS
November 11, 2013

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Executive Summary

A holistic, enduring strategy for private sector involvement in resilience efforts is critical to building sustainable solutions for the most vulnerable members of society. Particularly in the face of a shrinking supply of traditional development capital from government and donors, engaging the private sector to address these systemic challenges not only offers the possibility of a reduction in risk for affected communities; it also creates the long-term potential for new markets and growth opportunities for private players, and the establishment of solutions at the nexus of humanitarian and development efforts. In many cases, the regions that private companies are pursuing for future growth are emerging markets, and a more resilient global economy means more opportunity for the private sector to grow its core activities. Interestingly, it is the most vulnerable, those at the growing base of the pyramid, that also hold tremendous opportunities for global and local private enterprises. There is a true business case in improving resilience for the largest potential sources of consumption and economic activity, but to date there has been limited meaningful engagement. The way forward lies in models that embrace multi-stakeholder collaboration as the path to scale innovations and create improved resilience outcomes.

Such an engagement starts with a framework that identifies root market failures from a resilience perspective and moves to address them through a partnership process that prioritizes private sector engagement. The five key market failures that inhibit resilience can be organized as: lack of savings and resources; lack of risk mitigation tools; lack of functioning domestic capital markets; lack of economic activity; and lack of incentives to collaborate and scale. Drawing from a menu of tools specifically tailored for the gaps related to each market failure and partners who have a compelling motivation to fill those gaps, an effective process for engagement can then be designed and scaled. The key elements of this process are ICE: Innovation, Collaboration, and Economies of Scale.

Introduction

Objectives

The Rockefeller Foundation, in partnership with other leading actors, aims to build innovative new alliances to address chronic stresses and acute shocks that affect vulnerable communities. These areas of chronic stresses and acute shocks specifically include but are not limited to:

1) Climate-related rapid-onset catastrophes,
2) Drought and food shocks,
3) Urbanization pressures, and
4) Conflicts.

Importantly, the initiative and commitment is being designed and implemented to catalyze a potentially high-impact alliance amongst public institutions, humanitarian and development actors, and the private sector. The alliance will create and implement approaches that build resilience, defined as the ability of people, households, communities, countries, and systems to mitigate, adapt to, recover from, and thrive in the face of shocks and stresses, in order to reduce chronic vulnerability and enable sustained development and inclusive growth. These approaches will address the following problems:

- **Lack of Risk Mitigation Tools**: households, communities, and countries do not have mechanisms to forecast and manage risks;
- **Limited Private Sector Engagement**: the private sector, while often engaged in disaster response from a philanthropic and business perspective, does not invest at the nexus of development and humanitarian efforts to prevent disaster;
- **Inadequate Use of Big Data**: developing countries utilize outmoded methods to access, integrate and use crucial data and information to reduce vulnerability and risk, if they use data at all;
- **Lack of Evidence-based Methodology**: Few players active in the field use rigorous methodologies to determine the resilience investments that matter most;
- **Insufficient Collaboration**: Humanitarian and development actors rarely work together in a holistic manner.

Approach

In order to address key market failures related to resilience goals, it will be important to conduct careful analysis of system failures, perform case analyses of both effective and ineffective approaches to large-scale stress and shock management, identify financial and non-financial solutions, and establish appropriate partnerships for implementation.

Rockefeller Foundation seeks to construct a systematized solution that results in enduring resilience for target regions and population. The approach is interdisciplinary, combining dynamic real-time engagement and buy-in of the local actors and communities, innovative and/or customized financial tools and methodologies, and non-financial resources and expertise. Rockefeller recognizes that resources without the right implementation partners can be ineffective in building long-term resilience and consequently seeks to identify like-minded local and global partners in this effort. By integrating a long-term strategy of public private partnerships built on implementation structures such as resiliency hubs or regions, the short-term resources invested in poor or vulnerable communities can be made far more effective and will lead to more resilient communities overall.

Rockefeller's intention is to have in place long-term financial and non-financial resources and implementation partners that will facilitate its objectives and increase private sector buy-in. On the financial side, Rockefeller and key partners are committing $100mm to initiate the collaborative process of creating resilience resources and is seeking partners to contribute both financial and non-financial resources alongside their initial efforts.

The Contribution of This Document

This paper focuses on:

1. The financial elements of the approach above and the private sector implementing partners that could engage in the effort.
2. An analysis of different financing tools that can build resilience before, during, and after shocks or alleviate the burden of chronic stresses.
3. Highlighting the characteristics of private sector partners with both the capacity and the motivation to help in deploying such tools.

4. Designing a framework to identify both tools and partners that can assuage the effects of shocks and chronic stresses in the short-term and a process for building effective, enduring partnerships to support vulnerable populations over the long-term.

The goal is to bridge the humanitarian/development assistance divide and introduce scalable financial products and interventions that allow a resilience initiative to engage the private sector in a manner that is in service to its broader goals.

1.0 Background: The Need for Resilience and the Failure of the Current Paradigm

Strategies for leveraging private sector capital and resources are needed in order to have lasting effects on global resiliency. To date, there has been scarce meaningful engagement of, or strategic investments by, the private sector in strengthening the ability of people to predict, adapt to, and absorb the impact of shocks and stress. This is particularly true in a global context, specifically with respect to countries classified as developing or emerging markets. Unlike responses such as that of the US to Hurricane Katrina, where massive domestic corporate resources from companies in the construction, finance, medical, logistics, and food sectors, among others, could be mobilized in the interest of serving their own "customer communities", reactive capacity is often lacking in developing countries and regions that suffer from chronic exposure to natural and man-made shocks. While there are examples of private sector responses to disasters after they occur, these are largely ad hoc approaches that address the symptoms of a failed approach more than root causes. Such improvisation limits partners' ability to connect the immediate responses to crises with the longer-term capacity building and planning processes necessary to prepare against the next shock.

The machinery of foreign assistance is plagued by a number of difficulties that will intensify over the next 20-30 years if not systematically addressed. Given that constraints in overall development financing will likely also impact financing available for resiliency in particular, this opening chapter explores some of the issues facing development financing as a system.

1.1 Crisis of Traditional Development Funding

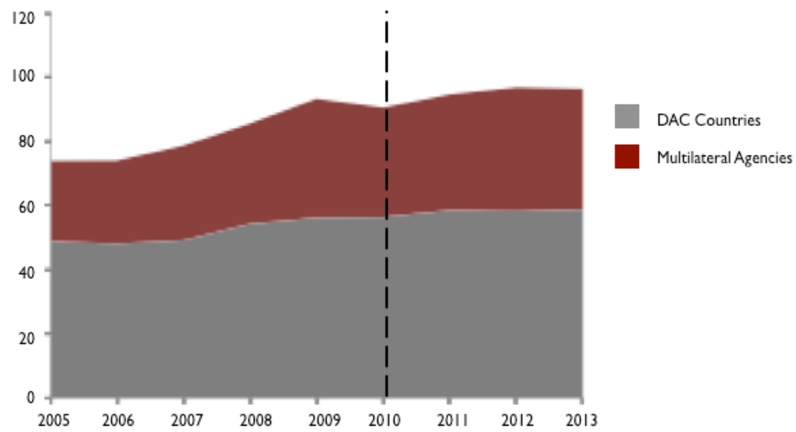
A combination of multiple factors will change the landscape of development funding over the decades to come. First, the prolonged affects of the global economic crisis of 2007 have held deep implications for the global economy. Although the US is slowly recovering, traditional donors in Europe and Japan are lagging behind. In the European Union, member countries are under increasing pressure from the more debt-ridden economies to fundamentally adjust the financial system. GDP per capita growth is forecasted to remain low in many OECD countries in the coming years, and private investors and corporations are focusing on opportunities in developing markets. At the same time, the GDP per capita of developing countries continues to increase, albeit at slower rates than pre-crisis[1]. While recovery is still on-going, this is likely to lead to a major impact on what developed countries are willing and able to spend on foreign assistance. As public budgets tighten, politicians will prioritize domestic spending over spending on Overseas Development Assistance (ODA). Given

[1] OECD countries recorded an average growth of 0.77% growth in GDP per capita in 2011, up from the contraction of 4.4% in

demographics in the Western world, this may be a long-term trend as rich countries continue to spend more resources on their aging populations.

Figure 1. Country programmable aid: actual (until 2010) and planned (after 2010)

US$ Billion



Source: Organisation for Economic Cooperation and Development

Figure 1 shows the plateau in foreign aid since 2009. Some donors have tried hard to protect their aid budgets (e.g. UK, USA[2]). However, the future ODA commitments of OECD governments are highly uncertain. Given the fiscal pressures of the OECD's ageing demographics, reliance on ODA as a major force within development may be overly optimistic.

A second observable trend is the limited way in which philanthropic funding is being leveraged to involve industry. While philanthropic resources are constrained in the short-term due to the lingering echoes of the financial crisis, in the long term a new 'golden age' of giving offers a potential source of offsetting resources. The short term impact of the current crisis is shown inside of the long-term trend in US giving in Figure 2. The coming decades are expected to see the largest transfer of wealth in human history – estimated to be around US$ 41 trillion by 2050 in the USA alone, and with 60% of this wealth transfer originating from 3% of the population (Havens et al, 1999)[3]. The wealth transfer figures may even be underestimated, as the philosophy of many of the new philanthropists[4] is to give everything in their lifetime or have it distributed shortly after their deaths. To fully realize this potential of this funding, these resources need to be freed from the current grant model of philanthropy that is 100% unleveraged and has as high as a 40% cost of capital due to administration and fees. However, they will have an effect on the calculus used to design and finance donor projects, with greater and greater influence in the hands of non-public officials.

