RESILIENTAFRICA NETWORK

ROUND 1 RESILIENCE INNOVATION CHALLENGE

2014-2016

EASTERN AFRICA RESILIENCE INNOVATION LAB

RESILIENCE INNOVATION CHALLENGE FOR ADVERSE CLIMATE EFFECTS (RIC4ACE)

GRANT STRUCTURE AND GUIDELINES

(July 2014)
www.grants.ranlab.org
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1. Overview

1.1 RAN

ResilientAfrica Network (RAN) is one of the eight university-based Development Labs making up the Higher Education Solutions Network (HESN) established by the United States Agency for International Development (USAID) and existing within its Global Development Lab (http://www.usaid.gov/GlobalDevLab). RAN’s core partners include Stanford University, Tulane University, and the Centre for Strategic and International Studies (CSIS). Within Africa, RAN brings together 20 Universities in 16 countries. The Network is led by Makerere University in Kampala, Uganda and the secretariat is located at Makerere University’s School of Public Health. RAN is structured around four core establishments referred to as Resilience Innovation Labs (RILabs) which include: the Eastern Africa RILab (EA RILab) based in Uganda and hosted by Makerere University, the West Africa RILab (WA RILab) based in Ghana and hosted by the University for Development Studies, the Horn of Africa RILab (HoA RILab) based in Ethiopia and hosted by Jimma University, and the Southern Africa RILab (SA RILab) based in South Africa with University of Pretoria as host. By applying science, technology, innovation, and partnerships, and using evidence-based approaches, RAN seeks to identify, develop and scale innovative solutions that will strengthen the resilience of African communities afflicted by natural as well as man-made shocks and stresses (http://www.ranlab.org). The RAN development lab was launched in November 2012.

RAN has three main objectives: 1) To design and operationalize a scientific, data-driven, and evidence-based resilience framework for sub-Saharan Africa; 2) To strengthen resilience at the individual, household and community levels through innovations; and 3) To enhance resilience-related knowledge generation and sharing. RAN’s Vision is ‘Resilient African communities through innovative solutions’, while its Mission is ‘to strengthen resilience of African communities through university-led, local, innovative solutions using evidence-based approaches respectively’. RAN defines resilience as the capacity of people and systems to mitigate, adapt to, recover and learn from shocks and stresses in a manner that reduces vulnerability and increases well-being.

Rationale for the RAN: Development and humanitarian aid have been historically project based. Although these efforts have saved lives, they have not sufficiently built resilience of target communities to recurrent shocks and stresses. This is the reason why the same shocks and stresses result in the same consequences year in and year out. RAN seeks to break these negative cycles by tapping into the adaptive capacities of target communities to strengthen their resilience to challenges affecting them. Therefore, RAN’s primary reason for existence is the identification, development and piloting of resilience building innovations, and bringing these to scale so as to significantly impact on communities in sub-Saharan Africa.

1.2 RAN’s Resilience Framework

RAN has elucidated a theoretical framework for its approach to resilience. This is summarized in the figure below:
Theory of Change:
RAN’s Theory of Change states: ‘The resilience of people and systems in Africa will be strengthened by leveraging the knowledge, scholarship and creativity that exists across the ResilientAfrica Network to incubate, test, and scale innovations that target capabilities and reduce vulnerabilities identified by a scientific, data-driven, and evidence-based resilience framework for sub-Saharan Africa’.

Upon reasonable development and testing, the innovations incubated by RAN shall be translated into ‘resilience interventions’ and scaled in representative target populations. RAN’s assumption is that the effects observed in the test populations can be replicated and brought to scale in other communities that share similar development challenges in sub-Saharan Africa. We postulate that if the ‘right innovations’ (hence interventions) are applied to a reasonable degree of scale in target communities (i.e. that a ‘substantial’ proportion of the population in the target communities ‘adopts’ them), they will significantly contribute to ‘improving’ the resilience of these communities. We are using the term ‘strengthening resilience’ other than ‘building resilience’ because we believe that communities will not start from zero – there is existing strength and background resilience (in form of adaptive strategies) in the communities on which we shall build. The impact of resilience interventions on communities should be measurable. Successful innovations/interventions are expected to impact on at-least one or more building blocks of resilience in the target communities. These ‘building blocks of resilience’ shall be in form of measurable ‘resilience dimensions’ and will be described later.

1.3 RAN’s Resilience Innovation Challenges (RICs)

A strategy for sourcing, developing and scaling resilience interventions
RAN seeks to source, develop and scale transformative innovations that strengthen the resilience of communities against natural and man-made shocks and stresses, in line with
RAN’s thematic areas of focus. In order to effectively tap into the immense innovation potential available not just on the African continent, but globally, RAN supports resilience innovation challenges where the best ideas and/or solutions will receive grants to further develop these projects towards achieving widespread usage and reaching full scale. RAN is using two main approaches to source for innovations: 1) crowd-sourcing and, 2) design-thinking based co-creation (DTCC).

The crowd-sourcing approach is a bottoms-up approach that underscores RAN’s conviction that great ideas come from everywhere and from anyone, hence acknowledging the existence of promising prototypes/proof of concepts under development within RAN universities and in-country innovation hubs and other community sources. Using open innovation exhibitions as a method of crowd-sourcing ideas, RAN identifies such prototypes and brings them under incubation, providing the teams with mentorship, technical and financial support to catalyze further development, and piloting of the innovations, through RAN’s Resilience Innovation Acceleration Programme (RIAP). Innovators will also be supported to conduct assessments to evaluate the efficacy of their technologies or approaches so as to improve the evidence base for optimization and scaling.

The DTCC approach on the other hand is a top-down approach where RAN uses an intervention strategy process to conceptualize and launch innovative solutions designed for impact and scale and to prioritize interventions by identifying those with the highest and transformative potential for the most pressing resilience challenges in target communities. This approach is based on Stanford’s ChangeLabs framework. Through this process, and working with domain experts and stakeholders, RAN is able to identify the most potentially impactful intervention pathways and potential projects within these pathways. This information is then used to develop resilience innovation challenges that attract multidisciplinary teams of innovators to develop solutions. Proposed solutions with demonstrable potential to impact on resilience will then be supported with incubation grants.

Our two-pronged approach to sourcing innovations allows us to draw upon expert judgment on intervention priorities but at the same time allowing us to tap into the enormous innovation potential of independent innovators, better positioning RAN for resilience impact. This call is seeking innovative solutions to resilience challenges that have been identified and developed using the DTCC process. The intervention pathways guiding this call are explained in detail in Section 3.

1.4 The EA RILab

The Round 1 Resilience Innovation Challenge is being hosted by the Eastern Africa RILab that is based at Makerere University School of Public Health, Uganda. Partner universities constituting the EA RILab include: Makerere and Gulu Universities (Uganda), National University of Rwanda (Rwanda), the University of Kinshasa (DRC), and Muhimbili University of Health and Allied Sciences (Tanzania). Within the countries hosting these institutions, RAN has identified seven communities where its core resilience challenges are highly prevalent, to facilitate the resilience building process. The seven communities include four communities in Uganda, two from Rwanda and one community from the DRC.

**EA RILab Vision Statement:**
The vision of the Eastern Africa RILab is to have African communities that are resilient to the shocks and stresses affecting their livelihoods, making use of innovative solutions to their context specific resilience challenges. The EA RILab envisions dynamic self-sufficient households in target communities that effectively harness local agency, indigenous adaptive capacities, and innovative solutions to disrupt current approaches to production and market engagement in a manner that builds reliable livelihood safety nets, cushions them from climate related shocks and stresses, and leads to sustainable development.

**EA RILab Philosophy:**

The Eastern Africa RILab will contribute to strengthening the resilience of communities by nurturing and scaling innovations with the highest transformative potential. It has applied a data driven methodology to identify resilience priorities in target communities, select intervention pathways with the highest potential on communities. The EARILab will rally innovators to provide solutions to these challenges using science and technology. RAN will tap into the massive capacity of university scholars and other innovator communities to ideate and co-create. Throughout the intervention process, the RILab will use a human-centered design approach that takes into account the local application of proposed solutions. Given that the resilience challenges of target communities are complex, RAN and the EA RILab will apply a systems approach to intervention in which critical change levers in the system are used as the basis for identifying the most potentially impactful intervention pathways. The ultimate aim of these interventions is to strengthen the resilience of African communities to priority shocks and stresses.

**1.5 The EA RILab priority resilience issue**

The EA RILab focuses on 1) strengthening resilience to the effects of climate variability and climate change (that manifests as recurrent drought alternating with floods, landslides, and disease epidemics) and 2) mitigating the effects of acute and chronic conflict that manifest as Gender Based Violence (GBV), refugees, and slow pace of recovery after a conflict. These thematic areas of focus were identified through an extensive baseline literature review that focused on identifying resilience issues that affect the largest section of the population in its network countries. This was a crucial step in RAN’s resilience framework.

