Women's Action towards Climate Resilience for Urban Poor in South Asia

Solutions Statement

15th July, 2015

Prepared by: Mahila Housing SEWA Trust and Partners

Submitted to: Global Resilience Partnership Challenge

CONTENTS

1.1 Basic Project Data

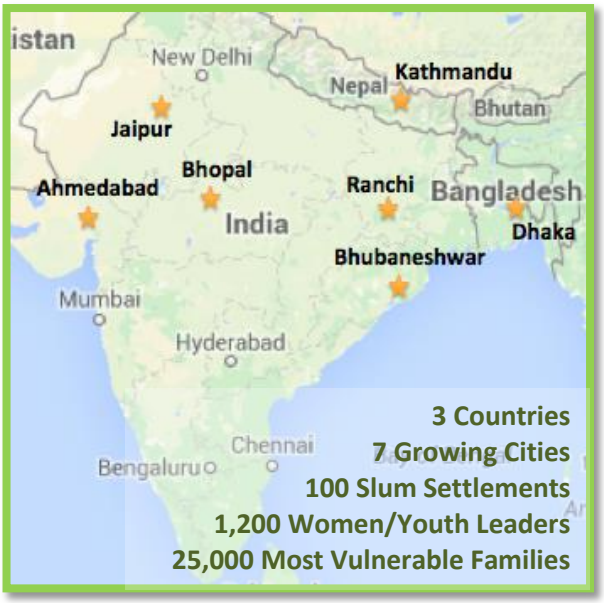
a. Title: **Women Take Lead in Resilience Building of Urban Poor**

b. Region: **Seven Cities in South Asia- India, Bangladesh and Nepal**

c. Lead Organization: **Gujarat Mahila Housing SEWA Trust (MHT) (Registered under the Trusts and Societies Act)**

d. Target Start date: **15th October 2015**
Finish date: **30th September 2017**

e. Any matching funds offered: There is no specific matching fund for the project, however in view of the nature of the project the communities would attract public funding for common infrastructure costs. We are exploring the possibilities of additional funding for a longer term (5 year) Impact Assessment of the project.



f. Team members:

Team Role	Name	Title	Email	Contact	Organization
Overall Guidance and Supervision	Renana Jhabvala	Team Lead	renanajhabvala@gmail.com	011-23970619	Mahila Housing SEWA Trust
Project Implementation and Community facilitation	Bijal Brahmbhatt	Alternative Team Lead and Director	bijalb@mahilahsg.org	9825029281	Mahila Housing SEWA Trust
South Asia Partnership building	Sapna Joshi and Firoza Mehrotra	Director, HNSA	homenetsouthasia@gmail.com	9958323674	Homenet South Asia
Geohydrological Assessment and Development Integrated Water Management Solutions	M Schiender and Theresa Formmen	Water Management Expert	m.schneider@fu-berlin.de	493083870653	Freie Universität Berlin
Monitoring and Evaluation	M Elliot	Principal Investigator	michael.elliott@coa.gatech.edu	404-874-4109	Georgia Institute of Technology
Technical Guidance for Heat Stress and Water Quality Monitoring	Dileep Mavlankar and Veena Iyer	Technical Advisor	veenaiyer@iiphg.org	9898908471	Indian Institute of Public Health Gandhinagar
Technical Guidance and Capacity Building Support for Vector Borne Diseases	Vijay Kohli	Health Expert	kohli_vijay@yahoo.co.in	9376175338	Ahmedabad Municipal Corporation
Technical Guidance for Risk Management Strategies and Financial Solutions	Arman Oza	Financial Expert	armanoza@hotmail.com	9824451304	National Insurance VimoSEWA Co-operative Limited
Development of Information Technology and Financial Products	Vipul Shah	Information Technology Expert	vpravinchandra@gmail.com	9974287967	PH Shah & Company
Communication Strategy and Plan Development	Sanskrirti Menon and Madhavi Joshi	Communication Expert	sanskriti.menon@ceeindia.org	9822455250	Centre for Environment Education
Engineering and Design support for water management technologies	Devang Shah and Devang Gajjar	Water Management Expert	devanghepc@gmail.com	9825444159	Himadri Enviro Protection Consultants Private Limited
Engineering and Design support for water management technologies	Om Prakash	Water Management Expert	geotech_9@yahoo.com	9,931,315,105	Geotech Consultant
Partnering with City Governments	Meghna Malhotra	Technical Advisor	meghna@umcasia.org	9724334414	Urban Management Centre
Urban Planning and Sustainable Habitat Designing (Architect)	Kirtee Shah	Technical Advisor	kirtee@ksadps.com	9925010706	Independent Consultant
Disaster Management and Sustainable Habitat Designing (Architect)	Anindya Kumar Sarkar	Technical Advisor	anindyaksarkar@gmail.com	9810406234	Independent Consultant
Design Market based Solutions for Efficient Energy Products	Harish Hande and Rachita	Technical Advisor	harish@selco-india.com		SELCO Solar India Private Limited
Urban Planning and Real Estate Development	Arvind Limbani	Technical Advisor	arvind.limbani@gmail.com	9824546101	Vande Mataram Projects Private Limited
Partnering with City Governments	Vijay Anadkat	City Liasioning Expert	vijayanadkat@yahoo.com	9714503705	WRI-EMBARQ, India
Design Market based Solutions for Green Housing and Safe Water	Zeenat Naizi	Alt-Technology Expert	zniazi@devalt.org		Development Alternatives
Development of community diseases surveillance systems	Vikas Desai	Health Expert	psmvikas@hotmail.com	9825117259	Urban Health Advocacy & Alliance

2.1 Solutions Statement and Theory of Change

The Problem: Mahila Housing SEWA Trust (MHT) aims to build the resilience capacity of women from slum communities in seven cities of South Asia, to take the lead in action against four climate risks. These four climate stressors (**a) heat waves; (b) flooding and inundation; (c) water scarcity; and (d) increased climate change-related incidence of water and vector borne diseases;** are slower-onset and less apparent often impacting the poor most but attract less attention compared to disasters and extreme events. South Asia is already witnessing these climate-related events: the 2010 heat wave caused 1344 excess deaths in Ahmedabad; the 2014 floods in the region left more than 700 people dead and displaced millions. The region is already water stressed with per capita water availability of less than 2500m^3. (Annex 1) These climate vagaries have direct affect human health with increased incidence of water and vector borne diseases and on livelihoods with loss of wages and assets. The dense urban populations in South Asia, are particularly susceptible to these negative climate changes (World Bank 2013), and the most vulnerable would be the estimated **190.7 million people** (www.un.org) **living in informal settlements** (IPCC, 2013).

Resilience Capacities is defined as ability of communities to survive, adapt and progress in the face of stress, without distress or loss of assets. We aim to build capacities which will be evolutionary in nature with an increase in risk retention capacities; improved access to basic services (like water, sanitation, adequate shelter and health) and a continued effort to transform to a higher level of livelihood security.

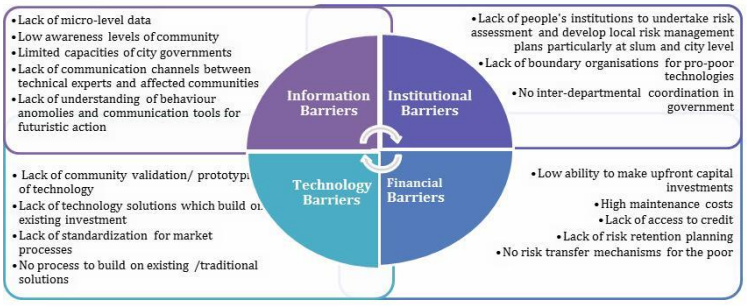
Vulnerability Drivers: Those living in informal settlements are already exposed to multiple stress factors: **Geographical disadvantages**, being located mostly in environmentally vulnerable areas; **Infrastructure deprivation** i.e. inadequate water supply, poor or nonexistent drainage systems, inadequate healthcare, unreliable energy sources, flawed communications methods, unsecure housing; **Occupational risks** due to informal/outdoor nature of work, making them more vulnerable; **Financial susceptibility** due to paucity of income resources and limited access to credit/insurance forces them to exhaust limited savings to respond. Caught in this "**poverty trap**," the poor become poorer due to climate change and can often react only to short-term/immediate concerns instead of making investments that induce longer-term resilience. **Social and political marginalization** as "informal citizens" results in their exclusion from early warning systems and public infrastructure investments, leaving them to fend for themselves. Climate risks, thus not only contribute to, but also exacerbate existing inequalities, worsening poverty and triggering new vulnerabilities for the poor (World Bank, 2010). High degree of **gender discrimination** in the region results in women being even more vulnerable as they bear the dual burden of these climate-related events, while having least access to information, resources and assets (UN Women Watch, 2009). (Annex 1, Table 1).

Our Vision: The project aims to create a model wherein women take a lead through collective action and technology incubation, to devise locally relevant pro-poor and gender sensitive climate resilient solutions and promote a culture of sustainable development and resilience among the urban poor in South Asia. Success for this project means a demonstration of how women-led initiatives build the necessary social capital, policy influence, technical expertise, for poor urban communities to respond effectively to climate change, thereby sustaining their health and livelihood options. The project aims to do achieve this by significantly changing;

1. The ***knowledge and behavior of slum communities***, particularly women, to better understand the inherent climate risks so that they plan and make investments with strong consideration for the future, to improve their standards of living and resilience.
2. The ***sphere of influence of women leaders*** and slum communities within the city governance systems to enable policies and programs which include the concerns of the poor.

Barriers and Influencing Factors: We realise that the problem lies not in lack of "knowledge" but there are barriers for translation of the knowledge into "action" (Figure 1). The most critical being the lack of platforms and communication channels which can enable knowledge generators and communities to learn from each other and "co-create solutions". The project thus aims to bridge this critical partnership gap and create systems for mutual learning, while ensuring that the interests of the primary audience "the communities whose resilience is at stake" is paramount. The most influencing factors towards this would be;

Figure 1: Barriers to Resilience

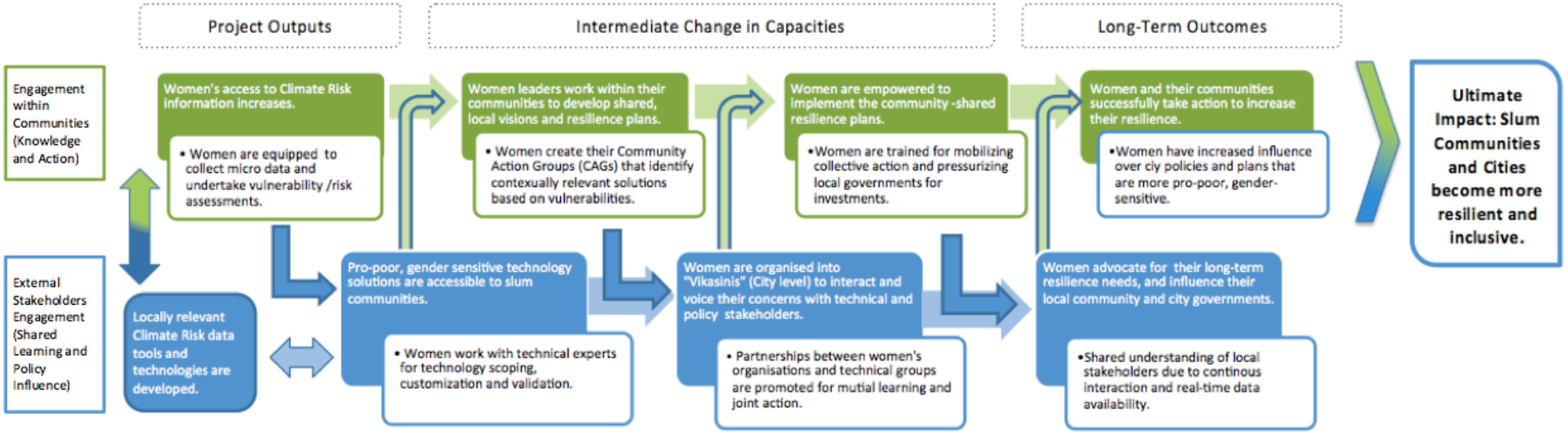


a) The creation of strong institutional partnerships for joint action between all knowledge stakeholders: community members, government officials, service providers, technical experts, and other local institutions.
b) Targeted and localized communication strategies and educational workshops that provide the most relevant information and create incentives for communities to seek technical knowledge and adopt futuristic thinking.
c) Piloting and community validation of technical solutions to meet the needs of the poor, especially women.
d) Designing and incubating financial products to support the poor to make investments in resilience solutions.