Figure 2. Philanthropic trends in the USA – 1970 to 2010 (US$ Billion)

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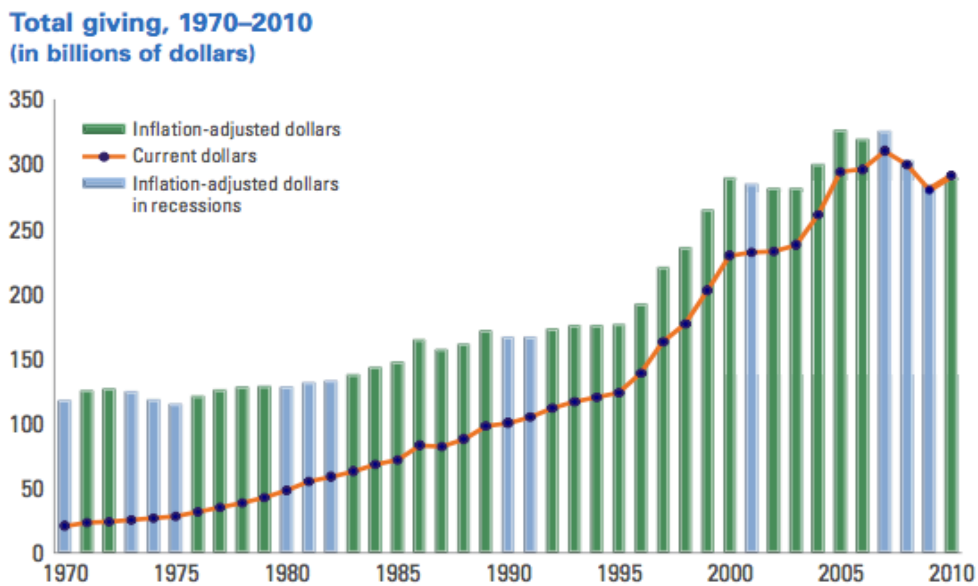
[2] "David Cameron defends overseas aid budget during recession" – The Guardian, 10 August 2012. "U.S. foreign aid escapes slashing cuts in fiscal 2012" – Reuters news agency, 19 December 2011.
[3] As a footnote to this report, released in 1999, Boston College reviewed the US$ 41 trillion estimates in 2003 and considered it to be still valid. http://www.bc.edu/research/cwp/features/wealth.html
[4] For example, Bill Gates, Warren Buffet, Skoll Foundation (Jeff Skoll), Atlantic Philanthropies, Omidyar Foundation (Pierre Omidyar)



Source: Giving USA 2010 Report

A third influence on the development funding landscape is new aid from nations that have recently entered the donor landscape, such as OPEC[5] and the BRICS[6] countries, among others. In addition, mobilizations of domestic capital, such as a rise in Asian philanthropy, are beginning to grow. For example, in India the number of high-net-worth individuals[7] has grown in recent years, standing at 127,000 individuals in 2009; and charitable giving in India has increased from US$ 2 billion to US$ 6 billion between 2006 and 2010[8].

As a consequence of these trends, traditional donor spending is predicted to become a smaller and smaller share of recipients' budgets over time, thus reducing the influence of traditional leaders on the development pathways of recipient countries. The reality is that traditional development funders are becoming less relevant and authoritative, and new frameworks are needed to support development and growth.

1.2 Crisis of the Current Development Assistance Paradigm

Thus the development paradigm of the past 50 years, one of grants and concessionary loans to developing country governments, is in crisis. Despite the Paris Declaration on Aid Effectiveness, which most donor countries are making laudable efforts to implement, the relationship in the development marketplace is still a traditional donor-recipient one, where solutions are largely designed in the developed world and implemented in the developing world with too little buy-in from affected populations through either civil society or market tests. The 'global partnership for development' described by donor governments does not reflect how global development aid is currently delivered issue-by-issue, silo-by-silo, and region-by-region; in the Bretton Woods system alone there are 30 players working on water and sanitation, many who see each other as competitors

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[5] Organization of the Petroleum Exporting Countries. E.g. Saudi Arabia, Abu Dhabi, Qatar Foundation.
[6] Brazil, Russia, India, China, South Africa.
[7] Defined as a person with assets of US$ 1 million or more (excluding primary residence, collectibles, consumables).
[8] http://www.bain.com/publications/articles/india-philanthropy-report-2011.aspx

for a fixed pool of grant funding[9]. Consequently, there is limited incentive for systems thinking, collaboration or systems-changing innovations. Similarly, there is a danger in the foundation world that a sectoral or programmatic focus ignores the interdependence of many issues and leads to missed opportunities for cross pollination and innovation.

The highly complex bureaucratic and rules-based management systems in both worlds, and the lack of reward structures for collaboration and scaling in many cases, create powerful disincentives to any financial or operational innovations that do make it to implementation stage. These constraints are particularly relevant in the case where traditional donors attempt to implement commercial or financial innovations towards a social issue, as a lack of private sector orientation means the right questions may not reach the right audiences. Financing innovations cannot always be properly weighed up and assessed by issue experts, who may see them as a threat to "how business should be done," in a sector often framed by the traditional bi-polar approach of "for profit" versus "not for profit".

1.3 Defining Success: The Path to Greater Resiliency

Given this context of limited and inefficient application of current resources, approaches to resilience cannot simply bring more traditional resources to the table, but also need to stimulate multi-stakeholder collaboration that achieves economies of scale - what in this paper we have christened ICE (**I**nnovation, **C**ollaboration, and **E**conomies of Scale). In order to achieve this, the initiative can learn from the paths to scale taken by other financial innovations.

Historical Routes to Scale

Historically, innovations in private not-for profit sector social finance have scaled after a time lag due to the necessary post-innovation development of facilitating legal and technological frameworks. This can be seen in the scaling of both grants and aid: first, with the original Foundation system created by Rockefeller and Carnegie in 1903 and crystalized in the US tax system in 1921; and second, with the aid architecture formalized in the May 1944 Bretton Woods system. As another example, in the late 1990s increased innovation in and use of Public Private Partnerships such as GAVI emerged as donor governments worked to meet their official development assistance targets.

Innovation	Legal/ Technology	Scale/ Outcome
Community Foundations **1914: First community foundation founded**	1977: Community Reinvestment Act passes to improve access to credit for low and moderate income housing. Banks engage.	1980s/90s: Thousands of CDFIs established, serving economically distressed communities by providing credit, capital, and financial service
Donor Advised Funds **1931: New York Community Trust creates the first Donor Advisor Fund**	1985: IRS vs. NFI Inc. clarified tax treatment of Donor Advised Funds. New Financial technology allows banks to engage.	1990s/2000s: Currently $37 billion DAF engagement of finance firms, with Fidelity clients now one of the largest philanthropic players

[9] http://www.unwater.org/members.html

Program Related Investments **1968: Ford Foundation creates first Program Related Investment (PRI)**	- 1969: PRI codified in tax code -2008: First L3C passed at state level creates integration between LLC and PRIs -2013: Federal Bill proposed for L3C	PRI have risen from 2 % to 6-8% of larger Foundations – further templating will allow growth to integrate with many Impact Investing tools
Microfinance **1976: Founding of Grameen Bank and microfinance**	Credit management techniques allow risk assessment – next step will be individualized credit access through P2P technologies (e.g., MYC4)	Thousands of microfinance organizations throughout the world and supporting infrastructure of intermediaries employing more complex financial tools
Impact Investing **2005>: Application of mainstream financial tools to social sector (Social PE / VC, DIBs, SIBs, IP, Equity etc.)**	-Use of technology and big data to identify innovations, measure externalities / impact, and provide effective audit mechanisms -Enabling or blending legal frameworks – CIC, CLGs, LLPs, B Corp, L3C, Funds, Security Structures, Proposed SELLP	-Social VC / PE reaching scale, many new models in start up -SIB / DIB (structured product) coming out of pilot phase. Next pilot phase for scaling to Outcome models via social "equity" – SYN - Factoring (Roote Capital), Equity Models for Education (Lumini), IP (Lightyears SP), Granular Credit (P2P) etc. -Active consideration of how new models can be scaled systemically – Rockefeller – Resilience; Accenture / Brookings - Education

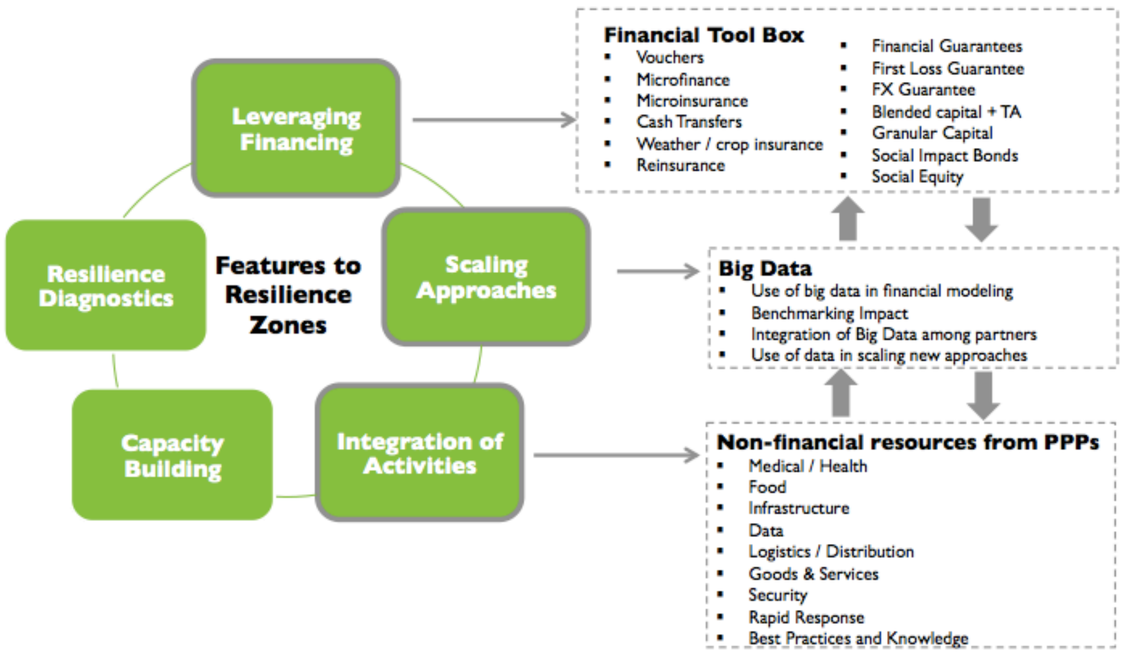
Overall, a pattern emerges: for every notable period of financial innovation, an accompanying period of legal and/or technological innovation is necessary in order to make the concept replicable and scalable. Recognizing this pattern, these are lessons that can be learned from and adopted to drive new models to scale. There is just such an opportunity currently facing the impact investing community, and strong leadership in key areas can allow key financial innovations to spread more rapidly.

Lowering Unit Costs

In finance, the practical reality is that the larger the number of transactions and the greater the capitalization, the more sophisticated risk management tools you can apply and the lower the unit cost. This approach should be adopted wholeheartedly by the social sector, where there is paradoxically a desire to try things at small scale in the most difficult environments and then scale-up - the exact opposite of how a commercial company would view and make a market more inclusive from the top down.

Bringing Key Elements Together

Ultimately, the success of a resilience initiative will lie in its ability to bring together new impact investing models and with 21st century resources and best practices. By focusing on the integration of financial tools, big data, and non-financial resources from PPPs, resiliency zones can not only identify prudent development approaches to increase desired outcomes but also imbed a natural role for new funders within each project.