**2.0 The Eastern Africa RILab Resilience Innovation Challenge for Adverse Climate Effects (RIC4ACE)**

**2.1 The Resilience gap**

The Eastern Africa region faces recurrent shocks and stresses arising from climate variability. Events are characterized by heavy destructive rains in some regions and insufficient rain in others, while some regions oscillate between both. The Eastern Africa RILab has conducted further exploration of these phenomena in four communities: Mt. Elgon, Albertine and Teso sub-regions in Uganda, and Northern/Western Rwanda. Current evidence shows that average rainfall is increasing in the wetter regions and reducing in the drier ones (Hepworth and Goulden, 2008). The immediate hazards arising out of these climate events include rapid and slow-onset floods in the low lying plains, landslides in
mountainous areas, and drought in the semi-arid areas. The effects of these phenomena are similar as the destruction of crops and livestock output which impact directly on livelihoods in all of these regions. These communities are highly dependent on subsistence agriculture and mono-cropping systems (Gollin and Rogerson, 2010, Urama and Ozor, 2010).

In the event that either the rains or the droughts extend by a month beyond their anticipated duration, households may lose an entire crop (Gollin and Rogerson, 2010, Urama and Ozor, 2010). The onset of rains has also become more erratic. Among rural farmers, the narrow range of crops they grow is used for both household consumption and income generation, which combined with inexistent crop insurance, low financial inclusion, and low value addition to produce severe constrains in their livelihood safety nets, trapping them into a vicious cycle of low incomes and perennial poverty (Gollin and Rogerson, 2010, Urama and Ozor, 2010). Other negative effects include increased morbidity due to sanitation related diseases and malnutrition, destruction of homes and critical infrastructure, and loss of livestock. Vulnerability to adverse climate events is however exacerbated by a range of human factors, central of which is encroachment on high risk topographical zones due to pressure from a rapidly growing population, deforestation, regressive mentality regarding innovation and enterprise, pervasive lack of ‘a culture of safety’, leadership capacity gaps, poor housing, non-diversified livelihoods, archaic methods of agricultural and livestock production, exploitative middlemen, poor access to credit, lack of robust farmer cooperatives, gender inequality, and the culture of not saving (Osman-Elasha, 2009).

Different stakeholders have implemented a number of interventions in the affected regions with varying success, but the overall resilience of the affected populations is still lacking. Measures like re-settlement, family planning services, micro-credit circles, universal basic education, and agricultural advisory services remain sub-optimal in transforming these societies.

These phenomena represent the key resilience challenge for the Eastern Africa RILab. How can we build agency in affected communities to tap into their local adaptive capacities in permanently transforming them into self-sufficient societies with the ability to minimize the effects of shocks and stresses arising out of climate variability? How can we do this in a way that makes households and communities stronger and leads to sustainable development? The issues affecting the Eastern Africa region have been summarized into 8 resilience dimensions: 1) Agriculture, 2) Climate variability, 3) Wealth, 4) Infrastructure, 5) Human Capital, 6) Natural Resources and Environment, 7) Governance, and 8) Health.

2.2 The RIC4ACE call

This call focuses on the sourcing, developing, and scaling of transformative technologies and approaches that will strengthen resilience to shocks and stresses that arise from climate variability and climate change. In particular, RAN is looking to catalyze and incentivize the development of solutions that will impact agricultural production and markets, as well as livelihood diversification and financial inclusion. Grants ranging between US$15,000 to US$45,000 are anticipated under Phase 1 of this call. Winners of Phase 1 Grants will then qualify to compete for Phase 2 grants (which are anticipated to range between US$50,000 to US$100,000), while winners of Phase 2 grants may subsequently complete for Phase 3 (Awards are anticipated to range between US$100,000 and US$ 200,000). The grants will support development of innovative approaches and technologies that will strengthen
resilience to adverse climate effects arising from climate variability and climate change within the Eastern Africa region. [Note: RAN reserves the right to change the projected award amounts or the number of anticipated awards at any time!].

The Eastern Africa RILab identifies and will fund projects in two priority intervention pathways for resilience building around climate variability/climate change related shocks and stresses:

- **Intervention Pathway 1: ZUKUSA! Disrupt agricultural practices and markets for resilience**
  The majority of our communities rely on agriculture for livelihood. However, they are stuck in a cycle of low productivity and incomes due to use of poor methods of agricultural production and skewed markets in which they have limited leverage. Changing this dynamic requires nothing short of positive disruption. ‘Zukusa’ is a local vernacular word meaning ‘Wake them up’. We are searching for solutions that can ‘shake-up’ the status quo on agricultural practices related to production and market interaction in a transformative way that multiplies yield and creates more farmer leverage in the markets. [Note: We use the term ‘disrupt’ as a hint that some proposed solutions might be complete ‘paradigm changers’ from the usual way we do things and we encourage our innovators to think this way in all challenges! We are seeking disruptive innovations rather than innovations that make only incremental changes to the status quo].

- **Intervention Pathway 2: I CAN - Empower me to thrive!**
  Our communities have a lot of potential to thrive in the wake of adversity. This is built on years of positive adaptation and coping strategies. Adaptation is however constrained by low livelihoods diversification and low financial engagement and inclusion. We are looking for solutions that will substantially empower target communities by diversifying their livelihoods using simple but highly profitable farm and non-farm businesses, and solutions that create better financial inclusion for rural households through savings and access to credit.

This round of innovation challenges targets the following anticipated outcomes:

<table>
<thead>
<tr>
<th>Table 1: Anticipated outcomes of the proposed interventions</th>
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<tbody>
<tr>
<td><strong>Final outcomes</strong></td>
</tr>
<tr>
<td>1. Diversified livelihoods</td>
</tr>
<tr>
<td>2. Markedly improved household incomes, wealth and income security</td>
</tr>
<tr>
<td>3. Reduced economic impact of shocks and stresses from climate variability on households and communities</td>
</tr>
<tr>
<td>4. Food secure households with reduced malnutrition</td>
</tr>
<tr>
<td>5. Improved income stability in adverse climates</td>
</tr>
<tr>
<td>6. Resilient sustainable farming methods</td>
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<td>7. Improved quality of life</td>
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</tbody>
</table>

**Key Dimensions of Change:**
The planned intervention will contribute to creating change through 12 ‘change dimensions’, aligning with 6 resilience dimensions:

**Table 2: Dimensions of change for the proposed interventions**

<table>
<thead>
<tr>
<th>Resilience dimensions addressed</th>
<th>Change dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wealth</strong></td>
<td>1. Income/Wealth</td>
</tr>
<tr>
<td></td>
<td>2. Viable agribusiness &amp; other ventures</td>
</tr>
<tr>
<td></td>
<td>3. Diversified livelihoods</td>
</tr>
<tr>
<td></td>
<td>4. Financial inclusion (Savings &amp; access to credit)</td>
</tr>
<tr>
<td><strong>Agriculture</strong></td>
<td>5. Agricultural yields</td>
</tr>
<tr>
<td></td>
<td>6. Agricultural value addition</td>
</tr>
<tr>
<td></td>
<td>7. Adoption of better agricultural practices</td>
</tr>
<tr>
<td><strong>Climate events</strong></td>
<td>8. Risk mitigation</td>
</tr>
<tr>
<td></td>
<td>9. Protection from loss due to sudden shocks</td>
</tr>
<tr>
<td><strong>Human capital</strong></td>
<td>10. Job/employment levels</td>
</tr>
<tr>
<td><strong>Natural resources &amp; environment</strong></td>
<td>11. Conservation of natural resources</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td>12. Nutritional Status</td>
</tr>
</tbody>
</table>

### 2.3 Objectives of the RIC4ACE Call

Communities that experience recurrent shocks and stresses arising from climate variability and climate change are largely dependent on subsistence agriculture and face the challenge of non-diversification. The EA RILab Resilience Innovation Challenge Round 1 Grants are designed to achieve the following objectives:

**General Objective:**

To strengthen resilience of target communities by building their agency to improve production, to take more control of the agricultural value chain, and to diversify to profitable enterprises, in ways that are environmentally sustainable.

**Specific Objectives:**

The specific objectives of the RIC4ACE call are:

1. To transform rural agricultural processes so as to increase efficiency of production and post-harvest handling of produce, in ways that are green and sustainable
2. To disrupt and re-organize agricultural market dynamics in ways that eliminate farmer-to-buyer power asymmetries so that the farmer is in more control of produce prices
3. To create new defaults for farmer livelihood diversification to farm and non-farm businesses that synergize each other and break the cycle of dependence on one trade
4. To increase financial inclusion for people living in at-risk communities through newer, robust models and currencies for saving, access to credit, and risk transfer

The RIC4ACE organizers and partners strive to provide a round of grants that lead to resilience building around these four objectives.
3.0 RIC4ACE Grants: Structure, technical overview and schedule

3.1 Overview of the grant structure
RIC4ACE anticipates identifying and funding up to eight (8) project teams addressing any of the sub-challenges described under the intervention pathways in sub-section 3.2 of this call. Teams will be selected based on the quality of their applications which will be evaluated to ascertain resilience building potential, potential for transformative impact, scalability, feasibility, and viability. Each successful team will receive a RIC grant to support the development of their proposed idea dependent on their current status and progress. The RIC4ACE grants are structured into three distinct and progressive phases where each phase has specific implementation requirements and funding levels:

• The first phase is the ‘Solution Development’ Phase;
• The second phase is the ‘Piloting’ Phase; and
• The third and final phase is the ‘Scaling’ Phase.

