

ADAPTIVE COMMUNICATION FOR DEVELOPMENT MATRIX: ENHANCING  
TANGIBLE DEVELOPMENT EFFORTS THROUGH COMMUNICATION  
APPROACHES AND TECHNOLOGIES

By Nayeem Sebastian Munier

Bachelor of Arts, Hons. in Mass Communication, York University  
Toronto, ON, Canada, 2014

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# **ADAPTIVE COMMUNICATION FOR DEVELOPMENT MATRIX: ENHANCING TANGIBLE DEVELOPMENT EFFORTS THROUGH COMMUNICATION APPROACHES AND TECHNOLOGIES**

**Master of Digital Media, 2017  
Nayeem Sebastian Munier  
Master of Digital Media, Ryerson University**

## **Abstract**

This paper proposes to research and establish a framework that enables individuals and organizations to maximize the impacts tangible interventions and assistance can have within marginalized/at risk communities, through communication for development approaches and technologies. By adding this extra layer to the framework of development efforts, we can look to better Improve and Assist the growth of a marginalized community, adding an ideological layer, worthy of a communication system, that enables a sense of community and empowerment, initiates upward mobility for future generations in addition to improving quality of life. The matrix would be adaptive to any circumstance or region, as it will act as a matrix in which the communication approaches and interventions are determined based on specific indicators. The goal is to be adapted into various development efforts and produce information and data in relation to the power communication can have within developing communities.

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## **Part 1: Literature Review of Frameworks**

### **1.1 Analysis of Existing Frameworks and Case Studies**

Communication within a development context can mean many different things.

However, the communication process among stake holders and beneficiaries is considered one of the most important aspects of international development.

Traditionally, the communication process occurs through a linear process. The development organizations, communicate to the beneficiaries being assisted about the issue and ensuing activities, and attempts to provide enough information to increase awareness and capacity of those beneficiaries. In short, the sender (development organizations) communicates messages to the receivers (beneficiaries). However, this may not be effective or appropriate for every situation. As a result, it is important to look into the ways in which organizations can align themselves for effective communication with beneficiaries and community members.

All stakeholders and community members within a development effort are accountable for the communication process. Therefore, the top down approach cannot be considered to be the best approach, especially in marginalized communities.

Communication and development needs to be looked at as “change at different levels including listening, building trust, sharing knowledge and skills, building policies, debating and learning for sustained and meaningful change” (Fraser and Restrepo-Estrada, 1998). By imbedding the right form of communication in development efforts, and organization and its partners are able to communicate effectively with local community members about goals, solutions, barriers and build capacity. As a result,

many organizations have set up multiple frameworks for communication and development. These frameworks need to be examined and evaluated in order to withdraw different aspects that would assist the creation of the matrix. The proposed matrix therefore serves as an amalgamation of multiple existing frameworks in addition to using digital media technologies for the operations.

As various humanitarian organizations set out to implement change and development within a particular region, communication it seems always plays a vital role.

Communication in this context juxtaposes itself along with the tangible efforts that are being implemented. Communication therefore is the backbone of the matrix. However before discussing a new framework, it is important evaluate and critically examine existing frameworks and theories intertwined with communication and development.

The paper contains two separate components. Before discussing a new framework, it is important to evaluate and critically examine existing frameworks and theories intertwined with communication and development. Therefore, the first portion of the paper will consist of a literature review of communication theories in addition to an examination of existing frameworks. This examination not only focuses on the prominent frameworks in practice, but also other alternative frameworks that have been used at a much smaller scale. Furthermore, this is rounded up through specific case studies of particular interventions that have used unique approaches to their communication interventions.



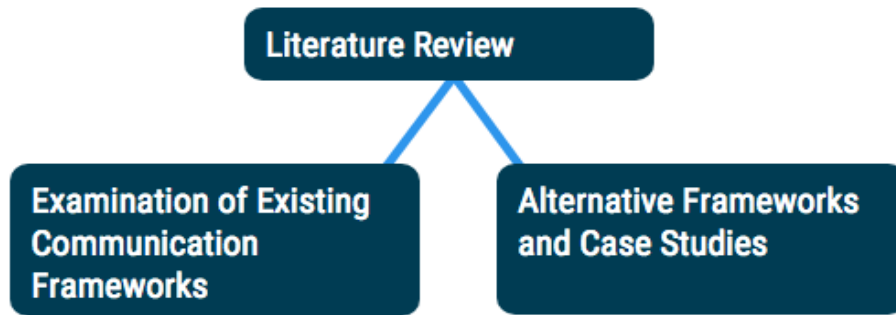


Figure 1: Outline of Literature Review

## 1.2 Communication for Development theory

Communication for Development (C4D) as defined by Fraser and Restrepo-Estrada (1998) is the “use of communication processes, techniques and media to help people toward a full awareness of their situation and their options for change, to resolve conflicts, to work towards consensus, to help people plan actions for change and sustainable development, to help people acquire the knowledge and skills they need to improve their condition and that of society, and to improve the effectiveness of institutions”. By this definition, this places a large importance on the beneficiaries that receive assistance from development initiatives. Often times Communication in Development is seen as a one way communication model, however this definition places an importance on the organic transference of information between all stakeholders. More importantly it is the ways in which organizations can go about creating a system or environment in which this form of communication is enabled. This is, therefore, a much more complex model of communication in which along with stakeholders, there exists a complex web of dynamics that can impact any web of existing communication.

Before analyzing theories and frameworks, it is important to clearly point out all stakeholders within a situation. This is very important as certain stakeholder play different roles depending on the cultural, regional, and political context. A local NGO in South Sudan may not have the same role or significance as it may have in the rural areas of Bangladesh.