Theory of Change: We believe that if the urban poor are provided with the requisite knowledge to undertake vulnerability and risk assessments and are equipped with available resilient-technologies, they will be able to devise and implement locally relevant and pro-poor climate resilient solutions. If the poor are empowered to implement their own resilience plans, and the institutional mechanisms representing their voices are in place, they will be able to better influence city planning and governance on pro-poor adaptation and resilience action. **Our model focuses on building the capacities of the community themselves to take action and prepare for future climate risks.**

2.2 Impact Pathway Diagram

Resilience Pathway Carriers: Vikasini is a city level federation of women leaders representing their community organizations. The term "Vikasini" is a local feminine connotation meaning "Carriers of development".



LEVEL	INPUTS	OUTPUTS	OUTCOMES	IMPACTS (CULTURE OF RESILIENCE)
HOUSEHOLD	Mobilizing Women through One-to-One contact, Area meetings and Video Shows; Targeted Communication; Trainings (e.g. water workshops) and Exposure Visits; Support for Technology Demonstrations (e.g. mud-roof tops, air-lite ventilation)	Household level Vulnerability Database; Increased Climate Risk and solutions awareness among women; Catalogue (Print and Video) of Successful Household level technologies	Households Adopt Resilient Solutions; Information Seeking behavior for Climate Risks and Technology Solution demonstrated	Households show reduced vulnerability and show futuristic investment tendencies
COMMUNITY	Formation of Community Action Groups; Training of Women and Youth leaders (e.g. water workshops); Tools for Vulnerability Assessment (Data collection and Sharing) e.g. water sampling campaigns and Resilience Planning; Support for Technology Demonstration	Community Action Groups (CAG) in place; Local cadre of trained women and youth leaders developed, e.g. 1-2 trained local assistants for hydrogeology survey; Community Surveillance System (for example testing of water parameters) in place; Slum level Resilience Plans Developed	CAG implementing Resilience Action Plan; Revisiting the Plan through regular feedback and systematic data collection; Sharing of real-time data at city level	Slums/localities have a system for risk surveillance and resilience planning in place; CAG able to attract public investment/ private financing options
CITY	Formation of City level Federation (Vikasinis); Meetings and Trainings of Vikasinis ; Development of city level Technical Resource Group; Tools for Vulnerability Analysis; Tools for scoping of technologies and community based validation	City Level forum "Vikasini" with Technical Resource Group Functional; Slum vulnerability Spatial Database available online; City-wise Recommended Solutions Catalogue with supply chain mechanisms (Private and Public Sector); Guidelines/ Handbooks for undertaking joint assessment and action	Vikasini undertaking advocacy with local governments/service providers for investment in pro-poor resilience; Systems for regular interaction between community, technical experts (resource group) and local government in place.	City Government resilience plans have a pro-poor and pro-women agenda with voices and concerns of slum dwellers incorporated; Vikasini providing regular feedback in City level plans and processes

2.3 Innovations and Impact

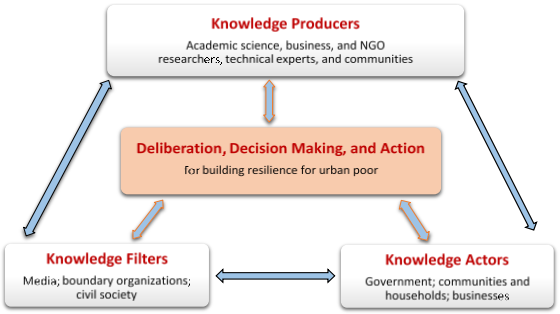
> **Resilience Impact:** We aim to establish a culture of resilience, wherein women from slum communities along with technical experts, city officials and local service providers constantly strive to understand future scenarios while planning today and take investment decisions which strike the right balance between short term concerns and long term needs.

Desired Impact: The desired impact of the project is to ensure that 25000 slum dwellers, particularly women, become more resilient. This would occur by creating an enabling environment where the slum women take lead through collective action in designing and implementing community based solutions to create a **culture of sustainable development and resilience** among the slum communities and cities. Our model is based on various theories of resilience which specify that a community's capacity to respond to stress resiliently depends on their social capital (Elliot, 2015). Our 20 plus years of community organising experience in the field of basic service provision and housing, across 13 cities, has shown that the social capital enhancement of slum communities is most effective when they, especially women from these communities, are mobilised into community based institutions, to come together for a common cause. Also, actual capitalization, in terms of identity and advocacy skills, is achieved when mobilization and awareness is accompanied by a reliable and effective intervention. Our experience has been that ultimately for the poor "**learning**" always occurs "**by doing**". We plan to apply our learning's in other sectors for resilience-building. The project will thus demonstrate a women-led community institution model, focusing on building women's knowledge base and capacities on climate risks and solutions, and by actual field demonstration of relevant technologies. The project would achieve the above by bringing together at-risk communities and supporting them to **build their social capital**. Literature review strengthens the fact that such community-based models have a higher potential to increase adaptation capacities (Elliot, 2015). Recognising that resilience action cannot happen in silos, the project will promote a **multi-stakeholder partnership** model. Considering that resilience is a relatively new and unknown concept we will apply multiple **communication strategies** to enable behaviour change. Our distinctive aspects are:

Women-led Community Institutions: While women are the most vulnerable in the community and with the least access to information and resources, they have the most potential to be empowered to become agents of change. Systems will be created for women to take a lead in resilience action by building their capacities and providing them platforms to voice their concerns and priorities.

Integrated and Partnership-based Model for Co-Creation of Solutions: The project will bring together multiple knowledge stakeholders- **people, the scientific community, local government and service providers**, (Figure 2) on a single platform and create frameworks and tools to facilitate cross-transfer of knowledge. This will provide the necessary legitimacy, credibility and support structure for dealing with the resilience issues at hand. This multi-stakeholder group will together undertake holistic vulnerability assessment as well as work together to develop and implement relevant solutions. The focus would be on creating systems for joint working which will ultimately lead to mutual learning both for the communities as well as for the other stakeholders. The knowledge thus generated will be iterative and action oriented, leading to co-creation of relevant solutions. The focus would be to identify low cost and site-specific, but effective solutions which can easily be adapted across the region. (Please see Annex 2 for examples of this process from GRP Stage-II)

Figure 2: Building Knowledge Partnerships



***Evidence-based data collection and Communication for Change*:** The project team will also develop a set of simplified data collection tools and analytical models, which can be operated at slum level and create systems to regularize this data collection and update at city level into spatial maps. The micro-database will provide a strong advocacy tool in the hands of the slum communities, thereby helping them negotiate better with city governments, as also garner a larger support base for city level resilience action. Such long-term and futuristic thinking requires a change not only in knowledge but also behaviour and practices. The project will thus map and study the behavioral change patterns of the poor and deploy innovative communication strategies using Integrated Voice Response (IVR), Smart phone apps and videos to induce action using the "**local content for and through local communities**" approach. (e.g. communities will discuss their own and city government's pre-monsoon preparation). Often, the communities themselves have adapted to environmental stress employing **indigenous knowledge and traditional practices**. One of the key innovations in the project would be to authenticate and popularise such solutions.

Value for Money: The project will have a direct impact on chronic urban vulnerability by **increasing the resilience of 25000 *women slum dwellers*** in 7 cities of South Asia by ***improving their investment capacities, social capital and influence over city plans.*** The immediate scalability of the project would be within the 7 project cities, *reaching out to 5.25 million households through the city level institutional mechanisms and an enabling policy environment*. But the project has the potential to be ***replicated in around 50 cities*** of South Asia. We have designed our implementation model keeping this in mind to capture the ***"how" aspects of the model.*** We will do so by deepening of resilience work in Ahmedabad for defining processes, replication in Jaipur, Ranchi and Bhopal for validation and transfer of the model through partners across the region. The focus on transferability of skills and the fact that we are testing across geographies would enable future replication. The per capita costs per output are very low and comparable with general benchmarks. Just to cite the overall cost per family would be around 40 USD making the project economically effective. The project also aims at high effectiveness/impact projecting a **60% Knowledge to Attitude Change Ratio and 11% Practice (Adoption) Ratio**. Besides, the project focuses on creation of social capital (institutions and local capacities) which will ensure that the efforts will continue to impact beyond project period.

2.4 Outcomes

Our long term (3-5 years) project outcomes will impact **women and their families** through changes in investment practices, **slum communities** by social capital development, and the **cities** by increasing influence of the poor on their resilience plans.

Resilience Outcomes:

1. Improved resilience investments and adoption of technologies (ensuring livelihood stability, improved health and better dwelling conditions) of 5000 poor women and their families.
2. A community-led surveillance mechanism and capacities that increases the amount of real-time data collected and used by residents to plan actions based on the changing environment.
3. Increased evidence-based advocacy and decision-making through availability of micro-data at the city level.

***Outcome 1: Improved investment practices of 5000 poor families, enabling an increase in investments in gender-sensitive resilient technologies*.**

Towards this, the project will primarily focus on building a base of **increased knowledge seeking behavior of 15000 women and their families on climate risks and available solutions** over the next two years. This key capacity building, will be supported by create incentives (financial and non-financial) for communities to invest in resilience. The project will work with credit organizations to provide additional financial incentives for adoption of gender-sensitive resilient technologies. These will be paired with the field demonstration of relevant technical interventions. Such demonstrations help build the confidence of the communities regarding the solutions and induce behavior changes thereby increasing adoption rates. The fact that there will be ground-level technical support will further increase the possibility of adoption. Our experience shows that use of peer-to-peer training within the Community Action Groups (CAGs) enable the transfer of technology and scientific learning to individuals throughout the community via a trusted source. Theories of technology transfer and social learning also reveal that the interaction amongst change agents and individuals within the communities who cope with change increases the likelihood of the transfer taking place and being effectively incorporated into the community. This describes the very basis of our approach. Additionally, multiple communication modes will be used to increase the interactions and information transfer between the communities locally. Experience shows that by using local content the information transfer is faster and user "stickiness" is greater than 85 % (Patel, et al, ICTD, 2012) and peer-driven content approach increases uptake by seven times (Gandhi, et al, MIT Press, 2009).