Progressing from one phase to the next will be competitive and will be incumbent on successfully meeting the requirements of a given phase based on set evaluation criteria as detailed in Section 6 of this call. Out of the eight (8) teams that are anticipated to receive Phase 1 funding, it is anticipated that only the best four (4) will be selected to receive Phase 2 funding, and only the best two of these four will be selected to receive Phase 3 funding. Additionally, to be selected, teams will have to demonstrate the extent to which human capacity development aspects have been mainstreamed into their activities for increased individual and community level agency, as well as green technologies and approaches where appropriate. This requirement underscores RAN’s belief in the power and agency of the individual community member as a critical aspect of resilience building and sustainability. By mainstreaming human capacity development and increased agency we mean proposed solutions should contain a component for understanding and promoting the community’s ‘know-how’ to apply the solution, empowering them to manage their affairs without necessarily always relying on external support, and ensuring access by marginalized groups like women and youth. By ‘green technologies and approaches’ we mean solutions that on the whole are eco-friendly and contribute to better protection of the environment and conservation.

The anticipated dates for all phases of the competition are provided in Table 1.

**Phase 1: Solution Development Phase**
Competition for Phase 1 shall be open to all eligible individuals or entities. The call will be opened on the **4th of August 2014**. A panel of judges will select up to eight (8) finalists based on the merit of their applications (Evaluation criteria provided in Section 6). The eight finalists will each receive a Phase 1 grant. Participants will use this grant to develop a ‘proof of concept’ or a ‘preliminary prototype’ of the proposed solution. The concept should demonstrate technical feasibility and viability of the proposed solution, either with a physical simple prototype (for technology based ideas), a viable unit process (for physical processes), or a viable concept (for conceptual approaches).
Phase 2: Development of a refined optimized prototype and pilot testing

Phase 2 grants will only be awarded to a sub-set of winners of Phase 1 grants upon verification of the prototype plausibility, functionality and potential for adoption (awardees will provide visual, video or text-based evidence of results depending on the type of idea). A subset of up to 4 grantees will be selected for award of a Phase 2 grant, based on projects that demonstrate clear potential for resilience building from Phase 1. [Note: Respondents to the general call cannot apply directly for this set of grants. These grants will be competed for by Phase 1 grantees only, upon satisfactory completion of deliverables for Phase 1]. Participants will use this grant to develop a refined optimized prototype that is ready for deployment on a larger scale. They should pilot it on a smaller scale and optimize it further to a level that is viable for multiplicative use and scale.

Phase 3: Larger scale testing, business model development and scale

Phase 3 grants will only be awarded to a sub-set of winners of phase 2 grants upon verification of a refined optimized prototype (for technology based solutions) or a refined technically plausible concept (for solutions in form of approaches or models) that is scalable and with clear transformative potential. A subset of 2 grantees will be selected for this award, based on projects that demonstrate clear scalability and transformative potential from phase 2 development. Participants will use this grant to implement their business model, test their prototype or approach on a wider scale and position it for resource multiplied scaling for transformative impact. [NB: Respondents to the general call cannot apply directly for this set of grants. These grants will be competed for by Phase 2 grantees only, upon satisfactory completion of deliverables for Phase 2]

3.2 Call structure and pathway description

The Eastern Africa RILab has identified two priority intervention pathways that have a high transformational potential to impact resilience strengthening around climate variability/climate change related shocks and stresses:

- **Intervention Pathway 1: ZUKUSA! Disrupt agricultural practices and markets for resilience**
- **Intervention Pathway 2: I CAN - Empower me to thrive!**

Each pathway comprises two resilience tracks. Within each of the tracks are two ‘innovation challenges’ hence a total of eight innovation sub-challenges as detailed below:

**Intervention Pathway 1: ZUKUSA! Disrupt agricultural practices and markets for resilience**

(Anticipated Awards Under this Call: 5 Phase One Grants, 2 Phase Two grants, 1 Phase Three Grant)

Communities that experience recurrent shocks and stresses arising from climate variability are largely dependent on subsistence agriculture. This is characterized by small fragmented holdings, inefficient methods of production and/or itinerant pastoralism (UNDP, 2007). As a result, agricultural yields are small and non-diversified, leading to low income from produce (UNDP, 2007). Value addition to produce is also low. Agricultural markets are largely skewed to disfavor the rural farmer. Information asymmetries, lack of direct access to buyers, and low price leverage all affect farmer incomes from produce. This intervention pathway
seeks solutions that disrupt the status quo by substantially building the agency of rural farmers to take more control of the agricultural production process, as well as the agricultural markets. The pathway has two tracks and four innovation sub-challenges:

**Track 1: Scaling sustainable agricultural practices**
- **Sub-challenge 1:** Develop low cost environmentally friendly approaches and technologies to increase agricultural yield per acreage
- **Sub-challenge 2:** Develop contextually relevant technologies or approaches for post-harvest handling of produce

**Track 2: Agricultural markets 2.0**
- **Sub-challenge 3:** Agricultural markets for the future that incentivize new types of networks and distribution models to catalyze enterprise and narrow the gap from farm to market.
- **Sub-challenge 4:** New models to promote produce-bulking, standardization, packaging, branding and farm-to-shelf produce traceability for increased farmer leverage in the market.

**Intervention Pathway 2: I CAN - Empower me to thrive!**
*(Anticipated Awards Under this Call: 5 Phase One Grants, 2 Phase Two grants, 1 Phase Three Grant)*

Individuals living in rural communities affected by climate variability related shocks and stresses face the challenge of non-diversification. They are dependent on one or a narrow range of livelihood options, resulting in limited finite incomes and chronic poverty. Non-diversification is caused by the lack of viable livelihood options that are contextually relevant, easy to implement, and highly profitable. It is also caused by low financial inclusion and a pervasive culture of not saving for investment. This pathway seeks to implement a set of interventions that empower target communities to diversify to profitable non-agricultural enterprises. It also seeks to develop livelihood options that disrupt the status quo in rural business, savings and access to credit. Interventions in this pathway are in two tracks and four innovation sub-challenges:

**Track 1: Livelihood diversification**
- **Sub-challenge 5:** Develop gender and age responsive models or platforms for launching highly profitable non-agricultural businesses in rural communities.(By ‘gender and age - responsive’ we mean ‘accessible in equal measure to marginalized groups and in themselves contribute to over-coming gender and other socially constructed barriers to opportunity and access)
- **Sub-challenge 6:** Develop complementary ‘pendulum’ businesses that oscillate adaptively between dry and rainy seasons to sustain rural household incomes.

**Track 2: Financial Engagement and Inclusion**
- **Sub-challenge 7:** Develop new models or approaches to increase household savings to power investment or mitigate production related risks.
• **Sub-challenge 8:** Develop new models or approaches that disrupt current rural microfinance to substantially increase access to credit for development among rural households.

### 3.3 RIC4ACE Grants: Technical overview of the innovation sub-challenges

**Intervention Pathway 1: ZUKUSA! Disrupt agricultural practices and markets for resilience**

**Track 1: Scaling sustainable agricultural practices**

**Sub-challenge 1: Develop low cost environmentally friendly approaches and technologies to increase agricultural yield per acreage**

Rural farmers are stuck in subsistence forms of agriculture based on small fragmented acreage and inefficient methods of agriculture and livestock rearing. High-tech implements like tractors are largely unaffordable while approaches involving heavy use of agrochemicals would disrupt a production ecosystem that has largely remained green. Likewise, rural farmers largely lack access and know how to use modern improved seed and cropping technologies in ways that resist nuisance weeds, pests and drought and result in much higher yields per acre. We are seeking solutions that can substantially increase the yield-per-acre among rural holdings while making production more efficient and sustainable. These could include:

- Technologies or approaches that significantly increase yield while keeping the production ecosystem green
- Technologies or approaches that prolong production capacity in drier seasons without disrupting bio-diversity
- Technologies or approaches that expand available surfaces for crop and animal husbandry without encroachment on high risk or protected environmental zones
- Low cost farming implements that make production more efficient
- New and efficient forms of green energy to power critical agricultural/livestock production processes, irrigation and farmer households
- New approaches for increasing yield for indigenous drought resistant starches and vegetables
- Innovative approaches for adverse climate early warning including platforms for last mile communication

Applications should include provisions for greener production processes and incorporate proposals for building agency for their uptake in target communities.