2.0 The Resilience Solution Set: Financial and Non-Financial Tools and Implementation Partners

One way to visualize the necessary elements for a resilience initiative to be successful is in the simplified equation:

(a) Resilience Solution Set = (b) Proper Problem/Solution Identification + (c) Resources (Financial/Non-Financial Tools) to Create Long-Term Resilience + (d) Global/Local Buy-in + (e) Committed Implementation Partners + (f) Real-time Feedback Systems of Inputs/Outputs/Outcomes

These factors are discussed in greater depth in the following section.

2.1 Identifying Problems and Solutions: The Five Key Failures in Resilience that Social and Impact Finance Can Help Address

At a systemic level, a lack of resiliency can be seen through five key market failures:

1. **Lack of savings/resources** - Many poor individuals and communities lack access to financial resources, which inhibits their ability to save and invest in activities to promote their livelihoods, including spending on health and education. This is exacerbated in times of macroeconomic crisis.

2. **Lack of risk mitigation tools** - Limited or no access to insurance or other risk mitigation tools, including forecasting, manifests at the micro-level as a lack of insurance options for the poor and at the macro-level as a dearth of larger-scale, more sophisticated insurance tools for key sectors of the economy, including financial services, agriculture, healthcare, and others.

3. **Lack of functioning domestic capital markets** - Limited credit (at customer level and bank level) and liquidity in many rural and developing markets inhibits the ability to mobilize resources. Inability to align domestic capital markets in developing countries ($2+ trillion) with national development needs.

4. **Lack of economic activity** - Limited access to financial or other resources creates a vicious cycle that inhibits the development of a commercial value chain and a functioning economy. The target populations are not integrated into the economic landscape.

5. **Lack of incentives to collaborate and scale** - Lack of large-scale system of incentives for multi stakeholder collaboration. This prevents otherwise innovative tools from scaling and an inability to look at problems at a systemic level where the incentives are aligned for tangible, auditable social outcomes.

2.2 The Resilience Toolbox: Financial and Non-Financial Tools, Partners and Implementation Path to Address Failures

Financial innovations have the potential to address the five key market failures that decrease the resilience of poor communities to shocks and stresses. Factor "(c)" in the equation above, "Resources (Financial/Non-Financial Tools)," can be classified as the Resilience Toolbox. This in combination with the "(e) Committed Implementation Partners," are major building blocks/parts of succeeding in reaching the Resilience Solution Set.

The table below details a selection of financial tools that can address the various market failures. More importantly, these tools can be scaled and structured in innovative manners to enhance the resilience impact. The tools include: Vouchers, microfinance, micro-insurance, cash transfers, weather/crop insurance, reinsurance, financial guarantees, first loss guarantees, FX guarantee, blended capital + technical assistance, bridge financing, social impact bonds/ development impact bonds, social equity.

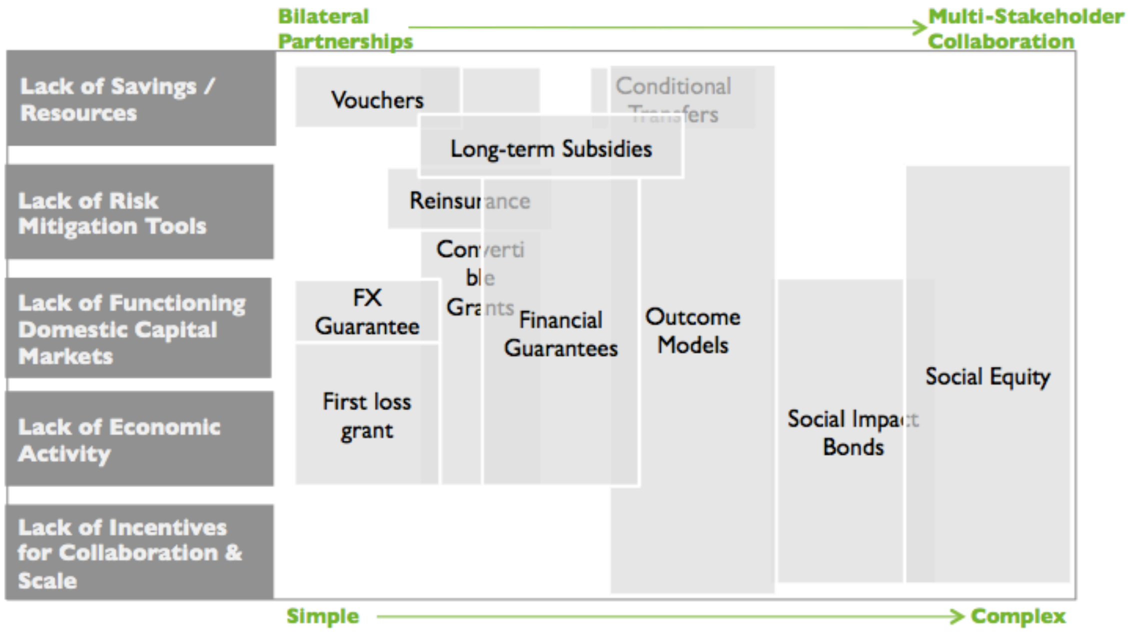
Financial Tool	Description	Impact on Resiliency	Potential Partners	Case Studies
Vouchers	Cash payments to people in distress or	Replaces income lost to disaster,	Western Union, Kiva,	Mozambique Flood

	to communities to build assets	protects income generating assets (e.g., livestock), creates resources in community to jump-start economic activity	MYC4, local banks	Assistance (1999), Mobile Vouchers in Zambia
Conditional Cash/ Commodity Transfers	Cash or Commodity payments to poor households that meet certain behavioral requirements, such as keeping children in school or utilizing preventative healthcare	Increases disposable income at the household level and encourages practices that build long-term resiliency (like skills acquisition)	Local banks, healthcare/ education providers	Bolsa Familia (Brazil), PROGRESA/ Oportunidades (Mexico), MaMaZ (Zambia), Productive Safety Net (Ethiopia)
Microfinance	Provides small, short-term loans to households, usually through peer group that cross-guarantees each members debt	Provides source of cash to households in stress; offers accounts to accumulate financial assets for the future	Accion, FINCA, CGAP, Commercial Banks (Citi, DeutscheBank)	Grameen, BRAC, Jamii Bora
Micro-Insurance/ Specialized Insurance	Low premium insurance products targeted at common risks at the Bottom of the Pyramid	Offsets the costs of shocks and stresses with cash payments when they are most needed; avoids	Local Insurance companies, impact investors (Leapfrog)	Ghana Crop Insurance, Kwara State Health Insurance, HARITA (Ethiopia)
Reinsurance	Insurance purchased by insurance companies to further share risk.	Broadens the ability of participants to enter the insurance marketplace	Zurich, Swiss Re, Munich Re	Emergency Liquidity Facility (Latin America)
Financial Guarantees	Third-party assurance to honor payment in the event of default.	Reduces default risk; lowers cost of capital. Potentially raises ability to seek longer term funding.	Development Finance Institutions, International Banks, Foundations	African Agricultural Capital,
FX Guarantees	Compensates investor for losses due to foreign-exchange rate fluctuations.	Allows for more capital to flow into challenging regions, including into microfinance and key infrastructure	Standard Chartered, Citi, Development Finance Institutions	TCX, MFX
Blended	Financing vehicles	Low cost funding for	Development	Middle East

Capital Models	combining grant, debt, and equity to lower cost of capital	projects in challenging environments, including post-conflict economies	Finance Institutions, CHF International, Foundations	Investment Initiative, Liberian Enterprise Development Company, Afghan Growth Fund
Bridge Financing	Pool of funding available to fund immediate response while other funding sources are mobilized in response to disaster or through regular bureaucratic channels	Ensures resources flow when they can do the most good at the least cost. Avoids vicious cycle of limited resources being directed to the most dire situations, but bypassing those just on the edge.	Standard Bank, Zurich, Munich Re	Pledge Guarantee for Health, NetGuarantee, UNICEF Bridge Fund
Outcome Models (Social Impact Bonds/ Development Impact Bonds)	Payments based on the accomplishment of specific outcomes, financed in capital markets through structured product	Incentivizes players in Resiliency space (NGOs, governments, foundations, private sector, etc.) to focus on prevention	Large multinationals (oil/mining companies), World Bank, Global Fund, WFP, local governments	Malaria DIB in Mozambique, Health Quality DIB in Kenya
Social Equity/ Social Yield Option Notes	Tradable capital-market security with a value tied to the achievement of a social metric. Uses an SELLP structure to facilitate trading, allowing different players to take different social and economic returns depending on their desired level of impact	Creates incentives to focus on resilience outcomes and prevention. Financial structure allows for easier replication and scale, and for more flexible arrangements between different actors and investors	Large multinationals, multilateral agencies, social sector organizations, local and central government offices, impact investors, local and multinational banks	

2.3 Financial Tool Kit and Implementation Framework

The financing tools and mechanisms identified all address one or more of the key market failures and can be used in a variety of resilience scenarios, implemented through various forms of partnership and collaboration. Below is a schematic illustrating the potential uses of tools and implementation frameworks.



2.4 Mapping Potential Target Partners

Important to implementation is identifying partners, or "(e) - Committed Implementation Partners" in the Resilience Solution Set, and pinpointing how to incentivize them to mobilize and address various market failures. The suggestion is to make it direct and relatively clear on how and why they might get engaged. In this example, we take a look at a possible scenario using Western Union.

Western Union as a potential partner in both a financial and non-financial resource capacity has a core competence in moving financial resources between individuals and institutions at a granular level. It has technology, brick and mortar infrastructure, human, and regulatory infrastructure in place in hundreds of countries that can be leveraged towards resilience goals. It has customers who live in some of the poorest parts of the world, given that its customers move money to and from relatives oversees and are a major source of hard currency remittances into many poorer countries. Along with electronic transfers, customers also buy prepaid calling cards at Western Union as well as cash checks.

These are tremendous assets that could be used numerous ways in a partnership. Western Union could be used to pro-actively establish funding and needed resource financing mechanisms like cash and voucher distribution for Resilience Zones in partnership with the Hubs at an institutional level, and also as a means of getting such financial resources to the poor and impacted populations directly during a crisis. Western Union might also partner with certain providers of goods and services to both collect contributions pledged in advance of crises and also in response to new shocks. Finally, Western Union serves as a connection to one of the few sources of support vulnerable populations have in times of crisis – their friends and relatives overseas.

From Western Union's perspective, new partnerships with commercial groups who might be a source of goods and services pledged in response or proactively to the Resilience Zones are a pragmatic way to do good, generate goodwill and also grow its businesses in key markets.

For a Resilience Zone, these different assets can provide a way to proactively establish funding networks, access to goods and services, and distribution infrastructure. This essentially creates access to basic financial resources, the ability to pre-purchase goods and services at an institutional level for rapid response as well as proactive activities, and also creates a conduit to distribute vouchers and other items.