Outcome 2: Heightened social capital within 100 slum communities for resilience action

This outcome will be achieved by facilitating **increased collective resilience action and community-based surveillance by women in 100 slum communities** through Community Action Groups (CAGs) for improved health and/or reduced loss of livelihood in the next two years. This would be achieved by mobilizing 25000 families from 100 slum communities at risk and formation of 100 CAGs (one in each slum) of 12 to 15 local leaders (80% being women). Young boys and girls will be involved in this process to enable a more futuristic and sustainable outlook.These CAGs, will be trained to undertake a vulnerability assessment at the slum/locality level using simplified tools and models and work with local technical experts and service providers for implementing solutions. The critical project outputs are thus the development of this Community Based Vulnerability Assessment (CBVAT) tool kit and creating technical partnerships for solution identification. MHT has successfully demonstrated this model in the area of water and sanitation, wherein through promotion of community-based organisations; building capacities of women and partnership development with service providers, has enabled delivery of public services to more than 10,000 families annually. There is also already established evidence of the success of such work in other sectors (IFRC, 2010; UNISDR, 2011). Our experience has also been that the response of service providers is more pro-active, if demand generation is backed with demonstration of results. Towards this, the CAGs will be supported to undertake demonstration of innovative resilient technologies on ground. This hands-on process will help strengthen their capacities on resilient technology options, while illustrating direct demand from the communities. There would be specific focus to develop 7 CAGs as resource models which will serve as learning platforms for other CAGs to implement their action plans.

Outcome 3: Increased sphere of influence of 1200 women leaders (through 7 Vikasinis) on local policies in 7 cities of South Asia for pro-poor action.

This would be enabled by creating a city-level forum of slum dwellers led by women, who will be trained on climate change and advocacy skills so as to build their capacities to voice their concerns at the city level. Such women's federations are known to have demonstrated impacts on rural policies (NRLM, GoI). MHT has also demonstrated such a model in Ahmedabad, wherein the Vikasini, is now independently consulted by the city government on various issues (Annex 3). The current work build upon the early success, to strengthen Vikasini's skills to work on Climate Change and further establish the replicability of this model across geographies. This federation will regularly interact with the city level resource group of researchers, service providers and government officials who will provide them with the necessary technical back-up support. The project will also simultaneously work with these stakeholders to sensitize them to grassroots realities and improve their skills on participatory processes and joint solutions development and implementation.

Gender-Specific Outcomes

The women's empowerment approach of MHT strives towards the following outcome in the long run:

Increase capability of women to understand the climate risks, determine their resilience outcomes, and influence decision-making in households, communities, and cities.

Achievement of this goal happens as a result of:

- ✓ Increased knowledge of women on Climate Risks, particularly the gender impacts of these risks;
- ✓ Increased availability and access of women to gender sensitive technologies;
- ✓ Sensitized households and slums communities to recognize climate risks in relation to women's needs;
- ✓ Increased visibility of women at the city level, especially in climate debates; and
- ✓ Increasing representation and voice for women in city-level plans and policies.

2.5 Next Users and Use

Stakeholder analysis: The primary stakeholders/actors for the project are women living in urban slums in the seven project cities, their families, the communities they live in and the local female leaders. The secondary stakeholders include for each city- one city government official, two service providers (one public and one private), one municipal councillor, two private sector representatives (one supplier and one start up), two climate scientists, one research/academic institution working on water management; two technical consultants to government (includes urban planners); one micro finance institution and one community-based civil-society organisation. The tertiary stakeholders are other communities residing in the same ward/municipal zone/watershed as the target communities; other civil society organization functioning in the same city; institutional donors active in the region and other city government officials/academicians working on Climate change in South Asia. (Annex 4)

Resilience for Whom:
The slum dwellers, particularly women, in South Asian cities, are one of the most at-risk and vulnerable communities. The project model is being developed around their resilience needs being paramount. The most critical component of the project is that it seeks to achieve this by working directly with these communities and facilitate processes which will build their capacities and stakes in resilience planning and action at all levels.

Primary Stakeholders - Women from slums and their families: The project intrinsically works with the primary stakeholders - women living in slums and their families. The core strength of the project team is their 20 plus years of experience working with slum communities especially women. We are well versed with the communities in 4 of the 7 cities and have recent but strong engagement in the others. ***Through focused group discussions, area meetings and structured workshops, these communities have been very strongly involved in the development of the solutions plan*** in the Stage II of GRP. Given the familiarity of the community with us, we have been able to facilitate the process, and the communities - particularly women - have been more forthright in articulating their needs and necessary steps to improve their resilience capacities. The ***demand for this project itself has emerged from such cross interactions with the women leaders*** and nearly all of the outputs currently developed are formatted in direct relation to the specifications that these women have described. We are therefore confident of the effective utilization of the project outputs. We have experienced an immediate demand from communities for more scientific information related to climate change emphasizing on the need to explore solutions both at individual and community level and even during the scoping stage we have begun **getting demand for replication.** The prime users of our outputs have demonstrated a real motivation to make use of the most immediately outputs.

Community engagement plan: Given the vast amount of uncertainties involved with climate change, ground-level attitude and behavior change requires careful, patient work by the Vikasini leaders, Community Action Group (CAG) members and project staff. We must first build awareness about the community's current state and risks. Our team will work with women-leaders to develop this shared understanding. This process includes in-depth discussions with community members regarding their highest climate-related stresses, support for female-participation in the and engagement of diverse community members in detailed physical and social asset mapping to fully determine the area's level of vulnerability. The CAGs, will be a collaborative force within the locale for sharing information with and gathering feedback from residents, disseminating new knowledge on climate-related issues and testing the technical solutions both at a household level and through community-wide initiatives. Then it is critical to infuse that awareness with a demonstration of the intermediate benefits for themselves and their neighbors that arise from small individualistic changes. The creation of such a micro-level models will help provide more specific information to communities, and encourage an open dialogue about the importance of such shifts with each other. In addition, our team will use a blend of community engagement and innovation

Highlights of our Communication Plan

- **Peer and network effects that incentivize behavior change through a hub and spoke approach**: CAGs training is facilitated by the Vikasini leaders, MHT and other local partners. This "hub" of knowledge spreads throughout each community via in-person workshops and hyper-locally created video and audio content. We have seen this approach work because the target beneficiaries relate directly to their peers regarding content that directly applies to them and their neighbors.
- **Personalized access to information**: an Integrated Voice Response (IVR) service provides an opportunity for individuals and single households to access climate-change related information and a venue for their personal feedback on household-level interventions. Additionally, using interactive podcasts as a form of edutainment will allow for indirect messages on the climate risks they face. The IVR based model will have a unique call back facility, to help community share their issues and feedback. This creates a robust social network among the communities members, the CAGs, Vikasini leaders and technical experts. This two-way communication process will induce communities to seek more information, while also sharing their own knowledge.
- **Widespread Messages via Local Media**: using a journalistic format to report local situation, expert opinion, government responses and citizens' voices through community radio (primarily in Ahmedabad) will not only reach out to wider audiences beyond our targeted communities, but also represent a strong advocacy tool in the hands of the community who are otherwise underrepresented in media.

Our uniqueness lies in a "**local content for and through local communities approach**". User behavior research validates the power of peer intermediaries to drive engagement with information.

communication strategies, to help community members think beyond their daily struggles toward longer-term resilience, social and gender challenges. Our approach prioritizes localized contact alongside widespread messages that enable broader cultural change. The focus is on (a) critical, consistent messaging to reach large audiences; (b) Messaging on key topics multiple times via different channels and formats (Once every two weeks, through area meetings, exposure visits, SMS, IVR, radio and video shows) improving opportunities for understanding and adoption of new techniques; and (c) creating forums where communities can share their own experiences, resilience practices and testimonies about which actions are effective.

The other barrier is communities' capacities to understand the technicalities of the issues as a basis for action. This aspect, however, is being dealt with through creation of simplified communication messages, basic educator manuals and interactive maps and analytical models—all of which are being devised keeping in mind the reading and writing capacities of slum women. In fact, a critical success factor for the project outputs are that the current outputs have been developed in the form of initial solutions guidelines as a result of community engagement MHT staff have integrated into the solution development phase (GRP Stage-II) itself. We will build on this method of communications and information development throughout the coming two-year period to ensure ongoing alignment with communities' changing skill sets.

Bringing Gender into the Resilience Deliberations: Women and the poor living in informal settlements are the primary target audiences of the project - hence all products will be designed keeping in mind their capacities, literacy levels, and access to technology. The major gender impact of the project, however, would be the demonstration of a women-led model, which although established in rural areas, has not yet seen much light in urban pockets, where men are still the primary decision-makers. By creating information and evidence based on women's issues as well as ensuring solutions are gender sensitive, the project will generate a breakthrough in the current climate resilience discussions by creating knowledge products on gender and climate change in the urban context.

Next users Engagement Plan: Simultaneously, the project will work with selected ***experts on each climate change stress felt within that city*** (extreme heat, flooding, water scarcity and contamination, and vector borne diseases). The project team has already contacted a number of partners (Annex 4, Table 1) who are the secondary project stakeholders. Building on the network of each of these partners, the project would reach out to the larger stakeholder group ***to create a city level resource group*** wherein all secondary stakeholders would not only have an opportunity to interact with each other but most importantly with the communities so as to be able to understand the realities of their daily life and be sensitized to their needs and concerns. Each city level resource group will include ***- two climate scientists/research experts; two local service providers; one city government official, one city elected representative; one private start-up, two civil society representatives.*** This process is expected to improve their shared understanding of climate risks and vulnerabilities. To enable effective communication between these various stakeholder groups, the project will ***create a set of frameworks and tools which will facilitate cross-transfer of technical knowledge and co-designing of solutions***. Preston et al. (2011) has, through a review of 45 vulnerability mapping exercises, found that only 40% included stakeholder participation highlighting the technical, expertise, resource, and institutional challenges to implementing participatory processes. There is thus a given need for such outputs. Furthermore, during the GRP problem statement development process and solutions planning, the project brought together a wide array of the mentioned stakeholder groups, and the MHT staff found a consistent demand from all involved parties for tools and documented processes that can be used to facilitate ongoing public participation to be further refined and published for wider dissemination.

As discussed earlier, one of the critical project outputs is to document the ***"how" aspects of the model***. There is a significant demand among city governments and civil society groups for such outputs. The project will develop a quarterly newsletter and two handbooks to proactively reach out to around 500 tertiary stakeholders by dissemination of the outputs in print as well as a web portal being created specifically for the project. However, a critical part of our work would be a tertiary stakeholder engagement process is designed to run concurrently with the project. Our experience is that government officials are more easily influenced when they see the model working on the ground. We will thus work to **influence city governments by enabling them to visit the project sites and interact directly with the community leaders and local city officials**. In addition, the project will **tap champions among the project city governments, especially retired government officials and government (technical) consultants** for disseminating information on the model, as well as providing bureaucratic guidance for implementation of the same. Our experience is that such inter-city networking and exposure visits not only create buy-in by the local government in other cities but also encourages cross- learning across sectors, which will help the cities to build overall resilience in future.