**Sub-challenge 2: Develop contextually relevant technologies or approaches for post-harvest handling of produce**

Rural communities face major challenges with post-harvest handling of produce. This includes both rapidly perishable produce (e.g. vegetables and fruits) and less rapidly perishable produce (e.g. grain and legume seeds). A substantial part of their produce is wasted in post-harvest-losses. Communities also have limited access to affordable technologies for produce processing to improve its quality before sale (lack of value addition to raw produce). These two factors interplay to drastically reduce the price of their produce. On the other hand, produce distributors who are able to sort, refine and add value to produce often get much higher profits than the farmers. We are seeking a solution that will transform post-harvest handling of produce to facilitate value addition in an eco-friendly way. Proposed
solutions may address either rapidly perishable produce or less rapidly perishable produce. Examples of desirable solutions include but are not limited to:
- Improved locally adaptable storage technologies
- Improved locally adaptable technologies for drying/preservation of produce before it reaches the market
- Low cost technologies and approaches for basic processing and local value addition (e.g. technologies for sorting grain by grade level and removing unwanted debris, technologies for fruit processing, exploring new forms of products from bananas and other local foods etc.)
- Models/approaches for efficient handling of produce from farm to market
- New and efficient forms of green energy to power produce processing
- New approaches/technologies for local seed optimization to service local seed demand
- Create a low cost easily deployable produce storage granary

**Intervention Pathway 1: ZUKUSA! Disrupt agricultural practices and markets for resilience**

**Track 2: Agricultural Markets 2.0**

**Sub-challenge 3: Agricultural markets for the future that incentivize new types of networks and distribution models to catalyze enterprise and narrow the gap from farm to market**

Current agricultural markets are riddled with mass asymmetries in information and market access. These create a distortion of supply and demand dynamics in which the rural farmer is substantially less informed about market dynamics and has no direct access to buyers. High level regional or international markets are largely inaccessible to rural farmers because they do not understand how they operate and where the definitive buyers are located. Market interfaces are often controlled by exploitative middlemen who reap massive profits at the expense of farmers and out-growers (Atingi-Ego et al., 2006). We are seeking a solution that will disrupt the current structure and state of agriculture/livestock markets to substantially shift the level of market access and market interaction in favor of the rural farmer by obliterating current market access asymmetries and increasing direct interface between rural farmers and definitive buyers. We are also open to highly disruptive solutions that totally transcend the current definition of a ‘market’ to create the market of the future. Examples of conventional solutions could include:
- New and disruptive approaches to small farmer networking to multiply capacity for price leverage and produce stabilization in markets
- New approaches to linking multiple farmer networks to create super-networks that increase farmer leverage in the market
- Changing farmer attitudes to see farming as a business

Examples of non-conventional/disruptive solutions could include:
- New and disruptive technology driven platforms that address market related information asymmetries
- New and disruptive platforms that completely change the location of agro-produce markets from ‘near the buyer’ to ‘near the farmer’
- Disruption of the role of middlemen in the produce supply chain
Sub-challenge 4: New models to promote produce-bulking, standardization, packaging, branding and farm-to-shelf produce traceability for increased farmer leverage in the market

Current agricultural markets are riddled with mass asymmetries in the power of leverage by rural farmers. Because of reliance on small holdings and non-bulk sales, rural farmers have little leverage on the price of their produce. Most importantly, rural farmers have low appreciation as well as capacity to brand their produce in a way that positions their produce competitively in the market. This creates a distortion of supply and demand dynamics in which the rural farmer is substantially weaker than the buyer, and also limits the markets that local produce attracts. We are seeking a solution that will disrupt the current structure and state of agriculture/livestock markets to substantially shift the power of market leverage in favor of the rural farmer by obliterating current power asymmetries and increasing farmer leverage in the market. Solutions should stimulate increased farmer leverage in the market through bulking, branding, produce standardization and traceability. Potential solutions could include but are not limited to:

- Novel approaches to produce-bulking and motivation of cooperatives around produce marketing
- Farmer driven approaches to produce-standardization, quality triaging and pricing
- Branding strategies that enhance visibility and competitiveness of local produce in larger markets
- Cost-effective technologies and platforms that enable rural farmers to trace their produce
- Approaches to produce-size forecasting and supply stabilization in rural farmer networks
- Bringing traditional foods back to the dinner table: Novel approaches to value addition for indigenous drought resilient starches and vegetables (e.g. cassava, sweet potatoes, millet and sorghum) and innovative approaches to their preparation to enhance their palatability and aesthetic properties

Intervention Pathway 2: I CAN - Empower me to thrive!
Track 1: Livelihood diversification

Sub-challenge 5: Develop gender and age responsive models or platforms for launching profitable non-agricultural businesses in rural communities.

Marginal communities in areas affected by climate variability related shocks and stresses often rely on one trade – their options are limited to subsistence agriculture. This lack of diversification is driven by either a lack of options for viable business in their contexts, a lack of trade skills to try extra-agricultural businesses or a pervasive fear of risk taking due to lack of entrepreneurial skills. The result of this is that individuals can be trapped in low income trades, while educated and uneducated youth are increasingly unemployed because not only do they lack access to land for production but also expertise needed to venture into viable businesses. Women, who are the primary producers of wealth in many households, are also excluded from more profitable businesses due to a combination of lack of skills and gender power imbalances in decision making in households. Attempts at adaptation to new industries have often resulted in failure and loss of investments (Tushabomwe-Kazooba, 2006). Adoption of some rapid return cottage industries like alcohol brewing by women brings short term economic gains but has bred alcoholism among men, creating new complex problems for the emancipation of women. We are seeking solutions that create gender and
age-neutral businesses that are easy to set up, moderately-to-highly profitable, green, and rapidly adaptable to rural situations. The purpose is to create viable defaults for livelihood diversification for rural communities so as to reduce their dependence on climate controlled production and to increase their incomes. We are looking for venture types that are highly attractive, with faster returns but lower negative consequences for households. Examples include but are not limited to:

- **Models, approaches or platforms for outsourcing of micro-work for rural youth with access to technology**
- **Models for rural poor to profit from emerging industries like mobile telecommunications, petroleum, transport and education**
- **Highly profitable cottage businesses defaults for women and youth i.e. default businesses that bridge a critical produce or service delivery need in the market but can be easily implemented in a home-based environment (For example, some households’ efforts to diversify led them into the business of brewing and sale of dangerous alcohol (local potent gin) which although profitable has resulted into numerous negative effects – we seek alternative businesses that are as profitable, and in form of home-based ventures, but with minimal negative effects on the community)**
- **Models for development of rural franchises and profitable long-term family businesses among rural poor**
- **Profitable businesses built around green energy**
- **Models for empowering farmers to create profitable companies**
- **Innovative ways to involve rural communities in health promotion to prevent common deadly diseases and novel currencies for incentivizing them for voluntary work**
- **Easy to use accurate primary care level diagnostics for common deadly diseases**

This category excludes businesses centered on agriculture as the primary means of production. Applications should include strategies for building the requisite agency and mechanisms for promoting sustainable use of natural resources.

**Sub-challenge 6: Develop complementary ‘pendulum’ businesses that oscillate adaptively between dry and rainy seasons to sustain rural household incomes.**

Marginal communities in areas prone to climate variability related disasters often lack synergistic trades that enhance each other. Although people living in rural communities are involved in subsistence agriculture, very few are involved in coupled businesses where agriculture enhances another form of unrelated business. As a result, changes from the rainy season to dry seasons often result in underproduction, due to lack of options for business coupling. We are seeking solutions that enhance bridging of resources between different but related businesses/trades, so that people living in rural communities can oscillate between either business in mutually enhancing ways, and in which some outputs of one business could facilitate a process in another business. The coupled businesses may not necessarily include agriculture, or an agriculture related business can be coupled with a non-agricultural one. Applicants in this category should therefore only propose models/approaches or platforms that couple at least two businesses and clearly demonstrate the synergies between the business engagements. Examples include but are not limited to:

- **Coupled businesses in which farmers can switch from one trade to another between seasons with minimal or no loss of profits**
- **Coupled businesses or trades in which waste from one business can be efficiently used as inputs for another**
- Develop a low cost optimized toilet solution for flood prone/high water table areas using and/or generating by-products from other economic activities, and create a viable business around it
- Develop low cost landslide resilient housing using by-products from other economic activities and create a viable business around it
- Create a business out of early warning
- Coupled businesses that synergize each other fully off-farm
- Bringing traditional foods back to the dinner table: approaches to promote back diversification of farmers to indigenous drought resistant starches (e.g. cassava, sweet potatoes, millet, sorghum, yams) which have been abandoned due to global demand trends for other cereals like maize or rice

**Intervention Pathway 2: I CAN - Empower me to thrive!**

**Track 2: Financial Inclusion**

**Sub-challenge 7: Develop new models or approaches to increase household savings to power investment or mitigate production related risks**

One of the biggest impediments to investment and risk mitigation in rural areas is the lack of a savings culture. This includes both monetary savings and storage of some produce surpluses for use in low output months. The lack of monetary savings constrains households’ ability to invest in expanding their businesses or new business undertakings. It also constrains their ability for health seeking in times of emergencies (e.g. during maternal labour/childbirth and severe childhood illness), leading to high mortality from preventable conditions. Because communities are constrained by many stresses, they have low discount rates, hence a low tendency to save. Due to difficulty in accessing credit, it is almost impossible for these households to expand the scale of their business, let alone acquire household assets that improve their quality of life. We seek a solution that develops the potential of individuals (both men and women) and households in rural areas, to save for investment and emergencies. Innovators should propose ways in which households can be supported to increase their savings, within their income environment. Examples of possible ventures include but are not limited to:

- Novel technologies, approaches or platforms to facilitate saving in rural households
- Models that simplify saving in commercial and/or rural banks for rural farmers
- Models, approaches or technologies that channel savings directly to pre-determined low risk investments
- New and disruptive forms of currency that can be channeled into savings
- Innovative models and approaches for risk mitigation through risk transfer, accessible by rural communities
- Credit ‘circles ’ for the future

Applications should include mechanisms for building the agency and incentives needed to create a saving culture in the target communities.