Collaboration is at the heart of any development effort. The significance of this is highlighted by Ben Ramalingam (2006), in which he offers a holistic view of knowledge and learning tools between involved organizations (see Figure 3). It is evident that organizational contexts, needs to align itself with the capacity of the organisational knowledge and enable the partnerships and collaboration with other stake holders. Crucial to this process, as Ramalingam (2006) points out, is that it is not just development organizations that play a role in the process knowledge and learning in the development world, but also donors, ICT's, communication infrastructure, in addition to national and global factors. This view serves as a fundamental tool to be used to take into account the importance of knowledge and learning among not only the communities that are being assisted, but also all organizations and parties involved. Ramalingam (2006) outlines a framework that can be used by development and humanitarian organizations to facilitate knowledge and learning. This comprehensive guide outlines the various Strategies, Techniques, and Mechanisms that can be used, depending on the context. This does not however, relate any particular implementation or pillar of development. It does uniquely highlight the importance of internal communication and collaboration among organizations, to maximize any development effort.

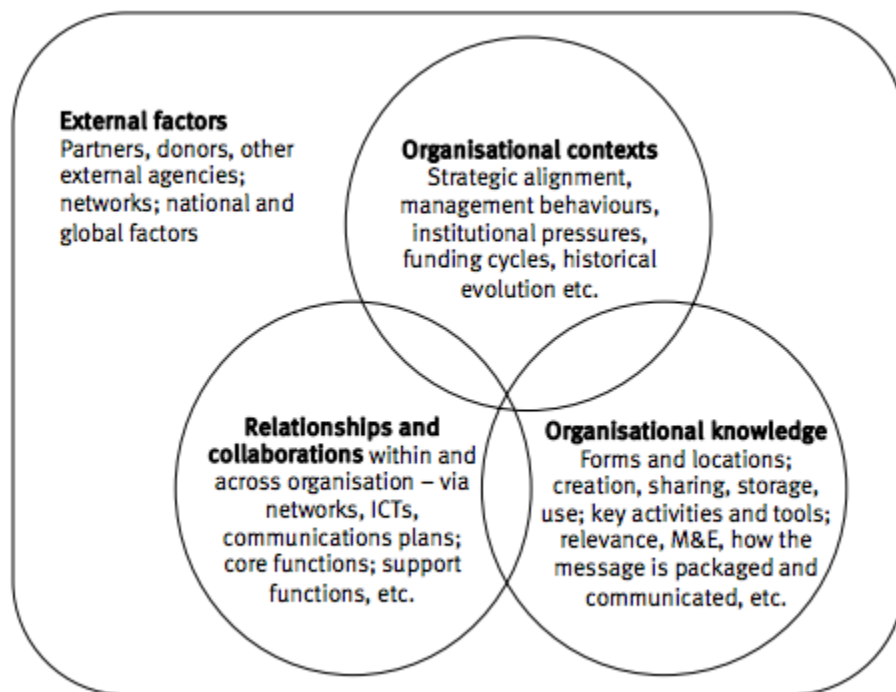


Figure 2: Holistic View of Knowledge and Learning Tools (Ramalingam, 2006)

### 1.3 United Nations Communication and Development Approaches

The United Nations plays a big role in any development situation. With various organizations that fit under the umbrella of the UN, they are one of the most important stakeholder in any humanitarian operation. Due to its stature, the UN and its various organizations often serve as oversight for many operations. With this regard, much of the monitoring and evaluation is done through the standards, and frameworks already outlined by the United Nations. Therefore, the UN developed and released a handbook for Communication for Development, stressing the effectiveness of the United Nations in development efforts (UNICEF, 2011). Additionally, the World Health Organization also has a very comprehensive framework for effective communication (WHO, 2017). Lastly, as much of the focus is on marginalized and rural communities, The Food and Agriculture organization, under the United Nations umbrella, has developed a

framework on effective rural communication (FAO, 2006). All three of these frameworks and handbooks highlight the numerous ways in which communication and development should be carried out in accordance to the particular parameters set by the organizations. It is important to note that all such parameters may not be suitable for every situation but rather may need some adaptation in accordance to region, culture, and political situation.

The United Nations take multiple approaches to communication for development. The first approach is the Behaviour Change Communication (BCC). A very well known approach, BCC places social and individual change in the same platform, in which communication platforms are created in order to encourage and sustain positive and appropriate behavior, specifically with regards to health-enhancing results. Emphasizing individual behaviour that can be shaped by social, cultural, economic and political contexts, these strategies may incorporate peer education, social marketing, entertainment education, public policy and media advocacy, personal and community empowerment, and public relations (UNICEF, 2011). Another approach would be the Communication for Social Change (CFSC) approach. In this theory, this approach places a great deal of importance and emphasis on dialogue, as core principle for development and change (UNICEF, 2011). Giving importance to the people of communities to communicate given messages by their own traditional and cultural context, this is a more appropriate approach for marginalized communities. Therefore the individuals in the communities are stressed as agents of change in addition to being significant in negotiating skills and partnerships. Through various public and private

dialogues, “all members of civil society – women, men and children – define who they are, what they want and need and what has to be changed for them to have a better life” (UNICEF, 2011). An example of such theory in practice would be the development of the cluster system in the United Nations. This inclusive system “groups together a broad range of preparation and response activities, such as camp management and coordination, emergency telecommunication, and logistics” with respective organizations that are involved (Tatham, Spens, Kovacs, 2017). Furthermore, Tatham et. al (2017) suggest that the cluster system is a more centralized system and has not been as effective due to the changing nature of operations in the ground. By this, they refer to the fact that organizations at times rely on the cluster system only when they see it as the optimal course of action. To this, Tatham et. al (2017) suggest a more centralized approach when it comes to communication, in which “the leads for each of the UN Clusters assume the part of information broker or facilitator across the relevant segment of the response” and all parties involved are willing to share quality information to facilitate better transference of knowledge and information.