The project lead, MHT and a critical partner CEE are already working in 16 other cities in India. We will use our local contacts in these cities to share information on the project and facilitate city governments to visit the project sites. MHT is also part of the SEWA network (with 2 million women members in India) and Women in Informal Employment: Globalizing and Organizing (WIEGO) (with partners across the world) and other team partners are involved with regional networks like CANSA. These networks will also be used to create a demand for such models and generate the interests of local governments in the same. The project partners already have a very strong grass-root and policy influencing base (also see 3.3) which we will tap to generate interest among State and National Governments. The final document will be a detailed project report containing all aspects of the work to be released in a dissemination workshop at national level, which will also be accompanied by a field visit. **The test of our external influence would be the number of visits and interactions for technical support from other cities.**

2.6 Outputs

A Women-led Community Based Institutional Model Established on the Ground: By the end of the project, 100 Community Action Groups (CAGs) at slum level will be established, with at least 80% leaders being women and 40% youth leaders. All 100 CAGs will have undertaken vulnerability risk assessment and developed Community-level Resilience Actions Plans. More than 70% of the CAGs will have initiated resilience action in at least one stress area within the two year time frame. Five model CAGs will be developed which will have demonstrated high level of resilience, with physical infrastructure in place. These CAGs will serve as learning platform for other CAGs.

Resilience Outputs:

1. Established resilience models on the Ground.
2. Community cadre of resilience Specialists
3. Institutions and toolkits for community-based resilience.
4. Pro-poor technology solutions co-created
5. Handbooks for transfer of skills for replication of model beyond project

Local Capacities developed: Around 1,200 women and youth leaders will be trained as local community advocates and climate specialists on climate risks, surveillance and vulnerability assessment, collective response action and technical solutions. Four strong Vikasinis (city-level women-led federations of CAGs) and three emerging Vikasini will have been established in each city. These Vikasinis will be led by the women trained above and will represent the voices of the 125,000 people in their slum communities in discussions with the local government and technical groups. By the end of the project, a local technical resource group of 8 to 10 persons including researchers, climate scientists, innovators, service providers, local government officials and civil society representatives, will have been established in each city. A systematic interaction process will be in place for Vikasini leaders to interact with these technical experts and local government functionaries.

Tools for evidence-based decision-making and communication: The primary tools for evidence based decision-making will be developed including a ***Community Based Vulnerability Assessment (CBVAT) Toolkit***. The CBVAT will include:

1. Interactive maps and simple analytical models to be used by communities to undertake their own vulnerability assessment.
2. A Household level CBVAT Calculator will be developed and administered to more than 5,000 families through the CAG trainings, workshops and surveys.
3. A model for surveillance on two priority climate-related issues that can be incorporated into city-wide plans.

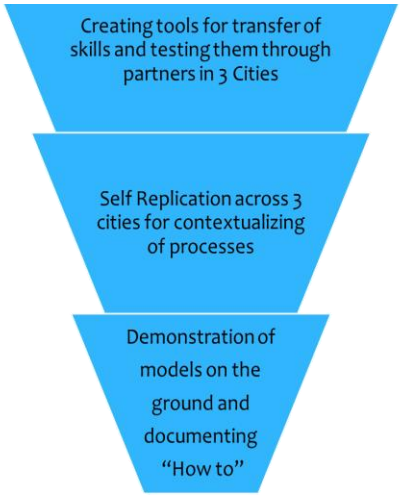
A **Climate Risk Communication and Training to Urban Poor Toolkit** will be also developed. This will include:

1. High-production value, hyper-local videos and radio programmes on climate change, incorporating local knowledge, expert guidance, and technical scientific knowledge.
2. Multimedia content to be disseminated through audio podcasts through an IVR mobile application, including videos for smartphone users.

Pro-Poor and Gender Sensitive Technologies: A compendium of pro-poor, gender sensitive climate resilient solutions, customized and validated by the community will be developed. The compendium will be available in print form as a catalogue with city level recommendations. This will include:

1. 20 technologies (including indigenous technologies), along with details on the validation and implementation protocol developed through demonstrations within each city.
2. An online database of community-developed videos of successful technology demonstrations.
3. Design and piloting of at least 8 financial products (savings, credit and insurance) for making technology accessible to the poor.

Figure 3: Implementation Model



External Communication Outputs: One of the critical project output is to document the ***"how" aspects of the model***, especially the processes involving building of social capital, and the cross-learning's between people and the scientific/policy influencing community, to reach out to multiple cities. Towards this the project would bring out two handbooks;

1. Institution building handbook for creating women led multi-stakeholder groups
2. Handbook on enabling community-based surveillance and resilience action.

These handbooks will be designed keeping in mind the need of transfer of skills, for replication beyond project implementers. The base-material for this will evolve from our experience of working with partners in 3 cities. The project implementation process is designed keeping in mind the generation of this output. The plan is to focus on creating models on the ground but to move beyond to create products and document processes which make the model replicable, scalable and transferable (Figure 3 shows our implementation model). It needs mention here that in the Stage-II of GRP, the technical experts in our team has already been working with women leaders to identify relevant climate resilient processes (institutional mechanisms, assessment frameworks and toolkits, training manuals and community educator manuals) and products (technologies). In Stage- III, MHT will facilitate the implementation, validation and customizing of these processes and products- identifying what works, why and how to make things work. The outputs thus generated will be ready-to-use for "**Operating Procedures**" for replication and scale.

Project name: MHT_GRP

Ongoing activity from Stage II of GRP
Stage-III Activity

Sr.No	Task	Task Delivery Responsibility	Technical Responsibili	Status	September				October				November				December				Jan- Mar 2016	Apr-Jun 2016	Jul - Sep 2016	Oct - Dec 2016	Jan - Mar 2017	Apr-Jun 2017	Jul-Sep 2017
					w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/	w/							
1	**Community Mobilization and Institution Building**																										
1.1	Deployment of spearhead team at grassroots level	MHT	HNSA	In-progress																							
1.2	Area Meetings and Video Shows For CAG Formation	MHT	HNSA	In-progress																							
1.3	CAG Formation	MHT	HNSA	In-progress																							
1.5	CAG Trainings on Collective Action	MHT	HNSA	In-progress																							
1.6	Regular CAG Meetings and Video Shows	MHT	HNSA	In-progress																							
1.7	Promoting a cadre of local women and youth leaders	MHT	HNSA	In-progress																							
1.8	Promotion of Vikasinis (City level Federation)	MHT	HNSA	In-progress																							
1.9	Vikasini- Meetings, Trainings and Exposure Visits	MHT	HNSA	In-progress																							
2	**Local Capacity Building on Climate Risks and Technical Solutions**																										
2.1	Staff Training and Exposure Visits	MHT	Georgia Tech, CEE, and IIPH	Not Started																							
2.2	Orientation Training on Climate Risks	MHT	CEE	Preparation																							
2.3	Advanced Trainings on Climate Risks and Resilient Solutions	MHT	IIPH, ACCCRN, Dr. Kohli	Preparation																							
2.4	Risk Assessment cum CBVAT Administration Trainings	MHT	IIPH, Prudent	Preparation																							
2.5	Technology Fairs/Inter city Exposure Visits	MHT	DA	Not Started																							
3	**Behaviour Change Communication Activities**																										
3.1	Print Media and Community level Games	MHT	CEE	Negotiation																							
3.2	Mobile based Communication (IVR, SMS, Apps)	MHT	Prudent	Negotiation																							
3.3	Call-in Facility for Two way communication	MHT	CEE	Negotiation																							
3.4	Community Radio and Local-Video Production and Dissemination	MHT	DA	Negotiation																							
3.5	Study on behaviour patterns of communities on resilience action	CEE	MHT	Negotiation																							
4	**Participatory Vulnerability Assessment and Resilience Plan Development**																										
4.1	Tool Kit Development	IIPH, FUB and Prudent	MHT	In-progress																							
4.2	Training of city level teams (staff and leaders)	MHT	Prudent, IIPH, ACCCRN	Not Started																							
4.3	Undertaking Vulnerability Assessments, Sharing Local data with community and Development of Resilience Plans	MHT	HNSA	Preparation																							
5	**Multistakeholder Partnership Development**																										
5.1	Identification and Training of Experts on Shared learning processes and Systems Approach	MHT	WRI, CEE, DA, IIPH and UMC	In-progress																							
5.2	Multi Stakeholder Events	MHT	WRI, CEE, DA, IIPH and UMC	In-progress																							
5.3	Joint Action and Mentoring Support to community leaders	MHT	All Partners	In-progress																							
6	**Technology Co-Creation**																										
6.1	Scoping of technologies (including documentation of indigenous technologies)	DA and SELCO	MHT and ASAG	In-progress																							
6.2	Joint Customization Process- Workshops	DA and ASAG	MHT and Anindya Sarkar	Not Started																							
6.3	Field Demonstration- Individual and Common Solutions	MHT	DA, SELCO, Enviro, FUB	In-progress																							
6.4	Integrated Water Management Project (in one locality)	FUB	IIPH	In-progress																							
6.5	Community Validation (Field Schools)	MHT		Not Started																							
6.6	Creating Catalogue of recommended solutions with supplier and cost details for community	MHT	DA, SELCO, Enviro, FUB	In-progress																							
6.7	Designing and Piloting of financial solutions	MHT	Vipul Shah (Credit), Arman Oza (Insurance)	In-progress																							
7	**Documentation and Dissemination of Outputs**																										
7.1	National Level Workshop on Project Learning	MHT	All Partners	Not Started																							
7.2	Quaterly Newsletter	MHT	All Partners	Not Started																							
7.3	Micro Data analysis and online hosting for wider sharing	Prudent	MHT	Not Started																							
7.4	Handbook and Manual on Community processes and Institution Building	MHT	Georgia Tech	Not Started																							
7.5	Handbook and Manual on Resilience Planning and Community Based Assessment	MHT	FUB	Not Started																							
8	**Monitoring and Evaluation**																										
8.1	Quaterly Project meetings	MHT	All Partners	Not Started																							
8.2	Monthly Staff Meetings	MHT	HNSA	Not Started																							
8.3	Baseline, Mid terms and Endline Surveys	MHT	IIPH, Georgia Tech	Planning																							
8.4	Data Analysis	IIPH	Georgia Tech	Not Started																							
8.5	Project Monitoring and Evaluation Reports	Georgia Tech	MHT and IIPH	Not Started																							

2.8 Questions and Methodologies

The main question which the project would seeks to answer is – "***What are the most effective processes and solutions for increasing the resilience capacities of the urban poor - particularly women - in South Asia***?" Our hypothesis is that ***women's-led community managed resilience models*** will be effective in enabling this. The project thus seeks to assess the **"the effectiveness"** of a women-led community managed resilience model in terms of **"the success"** in increasing the resilience capacities of the urban poor based on a robust and realistic monitoring system. This will be a measure that can then be used to estimate necessary inputs in other parts of South Asia. Thus, the project will also track the pathways that have contributed to its effectiveness and success. Towards the above, the project seeks to undertake a ***detailed process evaluation study*** that will help answer the following primary research questions:

1. Has there been an increase in resilience capacities/decrease in vulnerability of the target population?
2. What proportion of the target population has demonstrated an increase in resilience capacities?
3. How does improving the knowledge of the poor - especially women - on climate risks impact their resilience capacities?
4. How do participatory assessments and resilience planning enable local resilience action?
5. How critical is the need for pro-poor resilient-technologies and financial options for enabling the poor to take resilience action?
6. How do pro-poor, women-led institutional mechanisms enable increased voice for the poor?
7. How is the role and effectiveness of such institutions in enabling the poor - particularly women's - influence on city plans and policies?
8. How does increased say and direct influence of the poor and women on city plans impact their resilience action?
9. What has been the gender impact of having a women-led approach?
10. What are the specific inputs (costs and processes) required towards creation of such a model?
11. What are the costs and benefits of enabling such bottom-up resilience action?