Another possible partnering example with some similarity to Western Union, but with a more technology based approach for Hubs and Resilience Zones, might be with one or more innovative peer-to-peer funding companies active in the target Resilience Zones. This could be with an established peer-to-peer company that has the adaptable/customizable technology and MFI brick and mortar partner network infrastructure in place to reach remote the broader population groups. The platform could be further developed for customized application of the Hubs for the Resilience Zones - so called "white-labelling". A recent study by the Austrian Development Bank analyzes and compares leading platforms already in use in Africa, including a profile of the company MYC4.com, which has offices in Kenya and focuses on East Africa[10, 11]. MYC4 has been exploring with the United Nations its applicability to post-conflict communities to reach refugee communities. Founded in 2006, it has developed and is expanding a systems-changing online lending platform that facilitates the exchange and repayment of for-profit peer-to-peer loans from lenders around the world directly with African micro, small & medium enterprises. Using Internet as the infrastructure, MYC4 creates a bridge between people with needs and people with means. The market place is built around a network of local partner MFIs who screen local businesses that need a loan and upload them onto www.MYC4.com for bidding, funding, and then servicing.

The Resilience initiative could consider utilizing a partner like MYC4 to set up its own technology at the Zone level to pre-establish funding commitments. These funds could be escrowed through MYC4's existing Foundation. Proactively, or in the event of shocks, these commitments could be directed towards actors in the target Resilience Zones – the Hubs, businesses, service providers, or initiatives at the local level. Vendors or service providers, both local and global, could also be tied into the system in this case. This would address the issues of speed of mobilizing financial resources and non-financial resources in the event of shocks and also the longer-term strategy of creating a growing pool of financial resources up-front to address other resilience needs, such as creating economic activity to provide people with the savings to weather shocks. MYC4 is actually developing a local market South-to-South version of its platform so that local resources can be mobilized to fund businesses. The idea was conceived based on the success of Kenyans for Kenya's success in 2011 in response to the humanitarian threat of starvation. [11]

Some other partnering examples with natural affinity would be Coca Cola FedEx, and DHL.

Coca Cola has tremendous distribution capacity in the prospective Resilience Zones. As with Western Union, these assets might be pledged in advance as part of a standing Resilience Zone partnership to move water, food and other goods to established distribution points as needed. While Coca Cola might be able to do this, it would be more formidable if it also aligned with FedEx or DHL who also has large transport infrastructure and manage daily logistics and distribution. Cargill could also be a natural partner in this capacity having already been involved in efforts in the past in Africa to respond to human crises.

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[10] MYC4 is a client of Total Impact Advisors.

[11] See The Austrian Development Bank commissioned study of February 2013*, Microfinance Institutions (MFI) Upgrading and Rating Initiative of the Development Bank of Austria in East Africa,* for further detail.

At this juncture, it is important to point out that "(e)" - Committed Implementation Partners - already exist across the private and public sectors. The key is in mapping out (identifying, incentivizing, and coordinating) the right partners as needed to create organized and systematized mechanisms that can regularly and pre-emptively address events of stresses or shocks on the targeted populations or regions. These implementation partners are critical to the mobilization of resources - financial and non-financial (skills, infrastructure, goods, people, and services) - to establish pre-emptive, rapid and efficient response processes to enhance resilience of the poor and vulnerable peoples and their regions.

These partners range from private sector businesses, organizations, individuals to civic, governmental, and other groups. The US Department of Commerce Report (2012) published by its affiliate The Business Civic Leadership Center (BCLC) titled "*The Role of Business in Disaster Response*", examines a range of currently engaged and willing business and private sector partners in these sorts of responses. On the business side, potential implementation partners span the range of global and localized business groups. These partners in many instances have existing or planned regional interest in the Rockefeller Foundation's initial focal regions – the Sahel, Horn of Africa, and South Asia. Partners include groups such as Cargill, Cisco, Citibank, Caterpillar, FedEx, Google, IBM, Microsoft, Shell, UPS and others.

3.0 Engaging the Private Sector

As detailed, the level of active private sector engagement in resilience efforts is varied but in numerous instances, partners such as Cargill, Citibank, FedEx, Shell, and others have already demonstrated innovative and deep commitments to being a part of the Resilience Solution Set. Ultimately, engagement with the private sector, though coming with its own challenges, presents unique opportunities to create deeply impactful large scale, responsive, and long lasting resilience. These engagements are in two specific areas – Financial and Non-Financial (Resource) Partnerships:

1) **Financial Partnerships:** Creating and utilizing financial tools and approaches to source and mobilize hard capital, fund resources, and to develop risk insurance and resources to address market failures which threaten the resilience of poor and vulnerable populations. These financial innovations should be customized to allow for scale on each of the Resilience Zones' (Sahel, Horn of Africa, South Asia) target issues.

2) **Non-Financial (Resource) Partnerships:** Building unique resource partnerships which would support the Resilience Zone's core areas of innovative finance, design and implementation of innovative responses systems, mobilization of products, resources and services, supporting capacity building, and strengthening data access and integration.

These partnerships are further discussed in the following sections.

3.1 Collaboration on Financial Innovation

Potential investors and financial partners can be targeted within the following types:

- **Demonstrated Natural Affinity**: Private sector and civil society organizations, university endowments already working with poor and marginalized populations (multi-laterals/bi-laterals)

- **Strategic Overlap**: Financial services and insurance, consumer products, infrastructure, resources, media, communications, etc.
- **Commercial Interest**: Water firms, agricultural firms, reinsurers, financial funds (Private Equity, Infrastructure)
- **Core Competencies**: Data, logistics, e-commerce, shipping companies, international airlines and freight that are linked to aid agencies

3.2 Collaboration on Non-Financial Resources

In addition to innovative financing structures and monetary support, partnerships with the private sector can also support a Resilience Zone's key activities in developing and administrating products and services, capacity building, and data access and integration.

These resource partnerships can be grouped under the following thematic areas:

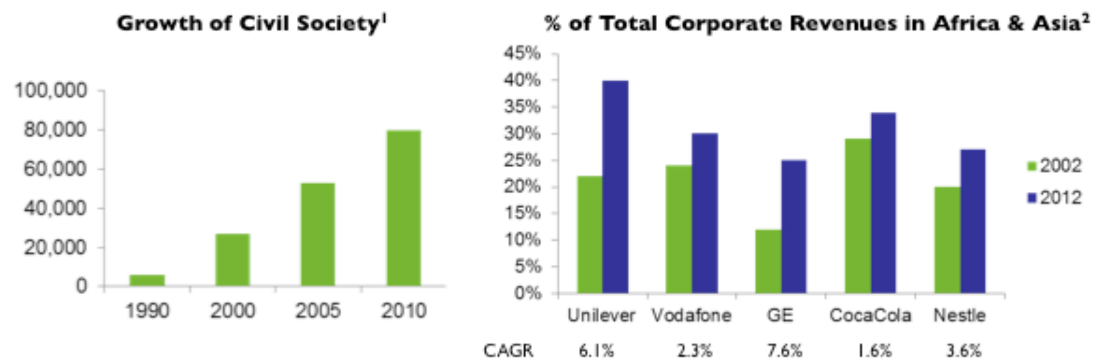
- **Food/nutrition**: food and beverage companies, commodities companies, multilateral agencies
- **Health/medical**: large pharmaceutical companies, private hospitals or clinics, cold storage companies, multilateral agencies
- **Logistics/distribution**: companies specializing in the movement of people, goods, services, and financial resources
- **Goods and services:** large retail stores, computer service providers, supply-side firms, social media companies, communications companies
- **Data and security**: large data aggregators, computer software and service providers, biometric tracking companies

3.3 Identifying Partners

Identifying the right partners is critical to the successful operations of the Resilience Zones. Whatever the approach, the engagement of the private sector should come with a well mapped-out set of objectives; otherwise, the initiative risks being regulated to a purely philanthropic engagement, which will diminish the intended scale and reach of the resilience initiatives.

Additionally, engagement will be more effective if the private sector and local public offices - Ministries of Health/Agriculture, Customs, etc. - are integrated into creating the longer-term solution. With regards to local partners, the process should be well designed beforehand to identify ways to create buy-in, ownership, and also political leverage for champions, lest local integration get mired in bureaucracy and politics.

Private sector partners can be identified first for existing regional synergies and then by the basis of supplying financial or non-financial resources for resilience efforts. The chart below demonstrates the economic importance of the Resilience Zones to major potential private sector partners as captured by their revenue exposure and growth in the regions.



1. Number of International Associations (UIA)
2. Accenture, TIA Analysis, Company Reports

3.4 Types of Partnerships

Below are four major areas for consideration of grouping partnerships. These interest groups may overlap. Importantly, partners with an identifiable natural affinity might be inclined to engage in broad reaching partnerships and collaborations. These types of partnerships are classified below:

1. **Regional Interest Partnerships:** These are with partners with regional interests that align with the Resilience Zones. They therefore have a natural exposure to the area and incentive to get involved, and could be prioritized. In addition, there may be private sector partners who place less priority on supporting the stability of these regions but that can be crowded-in to supporting through effective branding.

2. **Financial Partnerships:** This grouping is partners who are identified as logical groups to provide the financial tools and approaches necessary to Resilience Zones. They will have innovative tools, may have financial resources to invest or contribute, and may operate financial infrastructure and networks (Citibank, HSBC, Western Union, Private Equity Firms etc.). They do not have to be only traditional financial institutions; for example, certain international payment platforms might fit into this category, or consumer goods companies like Coca Cola, Unilever, airlines or others who have cash management services established for the own regional operations and have well established programs for moving cash and resources into Resilience Zones.

3. **Non-Financial/Resource Partnerships:** This type of partnership is based on leveraging non-financial "in-kind" or resources and assets. For example, a pharmaceutical company like Pfizer or food company like Danone could: 1) commit to provide drugs, nutrition or water and have distribution channels proactively established to reach vulnerable points and populations and 2) establish linkages with their local partners to mobilize distribution in the event of a shock. The list of important items includes: food/nutrition, health/medical, shelter/ infrastructure, logistics/distribution, goods/services, and data/security, among others.

4. **Hybrid Partnerships:** Recent years have seen the development of Hybrid Partnerships between the citizen sector and for profit companies. These partnerships are seen as new drivers of inclusive growth that can address large-scale social issues through private sector solutions. For example, corporations and financial institutions are seeking out opportunities

in servicing the growing base of the pyramid with the help of community partners, as well as noting that failure to address the social externalities will limit these commercial opportunities. In theory, partners with strong regional growth would make likely natural affinity partners and their regional efforts also appeal to their general shareholders. Examples of these partnerships include: Unilever / WTO - Sanitation; Accenture / Brookings – Education; AKDN / Many commercial and Not for profit players – Multi sectoral; BRAC / MasterCard – Financial Innovation; Danone / Grameen – Food; Ashoka Hybrid Value Chains – Cross sectoral; Entesa / Vodaphone, Anglican Church / WI – Telecoms; Initial Reviews by a number of Bretton Woods Institutions – WFP, UNHCR.