It is widely understood that every situation entails complex variables that make it different, whether it is location, geo-political landscape, cultural conflicts etc. Therefore, there is another approach that the United Nations have laid out, with regards to communication for advocacy. Communication for advocacy is based upon influence, and the ways in which communication can influence the political climate, policy and programme decisions, public perceptions of social norms, funding decisions and community support and empowerment regarding specific issues (UNICEF, 2011). As a

result, based on this influence, the messages that are being communicated should in one way or another initiate change. Upward mobility and development however, is not based on only influence and change. Depending on circumstances, some situations require a much deeper approach that Strengthens and Enables the Media Communication Environment. This is defined as “strengthening communication capacities, including professional and institutional infrastructure, is necessary to enable: (i) a free, independent and pluralist media that serves the public interest; (ii) broad public access to a variety of communication media and channels, including community media; (iii) a nondiscriminating regulatory environment for the broadcasting sector; (iv) media accountability systems; and (v) freedom of expression in which all groups are able to voice opinions and participate in development debates and decision-making processes” (UNICEF, 2011).

The four above approaches lay the foundation to any communication strategy in a development, and forms the umbrella of Communication for Development (C4D). Similarly, all communication for development is not the same, and often requires different lenses to determine the most appropriate interventions. Firstly, communication should be first looked at from a human rights approach. It is important that inclusion of voice is vital to the communication that is being spread, prioritizing the needs and interests of those in need and establishes a variety of channels that are accessible to all members of the community – men and women, young and old (UNICEF, 2011). This approach is crucial as it allows the community to collectively understand and participate in the process by which they can realize their rights (UNICEF, 2011). Another lens is

related to the last approach of the UN, using communication for strengthening the capacity of a region. The UN approaches C4D approaches as a perennial role player in “creating the preconditions that are necessary for people to be able to speak out on issues and to participate in developing solutions to problems that concern them” (UNICEF, 2011). With that in mind, communication for development also serves to establish the platforms for the people to access information and form a confidence and dependencies on the messages. This also includes collaborating with government agencies and other organizations to serve as “intermediaries in the flow of information” (UNICEF, 2011). Other thematics the United Nations aims to reach through communications in development are gender equality, environmental sustainability, and effectiveness of development. The last one is key, as it signifies the importance on not only the communication, but also other tangible efforts that are being implemented.

#### **1.4 WHO Strategic Communications Framework for Effective Communications**

The UN Communication framework is a very broad set of approaches that can often seem like they are on opposite sides of the spectrum. On one hand, the World Health Organization (WHO, 2017)- also a part of the UN- developed a more comprehensive take on communication efforts. In this framework, WHO explores the many different dynamics that go into a communication campaign. The six pillars by which this framework revolves around are: Accessible, Actionable, Credible and Trusted, Relevant, Timely, Understandable. For these core principles, all of them are not dependent upon a certain stakeholder, but rather some principles are applicable to only some stakeholders. Furthermore, it is important to note that the WHO framework is

aimed at the purpose of health-related interventions, and as a result may contain certain aspects that may not be suitable or appropriate for other types of interventions.

However, what separates this framework is the organization by which it serves upon in addition to the some of its core principles, all of which if assimilated correctly can be helpful for any organization in any intervention.



Figure 3: WHO Principles for Effective Communication, (WHO, 2017).

As outlined below, the WHO framework contains many key concepts for development. Ensuring all principles are evident in any communication for development framework can however be difficult. This is one of the more prominent barrier to the framework, as it states many principles but does not take into account the capacity of an operation, or the need to adapt to a circumstance. The framework also lacks the importance of collaboration and evaluation, which has been outlined by Ben Ramalingam (2006). This is a top down model in which the implementing organization is responsible for



interventions, however, the importance of other parties, and evaluating internal strategies for the organizations themselves is lacking. It is also very theoretical in its nature, and operational suggestions or case studies are not evident. For an adaptable matrix, these theoretical principles are still very important as they can be used as the fundamentals to base communication approaches and interventions upon.

Table 1: Definitions of 6 WHO Principles for Effective Communication, (WHO, 2017)

Principle	Definition
Accessible	WHO's audiences rely on their ability to access the information they need to protect and improve their health. Communicators should identify all channels that are available, and map their capacities to reach priority audiences. Using the right mix of channels helps empower audiences with the information they need to make informed decisions.
Actionable	WHO's work is designed to support the adoption of healthy behaviours and the implementation of policies to protect health. Communications is a necessary component of WHO's comprehensive organizational efforts to achieve these goals. To be successful, communicators must understand target audience knowledge, attitudes and behaviours in order to create messages that address barriers and encourage decision-makers to take the recommended steps.
Credible and Trusted	WHO's reputation is a key factor for whether audiences will take action on the Organization's advice and guidance. The more decision-makers trust WHO, the more likely they will believe, and act on, the information communicated by the Organization. WHO communicators must

	use every opportunity to reinforce WHO's trustworthiness so that its health information and activities become the basis for decisions. The terms "trusted" and "credible" are considered in most practice and dictionaries as synonymous. They are used interchangeably in the Framework.
Relevant	To be relevant, communications must help audiences see the health information, advice or guidance as applicable to them, their families, or others they care about.
Timely	Across all health issues, WHO must make information, advice and guidance available in a timely way, so audiences have the information they need when they need it to make appropriate health decisions.
Understandable	WHO communicates with a wide variety of decision-makers. Some have backgrounds in medicine and public health and rely on WHO for technical information. However, many key audiences are not technical experts. They need information that is easy to understand in order to comprehend health risks and take appropriate actions.

### **1.5 FAO Framework on Effective Rural Communication for Development (2006)**

Another comprehensive framework that was researched was a framework developed by the Food and Agriculture Organization (FAO), which is also a part of the United Nations. What separates this framework from others is that it pays specific attention to rural development efforts. Although this is done from a food and agriculture standpoint, this framework gives a theoretical perspective on rural development communication and also for the food and nutrition pillar for the proposed matrix. In this regard, Rural

communication is defined as “ interactive process in which information, knowledge and skills, relevant for development are exchanged between farmers, extension/advisory services, information providers and research either personally or through media such as radio, print and more recently the new ‘Information and Communication Technologies’ (ICTs)” (FAO, 2006). The Food and Agriculture Organization refers to the issue that there exists a gap between the farmers within the community and the research and advisory services. In this sense, it takes long for communities to adjust to certain practices or technologies, as the information required is not appropriated for the community members nor through proper channels. Therefore, the purpose would be to position those in the community to have and interact with the necessary information with regards to rural development in order to make informed decisions and attain relevant skills to improve agriculture practices and livelihoods in the community. This framework also bases its fundamental theories from the Communication for Development (C4D) concept, discussed before by the United Nations.