**Sub-challenge 8: Develop new models or approaches that disrupt current rural micro-finance to substantially increase access to credit for development among rural households**

Rural farmers find it difficult to access credit from commercial banks. Because of their low levels of financial literacy, they are often considered a high risk group by commercial banks, which are mainly driven by profit. Farmers also lack the collateral they need to secure the
size of loans that are required for establishing viable businesses. Without access to finance, it is difficult for rural farmers to expand their businesses let alone venture into new profitable enterprises. However, the many uncertainties in their environment also contribute to poor credit performance when they get loans. We are seeking solutions that disrupt current models for rural venture financing to increase access to credit for rural farmers. Possible solution domains include but are not limited to:

- Disruptive mechanisms for overcoming traditional barriers to accessing credit in rural communities
- New and disruptive forms of currency that can be channeled into credit payments
- Innovative solutions for overcoming non-compliance to credit repayments to ensure continuity of village micro-credit facilities while maintaining farmer confidence

3.4 Sub-challenge grants and additional costs

3.4.1 Grant amounts

This call comprises eight (8) resilience innovation sub-challenges, with RIC grants anticipated to be awarded as follows:

- A total of 8 grants will be awarded in Phase 1 (Anticipated award range: US$15,000-45,000)
- A total of 4 grants will be awarded in Phase 2 (Anticipated award range: US$50,000-100,000)
- A total of 2 grants will be awarded in Phase 3 (Anticipated award range: US$100,000-200,000)

NOTE: RAN reserves the right to change the projected award amounts, or the number of anticipated awards, at any time. The release of this call does not obligate the RAN to make any awards.

3.4.2 Official currency

All currency quotations in the call for Round 1 of the Resilience Innovation Challenge should be in United States Dollars (US$).

3.4.3 Resources beyond the award

Awardee teams shall be responsible costs for all research and development, prototyping, travel, and shipping expenses that exceed the grant amount awarded in this call. Grant money and other reimbursement amounts will be paid through an agreement with the RAN and are subject to the availability of funds. RAN reserves the right to determine the grant amount awarded to a particular team and to vary grant amounts among selected finalists based on RAN’s analysis of the proposed project budget and the availability of funds. The Judging Panel, RAN and USAID reserve the right to reassess the technical requirements and performance evaluation criteria, or to cancel the availability of the grants at any time.

However, RAN is fully cognizant of the fact that bringing successful interventions to full scale may in some projects require much more resources than can be provided by the RAN. As part of the mentorship process, RAN will provide support to grantees in Phase 2 and 3 on development of viable business models and mobilization of external funding from interested agencies, especially for interventions that are clearly impactful on the communities.
### 3.5 Implementation schedule

Table 1 provides an overview of the call schedule

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call open for applications</td>
<td>4th August – 22nd September 2014</td>
</tr>
<tr>
<td>Dedicated Question and Answer Period</td>
<td>4th August to 22nd August 2014</td>
</tr>
<tr>
<td>FAQs posted online starting</td>
<td>4th August 2014</td>
</tr>
<tr>
<td>Applicant support Webinar</td>
<td>21st August 2014</td>
</tr>
<tr>
<td>Application deadline</td>
<td>06th October 2014</td>
</tr>
<tr>
<td>Evaluation and selection of finalists</td>
<td>06th October – 28th November 2014</td>
</tr>
<tr>
<td>Grants awarded and finalists announced</td>
<td>28th November 2014</td>
</tr>
<tr>
<td>Implementation period</td>
<td>8th December 2014 – 29th May 2015</td>
</tr>
<tr>
<td>Phase I Evaluation</td>
<td>1st June 2015 – 10th June 2015</td>
</tr>
</tbody>
</table>

**Phase II:**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalists Selection (from Phase I grantees) including preparation of Phase 2 action plans</td>
<td>15th June – 26th June 2015</td>
</tr>
<tr>
<td>Phase 2 Grants awarded</td>
<td>26th June 2015</td>
</tr>
<tr>
<td>Implementation period</td>
<td>26th June 2015 – 26th February 2016</td>
</tr>
<tr>
<td>Phase II Evaluation</td>
<td>26th February 2016 – 11th March 2016</td>
</tr>
</tbody>
</table>

**Phase III:**

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalists Selection (from Phase II grantees) including preparation of Phase 3 action plans</td>
<td>11th March 2016 – 31st March 2016</td>
</tr>
<tr>
<td>Phase 3 Grants awarded</td>
<td>31st March 2016</td>
</tr>
<tr>
<td>Implementation period</td>
<td>31st March 2016 – 31st March 2017</td>
</tr>
<tr>
<td>Phase III Evaluation</td>
<td>31st March – 14th April 2017</td>
</tr>
<tr>
<td>Reporting, project close out and dissemination for scale (Phase 3 projects)</td>
<td>14th April 2017 – 12th May 2017</td>
</tr>
</tbody>
</table>

### 4.0 RIC4ACE Grants: Eligibility, terms, and conditions

#### 4.1 Rules for eligibility

4.1.1 Teams of university students, university faculty and student-faculty collaborations from established universities worldwide are eligible to apply. If selected, they will be required to obtain and present a letter of support from an academic member of faculty (a faculty sponsor) from a recognized academic department or equivalent unit in any of the EA RILab network universities (Makerere University and Gulu University in Uganda, National University of Rwanda in Rwanda, the University of Kinshasa, DRC
or Muhimbili University, Tanzania). That same letter will include a clear statement of commitment by the faculty member to support the team in all stages of the award. This affiliation is required since all grants to university students, faculty and student-faculty teams will be channelled to grantees through their affiliate academic departments or equivalent units, care-of their faculty sponsor.

4.1.2 Organizations are also eligible to apply. Potential applicant organizations may include foundations, NGOs, faith-based organizations, private businesses, business and trade associations, colleges and universities, community based organizations and civic groups. All applicants in this category must be legally recognized entities, formally registered under applicable law, and they should attach evidence to that effect on their application. If selected, organizations located outside the member countries of the EA RILab (Uganda, Rwanda, DRC and Tanzania), will be required to obtain and present a letter of support from an academic faculty who is affiliated with a recognized academic unit in any of the EA RILab network universities (Makerere University and Gulu University in Uganda, National University of Rwanda in Rwanda, University of Kinshasa, DRC and Muhimbili University, Tanzania). The letter of support will include a statement which expresses the academic faculty's commitment to support the team in all stages of the award.

4.1.3 Teams of individuals that are not university students are also eligible to apply. If selected, such teams will be required to have a letter of support from either:

i) An academic faculty who is affiliated with a recognized academic department or equivalent unit in any of the EA RILab network universities (Makerere University and Gulu University in Uganda, National University of Rwanda in Rwanda, the University of Kinshasa, DRC, or Muhimbili University, Tanzania); or

ii) An organization that is eligible as per clause 2. This affiliation is required since all grant funds for this category of applicants will be channelled either through their affiliate academic unit or their affiliate organization.

4.1.4 Entities that are ineligible to apply include: Government agencies (local and foreign), non-incorporated entities (informal organizations), and individuals not affiliated with any legally recognized entity as specified in rules 1, 2 and 3 above. Individuals interested in applying for the RIC4ACE call are encouraged to form teams in line with the requirements given in rules 1 and 3 above. Other entities ineligible to apply include any individuals or organizations participating in, linked to, or sponsoring subversive activities including criminal acts, terrorism or related activities.

4.1.5 RAN will ensure that all potential Awardees under this Call are responsible organizations and that they are checked against the Excluded Parties List at www.sam.gov and the U.S. Treasury "Specially Designated Nationals and Blocked Persons" as appropriate.

4.1.6 Colleges, universities, and research facilities that are funded by, and/or affiliated to, a foreign government are not considered a foreign government.

4.1.7 Grants may not be awarded to an organization from, or with a principal place of business in, a country subject to trade and economic sanctions administered by the
Office of Foreign Assets Control (OFAC) of the United States Department of Treasury or to any individual or entity subject to targeted trade and economic sanctions administered by OFAC. For more information see OFAC website: http://www.ustreas.gov/ofac/. The current list of OFAC restricted countries includes Iran, Syria, Cuba, North Korea, and Sudan. However, the list of countries subject to OFAC restrictions may change, and RAN will conduct a final eligibility determination prior to award. All USAID restrictions pertaining to US Government funding apply.

4.1.8 The RAN Resilience Innovation Challenge seeks applications that have an operational focus in low-income and middle-income countries, as defined by the World Bank (http://data.worldbank.org/about/country-classifications/country-and-lending-groups). The implementation of the project including pilot and testing will be done in the countries covered by the Eastern Africa RILab – Democratic Republic of Congo (DRC), Rwanda, Uganda, and Tanzania.

4.2 RIC4ACE Teams

4.2.1 A “Team” refers to a group of individuals working on a particular RIC4ACE challenge. Each Team must select a designated Team Leader who will serve as the primary point of contact for this team on all matters related to implementation of the grant, and correspondence. The Team Leader should be the individual responsible for day to day project management and should be reasonably accessible to respond to different tasks related to implementation in case the team is awarded. He/she should be an adult (at least 18 years of age) in sound mental state.

4.2.2 If selected, teams will be required to submit a Letter of Commitment signed by each team member. In this letter, each team member must sign in their own hand-writing indicating their consent and commitment to participate in project activities. In this letter, please specify their role in the project. Further, the letter will specify the nationality and designation of each individual. Teams applying through a registered organization should specify the country where their organisation is registered or incorporated. Teams not applying through a registered organisation should indicate their country of location, as well as the academic department, university and country where their sponsoring faculty member is located.