3.5 Practical Analysis of 6 Case Studies

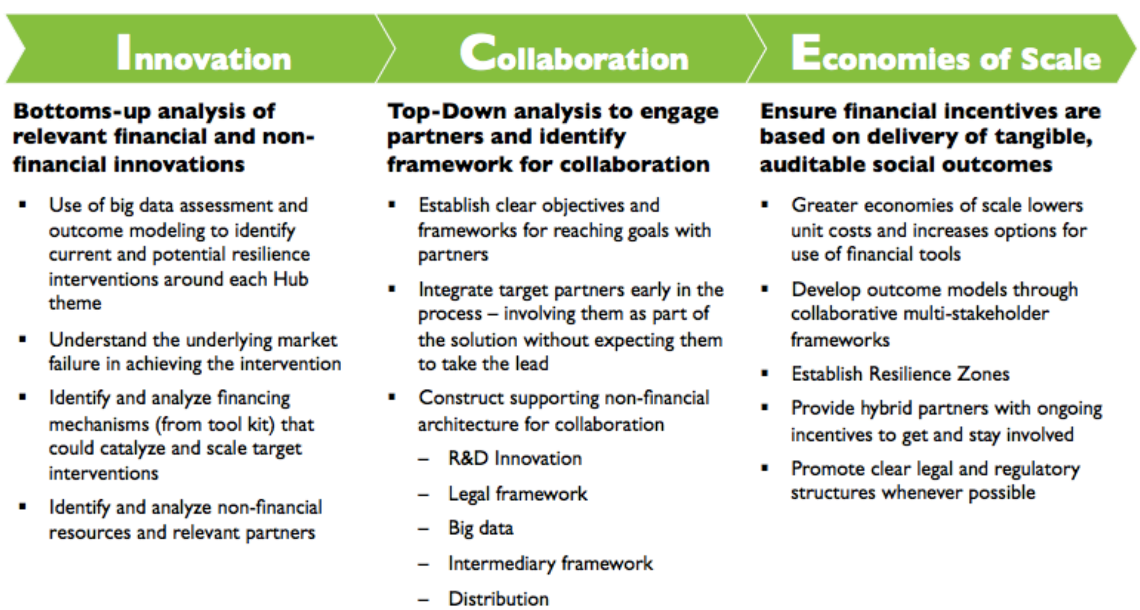
Below are summarized six resiliency case studies that each hold lessons for Hubs and Resilience Zones. Further examples of case studies of how innovative financing and private sector partnerships can support the activities of the Resilience Zones can be found in the Appendix.

	Overview	**Region**	**Financial Tool(s)**	**Partnerships**
African Risk Capacity	ARC was developed to catalyze a better risk management system for Africa and provide the capacity building support required for implementation	Sub-Saharan Africa	Insurance Risk Pooling	African Union, WFP, private re-insurers, financial firms
R4 Rural Resilience Initiative	R4 builds on the initial success of HARITA (Horn of Africa Risk Transfer for Adaptation) in Ethiopia to scale the model	Horn of Africa	Insurance Credit & Savings incentives	Oxfam, WFP, Swiss Re, other national /regional partners, Rockefeller Foundation
Global Alliance for Action for Drought Resilience & Growth	A regional response to the risk of drought that takes a holistic approach to relief and development	Horn of Africa	Bridge Financing SYN or SIB	Infrastructure funds Investment funds
Crowd Funding (Haiti)	In the wake of the 2010 earthquake in Haiti, the Red Cross set up a mobile donation strategy where participants were asked to text to make a $10 donation. Over $43m was collected	Haiti	Mobile / Cash transfers	Financial Partnerships Red Cross Cell phone companies Individual donors

Kenyans for Kenya	In 2011 the Kenya Red Cross Society prepared a starvation humanitarian response including short and long-term interventions	Kenya	Mobile / Cash transfers	Red Cross, Safaricom Foundation, Kenya Commercial Bank Foundation, others
Indian Ocean Tsunami 2004	Public and private disaster response in a variety of ways including cash and in-kind donations	South-East Asia	Cash and in-kind transfers	Private Corporations Red Cross Government Aid

4.0 ICE: A Framework for Implementing Effective Resilience Strategies

In order to maximize the impact of resilience projects, it is important to focus on more than only financial or operational innovation as a stand-alone goal. These new products and tools, or new applications of existing products and tools, must be implemented in a way that encourages their widespread adoption and long-term use by the target population. Too often, foreign assistance decision makers and grantors focus on small innovations in difficult markets, rather than identifying opportunities for large-scale products and focusing on making them more inclusive. When thinking about enduring impact on global resilience, it is critical to develop a process that incentivizes collaboration and economies of scale. As a framework for undertaking such action, we propose approaching global resilience challenges through a process we call ICE:



The financial tools and products detailed in previous sections can address market failures when innovatively applied, but it is not enough to only focus on their introduction to new regions or demographics. A resilience initiative can maximize its influence by continuing to push towards greater collaboration and economies of scale in these markets.

4.1 The Building Blocks of Collaboration

The success of a hub strategy is not based solely on the identification of innovative financial tools and requisite partners. There is also a need to consider how the incentives, checks, and balances of this new ecosystem work together in order to ensure that the new interventions produce real, tangible social outcomes. This is particularly relevant for outcome models, since the financial innovation is creating multiple returns for multiple stakeholders and their incentives must align to produce the desired social impact. Therefore, developing a process for effective collaboration is necessary. The steps of such a process are:

Create a Baseline and Benchmark Socio-Economic Impact – In any systems approach it is necessary to create a framework that brings clarity to how and why partners are engaging each other. This orientation allows the group to reach consensus on the status quo before intervening and thereby set a baseline against which the group can analyse the impact of its own inventions, both overall and relative to each other. By agreeing to a set of desired outcomes, the group can then do an analysis of the net present value of addressing the inferred social externalities and segment different investment types to match different intervention models. Along with effects at the household level, these benchmarks should identify what such a system would look like at scale in order to identify opportunities to achieve maximum efficiency - in essence, identifying benchmarks and incentives for collaboration at the individual, partner, and system levels. There are a number of well-established players working on bringing new rigor to such benchmarking models, including Accenture, Brookings, Deloitte, the Red Cross, and McKinsey.

Harness Big Data to Plan, Audit, and Assess Effectiveness - Big Data has exploded in the last decade and is projected to continue growing at an exponential rate[1]. By 2020, data production will be 44 times greater than it was in 2009, and the McKinsey Global Institute asserts that data has become a factor of production, almost on par with labor and capital [12, 13]. The opening up of the World Bank databases, among others, holds great promise for the social sector. The challenge, however, is analyzing the data for new and relevant insights. Important uses of big data in hub design include:

- *Ability to map and monitor complex systems*, moving beyond functional silos
- *Identification of critical interventions* by regional hub and theme
- *Determination of potential outputs* via scenario analysis and simulation modeling
- *Dynamic profiling* to analyze second and third tier implications from interventions
- *Provision of effective audit mechanisms* to measure results
- *Harnessing Community Feedback Mechanisms* to continually improve on uses of data

[12] http://www.emc.com/about/news/press/2010/20100504-01.htm
[13] http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation

Design Community Feedback Systems – Traditional market feedback mechanisms are not always effective indicators of impact, especially when a group other than the target population is funding the intervention or innovation. In order to make sure the Zone is tracking towards its desired outcomes, feedback loops must be established that explicitly link greater action to greater impact. These feedback loops should inform the Zone of effects at every level, from very granular to the system wide, and include not only primary impact but also of secondary and tertiary impacts that can be tracked by big data. In turn, longitudinal tracking of this feedback can lead to not only better monitoring of interventions, but also predictive modelling whereby community feedback can inform future project design. Such rigor around monitoring impact can help to underpin the confidence of impact investors and allow for the development of more sophisticated financial innovations.

Support Intermediary Functions- New types of intermediaries are needed to facilitate how new partnership models and new financial innovations achieve the desired outcomes. Critical intermediary roles include:

- Social Entrepreneurs that design new impact models;
- Credible social sector organizations to popularize innovation and scale in distribution;
- Commercial players, such as banks and corporations, with expertise in applying new social elements to existing goods and services;
- Social Finance Intermediaries capable of identifying the risk / return of the social objective and related interventions

Particular attention must be paid to how various intermediaries share risk and return, and how the overall social mission is maintained and prioritized throughout. By designing with these potential conflicts of interest in mind, overall emphasis can be placed on outcomes rather than specific outputs linked to discrete actors.

Leverage Social Entrepreneurship, Society's R&D – Social Entrepreneurship has boomed in the last fifteen years; as one example, the number of Ashoka Fellows has grown from less than 1,000 to over 3,000[14]. However, the related entities have often failed to scale. These bottom-up models need greater funding and support to maximize learning opportunities for the Zones overall. By focusing on their inclusion as part of a larger systemic approach, Resilience Zones can make sure that they are incorporating local experts and community specific interventions into long-term group design.

Identify Appropriate Legal Frameworks – As previously noted, historically financial innovation has often failed to scale unless provided with a facilitative legal framework. Understanding legal relationships is key to understanding how risk will be managed and how returns will be shared, and in turn how new impact investment tools can be replicated and scaled. The critical element in all of these structures is hardwiring accountability to achieving the stated social mission and purpose.

Structurally, two new legal frameworks are emerging: the Community Interest Corporation (CIC) and Benefit Corporation at the corporate level, and the use of LLP's – the Low-profit Limited-liability Company (L3C) and the proposed Social Enterprise LLP (SELLP) in the UK – at the Partnership level. They are often seen as conflicting but in reality perform different functions, with the CIC and B Corp

[14] https://www.ashoka.org/global

providing comfort that an individual investment is truly social, and the L3C and the proposed SELLP focused on facilitating multi stakeholder structures.

The tools for partnership have expanded exponentially in the commercial world since the passing of the first LLP law, with five times as many LLPs existing versus "straight " corporate structures. In the US a legal code (PRI) already defines how a Foundation can participate in layered social investment, and integrating into an LLP allows ease of replication and sophistication to social purpose. All of these elements can already technically be achieved by contractual law, but using these structures allows organizations to hard wire their social mission into their design, which can standardize and ease the replication of an impact investing product.