As with all development situations the stakeholders remain the development organizations, local authorities, and the community members. For this specific framework, it is the rural community members that are focused in farming and agriculture. All role players however, serve as “communication equals- equally committed to mutual understanding and concerted action” (FAO, 2006). The reason for such a detailed framework for rural communication and development resides on the fact that there are multiple challenges to communication. This according to FAO’s Framework on Effective Rural Communication for Development (2006) includes:

- A dearth of information (absence of providers and of local communication content);
- Conflicting messages (difficult to know what is relevant/correct information);
- A fragmented market for information with many individual clients or client groups;
- Relatively few clients scattered over a large area;
- Structural transformations leading to constantly changing channels and content and a lack of the necessary skills for communication; and
- A lack of well developed ICT infrastructure and low levels of ICT skills

Communication in rural areas are increasingly changing due to the development of new technologies, the ever-present impacts of climate change on the environment, in addition to various structural changes in farming. For example, as FAO points out, “subsistence oriented farming remains the basis for food security especially in disadvantaged areas, while there is a general shift to move intermediate farmers into market-oriented production”. However, due to the changes in rural agricultural development, alternative methods to improve livelihoods cannot be ignored. For this, a fully functional and appropriate communication model can facilitate the necessary information and skills for alternative methods as “not only as an exit strategy, but also for the increasing division of labour”. The FAO framework is outlined through 6 particular components, each serving a crucial role in all development for communication strategies (See Figure 5).

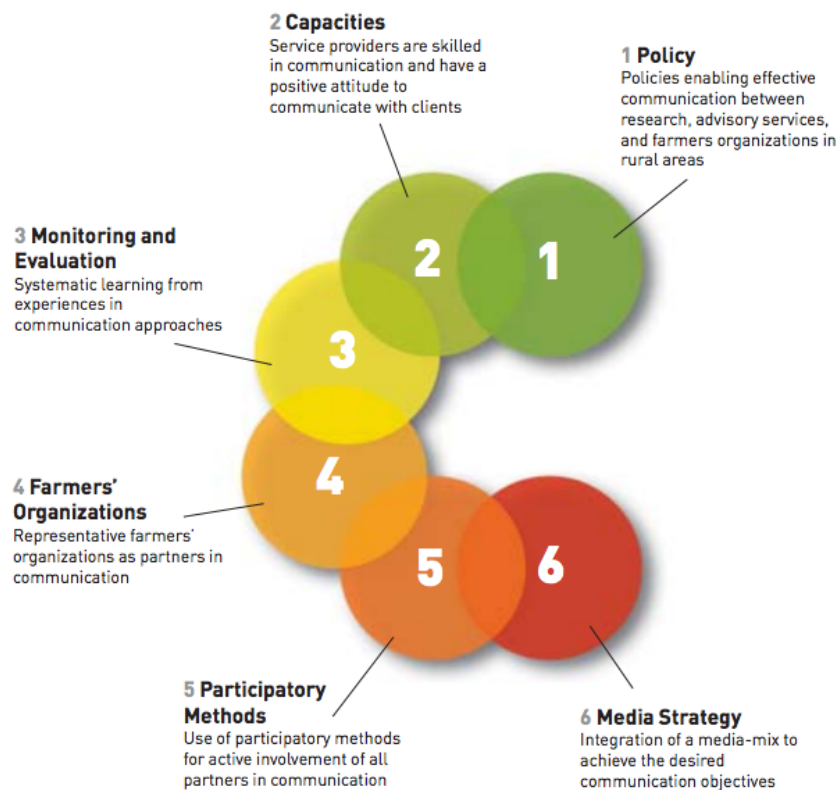


Figure 4: Six Success Factors for Effective Rural Communication (FAO, 2006)

On the first layer of the framework, policy sets up the foundations for any operations. Any given region can have various different policies in place. These policies can have a multitude of impacts on the development of a community. As a result, stakeholders should aim to formulate appropriate policies that “put rural people in a position to have access to information that is relevant for their livelihoods and to acquire the skills and knowledge to use the information”, in addition to giving them a voice that enables them to demand/formulate the data, knowledge, skills they need (FAO, 2006). However, working with governments and lobbying for policy reform can be difficult in many developing regions, often attributed due to political instabilities and overall bureaucratic structures. As a result, all stakeholders involved- which includes Ministries, Media

Outlets, Local union or farmer organizations, donor agencies and implementing organizations- should look to determine influential change agents in the region to properly initiate policy change supported by research and advisory documents (FAO, 2006). This aspect of the framework places a great deal of focus on research and evidence based dialogue to initiate collaboration among stakeholders to initiate fundamental change that can assist the overall impact and capacities of development operations in a rural setting. Furthermore, approaches should be demand oriented and pluralistic and establish a participatory platform for communication among all role players. Additionally there should also be measures in place to ensure the quality of all communications being spread are reliable and relevant to operations (FAO, 2006). Although a policy reform can take time, taking policy into consideration for any communication operation is one of the most important aspects as it establishes the fundamental environment for communication strategies to establish foundation upon.

The second layer of this framework lies within the scope or capacity of any intervention. In this sense, traditional top-down communication approach often serves to be inappropriate in a rural or marginalized community environment. In simpler terms, if research and advisory regarding a particular issue is required, this is most effective if the dialogue comes from the farmers themselves, rather than coming from institutions (FAO,2006). The FAO (2006) framework outlines “The clarification of demand between provider and client and the understanding of needs are basic for communication service providers to survive in a competitive environment”. This refers to all parties involved to establish appropriate capacity of any intervention and/or research, which would

therefore allow for more suitable and achievable deliverables for the operations.