4.2.3 All teams that are applying as non-registered entities (students, faculty, student-faculty collaborations or non-student teams) plus all registered organizations that are not within the EARILab countries (Uganda, Rwanda, DRC or Tanzania) will be required to submit a Letter of Support from an academic member of faculty (faculty sponsor) from a recognized academic department or equivalent unit in any of the EA RILab network universities (Makerere University and Gulu University in Uganda, National University of Rwanda in Rwanda, the University of Kinshasa, DRC, or Muhimbili University, Tanzania). The letter must contain a clear statement of commitment to support the team in all stages of the award. Please note that this letter will be required at later stages of the selection process.

4.3 Intellectual Property

Intellectual Property derived through the RIC4ACE grants will be owned jointly by the awardee Teams, Makerere University (the host University of the EA RILab) and USAID. For Teams affiliated with any of the Network Universities of the EA RILab (Gulu University,
National University of Rwanda, University of Kinshasa and Muhimbili University), the affiliate university will also co-own the IP.

All awardee teams grant to Makerere University and USAID a non-exclusive, royalty-free, perpetual license to use any resultant or derived intellectual property (e.g. product, service, or technology) that will be developed using the RIC4ACE grants, for development work.

Each Team must clearly delineate any intellectual property included in the application that was previously developed by the Team, to which the Team wishes to protect as proprietary data. Such intellectual Property must be clearly marked as proprietary data.

All proceeds accruing from commercialization of IP generated via RIC4ACE grants, following the conclusion of the grant period will be negotiated on a case-by-case basis amongst the parties, but in line with existing IP policies of the EA RILab partner universities.

5.0 Submission of applications

5.1 Application submission

Submission of applications will be done via an online platform at grants.ranlab.org/. All applications must be submitted via this platform and RAN will not accept applications submitted via any other means. Complete instructions on how to submit applications are provided on the website. Applicants must ensure that their applications are successfully submitted on the platform in their entirety, and they will receive a confirmatory email from the online platform as proof that their application has been successfully submitted. If the Applicant experiences any difficulty with submitting an application through the Online Application Platform, the Applicant should send an e-mail to the Eastern Africa RILab RIC4ACE support team at: support.earilab@ranlab.org

5.2 Rules governing submission and participation

5.2.1 Applications must be written and submitted in English

5.2.2 Applications must be submitted via the web-based platform at grants.ranlab.org/. Those submitted via regular mail, facsimile, or email will not be accepted.

5.2.3 Complete applications must be submitted by the deadline of the RIC4ACE call (11:59 pm East Africa Time on September 22nd 2014) using the online platform. No additions or modifications to the applications will be accepted after this submission deadline.

5.2.4 RAN bears no responsibility for any transmission errors associated with electronic submissions.
5.2.5 If no application meets the required threshold to receive a grant, the call may be reopened at the sole discretion of RAN, the EA RI Lab, and USAID.

5.2.6 Liability: Participants agree to assume any and all risks, and waive claims against RAN and its related entities and partners for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in this innovation challenge.

5.2.7 Teams can submit more than one application. In such instances, each of the different projects will be submitted and reviewed separately.

5.3 Applicant support

5.3.1 Questions during the pre-submission period
Applicants will have an opportunity to pose questions regarding the innovation challenge or any part of the application process. The question submission period will run from 4th August to 22nd August 2014. Applicants may submit questions to support.earilab@ranlab.org during this timeframe. The Questions and Answers will be posted on the FAQ section on the platform website (grants.ranlab.org) by 21st August, 2014.

5.3.2 Webinar
EARILab will host a public webinar on 21st August, 2014 to allow potential RIC4ACE applicants to ask any pertinent questions and seek clarifications for anything that may not be clear regarding the call. The connection and schedule details for this webinar will be posted on grants.ranlab.org.

5.4 Information required from applicants

5.4.1 Basic applicant information
Through the Online Application Platform, applicants are asked to input details regarding their Team to participate in the RIC4ACE call. The information is being collected for demographic purposes only and will not affect the evaluation of the application. This information will not be used for any other purposes other than those related to this call. The following information will be collected:

• Name and full address of the Team

• Teams applying as organizations that are registered as legal entities should indicate the name of the organization and include the country where the organisation is incorporated/registered. Such teams will be required to upload documentary evidence of official incorporation.

• All teams should indicate the RAN EARILab partner university to which they are affiliated and the name, designation and department (or equivalent academic unit) of the faculty member in the RAN EARILab partner university who is sponsoring them if they are not registered organizations within the EARILab region as specified under 4.1.2.

• All teams should indicate particulars of the team leader as their Point of Contact (name, position title, telephone number, e-mail address)

• Names of other organizations/firms that are partnering on the application
• Short profiles of key team members highlighting their expertise and experience

5.4.2 Technical information

• Concise application title
• Sub-challenge applied for
• A description of the proposed solution, indicating what is innovative about the solution given the current state of knowledge, how the solution aligns with the proposed theory of change as given in the technical details for each challenge in Section 3.0, and how the implementation of the solution would be structured and positioned for success, taking into account the need to build agency and adopt ‘green’ technologies and approaches, where appropriate for overall success and sustainability.
• Project Budget: Teams will be required to upload their proposed activity budget and Gantt chart detailing their proposed activities and timelines. Guiding templates for this information will be available on the online application platform. At this level, teams will be expected to budget only for Phase 1 funding. Budgets should be itemized based on the activities to be undertaken to provide necessary deliverables for Phase 1 funding. Thereafter, a summary budget that re-categorizes key costs in the following categories should be derived from the detailed budget: 1. Personnel Costs, 2. Travel/Transportation, 3. Equipment, 4. Supplies and 5. Administrative and other Costs

6.0 Judging applications and selection of finalists

6.1 Judging phases

The RIC4ACE grant is a 3-phased grant where teams advance from one phase to the next based on expert evaluation. Each stage focuses on different aspects within the innovation development timeline and as such, different evaluation criteria will be used for the different stages. Table 3 below provides a summary of the different phase-specific evaluation criteria.

6.2 Judging panel

6.2.1 The Judging Panel is responsible for evaluating applications for alignment with RAN’s theory of change with respect to strengthening resilience to shocks and stresses arising out of climate variability and climate change. The Judging Panel is comprised of highly qualified and impartial judges with expertise in the technical domains in which the intervention pathways lie (i.e. agriculture, development, markets, behaviour change, engineering, financial services etc.), resilience building, development programming, business modeling, and user-centered design approaches. The Judging Panel is also drawn from various sectors including academia, civil society organizations, the private sector, public sector, development partners and USAID national and regional representatives.

6.2.2 RAN and USAID retain the sole and absolute discretion to declare the finalists and award all grants in this call. Any such decision may not be challenged by any entrant.

6.2.3 All members of the Judging Panel will sign Non-Disclosure Agreements, as well as statements acknowledging that they make no personal claim to the intellectual property developed by Teams or relevant partners.
### 6.3 Phase-based evaluation criteria

The following criteria will be used to evaluate applications at the three different stages of the RIC4ACE call.

**Table 4: Phase based evaluation criteria**

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Evaluation Aspects</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase I</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alignment to RAN’s</td>
<td>Does the proposed solution address the desired resilience outcomes for each sub-challenge?</td>
<td>20%</td>
</tr>
<tr>
<td>theory of change for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>strengthening resilience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Approach and Methodology</td>
<td>Is the proposed solution innovative? Does it have the potential to disrupt current practices and approaches? Does it constitute a paradigm shift? Is it feasible? Is it viable? Is it sustainable? Is the proposed implementation methodology sound and appropriate for the local context?</td>
<td>40%</td>
</tr>
<tr>
<td>Plausibility of proposed business model and potential for scale</td>
<td>Is Scale built into the solution? Is the business model sufficiently disruptive? Is it viable for local communities? Can it be replicated in similar contexts? What is the proposed diffusion strategy?</td>
<td>10%</td>
</tr>
<tr>
<td>Human capacity</td>
<td>Does the team have the required expertise, experience and necessary contacts to deliver? Do they have a local footprint?</td>
<td>10%</td>
</tr>
<tr>
<td>In-building of Agency and Natural Resource Conservation</td>
<td>Does the proposed approach incorporate aspects of the key bedrock issues of developing human agency and going green for sustainability and resilience building? Is human capacity development addressed? Are proposed approaches and technologies (where appropriate) green and pro-natural resource conservation?</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Phase II</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical feasibility</td>
<td>Is the approach or technology technically feasible? Is the solution cost-effective and innovative compared to existing alternatives? Does it have transformative potential? Has it been optimized for efficiency? Have unintended consequences been identified and strategies to amplify or mitigate these been put in place?</td>
<td>40%</td>
</tr>
<tr>
<td>Business model and Market viability</td>
<td>Have market assessments been done? Has the business model been refined to reflect the market trends? Is the refined diffusion strategy sufficiently plausible?</td>
<td>30%</td>
</tr>
<tr>
<td>People (user) aspects</td>
<td>Is the solution user-friendly? Is it easily adoptable? Is it acceptable given the socio-cultural dynamics? Have aspects that require human behaviour change been addressed? Has the desired behaviour been adequately cultivated? Have agency aspects been promoted?</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Phase III</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Feasibility</td>
<td>Has the technical approach been optimized? [By optimization, we mean that the prototype or concept is developed to a model with acceptable or better efficiency than the existing technical standard (e.g. 75% validity for screening tests, 75% efficiency for engines, sufficiently acceptable aesthetics, dexterity and ergonomics (for technology based prototypes) or sufficiently proven cause-effect linkages, input and process considerations]</td>
<td>15%</td>
</tr>
</tbody>
</table>
6.4 Selection of finalists

Once the application period closes, a team of reviewers/judges will assess all submitted applications using the evaluation criteria given in this section. Incomplete applications will be excluded from the evaluation process. The evaluation process will proceed in multiple stages:

- **Stage 1:** The reviewers will identify an initial shortlist across the different innovation sub-challenges, selecting the top tier applications per sub-challenge.