Select the Proper Financial Tools – While financial innovations are immediately relevant for their ability to bring new capital to social issues and market failures, they also can have the added effect of incentivizing deeper collaboration between partners. The dominant current model of bilateral grant making often incentives approaching complex issues in silos, but that need not always be the case. While many impact investing options are in their infancy, structured products such as Social Impact Bonds (SIBs), Development Impact Bonds (DIBs) and Social Yield Option Notes (SYNs) can all conceivably be designed to promote group impact alongside the success of discrete interventions. By doing so, these financial tools help to make the Zones themselves more effective.

Extend Distribution Networks – The last fifteen years have seen substantive growth in how social enterprises and hybrid value chains deliver social goods at scale. As leading social sector organizations grow to multinational size, including networks such as Grameen Bank ($10 billion in lending), the Aga Khan Development Network ($2.3 billion annual revenues), and BRAC (over 100,000 employees), there are greater opportunities to learn how effective partnerships can be structured with corporations and other actors that operate at scale[15,16]. In particular, horizontal expansion into adjacent and complementary sectors or countries has allowed these organizations to continue to grow and defy the stereotype of a small, fragmented social sector. These partnerships can often achieve lower per-unit costs or risk profiles, allowing for greater inclusion of marginalized groups and making overall financial projections more attractive. In turn, this can raise the interest levels of additional private sector partners, and allows for a new range of hybrid partnerships with corporations. As multi-national corporations look increasingly to the developing world as a source of future growth and move to incorporate concepts of Creating Shared Value, these organizations offer real learning opportunities and new models of reverse-innovation.

4.2 Economies of Scale

Putting the building blocks for collaboration in place will better position innovations to scale, in turn lowering unit costs and allowing for broader application. The current fragmentation and stove piping of funding creates greater average transaction costs, making private investors less attracted to potentially sound interventions. Greater scale also increases the ability to apply more sophisticated financial tools to resilience issues, in essence creating a virtuous cycle of innovation, collaboration and easier replication of best practices through scaled frameworks.

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[15] http://www.akdn.org/faq.asp. The AKDN is a client of Total Impact Advisors.
[16] http://www.brac.net/content/who-we-are#.Ui-A4mRAS5M

5.0 Conclusion

Rockefeller Foundation's commitment can lead the way in bringing greater focus on various innovative and high impact approaches that can create long-lasting resilience in communities worldwide. Done well, a resilience initiative can strengthen the prevention and coping mechanisms of the poorest and most vulnerable populations while at the same time integrating the range of private sector partners to make it sustainable and effective long term. To realize this goal, the initiative should:

1. Identify the major market failures and challenges to Resilience, recognizing where interventions are likely to be effective

2. Identify financial tools and non-financial resources, which can be brought to create Resilience - both short and long-term

3. Identify a range of implementation partners - private, public, governmental, developmental, and others - who can complement its own activity

4. Identify a framework for engaging and mobilizing these financial and non-financial resources in combination with partners if possible

The focus of this particular body of work is to create a useful roadmap to implementation. To this end, within this discussion, we examined financial tools and private sector partners that could support work of the Hubs and developed the ICE Framework - Innovation, Collaboration, Economies of Scale – to guide implementation.

Our conclusion is that there are numerous financial and non-financial tools and approaches to facilitate the objectives in a practical, timely, scalable and effective manner. If done correctly, an integrated approach on the Resilience goals should have a greater impact than the fragmented or reactionary efforts to date. The key is to match the appropriate tools with the most relevant market failures in any given situation. By doing so, discrete innovations will not only become more likely to succeed, but the critical next steps of collaboration and scaling will be also be made possible and less risky.

Finally, it is important to note that partners with a natural affinity do exist in both the private and non-private sectors. They exist at the global and local levels. Various motivations, commitment levels, and incentives to partner will vary, but there are encouraging examples of such partners as referenced throughout this analysis. Rockefeller Foundation should seek such partnerships, starting with those who would be natural affinity partners because of humanitarian, social, regional, commercial, strategic, or other potential overlapping interests.

Appendix

The appendix below consists of excerpted slides created by Total Impact Advisors for Rockefeller Foundation's purposes.

A. Detailed Financial Tool Kit

Lack of Savings / Resources

The chart below details a selection of financial tools that are most commonly used in addressing the various market failures.

Financial Innovations	Description	Examples
Vouchers	• Coupons dispersed to consumers for exchange; can be tied to productive safety net programs • Can involve poor in economy, help increase health, education, etc. • Little financial innovation	• Mozambique Vouchers
Microfinance	• Small loans with limited or no collateral to spur entrepreneurship • Opportunity to leverage distribution network established by MFIs	• KIVA • MYC4
Micro-insurance	• Insurance with low premiums and low caps for poor	• LeapFrog
Cash Transfers	• Either direct cash transfers to poor households or conditional cash transfers to households meeting certain requirements • Little financial innovation • Can help address health / education etc. • Direct cash transfers (e.g. no conditions) can help poorest of poor	• Government transfers

Lack of Risk Mitigation Tools

The chart below details a selection of financial tools that are most commonly used in addressing the various market failures.

Financial Innovations	Description	Examples
Micro-insurance	• Insurance with low premium and low caps for poor • Sometimes bundled with micro-lending activities	• LeapFrog
Weather / crop insurance	• Index insurance for climatic hazards to reduce agricultural risk • Helps development of bank credit and private investment in agriculture • Protects livelihood of poor in event of floods / droughts	• Weather insurance in the Philippines
Reinsurance	• Insurance purchased by insurance companies to further share risk • Frees up risk capital on insurance companies balance sheet allowing for more risk taking • Increases consumer confidence in insurance products	• PharmAccess Health Insurance Fund

Lack of Functioning Domestic Capital Market

The chart below details a selection of financial tools that are most commonly used in addressing the various market failures.

Financial Innovations	Description	Examples
Financial or first loss Guarantees	• Third-party assurance in the event of default • Helps de-risk certain initiatives to incent private sector entry • Lowers cost of capital and potentially raises the ability to seek longer term funding • Scale depends on size of project (e.g. guarantee to one specific institution vs. major infrastructure project	• GrantCo • AMF
Bridge Financing	• Provides cash to bridge cash flow gaps and procurement costs of supplies until regular payments can become available • Funds are deployed by private and nonprofit sector as needed and then replenished through regular funding sources	• UNICEF Bridge Fund
FX Guarantee	• Compensates investors for losses due to FX fluctuations • Reduces currency risk and increases potential for long-term funding	• Dutch Currency Fund (TCX)

Lack of Economic Activity

The chart below details a selection of financial tools that are most commonly used in addressing the various market failures.

Financial Innovations	Description	Examples
Technical Assistance Facility	• Grant facility provides capacity building and de-risks loans to investors • Facilitates capacity building at social business level, preparing companies to receive private investment	• Impact investing funds raising TA facilities to support their investments
Blended capital + Technical Assistance	• DFI / private sector partnership to incent lending in post-conflict and impoverished areas	• LEDFC • Middle East Investment Initiative • Africa Investment Climate Facility • Afghan Growth Fund
Granular Capital	• Granularity of credit profiling at an individual level for more fair pricing of capital • Enhanced ability to provide community-wide funding for credit sources which otherwise are only lending on asset based loans	• MYC4 • MIVs • Austrian Development Bank

Lack of Incentives for Collaboration & Scale

The chart below details a selection of financial tools that are most commonly used in addressing the various market failures.

Financial Innovations	Description	Examples
Social Impact Bonds	• Public sector commitment to pay for improved social outcomes that result in economic savings	• Recidivism SIBs • DIBs • Policy Finance
Social Equity	• Monetizing social benefits and securitizing the cash flows to create a liquid market hardwired with a social mission • Financial incentive is based on the delivery of tangible, auditable social outcomes through collaborative multi-stakeholder frameworks	• Outcome Models

B. The Building Blocks of Collaboration

I C E

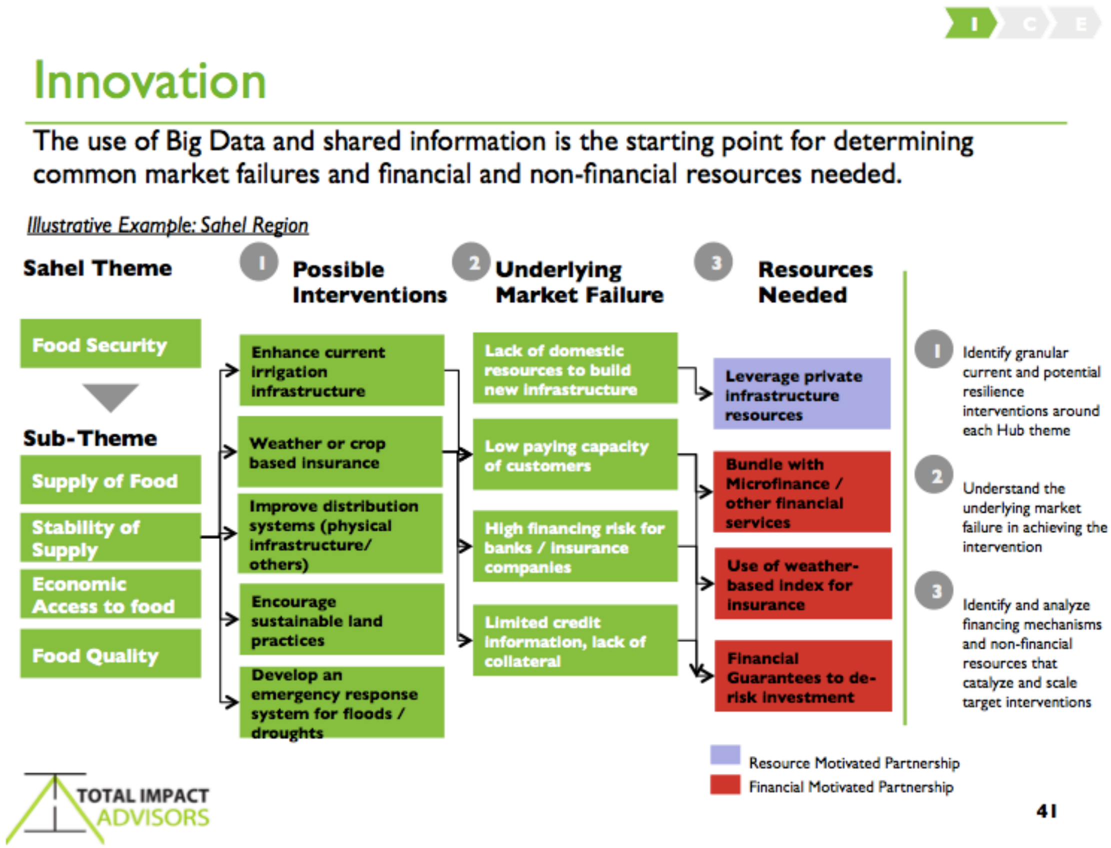
Collaboration: Building Blocks

Collaboration does not stop at partner identification. An infrastructure must be created to achieve real, tangible social outcomes.