Although the capacity of an intervention has been determined at the beginning of an intervention, it is just as important to continually monitor and evaluate all aspects of said communication approaches. As the third pillar to the framework, this is as important to any communication approach as it is traditionally for any tangible development operation. Used primarily as a mechanism to “ensure the full involvement of all the actors so that they fully understand their roles and work with a common purpose to ensure that the goals and objectives are understood and agreed” which includes being actively part of the M&E process (FAO, 2006). This in turn creates a results-based approach to interventions, enabling all parties involved to make the necessary changes accordingly. As result, the crucial aspect of this pillar is to establish or adapt an appropriate Monitoring and Evaluative framework to be used throughout any intervention.

The next pillar for the framework is what separates this particular framework from others. As the Food and Agriculture organization, this takes into account the farmer’s organizations that exists within a region or community. As the framework points out, many rural farmers -in which we could also include marginalized individuals- “lack the means and capacities to demand, organize or finance the information access and communication services they need for development” (FAO, 2006). Farmer organizations -which are often self organized- are crucial role players in connecting the community with other stakeholders. If we take this into consideration for the proposed matrix, in that sense any community group should be considered as facilitators of a pluralist

communication approach. A communication approach should therefore be participatory in this methods- thus overlapping the fifth pillar for the FAO framework, participatory methods. Establishing a platform in which all parties involved are able to equally communicate given messages, both individually and collaboratively is very important to any operation. It gives voice to many groups that would not be heard otherwise, the gap therefore needs to be closed so that “less vocal, less represented groups, less connected groups like rural communities, the most vulnerable, poor and least educated will not be heard” (FAO, 2006). It is important that participatory approaches can be timely and at times costly due to the complexities of a region and intervention. The FAO (2006) framework is very good at outlining the various ways in which an organization can implement participatory strategies into their communication approach.

Lastly, the Framework on Effective Rural Communication for Development (FAO, 2006) entails a successful Media Strategy that integrates “a mix of media in a strategic manner to achieve the desired objectives”. In this pillar, Media strategies should include a multitude of media channels and technologies to achieve the best results. When it comes to rural or marginalized communities, traditional media may not be the most effective for participatory approaches. It is important to determine the most effective media for a particular intervention and use those channels to disseminate information and messages to all those involved.

Although this framework focuses a lot on rural development paying close attention to agriculture, it is one the more comprehensive frameworks that can assist any



intervention, especially those targeted toward marginalized communities. This framework establishes the groundwork for the proposed matrix, as it outlines particular strategies, and case studies that have been established in the past. Furthermore it also outlines challenges to each pillar, which should also be considered.

## **1.6 Alternative Frameworks and Case Studies**

Traditionally there are many different approaches and interventions that have been taken to help those in need with regards to Water, Sanitation and Hygiene (WASH). Some of these practices include Community-led total sanitation program in which includes helping households to construct their own latrines and other aspects of environmental sanitation, including integrated solid waste and wastewater management (Approaches and Interventions, World Vision). Other approaches include: faith engagement, Hygiene behavioral change, and social inclusion. All of these approaches maintain simple element of bringing individuals from the community together with respective humanitarian workers, and implementing specific programs such as building latrines, holding courtyard meetings, distribution of resources, and identifying barriers and enablers to behavioral change (Approaches and Interventions, World Vision). As Galbraith & Thomas (2009) points out, traditional practices are often top down in which development partners often determine the resources the communities need with little local context, and the messaging focused on the risks rather than empowerment or awareness (Galbraith & Thomas, 2009).

There has also been a model of intervention called “The Integrated Behavioral Model for Water, Sanitation, and Hygiene (IBM-WASH)” (Dreibelbis et al, 2013) which is based on

a matrix and multiple conceptual models. Dreibelbis et. Al (2013), propose this model taking into consideration Contextual factors such as policies, hierarchy, roles, habits, markets and environment; Psychosocial factors such as leadership, knowledge, stigma, norms, and threats; and also Technological factors such as cost, equipment, manufacture and access to products. However this model lacks any particular focus on storytelling or communication technologies. By taking this model we could use some aspects of it, and adjust accordingly to successfully implement the storytelling application for WASH intervention, using the IBM-WASH matrix as a foundational framework. Although traditional methods may be broad in its nature, there are however specific strategies and case studies that have been implemented that can be used as inspiration for certain aspects of the matrix.

In this context, although some organizations have developed frameworks for their interventions, when it comes to communications between organizations and communities, some organizations and clusters have developed particular strategies. A strategy in this sense is much different than a framework as it is much more specific and correlates to a particular intervention and region. It is also very specific to those agencies and stakeholders that are involved. Some of these examples, i would like to argue are too specific in its nature. For example, The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) developed a comprehensive communication strategy for community engagement, by using its operations in the Philippines as a reference point (Community Engagement, OCHA). In this strategy, they have outlined some principles and particular strategies that were adapted for Disaster

relief and preparedness. For their operations, according to their relief report (OCHA, 2015) they apply the Community of Practice (CoP) concept which enables Community Engagement and comprises of 40 organizations coming from UN agencies, International Non-Governmental Organizations (INGOs), Civil Society Organizations (CSOs), Faith-Based Groups (FBGs), Media Development and Humanitarian Agencies (MDHA), Telecommunications Companies, Private Sector and the Philippine Government through Philippine Information Agency (PIA). As a community that is well developed with regards to technology, this strategy takes advantage of low and high tech devices to initiate communication with the affected communities. What sets this strategy apart is its consideration of the full timeline of an issue- the strategy outlines approaches to be taken before, during and after a disaster.

The downfall of this however is that this is specific to the Philippines, with the assumption that the region has advanced communicative technologies. If the context were to change, this strategy would not be successful in achieving particular goals and deliverable for an intervention.