2.9 Measuring Progress towards Outcomes: Monitoring and Evaluation Plan

The aims of both our monitoring and our evaluation plans are two-fold. We will utilize our monitoring system to ensure that real-time feedback influences our progress and enables any necessary course corrections. The monitoring system will also create avenues for consistent communication between the MHT staff and our GRP partners, which will increase our efficiency and effectiveness throughout each aspect of the project. Moreover, our evaluation plan will build on these sources of ongoing information to determine the relevance of the project, MHT and the GRP partners' implementation effectiveness, and help identify the which strategies worked better than other, and why. Ultimately, our long-term goal is to generate evidence that women-led community managed resilience solutions are effective change-agents in the South Asian region, especially in terms of impacting the lives of the urban poor.

Towards this, the project will put in place a **formative as well as summative monitoring and evaluation system**, so as to:

- Help identify the relevance of the project and its effectiveness in achieving its goals and outcomes.
- The efficiency of project implementation, measuring the extent of success of its activities (inputs) in terms of achieving outputs and short-term outcomes.
- Help identify which strategies worked better and which did not. Which strategies were more cost effective and have a higher value for money.
- Enable the documentation of processes that will facilitate the replication of the model in other regions.
- Identify the specific inputs and processes required for the creation of such a model.
- Provide timely information to the project team.

Our monitoring and evaluation plans are guided by our theory of change and logical framework document. Through this process, we hope to build a culture of evidence-based actions as a result of real-time qualitative and quantitative data that challenges our assumptions, ignites debates and improves our collective ability to inform others and ourselves. As such we will prioritize the indicators that provide the greatest window into each community and as many households as possible. Paired with this ground-level understanding, we will also seek to understand extent to which the capacities of those external to the community are also increasing.

Baseline Assessment: We will begin our monitoring efforts with a baseline survey, covering 1,000 families across the 100 project communities. This data collection will occur from October to December 2015. The baseline survey will capture the current status on outcome and impact indicators, based on the indicator identified in project logframe (Annex 5 Table 1). This will include the current status of the community including, the ability of women within the household to mitigate current climate-related stress, behavioral and attitude trends toward climate change, and abilities to advocate for their needs externally. For assessment of technical solutions implemented in the project, separate baselines will also be conducted for the project site. For example, where Integrated Water Management structures are being implemented, we will survey the local hydrogeology and water issues will include water and soil sampling campaigns, laboratory analysis of relevant parameters, etc.

Outcome Indicators, Baselines and Six Monthly Milestones (Logframe also attached as excel sheet)

Narrative Summary	Indicators	Targets		Baseline	Milestones				Data Sources
		Year 1	Year 2		SA1	SA2 (end of Yr 1)	SA3	SA4 (EoP)	
Long term Outcomes (3-5 years)									
1. Increased sphere of influence of 1200 women leaders (through 7 Vikasinis) on local policies and programmes in 7 cities of South Asia for pro-poor action	Number of invitations per city received by Vikasinis, from government, NGOs, research institutes, and service providers for participation in meetings, workshops, policy committees, and city planning exercises	3 in Type 1; 1 in each Type 2 city	4 in Type 1; 2 in each Type 2; 1 each in Type 3	Ahmedabad is the only city where the Vikasini is on Municipal Committees	Vikasini Ahmedabad is further invited for specific policy inputs	Vikasini Jaipur and Bhopal receive first invite	Vikasini Ranchi receives first invite	Vikasini Bhubhaneshwar, Kathmandu and Dhaka receive first invite	Proof of invitation (letters, photographs, invoices)
2. Heightened social capital within 100 slum communities (25000 families) for resilience action	Percentage of families participating in voluntary activties at slum level, particularly in pre summer and pre monsoons preparations	5%	25%	NA		5%		25%	Baseline, Mid line and Endline Survey; Project MIS
3. Improved investment practices of 5000 poor families, enabling an increase in futuristic resilient investments and adoption of gender-sensitive resilient technologies	1. Percentage of families reporting Climate Risk/Resilience as a criteria for important infrastructure investments		30%	Nil (Source: FGDs)		5000 women seek information on climate risks/resilience technologies		15000 women seek information on climate risks/resilience technologies	Baseline, Mid line and Endline Survey; Project MIS
	2. Percentage of families having implemented at least one adaptation measure and showing reduced vulnerability	5%	11%	NA	50 families participate in field demonstration	100 families participate in field demonstration	150 families participate in field demonstration	200 families participate in field demonstration	Baseline, Mid line and Endline Survey; Project MIS
						100 families adopt the new technologies	450 families adopt the new technologies	800 families adopt the new technologies	Baseline, Mid line and Endline Survey; Project MIS
Intermediate Outcomes (2 years)									
1.1 Four Strongly Organised Vikasinis and Three Emerging Vikasinis, with technical experts, advocate directly with city governments on behalf of 125,000 people from 100 slum communities	1. Number of Vikasini-leader representations on policy or program matters	3 in Type 1; 1 in each Type 2 city	4 in Type 1; 2 in each Type 2; 1 each in Type 3	Ahmedabad is the only city where the Vikasini provides feedback to government	Vikasini Ahmedabad makes 2 representation	Vikasini Jaipur and Bhopal make representation	Vikasini Ranchi makes representation	Vikasini Bhubhaneshwar, Kathmandu and Dhaka make representations	Copies of representations
	2. Number of Vikasini-leader visits to local government officials on community level issues especially for service delivery	12 in Type 1; 6 in each Type 2 city	24 in Type 1; 12 in each Type 2; 6 each in Type 3	Ahmedabad is the only city where this happens	12	24	48	78	Baseline, Mid line and Endline Survey; Project MIS
1.1.1 Increased capacities of 1200 Vikasini leaders and 14 technical experts for mutual learning and joint action	1. Percentage of Vikasini-leaders who report an understanding of technical experts' perspectives and demonstrate an ability to take joint action	20%	50%	NA		20%	35%	50%	Baseline, Mid line and Endline Survey; Project MIS
	2. Number of technical/policy experts who report a better self-understanding of Vikasini leaders' perspectives and demonstrate an ability to take joint action		20	NA				20	Baseline and Endline Survey; Project MIS
	3. Number of families/women reporting ease in availability of customised solutions/strategies	30%	60%	NA		30%		60%	Baseline, Mid line and Endline Survey; Project MIS
2.2 Increased Collective Resilience Action by women in 100 slum communities through Community Action Groups (CAGs) for improved health and/or reduced loss of livelihood	1. Number of CAGs undertaking resilience action on at least one area of climate stress within the community	25	100	Nil (Source: FGDs)	25 CAGs formed	50 CAGs Formed; 25 have Action Plans; 5 CAGs Take Action	100 CAGs Formed; 75 have Action Plans; 50 CAGs Take Action	100 CAGs have Action Plans; 75 have taken Action	Baseline, Mid line and Endline Survey; Project MIS
	2. Percentage of families in these slums reporting reduced number of work days lost due to heat stress, water stress, water logging and/or water and vector borne diseases		50%					50%	Baseline, Mid line and Endline Survey; Project MIS
2.2.1 Increased evidence-based planning capacities of 1200 women in slum communities with emphasis on developing youth leadership	1. Number of CAGs and youth leaders collecting data either directly or by accessing government records	25	75	Nil (Source: FGDs and City Profiling)	Surveillance Toolkit Tested and Finalised	25 CAGs Trained and Collecting Data	50 CAGs Trained and Collecting Data	75 CAGs Trained and Collecting Data	Baseline, Mid line and Endline Survey; Project MIS
	2. Number of CAG resilience plans that are based on collected data		45				25	45	Baseline, Mid line and Endline Survey; Project MIS
3.1 Increased knowledge-seeking behaviour of 15000 women, youth and their families on climate risks and available solutions	Number of women having accessing Integrated Voice Response service for technical information (service set up by MHT)	5000	15000	No IVR facility on Climate Resilience Avilable in Any City	Pilot Pod Cast	5000 Women Access Services	10000 Women Access Services	15000 Women Access Services	Baseline, Mid line and Endline Survey; Project MIS
3.1.1 Increased knowledge of 15000 women and youth on climate risks and available solutions	Number of women recollecting at least two climate risks and one technical solutions	30%	60%	NA		30%		60%	Baseline, Mid line and Endline Survey; Project MIS

Since all cities start with a different level of base line, they have been classified as Type 1 with High level of Community Action= Ahmedabad; Type 2 with Basic level of Community Action, Cities for Replication = Bhopal, Jaipur and Ranchi; Type 3 with No City level Action, Cities For Transformation through Partners= Bhubhaneshwar, Dhaka and Kathmandu

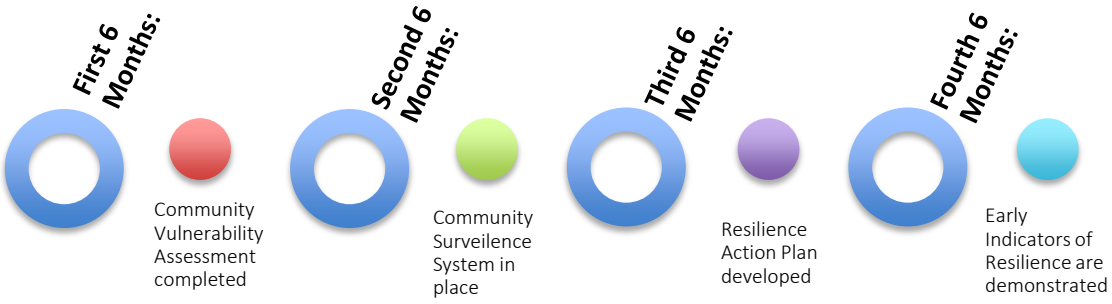
Ongoing Monitoring of Inputs and Outputs: A project specific management information system will be developed for conducting regular performance audits at the output level to assess the achievements at efficiency level. Milestones in the form of a Gantt chart have been developed and the performance on the same would be monitored quarterly. A project dashboard for the Gantt chart would be uploaded on the web-portal, up-dated weekly, which will allow for close monitoring of achievements of targets vs the plan.