- **Stage 2:** The shortlisted teams will make a live pitch to the judges and respond to various questions posed to them by the judges. These questions will have arisen out of their written submissions and will include any issues flagged for clarification by the reviewers, as well as any ad-hoc questions arising from the live pitch. The pitch sessions will be conducted either face-to-face or using appropriate communication technologies.

- **Stage 3:** RAN will consult with relevant technical and geographic experts within USAID and final selection decisions will be made.

6.5 Notification of award

Successful Teams will be notified by e-mail and telephone to their designated point of contact. Successful teams and their affiliate organizations will also be profiled on the grant website: grants.ranlab.org/.

6.6 Tracking your application

The grant website will contain information on the status of the applications at the different stages. Tracking will be provided for the entire batch of applications and not for individual applications.
7.0 RIC4ACE Innovator Support: Capacity Building and Mentorship

Selected finalists will be enrolled into RAN’s incubation support program run by the Eastern Africa RILab. The RILab will offer technical support to the teams as they develop solutions in line with their awards.

7.1 Induction activities

Successful applicants will be taken through a brief pre-award induction period, to set the pace for their working relationship, scheduling and ethics with RAN. This process will include:

- **Induction meeting**: A brief induction meeting to agree on methods of work, milestones and award disbursements. Applicants will be formally inducted into RAN’s Innovation Incubation Pipeline.

- **Formation and proof of a multi-disciplinary team**: Winning teams will undergo a team composition check and will be advised on the critical composition of their team that caters for cross-discipline needs of their idea. Teams with clear gaps will be required to source additional membership to bridge gaps.

- **Contracts and IP issues**: Following the completion of revision of team composition, teams will be referred to RAN’s appointed Legal team to sign an agreement for the award.

- **Workplan**: Successful teams will be required to develop a workplan for execution of the development of their idea. This workplan will be agreed upon with the EA RILab team.

- **Compulsory skills training**: Successful teams will be required to undergo some basic trainings at a convenient time when they are next offered by the RILab. Two of these courses will be compulsory for all awardee teams (Not all team members will be required to attend but each team will be represented by at least one team member):
  - Short course in Resilience Interventions (RI) (Equivalent to 1.5 credits or 1 Week): The concept of resilience is a relatively new term to the many university students and stakeholders. Because RAN’s primary interest is in innovations that build resilience, at least one member from all innovator initiated into RAN’s development incubator will have to undergo a rapid course on ‘Resilience Interventions’ as a minimum standard across the RILabs.
  - Short course in Design Thinking (DT) (Equivalent to 1.5 credits or 1 Week): RAN’s approach to innovations will be driven by the ‘Human-Centered Design philosophy. At least one representative from each selected team should undergo this training. The training will incorporate best practices in design of innovations that meet actual needs of communities. It will also include fail-fast approaches to rapid prototyping and clear elaboration of a theory of change.

The courses will be provided in dual mode as ‘face-to-face’ or as ‘M-KITs’ (A series of short multi-media online tutorials organized to impart specific skills) to increase their accessibility and to facilitate flexibility in time schedules of innovators, given other academic requirements that students have. The face-to-face courses will be offered at the lab premises on a regular predictable basis (e.g., the Eastern Africa RILab will offer these courses on a monthly basis). In order to build innovation capacity, the courses will be open to all students and
faculty in the partner universities while the online courses/M-Kits will be open to an international audience. Detailed information on the availability and platforms for taking the M-Kits will be provided in due course. Admission to the face-to-face courses will be on a first-come-first-serve basis, although RAN innovators will be given due preference.

- **Other skills trainings**: During the design phase, Teams or team mentors may realize the need for acquiring specific skills in a particular skills area. RAN will have a menu of courses (‘face-to-face’ and ‘M-KITs’) that interested teams can choose to take to enhance their capacity.

- **Mentor matching**: Innovator teams will be matched with suitable mentor(s), facilitated by the EARILab. Mentors should be professionals with technical knowledge of the solution domain in which the respective innovator teams are working. Additional mentors may be identified in due course when the innovation has reached other stages where it requires specific expertise like an entrepreneurship plan or community testing. Mentors should as much as possible be persons with proven interest in innovation and ready to offer services and time as champions of student innovations, with minimal cost to the project.

- **Inductive brain-storming**: The EARILab will invite the successful applicants for an inductive brain-storming session in which they will present their idea and a detailed technical critique will be provided. The RILabs will compose the teams of technical persons to critique these ideas.

### 7.2 Mentorship support to innovators

Although RAN’s innovation awardee-mentor teams will each be expected to operate with a reasonable degree of autonomy, the RILabs will develop an incubation support program to provide continuous support to developers based on their needs at different stages. Incubation support will be provided asynchronously to the different teams and in a sufficiently flexible way to allow innovators will different needs to benefit.

Support activities will also be open to other innovators and potential innovators not necessarily in RAN’s innovation pipeline, so as to build innovation capacity and team based learning. All project teams shall as a requirement propose a suitable Faculty sponsor from a recognized academic department (or equivalent academic unit) within any of RAN’s network universities. The proposed faculty mentor/sponsor should be technically aligned with the team’s technical requirements and will offer technical guidance and academic input into their activities. In addition to this mentor the EARILab may, if they deem it fit, identify and attach one or more mentors in other technical dimensions needed for the proposed solution to be developed and optimized.

Mentorships support will include:
- Brainstorming/ideation/Rapid prototyping sessions for developers to refine their idea
- Elective trainings on specific skills areas identified from the developers
- Linkage to communities to brain-storm of ideas and collect additional information on prototypes and test refined prototypes
- Working space for small team discussions
• Referral linkages to specialty labs where developers can develop special components of their prototypes
• Linkage to other HESN partners offering support that is in line with their work
• Bringing on more mentors with additional expertise in specific areas
• Technical vetting of resilience and support in outlining a theory of change for each innovation

8.0 Important definitions

Resilience: RAN defines resilience as the capacity of people and systems to mitigate, adapt to, recover and learn from shocks and stresses in a manner that reduces vulnerability and increases well-being.

Risk: The probability of suffering damage (to life, property, economic disruptions and environment) from a hazard for a given area and reference period.

Shock: A sudden occurrence befalling the communities, resulting in a significant challenge to their livelihood.

Stress: A slow-onset or chronic occurrence befalling the communities, resulting in a significant challenge to their livelihood.

Vulnerability: The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. Vulnerability can encompass the immediate vulnerability factors as well as the causes and underlying drivers of vulnerability.

Adaptive capacity: The combination of all the strengths, attributes and resources available within a community, society or organization that can be used to avert some or all of the negative effects of a shock or stress.

Physical infrastructure: This refers to built physical structures e.g. buildings, roads, bridges, schools, churches/mosques that are vulnerable to the effects of a shock or stress.

Livelihoods infrastructure: Refers to holdings on which households or communities depend for income e.g. gardens/crops, stored produce.

Institution: Refers to the leadership or governance structure for the affected community.

M-KITs: Refers to a series of short multi-media online tutorials organized to impart specific skills sets for innovation developers asynchronously and at a distance aimed at enhancing specific skills sets among resilience innovators. They are defined as ‘high value learning objects’ because they will be designed in such a way that they transmit critical technical information to develop a critical knowledge base and/or specific skills for the innovator in a relatively short period of time. [Example: An from a computing class is developing a prototype for a malaria diagnostic device but ins not knowledgeable about sensitivity and specificity of screening tests in human beings – he/she may take a rapid course in ‘Validity of
Screening tests’, another in ‘Ethics of research on human subjects’ and another in ‘Phase I, II and III clinical trials’ but these will be designed only to impact the critical background knowledge so that they are well aware of the standard of practice in the public health arena when developing their prototype.] The M-Kits will be prepared and packaged by RAN’s RILabs and will consist of short themed sessions using different media. An interested person may use one M-Kit (e.g. an M-Kit on ‘Rapid Prototyping’) within a set of M-kits (e.g. on Design thinking) or may use a complete cluster of kits which when combined form a course (e.g. on Resilience) or may use a mix of different M-Kits from different courses.

**Resilience Innovation**: A resilience innovation refers to a newly applied science driven ‘technology’ or ‘approach’ with the potential to demonstrably impact positively on one or more dimensions of resilience in a particular community and other communities that share similar resilience dimensions. It may be a totally new idea, or an existing idea that is applied differently of in a community where it has not been applied before.