For another context such as Health and Sanitation, we can look at the Community Engagement and Accountability model established by the International Federation of Red Cross (IFRC). Model stresses the need to connect with community members, to center its operations based on their needs (IFRC, 2016). It also stresses the need to continue communication with community member throughout the full duration of any operation, committing to “to providing timely, relevant and actionable life-saving and life-

enhancing information to communities” (IFRC, 2016). This is a more adaptable model as it stresses the need to adapt and use appropriate communication devices and technologies for each operations. As a result, depending on the context of an intervention, implementing organizations can determine the appropriate device and channels for communication, all of which is determined through active participation from community members - which this model aims to facilitate from onset of an operation.

To further enable the implementation of WASH interventions, many organizations have begun to use certain individuals within the community to disseminate and communicate WASH related messages. In fact, there was a program in Bangladesh in which Women volunteers to take part in WASH committees and immersed themselves within the project and as result empowered themselves and those around them (“de Jong & Sultana, 2015). The article further states that these women “led the monitoring and implementation of projects and raised health awareness in the communities. The sense of ownership also made them responsible for the upkeep and continuity of the projects”. As a result, it is evident that even within traditional WASH practices, collaborating with members of the community is crucial to its success. By taking some of the women that are leaders within the community, storytelling could be a useful way of disseminating powerful messages, in addition to empowering the other women to adapt to better and safer sanitary practices.

Other alternative communication method in raising awareness and mobilizing change includes the use of entertainment education. UNICEF has successfully done this

through the “Meena Communication Initiative”, in which a cartoon of a young female contains messages for empowerment, and centers around issues within the community. After doing an extensive survey, UNICEF was able to conclude and “confirm the potential of the MCI to communicate children’s rights, particularly girls’ rights, to South Asian audiences, and in so doing, to create awareness, promote acquisition of life skills, and encourage change in life skills practices” (Chesterton, 2004). Similar methods have been taken in Tanzania through the use of Soap operas, in which it was also successful in stimulating change among the members of the community regarding HIV/AIDS prevention (Vaughan, Rogers, Singhal, Swahele, 2000).

Furthermore, there is also a community health club approach in Zimbabwe, in which members of the community participated in a health club together learning about better health practices (Waterkeyen & Cairncross, 2005). Afterwards the lessons and messages were further dispersed around the community. As Waterkeyen & Cairncross (2005) further elaborate “Community Health Clubs sought to influence people in a coordinated group so that changes were approved by group decision rather than expecting each individual to take personal decisions. As the margin for failure is small in a poor household, individuals are wary of taking risks until interventions have proved reliable and cost effective. With group endorsement, individuals were prepared to undertake change without fear of failure“. One could argue that with regards to interventions in marginalized communities, there entails a gap between individual awareness and collective action. Therefore, other methods such as Street Theatre in Pakistan, has enabled a different engagement with the communities, raising awareness

through street theatre on a range of social issues and alert communities to use their own strength and support each other (Rashid, 2015). These communication method lay the foundation for an application that can be used to further communicate messages and increase awareness through storytelling, dialogue, and creative expressions – A purpose the proposed framework would include to serve the community members.

Infrastructure is often the backbone to a communication model in a region. For example the “e-development” approach taken in Sri Lanka, is aimed at “pursuing mutually reinforcing ICT-enabled initiatives at the national or regional level. It is about creating an information society or knowledge economy “ecosystem”—a holistic approach that defines a vision, coordinates the work of stakeholders, and maps the connections and shapes the relationships among diverse players” (Hanna, 2008). It enables the establishment of an Information Communication Technology (ICT) infrastructure to be established mutually by all stakeholders in order to drive social and economic development (Hanna, 2008). What sets this approach apart is that, this places an importance on upward mobility through the use of communication technologies. Although a development effort may serve many other agendas of development (e.g. Health and Sanitation), a strong ICT infrastructure can serve to assist other developments in the region that may not be as direct as interventions (e.g. Technological fluency and advancement). As Hanna (2008) outlines, the approach in Sri Lanka considered many factors of development such as stake holders involved, efficiency of programs, cost of operations, technological availability, community engagement, existing policies in government, opportunities for mobilization in the

region. Although the approach is specifically discussed with regards to Sri Lanka, it can still be used as a model for infrastructure development, and important considerations to make for a project. Moving forward, “e-development” can be very helpful approach for regions with similar attributes as Sri Lanka, and the lessons learned can be used to further establish a better approach for any intervention.

## **Part 2 Adaptable Communication Matrix**

### **2.1 Introduction to the new Matrix**

It is important to note that the proposed framework is not based upon a completely new invention, rather this concise and amalgamated matrix is based upon existing theories and Concepts discussed in Part 1 of the paper. It is not suggesting specific activities, as it is evident that not all organizations and involved party have the scope for it.

Furthermore, as evident in the case studies and frameworks discussed above, many factors play crucial role in a situation, and therefore a complete standardized recommendation may not be appropriate. The premise therefore would be theoretical in approach- providing organizations a guiding tool to be used which can shape the approaches and interventions being planned. Enabling organizations to adapt to any situation, the matrix provides a multitude of approaches to be adapted accordingly. The outcome of this matrix is for it be adapted and used by various organizations to enhance and maximize the impact of their development efforts.

The matrix (see figure 6 below), has been broken down into four specific categories parts and with further four more categories within them. The main categories are the types of interventions being taken, a thematic concept revolving around an issue or crisis. The sub-categories reflect the scope and severity of the issue, which can impact the capacity and strategies of any communication approach for that particular intervention. This enables organization to distinguish the appropriate actions to be considered for their respective operation. Furthermore, within each category, the matrix highlights the social implications of such communication strategies in development, in



addition to the digital media technologies that can be used to enable such implications (see Figure 5).