Reflection Meetings: Monthly project monitoring meeting and quarterly project monitoring and reflection workshops would be conducted to review the progress on targets, and to adjust implementation based on learning. These meetings and workshops would serve as strong internal learning mechanisms. The focus of these meeting will not be only to review the physical targets but also the strategies and effectiveness of the project. (Table 2 in Annex 5 gives the review format for GRP Team's progress charting)

Community driven Monitoring Systems: The most critical success indicator for us however, would be for the communities to themselves, map their baseline and review their progress. As a part of the project, the team work with women-leaders from each vulnerable community to develop a shared understanding of the location's current state, pairing their requisite field experience with local knowledge to form a comprehensive baseline of the local vulnerability. This vulnerability baseline will be used to build a resilience action plan. As the community initiates action, the Community Action Groups (CAGs) will be a collaborative force within the locale for sharing feedback with and gathering feedback from residents. In addition, the Vikasini leaders, will the primary feedback loop between each community and the project team. This continual process of shared learning will be supplemented by targeted visits by city-level representatives and technical experts, which will also feed into our learning systems. In addition, social monitoring tools will be employed to capture values, perceptions and experiences of communities on the ecosystem and vulnerability. This data would be supplemented with the administration of a **community based vulnerability assessment tool** that will help calculate the vulnerability index and resilience capacity of the participant families. This tool will also be administered to more than 1,000 families over the first year of the project. The tool would actually be converted into a mobile app, which could be used by the community themselves to upload their information. This would in itself help create a spatial database, which could be used to monitor changes in the long run. The process is one of full engagement. The key to success that underlines each of these actions is a genuine reciprocal process of learning and knowledge sharing across a diverse range of people. The feedback loops within this strategy are paramount; the integration of such ongoing reciprocity ensures that real-time data and information is regularly informing the broader project results. We believe that a heightened understanding of others' daily realities, backgrounds and expertise serves to strengthen each discussion and requisite action. MHT views this project as an opportunity for such awareness to grow for all of the parties involved—from the household level, to technical experts, to the government.

Mid Term Assessment: We will also formally build upon this information by undertaking a mid-term survey with CAG members and Vikasini leaders to determine how each area is progressing based both on high-level indicators that apply to all communities (Figure 4) as well as location-specific indicators that take into account important contextual difference. The quarterly progress illustrated in Figure 4 is expected to be 75% achieved in Ahmedabad, 50% achieved in Jaipur, Bhopal and Ranchi, and 30% achieved in Bhubaneshwar, Dhaka and Kathmandu.

Figure 4: Six Monthly Progress Indicators



(Also see Table 2 in Annex 5 for an account of our detailed M&E objectives, staffing, and timeline).

Evaluating Project Outcomes and Impacts: The project evaluation will be undertaken in the last quarter of the project. A detailed evaluation design will be developed based on the Qualitative Comparative Analysis (QCA) approach. The Qualitative Comparative Analysis (QCA) approach requires using indicators to establish a scale against which progress against outcomes can be measured and compared. This requires relevant and robust indicators, baseline information, monitoring against indicators, and an elaborate project evaluation. The QCA would help understand the contribution of the project with the existence of the conditions and without the existence of the project. Our focus, through this approach, is to understand "contribution" rather than "attribution." The evaluation will use multiple tools, including a survey, focus group discussions, technical and government official-focused interviews, physical sampling, among other techniques. For a quantitative analysis, an end-line survey, similar to the baseline study, will be conducted to assess the project's final developments.

Proposed Methodologies: The project will use multiple methodologies for monitoring and evaluation, however, the baseline survey represents our primary method. The main enumeration tool will be a household survey questionnaire. This questionnaire will be developed in who forms: (1) a questionnaire based on each of the indicators in the logframe and (2) a detailed Interview format will focus on questions related to behavior change and perception of vulnerability, administered to one third of the families. The data collated from these will be processed using SPSS and NVIVO software to enable quantitative and qualitative analysis. Furthermore, a community and locality survey will be conducted to capture data on the vulnerability of the community with regards to their availability of basic services, their interaction with local institutions and government agencies, and relationship of community leaders. Similarly, city profiles will capture data on institutional frameworks, vulnerability status and resilience capacities to be developed at the city-level. A combination of data sources will be used to triangulate and verify this information. Both the community and city profiles will include information related to technical parameters as required for solutions prioritization.

M& E Team: The project M& E plan is based on a combination of formative and summative approaches. Out M& E team composition has also been designed accordingly. Prof. Michel Elliot, from GeorgiaTech University, who has wide experience in this process, will guide the M& E processes as a Principal Investigator. Locally, he will be supported by Dr. Veena Iyer, from Indian Institute for Public Health (IIPH) for the summative evaluations. For facilitating the formative monitoring and evaluation systems, the project will be creating a separate team- based at MHT but reporting to IIPH and Georgia Tech. This is being designed keeping in mind the localized approach of the M&E plan as well as to build the capacities of MHT, which is primarily a grass-root organization and currently relies of internal reflection and adaptive management processes for it M& E, to enable a shift to more evidence-based processes so as to be able to have stronger policy influencing.

Value for Money Plan: The project will use the 4E approach to 'Value for money' (VFM), looking at effectiveness, efficiency, economy and equity. VFM Improvement and Assessment will involve three stages;

a) ***Bench Marking for VFM:*** Based on the benchmarking matrix given below, the project team will review and score the project against the indicators on a six monthly basis and provide feedback for improvement.
b) ***Quarterly Performance Review*****:** Quarterly performance review will be undertaken to assess progress against quarterly milestones as per the project Gantt chart. A project dashboard for the Gantt chart would be uploaded on the web-portal for weekly up dating, which will allow for close monitoring of achievements of physical targets as per plan. Input to output ratio will be calculated, especially for activities which are innovative and/or have high unit costs.
c) ***Financial Audits:*** Six-monthly financial audits of project will be undertaken by a chartered accountant at the input level to assess economy parameters. This would include transaction verification, systems assurance, donor assurance[1].

Value for Money Benchmarking Matrix

Criteria	Indicator	Quality Parameter	Means of Verification	Indicator Scoring			
				Excellent	Good	Average	Poor
Performance Management	Percentage of physical targets achieved	As per Quarterly Work Plan	Project Gantt Chart	**100%**	Above 90 %	Above 60 %	60% or below
	Low Unit Costs	Verification of Processes followed	Scoring by Steering Committee				
Efficiency and Equity of outputs	Per capita costs	Number of women	Calculated from project MIS and trial balance	**40USD**	60USD	80 USD	100USD
	Cost per slum			**10000 USD**	15000 USD	18000 USD	20000 USD
Effectiveness of outcomes- Knowledge to Attitude Change Ratio	Percentage of families targeted proactively seeking information	Percentage of women	Calculated based on number of people using IVR facility for seeking information	**60%**	45%	30%	Less than 30%
Impact Achievement- Adoption Ratio	Percentage of families adopting new measures	Percentage of most vulnerable families	Calculated based on number of people adopting new technology	**11%**	7%	5%	Less than 5

[1] This approach is designed to assure that the grant funds are being spent properly as agreed in the grant agreement and as per the Foreign Contribution Regulation Act (FCRA) of India. This focuses on looking at budgeting, budget monitoring, cost-effectiveness, distribution of assistance, internal transparency, governance, quality and timeliness of donor reporting, etc. Some test-verification of program expenses will also be included.

3.1 Gender and Equity

The project will closely engage with 1200 women living in urban slums in 7 cities of South Asia, with the aim of influencing and upgrading the lives of more than ***25,000 urban slum dwellers*** in these cities. Climate risks not only contribute to but also ***exacerbate existing inequalities, worsening poverty*** and triggering new vulnerabilities for the poor. **Gender Discrimination** in the region results in women being even more vulnerable as they bear the dual burden of these climate-related events, while having least access to information, resources and assets. Even though they are often seen coping in their own ways, these strategies are not feasible in the long run and often put them in a negative situation. There is an urgent need to create solutions for positive and transformative action and develop a culture of resilience among these communities, particularly women. The project is thus designed around a pro-poor and **women's empowerment approach**. A critical aspect here was the focus on **collecting women specific information** in the identification of the problem as well as the **direct and informed involvement of women** in the solutions development. More than 200 women have been consulted through focus group discussions, area meeting and workshops in the stage-II for developing the project. Women being primary target audience of the project, all products will be designed keeping in mind their capacities, literacy levels, and access to technology. The project will especially work to ensure gender sensitivity in all the plans and solutions developed. The project intends to improve women's own articulation regarding gender needs as also sensitize their families, communities, local officials, service providers and researchers on gender issues. Working on a women's empowerment approach the project will strive towards the following gender outcome in the long run: "**Increase capability of women** to **understand the climate risks, determine their resilience outcomes, and influence decision-making in households, communities, and cities**." The project will achieve this by;

Increasing the Knowledge of Women on Climate Risks particularly the gender impacts of these risks	✓ ✓	Targeting 25,000 women for climate risk information through various communication measures Training 1,200 women as Climate Saathis (local support groups) on the technical aspects of climate change
Increasing the availability and access of women to gender sensitive technologies	✓ ✓	At least 5 of the 20 technologies piloted will be specifically targeted at meeting women's needs. All other will be vetted for their women friendliness
Sensitizing households and slums communities to recognize women's needs	✓ ✓ ✓	Gender training will be part of Community training plan Focus Group Discussions on gender issues will be undertaken Gender indicators will be part of vulnerability assessment calculator
Increasing visibility of women at the city level especially in climate debates	✓ ✓	All the slum level groups (CAGs) will be women-led Women leadership will be promoted and they will be the leaders in the city level federation-Vikasini
Increasing representation and voice for women in city level plans and policies	✓	Focus on strengthening women's advocacy and communication skills by training and handholding support
Prioritizing of women's needs in resilience investment and action	✓	All financial support will be only in women's name leading to any asset purchased being in joint names

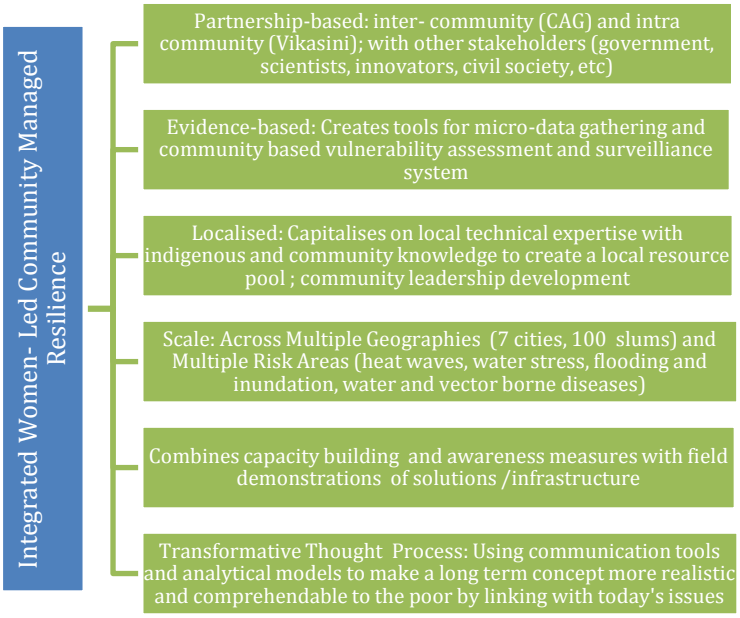
The major gender impact of the project, however, would be the ***demonstration of a women-led model,*** for climate change resilience in urban pockets, where men are still the primary decision makers. ***By creating information and evidence on women's issues as well as ensuring resilience solutions that are gender sensitive***, the project will create a solid breakthrough in the current climate debate by creating knowledge products on gender and climate change in the urban context.