Requirement	Possible Solution Providers
▪ Benchmark socio / economic impact	▪ McKinsey / Accenture / Deloitte
▪ Big Data for feedback loops on benchmark, assess & audit	▪ Accenture / IBM /Apple / Microsoft Google
▪ Community feedback mechanism	▪ Keystone, SROI
▪ Effective intermediary framework	▪ Four players: social entrepreneur, scaling social organization, commercial partner, and social finance intermediary
▪ Identification of innovation	▪ Ashoka, Schwab, Foundations
▪ Legal framework for collaboration	▪ L3C, LLPs, B-Corps
▪ Financial tools to incentivize collaborative behavior	▪ SIBs, DIBs, SYNs / Social Equity
▪ Distribution mechanisms	▪ BRAC, Grameen, Aga Khan, Hybrids, Corporates, Multilaterals

C. Regional Opportunity Analyses

Below is a detailed analysis of regional opportunities using the ICE framework in context of resilience zones. The partners listed are solely for illustrative purposes.



Sahel

Collaboration on Financial Innovation: Sahel

This chart shows how/why certain partners gravitate more to certain market innovations – those highlighted in red are the most relevant to food security.

Criteria → / Innovation ↓	Regional Interest	Demonstrated Natural Affinity	Strategic Overlap	Commercial Interest	Core Competencies
Vouchers, Microfinance, Cash Transfers	EcoBank, Bank of Africa, Middle Eastern Banks	Lutheran World Relief Anglican Church	CFAO	Unilever, P & G, Vivendi, Western Union	Western Union, MasterCard, Visa, Standard Bank
Microinsurance, Reinsurance	Hygeia	Grameen Foundation, PlaNet Finance	PharmAccess, Leapfrog, Credit Agricole, Proparco	Swiss Re, Munich Re, Zurich	
Financial & FX Guarantees, Bridge or Advances on Financing	ATI, AfDB, EBID	AMF, World Council of Credit Unions	JP Morgan, Morgan Stanley, Standard Bank, Standard Chartered, DFIs HSBC Societe Generale Barcalys	ECP, Helios, DPI, Ripplewood, Zephyr	
Blended Capital, Granular Capital, TA	Shell, Total, Schlumberger, Bechtel, Petrobras, MTN, GE, AKDN	Acumen, Bamboo, SEAF, CHF International	Coke/Pepsi	Cargill, Yara	FedEx, UPS, Delta, Swiss Air, British Airways, Virgin, etc.
SIBs / DIBs, Social Equity			Companies suffering from externalities (e.g. sanitation, road safety, education)		

Sahel

Collaboration: Non-Financial Resources

Certain partners are more adept at providing non-financial resources.

Non-Financial Resources	Food / Nutrition	Health / Medical	Shelter / Infrastructure	Logistics / Distribution	Goods & Services (Data)	Data and Security
Sahel	WFP Cargill ADM Nestle Danone Kraft	OMS (WHO)	Bechtel Schlumberger UNHCR	UPS / FedEx Delta / British Air US Military	Coke / Pepsi / Danone Shell Total P&G Unilever	MTN IBM
	Red Cross World Bank Impact Investing Intermediaries / PE Funds African Development bank					

Horn of Africa

I C E

Collaboration on Financial Innovation: Horn of Africa

This chart shows how/why certain partners gravitate more to certain market innovations – those highlighted in red are the most relevant to food security.

Criteria → / Innovation ↓	Regional Interest	Demonstrated Natural Affinity	Strategic Overlap	Commercial Interest	Core Competencies
Vouchers, Microfinance, Cash Transfers	Equity Bank Safaricom, Middle Eastern Banks	BRAC, PRoCredit,	Hawala Firms (e.g., Dahabshiil)	Unilever, P & G, Vivendi, Western Union, Vodaphone	Western Union, MasterCard, Visa, Standard Bank
Microinsurance, Reinsurance	AAR Health	Grameen Foundation	Islamic Development Bank	Swiss Re, Munich Re, Zurich, Allianz	
Financial & FX Guarantees, Bridge Financing	ATI, AfDB, EADB	AMF, World Council of Credit Unions	JP Morgan, Morgan Stanley, Standard Bank, Standard Chartered, DFIs	ECP, Helios, DPI, Ripplewood, Zephyr	
Blended Capital, Granular Capital, TA	Shell, Total, Schlumberger, Bechtel, Petrobras, MTN, Safaricom, GE, AKDN	Acumen, Bamboo, SEAF, CHF International	Coke/Pepsi	Cargill, Yara	FedEx, UPS, Delta, Swiss Air, British Airways, Virgin, etc.
SIBs / DIBs, Social Equity			Companies suffering from externalities (e.g. sanitation, road safety, education)		

Horn of Africa

I C E

Collaboration: Non-Financial Resources

This chart shows how certain partners are more adept at providing non-financial resources.

Non-Financial Resources	Food / Nutrition	Health / Medical	Shelter / Infrastructure	Logistics / Distribution	Goods & Services (Data)	Data and Security
Horn of Africa	WFP Cargill ADM Nestle Danone Kraft	OMS (WHO) GlaxoSmithKline	Bechtel Schlumberger UNHCR	UPS / FedEx Delta / British Air US Military	Coke / Pepsi / Danone Shell / Total P&G Unilever	MTN IBM
	Red Cross World Bank Impact Investing Intermediaries / PE Funds African Development Bank					

South Asia

Collaboration on Financial Innovation: South Asia

This chart shows how/why certain partners gravitate more to certain market innovations – those highlighted in red are the most relevant to food security.

Criteria → / Innovation ↓	Regional Interest	Demonstrated Natural Affinity	Strategic Overlap	Commercial Interest	Core Competencies
Vouchers, Microfinance, Cash Transfers	IFMR Trust	Accion, Grameen, BRAC, PRoCredit, Western Union	ICIC Bank	Unilever, P & G, Vivendi, Western Union	Western Union, MasterCard, Visa, HSBC
Microinsurance, Reinsurance		Frontier Investment Group	Leapgfrog	Swiss Re, Munich Re, Zurich, AIG	
Financial & FX Guarantees, Bridge Financing	HSBC, Regional Banks			HSBC	
Blended Capital, Granular Capital, TA		Acumen, Bamboo, SEAF, CHF International, Rianta Capital	Coke/Pepsi	Cargill, Yara	
SIBs / DIBs, Social Equity			Companies suffering from externalities (e.g. sanitation, road safety, education)		

South Asia

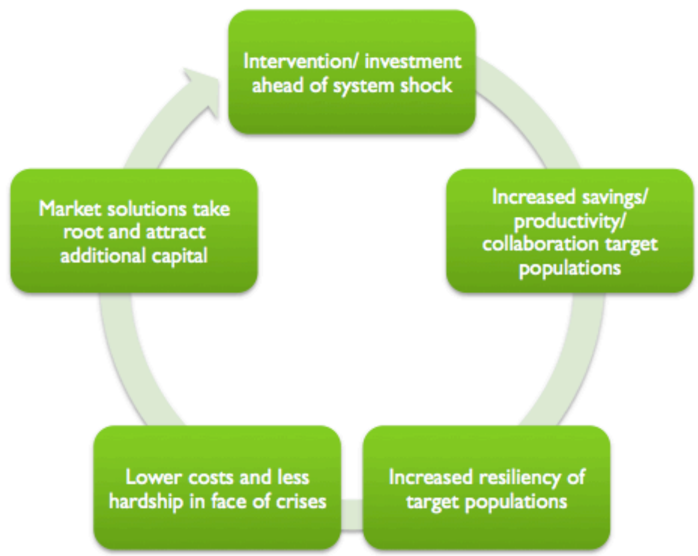
Collaboration: Non-Financial Resources

This chart shows how certain partners are more adept at providing non-financial resources.

Non-Financial Resources	Food / Nutrition	Health / Medical	Shelter / Infrastructure	Logistics / Distribution	Goods & Services (Data)	Data and Security
South Asia	WFP Cargill ADM Nestle Danone Kraft	OMS (WHO)/ Cipla, Indian, Chinese and Japanese pharma companies	Bechtel Schlumberger UNHCR/Other construction groups to be identified	UPS / FedEx Asiana/ British/ Singapore Air/ Cathay Pacific/ Boeing Local Military	South East Asian beverage bottlers in Philippines/ Thailand others/ Coke / Pepsi / Shell / Total/ P&G Unilever	TATA, Huawei, IBM, Samsung, Sony, Intel, Lockheed, Boeing/others
	Red Cross World Bank Impact Investing Intermediaries / PE Funds Asian Development bank					

Economies of Scale – Creating a Virtuous Circle

Smart resiliency and impact-oriented investments create lower costs overall and help to build scalable market solutions.



C. Partnership Types

Regional Interest Partnerships

Below are examples of some of the potential regional partnerships that could be made for Resilience Zones.

Regional Interest	Sahel	Horn of Africa	Southern Asia
Description of Potential Partners	Regional corporations and financial institutions, large multinationals with regional interest, infrastructure companies, e-Commerce companies, media and communication companies, insurance companies, multilateral / bilateral institutions, insurance companies, water and agriculture firms		
Examples	• Multilaterals: WFP, OMS, UNHCR • Red Cross • Bechtel / Schlumberger • Coke / Pepsi / Danone		• Shell / Total • Impact investing / PE Funds • MasterCard / Visa • Cargill / ADM
	• African Development Bank • MTN • West African Insurance Companies • SEIS • Sahel-Sahara Bank • SkyTV	• African Development Bank • MTN • ICEA LION • Safaricom • Equity Bank • SkyTV	• Asian Development Bank • BRAC • Bharti Airtel • Flipkart • AIA Insurance

Financial Partnerships

There are several key criteria to identify financial partners that are applicable to all regions.

Financial Tools Criteria	Demonstrated Natural Affinity	Strategic Overlap	Commercial Interest	Core Competencies
Description of Potential Partners	Private sector and civil society organizations, university endowments already working with poor and marginalized populations, Multilaterals/ Bilaterals	Financial services and insurance, consumer products, infrastructure, resources, media, communications etc.	Water firms, Ag firms, reinsurers, Financial Funds (PE, Infrastructure)	Data, logistics, e-commerce, shipping companies, international airlines and freight that are linked to aid agencies
Examples	• Impact Investors (Acumen, Bamboo, SEAF, etc.) • MFIs (Accion, Grameen, Brac, Accion, ProCredit) • NGOs/CSOs • Harvard, MIT, Texas A&M • Cargill, ADM • ADB	• Mastercard, Visa, Citibank, Standard Bank • BRAC • Coke & Pepsi • Unilever, P&G • Equity Bank • ICEA LION • AIA Insurance	• Vivendi, Nestle • Cargill, Yara • Bechtel / Schlumberger • Swiss Re, Munich Re, Zurich • Zephyr, Helios, ECP, DPI	• FedEx, DHL, IBM, SkyTV • Delta, Swiss Air, British Airways, Virgin, etc. • Coke & Pepsi • World Bank • Flipkart

Resource Partnerships

In addition to partnering for financial innovation, many partners can bring other influential, non-financial resources.