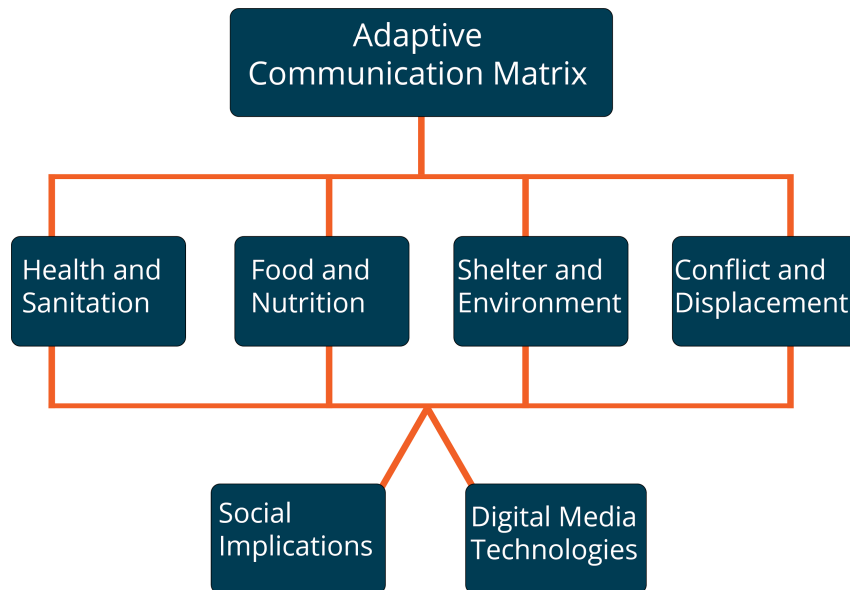


Figure 6: Breakdown of Adaptive Communication Matrix

Every situation always requires a baseline survey or observation. This outlines the situation based on many different indicators. Based on the baseline surveys of any development situation, certain set indicators will define the operations in either one of the quadrants, and in each of the levels (see Figure 6). Based upon those indicators and the placement of the situation or prospective operation within the matrix, an organization will have a list of appropriate interventions to consider and execute along with the tangible planning developments they are looking to implement. This results in a more collaborative approach that can also assist in better collaboration among Agencies, International Organizations, as well as respective Governments to be on the same page.

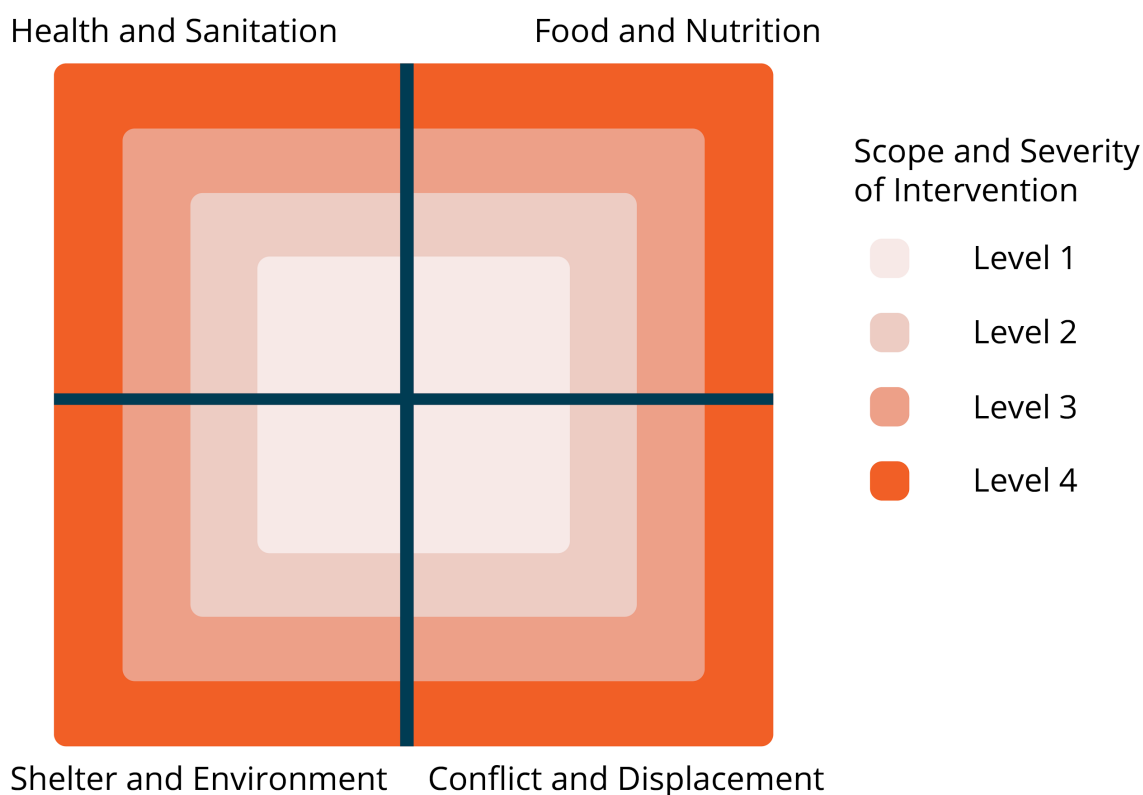


Figure 6: Adaptive Communication Matrix

## 2.2 Four Categories of Intervention

The matrix has been divided up to four distinct sub categories. The topics have been broadly chosen to summarize and capture four distinct issues that are currently occurring around the world, and all four of the categories have significance on Marginalized communities.

### *Health and Sanitation*

Adequate health care and sanitation practices are very key to the livelihood of any community. Practices to improve health “can substantially reduce the rates of morbidity and the severity of various diseases and improve the quality of life of huge numbers of people, particularly children, in developing countries” (Mara, Lane, Scott, Trouba, 2010).