3.2 Resilience

Resilience is a process, a way of thinking and acting, not just an end state. We believe that ***the most efficient model of resilience would be one that enables 'iterative adaptation'*** — a learning process through creation of highly-evolved, self-organized institutions. This requires pursuing an adaptive process that incorporates the ability continuous adaptation. It builds in capacity to learn and progress towards greater efficiency and optimization. The challenge, however, is how one "engineers" such a process, the critical answer to which would be by empowering local agents to build an institution that ensures stability for the community at risk. This requires intensive mediation, moderation, adaptive management and creation of safe spaces for dialogue which the project team will facilitate.

The project clearly identifies "***women from slum communities***" as the most vulnerable community as risk whose "***resilience is at stake***". The project will thus focus on improving the resilience capacities of women from slum communities, by empowering them as "***agents of change***" and collectivizing them into "***technically sound strong institutions***." The project would focus on building the capacity of these women's institutions to identify, forecast and take action to withstand a certain level of climate stress and shock, while also striving to improve the current level of livelihood and health status of the women without distress or loss of assets. These capacities should be evolutionary in nature with an increase in risk retention capacities; improved access to basic services (like water, sanitation, adequate shelter and health) and a continued effort to transform to a threshold level of livelihood security.

The project aims to do this by promoting an ***integrated women-led community managed resilience model that is partnership based and builds on developing a strong evidence base through use of innovative technology and community channels.*** The focus will be to have a direct impact on improved resilience capacities of poor women and their families. A critical process outcome would be the increase in evidence based advocacy and decision-making on resilience issues at the city level. This would be ensured by availability of micro-data, creating micro-resilience plans, implementing those plans through and for the poor communities. ***The project would also assess these processes to address a very key resilience question- what is the cost of enabling such bottom-up resilience action?***



3.3 Sustainability

The cost question is invariably linked with sustainability. Since the project focuses on creating community institutions (CAGs and Vikasinis) and a grassroots cadre of climate Saathis (support groups), the social capital thus developed will exist beyond the project financial support period. The proposed model is kept informal to avoid administrative difficulties and keep operational costs low. The provision to create a local multi-disciplinary resource group will provide the necessary expertise and backup, to ensure the knowledge sustainability of the institutions. Furthermore, these institutions will also serve as a future platform for private incubators to test and validate new technology options, which will help continue the technical explorations. The project is also well in line with central and state government policies. The government is already looking at investing in SMART city development, and sustainable habitat development. The importance of building in a strong climate resilience perspective along with a pro-poor investment focus is also recognized as a critical gap area by the government (Twelfth Five Year Plan Document, Government of India). The project partners also have a strong base for policy influencing, with many of the civil society partners already working with other state/city governments to influence pro-poor policy. The lead team - MHT - is already on major government committees like that of Rajiv Awas Yojana (slum free city plan) and the Prime Minister's Affordable Housing Committee. Other team members - CEE and Development Alternatives - are also part of various government committees on Climate Change/Sustainable Development Goals (SDGs) as well as various regional networks like Climate Action Network, South Asia (CANSA), through which the project findings will be disseminated. There is also a strong buy-in for the project outputs at the city government level. A key team member - IIPH - is already working with Ahmedabad Municipal Corporation (and in discussion with Bhubaneswar Municipal Corporation) on Heat Action Plans and the project findings would be well incorporated in these. MHT also has very closely established links with Ahmedabad, Bhopal, Jaipur and Ranchi Municipal Corporations. Ahmedabad Municipal Corporation has already submitted a joint proposal with MHT and IIPH for Climate Resilience Planning as part of the Rockefeller 100 Resilient Cities Challenge. Bhopal Municipal Corporation has also shown interest in getting directly involved in the project. Development Alternatives is also the lead knowledge management partner on Climate Change and Urbanisation of the Government of Madhya Pradesh (with respect to Bhopal). Besides, private sector partners (EMBARQ/WRI; Himadri Enviro; Vande Materam Builders) are working directly as consultants/implementers in government projects related to slum development, energy, water and sanitation, which would be a direct way of influencing how new projects will be implemented. Another important indicator of the local government having strong interest is the participation of city government officials in the Ahmedabad Service Providers meeting held as part of Stage-II.

4.1 Risk Matrix

Risk	Impact	Probability	Mitigation Proposed
City governments may not want to collaborate	Medium	Low	Efforts will be made to bring the city governments on board before the project implementation begins. In addition, other local partners, elected representatives will be included in the implementation processes to ensure local government support.
Non availability of feasible technical solutions for certain key areas	High	Low	The project brings together a multi-disciplinary team of experts to scope and recommend technical solutions. Already a list of solutions to be tested has been developed in stage-II. In case of non-availability of certain important solutions, the project will work with a private incubator for developing the same.
Major disasters in the region- Earthquakes, Floods, Cyclones, Hailstorms	Low Overall (but high in Kathmandu)	Not known	As a rule, the project will identify all possible disaster probabilities for each locale and any infrastructure / technical solution proposed will have to be resilient and disaster compliant. A critical aspect which could slow down the project would be the immediate need to focus on relief and rehabilitation. The community and institutional aspects would be reoriented in such case to make the action more relevant locally in lieu of the disaster. The focus in these cities would be to include resilience perspective in rehabilitation and the disaster (shock) will be included as a focus sector for that particular city in addition to the current sectoral focus.
Scaling And Replication Barriers	Medium	Low	Generally a project of this scale would experience challenges if scaling and replication. However, the lead team MHT already has more than 2 years a presence in 4 of the 7 cities; major partner HNSA has presence in the other 3 cities. Another partner CEE has also has presence in 5 of the 7 cities and UMC in 3 cities. This strengthened our confidence in being able t scale and replicate.
Disagreement/ Non-performance of a critical partner organization/ team member	High	Low	The teams have already had experience of working together in the stage II, so critical points will be identified and accounted for in the project subcontracts for stage III In case of extreme disagreement, an alternative partner with similar skills will be brought in with prior approval from GRP
Attrition of a non-critical partner/team member	Low	Medium	The resource team has been developed keeping in mind multiple skill sets and locale specific experience. As a part of the project activity itself, this list is being made exhaustive to have multiple options at each city level. In case a non-critical member drops out, another expert with similar skills from the resource persons list already prepared during stage II will be brought in
Implications of guidelines/procedures for Foreign Exchange Regulation in India	Low Overall (High for Nepal and Bangladesh)	Medium	This could lead to difficulties in transferring funds to local partners in Nepal and Bangladesh It is proposed to include Home Net South Asia (HNSA), as the joint applicant (team lead), so as to enable direct transfer of funds from the project to HNSA which has a well-established partnership model, if required.
Sub-grantees do not follow through financial guidelines and procedures	High	Medium	The conditions would be clearly inbuilt in the initial contracts, including submission of sub-annual audited statements and utilization certificates. Funds will be transferred only on a half yearly basis. There would be an initial meeting conducted with financial/ accounts staff of all sub grantees in the presence of auditor to clarify all doubts related to procedures. There would be a grant manager appointed at the lead team to undertake spot checks and guide the other teams.

The project management committee would regularly monitor the progress in these risks and submit a risk assessment review to the project steering committee in a six monthly basis.

4.2 Social and Environment Impact Assessment

The proposed project aims to build resilience capacities of slum dwellers particularly women against climate-related stress and shocks especially heat stress, extreme precipitation, water scarcity and water and vector borne diseases. Thus, the very design of the project has got inbuilt components that reduce the possibility of such risks and at the same time provides for such measures that reduce any such possibility of environmental and social impacts. The environmentally beneficial impacts of the project are likely to be in several aspects such as energy efficiency, improved water management and green landscaping in urban areas. Adding to this is the fact that the project focuses on risk management for one of the most vulnerable and at risk-prone communities to be affected by climate change - slum dwellers and women. Thus, the social benefits of the project are expected to be very high.

Nevertheless it is important to create safeguards for any adverse environmental and social issues/impacts, however minor in nature. To ensure these, the project undertook an initial environment as well as social and gender

assessment by experts from within the project team. The assessment was done using a checklist prepared internally to identify the environment and social/gender concerns of the project. The criteria included: preservation of bio-diversity and natural habitats; pollution; climate change; gender equality, culture, health and safety, demographics and other socio-economic parameters. The checklist for the overall social and environmental assessment is attached as Annex 6.

No significant environmental and social risks have yet been identified, except in the likelihood of having gender impacts if specific gender considerations are not taken into account. Towards this, a purposeful engagement with primary stakeholders - particularly women - has been undertaken to identify and build in the key gender concerns into the project processes. The project is in fact women-led and will ensure gender mainstreaming by informed inclusion of all relevant gender concerns into the decisions and institutions involved in the planning and implementation process. However, we are also conscious of not adding the burden of resilience on women alone and hence as a gender safeguard- we have modified our strategy to have men especially young boys included as part of the CAGs.

The project would also require an orientation of all stakeholders, especially the project team, on gender sensitivity and identification of social and environmental aspects at the sites and communities through stakeholder participation and proper documentation while initiating the pilot interventions.

The assessment is in general consistence with the environment and social policies of the concerned countries as well as keeping in mind the policies of USAID. The project ensures that no undue harm will occur to people and their environment due to the project processes and it will promote development that is environmentally and socially sustainable as well as empowering for women.

6.1 Team Composition

Our original team continues to be a part of the GRP Stage-III, with some technical partners continuing in an advisory capacity very important for such an adaptive learning project as ours. We have further strengthened our health team, by the addition of Dr. Vikas Desai, who has been working extensively for urban health systems development and also on climate related issues with ACCCRN.