### 9.0 Health, safety, ethics and environment

All team members must participate in all required training and briefings required by the RAN Resilience Innovation Challenge Team, USAID, and partners, including regular briefings and team meetings. In addition to complying with applicable law and regulations, each Team is expected to employ appropriate safety precautions during technology or any other demonstrations. All teams must wear appropriate personal protective equipment if implementation of their projects requires working in environments with unhealthy exposures. In the event that the Judging Panel or facility personnel observe dangerous actions or conditions that may potentially impact the safety of the Teams or any other persons, the Resilience Innovation Challenge Team shall have the right to suspend or disqualify a Team from competing and/or advise a Team that, until the condition is corrected, testing by the Team must cease and will not be eligible as a valid grant application. All approaches or solutions that require invasive procedures on humans must undergo the institutional/ethical review processes of their respective countries. RAN will not seek ethical approvals on behalf of any awardee team; it is the responsibility of teams to do so. However, RAN will not support sub-awardee research that involves potentially invasive procedures on human subjects without proof of ethical approval from appropriate Institutional/Ethical Review Boards. Team mentors shall provide relevant support to their teams in development of such ethics protocols is needed, as part of the incubation support process.

### 10.0 Monitoring and evaluation

#### 10.1 Project M&E plans

Following the award, and as part of the incubation process, each Team will be guided to develop an M&E plan for their project. The plan will be revised at each phase for ideas that make it to Phases 2 and 3. The plan will indicate key milestones and process indicators, based on which progress in implementation will be tracked. The milestones will also determine the installments in which the grant amount will be disbursed.

The M&E plan will also include a set of output and outcome indicators to be developed in line with the respective output and outcome indicators for the specific intervention pathway,
as well as the resilience dimensions targeted. These indicators should be measurable and may include both qualitative and quantitative indicators.

Assessment of the impact of innovations will be measured in two ways:

1. **At the testing and scale up stage:** Each innovator will be required to collect relevant quantitative and qualitative data on a case-study basis to show the potential utility of their innovation on the test communities, in line with the output and outcome indicators specified in the M&E plan for their project. Innovators will be supported during Level II of their incubation process to develop a theory of change, aligned with one or more dimensions of RAN’s resilience framework. In addition to the in-built M&E framework for each project, innovators will be required to avail their prototypes/deliverables for inspection as part of RAN’s follow-up on grant performance.

2. **Term surveys in target communities:** The RILabs will conduct periodic term surveys on study communities to assess impact of interventions on resilience.

**10.2 Post award period reporting**

As a condition of accepting these grants, Teams will agree to participate in reporting up to 2 years following the conclusion of their award period. RAN will require Teams to report activities related to the technology developed for the grant including, but not limited to: outputs/outcomes, fundraising, partnerships, investments in the technology, commercialization, market entry and growth. The purpose of the reporting is to allow RAN to: 1) Determine the extent to which solutions have moved to scale, 2) Determine the extent to which adopted solutions have resulted in a measurable impact on the problem (improvement through greater efficiency, cost-effectiveness, or more people reached), and 3) report relevant and required information to USAID.
References

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Appendix 1: EA RILab: Definitions of Resilience Dimensions on Climate Variability

Introduction
These are supported and were derived from an analysis of a dataset of 24 Focus Group Discussions and 36 Key Informant Interviews conducted in 3 communities in Uganda and 1 community in Rwanda, in areas that are prone to climate variability related shocks and stresses. These communities included: The Elgon Region, Teso Region, and Albertine Region in Uganda (a total of 9 districts) as well as the Flood prone areas of Rwanda (a total of 3 districts). Following the initial data analysis, the dimensions were arrived at using the guidance from Tulane University’s Disaster Resilience Leadership Academy, RAN’s lead partner on supporting the development of a resilience framework. The qualitative resilience assessment conducted by the EA RILab was analyzed and dimensions of resilience developed so as to inform entry points for innovations/interventions. The dimensions emerged from a systematic process of clustering related codes or sub-dimensions at various levels. Eight dimensions were arrived at and include: 1) Agriculture; 2) Climate variability; 3) Wealth; 4) Infrastructure; 5) Human Capital; 6) Natural Resources and Environment; 7) Governance; and 8) Health.

Defining Dimensions of Resilience
Tulane University led and drafted a RAN Dimension Lexicon with the aim of ensuring that resilience dimension definitions are consistent across RAN. Although the dimensions are thematically interconnected, there is considerable RILab and country specific/contextual variations. Consequently, the EA RILab has presented herein the harmonized dimension definitions given the context of its theme on climate variability. Aspects of these dimensions may be direct or may include other factors that could indirectly affect them (inter-relationships).

1. Agriculture Dimension
This dimension captures the following aspects:
- Food production and related factors—includes systems for food production and distribution and their functioning (e.g. availability of seeds for planting, type of seeds, farm inputs, harvests/yields, livestock well-being, food markets, prices, transportation).
- Food security and related factors—includes access (physical or economic) to sufficient, safe and nutritious food to meet dietary needs and food preferences.

2. Climate variability Dimension
This dimension highlights the unpredictable weather patterns that the communities interface. They include the unpredictable and recurrent nature of landslides, floods, hailstorms, hailstones, lightening drought, Wild fires and heavy winds. These occur in large magnitude and claim both human lives and property.
3. **Wealth Dimension**

Within RAN, and the EA RILab, the wealth dimension extends beyond what’s normally defined as wealth to include elements of livelihoods and food security. Aspects of the wealth dimension include:

- Both financial (liquidity) and non-financial assets.
- Access to credit/insurance facilities. Communities voiced a concern of lack of access to credit facilities making them vulnerable to access capital to invest in enterprises such as agriculture and other businesses. There are limited financial institutions to offer such services particularly in the rural settings.
- Access to non-food items necessary for survival (e.g. housing materials, clothing)
- Livelihoods – This focuses on activities required to make a living and have a good quality of life. It touches on individuals' forms of (formal and informal) employment and sources of incomes, as well as activities and choices within the household and local population that provide food, health, income, shelter and other tangible and intangible benefits, such as comfort, safety, respect and fulfillment.

4. **Infrastructure Dimension**

This includes the basic infrastructure or physical community or societal assets (e.g., roads, bridges, bore holes, wells, markets, railways, and telecommunications) that people use to function more productively.

5. **Human Capital Dimension**

Aspects that comprise the Human Capital dimension include skills, knowledge, and labor that together enable people to pursue different strategies and achieve their livelihood outcomes - such as generating income and meeting their needs.

Education level and workforce capacity are some of the indicators for ability to generate income. Therefore RAN and the EA RILab consider the Human Capital dimension to include indicators of access to quality education such as:

- Access to and quality of formal schooling including technical or vocational training.
- Mentoring of children and youth by family members and community elders (Informal education).
- Education infrastructure and materials/resources such as classrooms, textbooks, teachers among others.
- The influence of systems such as leaderships, community involvement in education and food supply on education outcomes.

6. **Natural Resources & Environment Dimension**

This dimension includes:
• Natural resources (e.g., soil, water, air, minerals, forest, fisheries, flora and fauna, land, forests, water) and associated services (e.g., erosion protection, storm protection) upon which resource-based activities (e.g., farming, fishing etc.) depend;

• The management of natural resources: The practice of maintaining and enhancing natural resources through a variety of means, including forest and range management, agroforestry, livestock rearing, water resource management, animal waste management and coastal and river bank protection; and

• Recognition of the value of natural resources and ecosystems, prioritizing identification of natural resource concerns and addressing those concerns is critical for ensuring the lives and livelihoods of women, men and children who depend on them.

7. Governance Dimension

Governance involves:

• Activities, processes and frameworks with in which political, economic and administrative authority is exercised to manage the affairs of a country or administrative unit.

• Formal and informal mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.

• The functioning of relevant groups in society, including private sector and civil society organizations, from household and local levels, to provincial, national and international levels.

• Issues of accountability, transparency, inclusiveness and responsiveness by governments (e.g., good governance).

• Security – This includes exposure to personal and property crime, measures of solving violent conflict, and personal sense of/perceived security.

• Protection – Efforts to achieve both the upholding of human rights, and the protection of civilians’ lives, dignity and integrity from the effects of violence, coercion and deprivation in times of conflict or crisis; Legal frameworks that exist to protect human rights as well as their enforcement; Raising awareness about rights and related laws; and States’ ability or inability to fulfill their duties to protect communities from disasters either by limiting their exposure to hazards or by addressing the factors that make them vulnerable.

• Self-protection – People facing threats to their life and dignity employing self-protection capacities and strategies to avoid greater harm or violence against themselves or their livelihoods.

• Advocacy – Efforts to influence people, policies, structures and systems to bring about positive change; Engaging people to become active citizens who can achieve their goals; and Facilitation of communication between people, negotiating, demonstrating good practice and building alliances with other organizations and
networks. This includes building relationships with people in authority and starting dialogue to address an issue or a community’s needs; increasing their awareness of an issue, seeking to influence them and suggesting potential solutions; mobilizing the public; working with the media; etc.

8. **Health Dimension**

Aspects that are captured under this dimension include:

*a). Physical Health*

- Health status-Illness/disease;
- Epidemics;
- Injuries;
- Access to health services;
- Quality of health services;
- Physical and financial access to healthcare/medical attention; and
- Human resources for health.

*b). WASH (Water, Sanitation, and Hygiene)*

- Water supply and consumption, sanitation and hygiene—known by the acronym WASH;
- The functioning of water and sanitation services;
- Factors such as hygiene, and behaviors that drive illness and disease; and
- Hygiene related illness.

*c). Psychosocial*

- Psychological status and well-being of individuals in a community is often adversely affected in the short term, and potentially long-term, depending upon the nature and effectiveness of humanitarian assistance. This includes the ability of resumption of normal life, and facilitates affected people’s participation in their convalescence and preventing pathological consequences of traumatic events.