Non-Financial Resources	Food / Nutrition	Health / Medical	Shelter/ Infrastructure	Logistics / Distribution	Goods & Services (Data)	Data and Security
Description of Potential Partners	Food & beverage companies, commodities companies, Multilaterals	Large pharmaceutical companies, private hospitals or clinics, cold storage companies, Multilaterals	Large infrastructure companies, & homebuilders, Multilaterals	Companies specializing in the movement of people, goods and services, and financial resources.	Large retail stores, computer service providers, Data	Large data aggregators, computer companies, software & service providers, biometric tracking companies
Examples	• Nestle • Coke/Pepsi • Danon • Kraft • General Mills • Cargill • ADM • WFP • BRAC	• Pfizer • GSK • J&J • Roche • Cipla • OMS • Grameen • BRAC • Red Cross	• Bechtel • Schlumberger • UNHCR • Ashoka Hybrid Value Chains	• UPS / FedEx • Coke / Pepsi • Master Card / Visa • Western Union • Flipkart	• P&G • J&J • WalMart • Ashoka Hybrid Value Chains	• IBM • Apple • Microsoft • LexisNexis • Trimble • Garmin • Indian Disaster Relief

Hybrid Partnerships

Recent years have seen the development of Hybrid partnerships between the Citizen Sector and For Profits Hybrid Partnerships are seen as new drivers of growth, which bring together the social and private sector.

Description of Potential Partners	Corporations / financial institutions are seeing opportunities in the exponential growth in civil society organizations in servicing the growing base of the pyramid in markets, as well as noting that failure to address the social externalities will deter commercial opportunities. In theory, partners with strong regional growth would make likely natural partners. Their regional efforts also appeal to their general shareholders.	
Examples	Danone / Grameen – Food Ashoka Hybrid Value Chains – Cross sectoral Entesa / Vodaphone Anglican Church / WI - Telecoms Initial Reviews by a number of Bretton Woods Institutions – WFP, UNHCR	Unilever / WTO - Sanitation Accenture / Brookings – Education AKDN / Many commercial and Not for profit players – Multi sectoral BRAC / MasterCard – Financial Innovation

D. Practical Analysis of 6 Case Studies

Below are overviews six resiliency case studies that each holds lessons for Resilience Hubs. Three more examples are analyzed in further detail below.

	Overview	Region	Financial Tool(s)	Partnerships
1 African Risk Capacity	• ARC was developed to catalyze a better risk management system for Africa and provide the capacity building support required for implementation	• Sub-Saharan Africa	• Insurance • Risk Pooling	• African Union, WFP, private re-insurers, financial firms
2 R4 Rural Resilience Initiative	• R4 builds on the initial success of HARITA (Horn of Africa Risk Transfer for Adaptation) to expand operations in Ethiopia	• Horn of Africa	• Insurance • Credit & Savings incentives	• Oxfam, WFP, Swiss Re, other national /regional partners, RF / USAID
3 Global Alliance for Action for Drought Resilience & Growth	• A regional response to the risk of drought that takes a holistic approach to relief and development	• Horn of Africa	• Bridge Financing • SYN or SIB	• Infrastructure funds • Investment funds
4 Crowd Funding (Haiti)	• In the wake of the 2010 earthquake in Haiti, the Red Cross set up a mobile donation strategy where participants were asked to text to make a $10 donation. Over $43m was collected	• Haiti	• Mobile / Cash transfers	• Financial Partnerships • Red Cross • Cell phone companies • Individual donors
5 Kenyans for Kenya	• In 2011 the Kenya Red Cross Society prepared a starvation humanitarian response including short and long-term interventions	• Kenya	• Mobile / Cash transfers	• Red Cross, Safaricom Foundation, Kenya Commercial Bank Foundation, others
6 Indian Ocean Tsunami 2004	• Public and private disaster response in a variety of ways including cash and in-kind donations	• South-East Asia	• Cash and in-kind transfers	• Private Corporations • Red Cross • Government Aid

Regional Partnerships
Financial Partnerships
Resource Partnerships

2 Lack of Risk Mitigation Tools

Case: PharmAccess Health Insurance Fund

Strengthening Health Systems: PharmAccess Health Insurance Fund (HIF)

Problem / Market Failure	Traditional Intervention	Financial Innovation
▪ Many African nations are unable to provide public services that meet the demand for healthcare, which leads to private sector alternatives that charge high out-of-pocket costs for patients ▪ Only a small fraction of total health expenditures in sub-Saharan Africa are covered by insurance, meaning patients must bear those costs themselves ▪ Low quality of care leads to less demand, which inhibits the ability of providers to secure financing for upgrades	▪ Donor funding has shown limited success in strengthening the continent's healthcare systems for the long term	▪ On the demand side, HIF provides smart subsides for community-based health insurance for previously uninsured, low income people in sub-Saharan Africa, allowing more people to participate in pre-paid health schemes ▪ On the supply side, HIF provides technical assistance and loans to support quality improvement at clinics and hospitals, and then ties payment of healthcare providers to their performance

Implementation	Outcomes
▪ Partnership between PharmAccess and Dutch donor agencies (including €100 million grant from the Dutch Ministry of Foreign Affairs), insurance companies, and multinationals; local implementation partners in each country	▪ Increased access increases demand for healthcare services stabilizes providers' revenues and improves their profiles as borrowers ▪ Currently considering large scale-up in Nigeria

3 Lack of Functioning Domestic Capital Markets

Case: AMF

Mobilizing Local Capital – Ascending Markets Financial Guarantee Corp. (AMF)

Problem / Market Failure	Financial Innovation
▪ Emerging economies are amassing large savings at the national level, but have limited options for debt investments ▪ Regulations require pension funds and similar institutions to invest in national scale AAA debt ▪ Infrastructure and essential public services must be funded in foreign currencies, exposing key national sectors to greater risk ▪ $2 Trillion of local capital markets unaligned with their own sustainable economic development	▪ AMF provides AAA national-scale ratings for local currency financings (e.g., infrastructure) and A global-scale ratings for foreign currency financings (exports, remittances), enabling new opportunities for public investors ▪ Guarantees repayment in local currencies for financing of essential public service asset classes ▪ Asset classes include microfinance, small and medium enterprise loan securitizations; consumer loans; agribusiness; housing; health care; education; municipal and other sub-sovereign debt; infrastructure; clean energy; and utilities
Implementation	**Outcomes**
▪ Initial concept was recognized through a development finance competition sponsored by the Gates Foundation, the World Bank, and AFD ▪ Has secured capital commitments of $240+ million from Coca-Cola, six development banks, and private investors	▪ Has developed a pipeline of $2.1 billion in potential transactions through pre-marketing activity in 38 countries across Latin America, Asia, Africa, and Central and Eastern Europe ▪ Less exposure to global currency fluctuations lowers risk of debt crises and increases macro-economic resiliency

4 Lack of Economic Activity

Case: LEDFC

Post Conflict Economic Resiliency – Liberian Enterprise Development Finance Co

Problem / Market Failure	Traditional Approaches
▪ In 2007 Liberia re-emerged as a post conflict nation ▪ Results: refugee populations, a mentally and physically scarred population, and lack of civil and private sector institutions and infrastructure to address the needs of the populations ▪ Political pressure by former combatants and citizenry to rebuild civil institutions, basic services, and provide jobs or risk returning to chaos and war ▪ Liberia's $3bn + in international debt obligations to both public and private lenders limited funds to rebuild ▪ No capital available to stimulate new economic activities in private or public sectors created a vicious cycle of need	▪ $3bn in debt forgiveness to clear the way for new official lending into Liberia ▪ On the human and technical resources side, other official, NGO, and private sources provided capacity across civil society (UN peacekeepers, and police or social services) while Soros provided financial resources to the Government to supplement the salaries of returning expatriate and other senior ranking government personnel ▪ Yet broader economic inclusion through the provision of financial and technical support remained a problem
Financial Innovation & Implementation	**Implementation Issues and Outcomes**
▪ 2007, $30mm LEDFC created to provide credit to SMEs and to stimulate economic recovery, jobs, and enduring peace ▪ LEDFC designed as a nonbank financial institution ▪ PPP where family office (RLJ) contributed $3mm to develop operating entity, OPIC provided $20mm for loans, CHF (NGO) of the US provided technical/operating. Other groups also provided technical assistance grants	▪ **Implementation Issues:** Early loans were too large; too much risk; a few went bad, they took a big chunk of capital ▪ Also culture of repayment of loans took a while to develop so heavy cash burn ▪ **Positive Results:** Helped unlock 135 loans to 94 SMEs. Banks got involved. 1,000 jobs created. $7.28 million lent. It was sold to a Ghanaian SME entity

E. Additional Interviews, Input & Research

Interviews	**Secondary Research**
USAID Rockefeller Foundation Africa Risk Capacity Oxfam World Bank World Food Program UNHCR Ashoka MYC4 Kiva Virgin OPIC Latham and Watkins LLP Caplin and Drysdale Gibson Dunn Bates Wells Braithwaite IBM	Select TIA Initiatives: (UNESCAP Sanitation, PharmAccess, Social Impact Bonds, Liberian Enterprise Development Fund) Austrian Development Bank World Bank Food Security Task Force Africa Progress Panel OECD Others

McKinsey Deloitte Accenture Center for Global Development William and Flora Hewlett Foundation Aga Khan Foundation Calvert Foundation Standard Bank Standard Chartered MFX TCX JP Morgan Goldman Sachs Milken Institute Dalberg Initiative for Global Development Gates Foundation Morgan Stanley Center for Strategic International Studies Swiss Re MIGA Ministry of Foreign Affairs Netherlands Ministry of Economic Affairs Netherlands Ministry of Finance Netherlands DFID BiD Network Tallberg Foundation Surmount Partners Norfund European Bank for Reconstruction and Dev. KfW Millennium Challenge Corporation UNEP Finance Initiative World Connectors FMO	

F. About Total Impact Advisors

Total Impact Advisors is an Impact Investing advisory practice that specializes in sourcing and developing global investment opportunities that are socially and financially attractive. Since inception, and working with premier clients across the public, private, and philanthropic spectrum, one of our specific foci has been on Policy Finance - the application of finance tools to create genuine multi-stakeholder collaborative partnership models with a focus on the delivery of tangible, measurable social outcomes.