1. **TEAM LEAD:** Ms. Renana Jhabvala, Managing Trustee and **ALTERNATE TEAM LEAD:** Ms. Bijal Brahmbhatt, Director; Mahila Housing SEWA Trust, 401-402, Akash Ganga Complex, Brahmakshatriya Co-op. Society, Gujarat College Road, Navrangpura, Ahmedabad-380 009 India. Office: 079-26560558/536. Email-bijalb@mahilahsg.org, renanajhabvala@gmail.com. www.mahilahousingtrust.org
2. Ms. Firoza Mehrotra, Director (P&M); Homenet South Asia; 318 3rd floor Abhishree Complex, Opp Star Bazaar, Satellite, Ahmedabad 380015, India. Tel: +91 79 2692 9473/ 2692 9873. TeleFax: 2692 9874. Email: homenetsouthasia@gmail.com mehrotrafiroza7@gmail.com. www.homenetsouthasia.net
3. Dr. Dileep Mavlankar, Director and Prof. Veena Iyer, Indian Institute of Public Health Gandhinagar, Sardar Patel Institute Campus, Drive-in Road, Thaltej, Ahmedabad – 380 054. Tel. +91 - 79 - 40240444, Fax: +91 - 79 – 40240445. Email: dmavalankar@iiphg.org, veenaiyer@iiphg.org; iiph.gandhinagar@gmail.com. www.phfi.org
4. Dr. Vijay Kohli, Entomologist, Ahmedabad Municipal Corporation, Mahanagar Seva Sadan, Sardar Patel Bhavan, Danapith, Ahmedabad-380001, Gujarat, India. Tel: +91-79-25391811 to 25391830. Fax: +91-79-25350926. Email: kohli_vijay@yahoo.co.in. www.egovamc.com
5. Prof. Dr. Michael Schneider; Freie Universität Berlin, FB Geowissenschaften, AG Hydrogeologie; Malteserstr. 74-100, 12249 Berlin Arbeitsbereich Hydrogeologie Malteserstr. 74 – 100 12249 Berlin. Tel: +49 30 838 70 653. Fax +49 30 838 70 742. E-mail m.schneider@fu-berlin.de. www.fu-berlin.de/hydrogeology
6. Mr. Om Prakash Singh, Hydrogeologist (Geotech Consultant), Harihar Singh Road, Manda, Morabadi, Ranchi – 834008, Jharkhand, India. Ph.No. - 0651-6452043. (M) – 9931315105. Email: geotech_9@yahoo.com
7. Mr. Devang P Shah, Director and Mr. Devang P Gajjar, Dy Manager; Himadiri Enviro-Protection Consultants Pvt. Ltd. A-506 Wall Street-2, Opp. Orient Club, Ellisbridge, Ahmedabad-380006. Telefax: 91-79-66614159. Email: hepcpl@himadrienviro.com, devanghepc@gmail.com. www.himadrienviro.com
8. Prof. Michael Elliott, Associate Professor, Schools of City and Regional Planning & Public Policy, Director, Master of City and Regional Planning Program, Georgia Institute of Technology, 204 East Architecture, 245 Fourth Street, Atlanta, GA 30332-0155. USA. Tel: 404.894.9841. Fax: 404.894-1628. Email: michael.elliott@coa.gatech.edu. www.planning.gatech.edu
9. Ms. Manvita Baradi, Director and Ms. Meghna Malhotra, Dy Director; Urban Management Centre, lll Floor, Office of Ahmedabad Urban Development Authority, Usmanpura, Ahmedabad - 380 014, India. A-202 GCP Business Centre, Opposite Memnagar Fire Station, Navarangpura, Ahmedabad - 380 014, India. Ph/fax:+91-79-27546403/5303/1599, Email: manvita@umcasia.org, mbaradi@icma.org, meghna@umcasia.org, mmalhotra@icma.org. www.umcasia.org
10. Ms. Zeenat Maizi, Senior Programme Director, Development Alternatives,111/9-Z,Vasant Kunj, New Delhi-70. Tel: 91(11)26134103.Email:mail@devalt.org.www.devalt.org.
11. Mr. Arvind D Limbani, Managing Director, Vandemataram Projects Private Limited, B-406, Super Plaza, Sandesh Press Road, Vastrapur, Ahmedabad- 380052. Mobile: (91) 8980024250. Phone:- + (91) 79-26741101. Email:- info@vandemataram.co.in, arvind.limbani@gmail.com. www.vandemataram.co.in
12. Mr. Anindya Sarkar, Individual Consultant (Disaster Management). Flat- #606, EPDP Dakshinayan Apartments, Plot no. 19, Sector-4, Dwarka-1, New Delhi, 110078. Mobile: 09810406234. Email: anindyasarkar@gmail.com
13. Mr. Kirtee Shah, Architect. 51/A, Thakore Baug Fats Annexc, Opp. Sardar Patel Sewa Samaj Hall, Navrangpura, Ahmedabad - 380 009, India. Phone: 079-26448833, 26461880. Fax: 079-2646997. Email: ahmedabad@ksadps.com, kirtee@ksadps.com. www.ksadps.com
14. Mr. Harish Hande, Chairman, SELCO Solar Light Pvt Ltd, 742, 15TH CROSS, 6TH PHASE, J.P. NAGAR, Bengaluru - 560078, Karnataka, India. Tel: 91-80-26654510/26654509/26493144. Fax: 91-80-22440529. Email: harish@selco-india.com. www.selco-india.com
15. Mr. Arman Oza, Chief Executive Officer; National Insurance VimoSEWA Co-operative Ltd, 'Chanda Nivas', Nr Hariharanand Ashram, Ellisbridge, Ahmedabad - 380006. Gujarat (India).Tel: +91-79-26580437, 26574460. Fax: +91-79-26580508. E-mail: armanoza@hotmail.com; www.sewainsurance.org
16. Mr. Vipul Pravinchandra Shah, P H Shah & Co. Chartered Accountants, 206, Hemkoot Building, Bh LIC Building, Near Gandhigram Railway Station, Ashram Road, Ahmedabad - 380 009. Tel. No. 91-79-66053114. Fax no. 91-79-66053114 Email: phshah@phshah.com, vpravinchandra@gmail.com. www.phshah.com
17. Ms. Sanskriti Menon, Team Leader- Communication and Ms. Madhavi Joshi, Programme Director (Waste Management); Centre for Environment Education, Thaltej Tekra, Ahmedabad - 380054, India. Tel: +91-79-26858002; 26844820. Fax: +91-79-26858010. Email: madhavi.joshi@ceeindia.org, www.ceeindia.org
18. Mr. Vijay Anadkat, Fellow, EMBARQ India, 87, 2nd Floor, New Mangala Puri, MG Road, New Delhi 110030. Tel: 9111 40550776. Mob: 9714503705. Email: vijayanadkat@yahoo.com. www.embarqindia.org
19. Dr. Vikas Desai, Technical Director, Urban Health and Climate resilience Center – UHCRC, Surat, Gujarat, India. Mob: 9825117259. Email: psmvikas@hotmail.com

6.2 Summary of Team Strength

We are very strong multi-sectoral team of *urban planners, hydrologists, environmentalist, architects, civil engineers, mechanical engineers, energy engineers, geo-informatics, insurance, public health, disaster management and community mobilizers* who are committed to work together with the community leaders from urban slums in South Asia to explore innovative solutions to building climate resilience for urban slum dwellers. Our team has an average experience of around 21 years, with most people who have been passionate and committed to the cause of equity and sustainability. Some of the core strengths of our team are highlighted here:

- The two major grassroots partners Mahila Housing SEWA Trust (MHT) and HomeNet South Asia have a combined presence in more than 20 cities of India, Bangladesh and Nepal. Both organisations are led by the team lead Renana Jhabvala and are committed to creating inclusive cities and are already working together on two projects to expand our community mobilization and urban governance model in these cities. The project team lead, Ms. Renana Jhabvala has more than 33 years of experience working with informal sector workers. The Alternative Team Lead Ms Bijal Brahmbhatt is a civil engineer with more than 17 years of experience of community work. With our strong grassroots base and common leadership, we are in a very strong position to mobilize 25,000 families and build strong city level federations of slum dwellers.
- The other major team players are from the Indian Institute of Public Health Gandhinagar (IIPHG), and have been very actively involved in undertaking research related to morbidity and mortality due to climate change events like heat stress and vector and water-Borne diseases. Being an autonomous but semi-government body and with renowned research expertise, IIPHG has a very strong policy impact. Dr. Mavlankar and IIPH, with their research on heat stress, have worked with the Ahmedabad Municipal Corporation to make Ahmedabad, South Asia's first city to have a Heat Action Plan. We also have as part of our team Dr. Kohli, who is an entomologist working with the Ahmedabad Municipal Corporation for last 23 years. We have further strengthened our health team, by the addition of Dr. Vikas Desai, who has been working extensively for urban health systems development and also on climate related issues with ACCCRN.
- As we work closely on issues related to water. Due to the complexities revolving around the issue we propose to look at water management in urban areas holistically rather than in silos. Our water team, thus, covers all aspects of water management - from geo-hydrology, rainwater harvesting, drinking water supply to sewerage and waste water management. For hydrogeological aspects and urban water resources we would be guided by Prof. Michael Schneider, head of the hydrogeology group at the Freie Universitaet Berlin, who has worked extensively on Managed Aquifer Recharge (MAR) and ground water quality issues in different parts of the world, with India being a focus area of his research. This will enable us to have a wider perspective when we explore new low-cost water management solutions. Taking into account the interaction of surface water, shallow and deep ground water and its role in the urban water cycle will allow us to develop sustainable solutions
- Prof. Michael Elliott, from Schools of City and Regional Planning & Public Policy, GA, has worked extensively on supporting and evaluation of systems based projects and decision making processes. He would be the principal investigator for the M&E of the project.
- Recognising the need to look for innovations in the way we design and build our homes and neighbourhoods, we also have two architects, one civil engineer (who owns a real estate company) and a solar energy engineer (who is the founder of SELCO India) and a recipient of Magsaysay award for his work for energy security for the poor, on our team to work together to develop more cost effective and disaster resistant green buildings. The team will also benefit from their business acumen. We also have Ms, Zeenat Naizi from Development Alternatives, who has worked extensively on eco-housing technology and taking forward the sustainability and pro-poor agenda in various climate dialogues.
- The Urban Management Centre (UMC), which is a group of city managers associations and WRI-EMBARQ (Vijay Anadkat) who have been very strongly involved in building capacities of city governments, will provide a strong impetus to ensuring that the approach gets integrated into overall urban planning frameworks.
- Mr. Arman Oza, with his 24 years of experience in the field of insurance and the CEO of the pioneer micro insurance organisation in India, will work with the communities in exploring insurance options. In addition, we also have the founder of Prudent Technologies for helping us create GPS enabled surveillance tools.
- What would be most important, however would be to have a strong information technology and communications plan for reaching out to wider communities. Ms. Sanskriti Menon from Centre for Environment Education (promoted by Ministry of Environment and Forestry, Government of India), which has a presence in 34 states/UTs of India, will work towards creating this plan with the team.

The uniqueness of our team lies in its size, which allows us to have a vast cross-functional expertise which is essential for a holistic perspective on climate resilience and to propose multifarious solutions. At the same time, our core strength lies in the fact that all of these organisations/individuals have at one time or another worked with MHT and share a common belief in "Empowering the Slum Communities to enable them to live a dignified life". And most importantly, most of us have been pioneers in our own fields - SELCO was one of the first solar energy companies in India and Vande Mataram has been a pioneer in affordable housing. MHT has been one of the few organisations that has enabled access to water and sanitation for slum dwellers at scale (84,000 families and still counting). MHT has also been recently given the 2014 Urban Resilience Award for innovation in using technology for communities by USAID, UNDP and UNHABITAT. Amongst ourselves, we represent the core values of, commitment, expertise and grassroots presence, which are required for the success of the project.

6.3 Letters of Commitment and CV (attached as Annex 7)