In accordance to the World Health Organization, diseases associated with poor

sanitation can often correlate with poverty (Mara et. al, 2010). It is so prevalent that “at any given time close to half of the urban populations of Africa, Asia, and Latin America have a disease associated with poor sanitation, hygiene, and water (Mara et. al, 2010). This subsection entails any intervention in relation to providing assistance that improve the health of individuals and/or community, and provide interventions or assistance to improve the sanitary practices and levels of individuals and/or community. This category predominantly deals with health interventions solely in relation to sanitation.

### *Food and Nutrition*

Although there are many international goals in place such as the Millennium Development Goals to alleviate poverty and hunger, there still exists a plentiful of opportunities to provide food and nutrition assistance numerous regions all over the world. Although this is linked to the decline in health, this category separates all interventions that have to do with hunger and nutritional assistance of individuals and/or community. It is different than Health and Sanitation, as it does not particularly deal with sanitation, but rather health implications due to hunger, malnutrition, or undernutrition. As the World Food Programme (2007) point out “Hunger and poor health are strongly related to political and economic choices, which in turn reflect the priorities attached to budget allocations, quality of social services and community values. People who suffer from hunger in any of its forms are not the decision-makers, nor are they necessarily well represented by them”. Therefore, it is imperative to discuss Food and Nutrition when discussing any form of intervention within a vulnerable or at-risk community.

### *Shelter and Environment*

According to the United Nations Refugee Agency (UNHCR), “Since 2009, an estimated one person every second has been displaced by a disaster, with an average of 22.5 million people displaced by climate or weather-related events since 2008”. As a result, it is important to consider the increasing prevalence of such an issue around the world. This intervention often deals with camps and make-shift settlements, and as a result is a crucial consideration for any international intervention. Furthermore, the Oxford University Refugee Studies Centre (2017) define Environmentally displaced people as those whose shelter is impacted or forced to migrate due to “natural disasters or the irreversible degradation of environmental resources resulting from the slow-onset impacts of rising sea levels and desertification”. This category therefore revolves around interventions that provide or improve shelter related issues, in addition to any interventions related to issues induced by natural environmental causes. This is not only the state of livelihood, but also numerous displacement and migration that result from it.

### *Conflict and Displacement*

Displacement can occur due to many reasons, but one of the more prevailing issue in our world at the moment is displacement due to conflict or unrest in a region. In such situations, many individuals could become internally displaced persons or refugees (Birkeland, 2009 & UNHCR). This category deals with interventions assisting conflict induced displacement. This kind of intervention can be very critical but also very vulnerable as it needs to consider many other factors such as governmental factions, international coverage, scope of conflict etc.

## **2.3 Baseline Study and Indicators**

In addition to the four categories of the matrix, it contains four other sub-categories that reflect the scope and severity of the situation. However, as each of the four categories are different, the indicators for each of the subsections are also different for the respective categories. When a development effort is being planned, the first step to determining any form of intervention is understanding the scope of the issue is. This is often done through a baseline report or a situation report which has been published and referred to numerous times by organizations such as the UNHCR or IOM. According to The Organisation for Economic Co-operation and Development (OECD), baseline data is “an analysis describing the situation prior to a development intervention, against which progress can be assessed or comparisons made” (OECD, 2011). This includes information to determine the vulnerability of a region, assessment of needs, and the scope of secondary or existing organizations active within the region (OECD, 2011).

Although a baseline survey can be very detailed, for the purpose of the matrix, only a few of the indicators available in a baseline are required to determine the position of the issue and intervention within the matrix. These indicators include: number of people affected, number of beneficiaries projected, scope of assistance (whether emergency or long term development), level of technological advancement, and existing infrastructures for communication. To simplify, I separated them into two separate sections of indicators; “severity of the issue” & “communication capacity”. The Severity of the Issue indicators are those indicators which can determine whether intervention is

more emergency relief or long term development effort. This includes the number of people affected, projected beneficiaries, scope of available tangible assistance. The Communication Capacity indicators include indicators that determine the capacity of the communication systems within that particular issue. This includes how technological advanced a region is, the available communication infrastructure, and barriers of communication with the community. These two groups of indicators enable any organization to pinpoint the issue/intervention within the matrix, and use it to develop their respective communication approach and/or activities.

Table 2: Baseline Indicators for each level of the Matrix

	Severity of the Issue Indicators	Communication Capacity Indicators
Level 1	<ul style="list-style-type: none"> <li>- Less than 25 000 people affected</li> <li>- Less than 25 000 projected beneficiaries</li> <li>- No Emergency Relief, long term development activities</li> </ul>	<ul style="list-style-type: none"> <li>- Some technological advancement in the region</li> <li>- Telecommunication infrastructure available</li> <li>- Some access to Internet and Mobile networks available.</li> <li>- No communication barriers with community members</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>- More than 25,000 people affected</li> <li>- More than 25,000 projected beneficiaries</li> <li>- No emergency relief, long term development activities</li> </ul>	<ul style="list-style-type: none"> <li>- Low to none technological advancement</li> <li>- Telecommunication infrastructure not available or very scarce</li> <li>- No access to internet, mobile networks, phone</li> </ul>

		lines - Unable to communicate broadly due to language, cultural and traditional differences
Level 3	- More than 50,000 people affected - More than 50,000 projected beneficiaries - Only emergency relief being planned as assistance	- Some technological advancement in the region - Telecommunication infrastructure available - Some access to Internet and Mobile networks available. - No communication barriers with community members
Level 4	- More than 100,000 people affected - More than 100,000 projected beneficiaries - Only emergency relief being planned as assistance	- Low to none technological advancement - Telecommunication infrastructure not available or very scarce - No access to internet, mobile networks, phone lines - Unable to communicate broadly due to language, cultural and traditional differences

## 2.4 Breakdown of the Matrix Levels

After determining the baseline indicators, organizations can determine the quadrant and level in which the intervention exists. Once this is determined, the matrix outlines a

number of communication factors and approaches to consider that can go hand in hand with the tangible efforts already being planned.

### *Level 1*

Through the development of such communication infrastructure, any health and sanitation related information becomes readily available, and spread across through grassroots participation and understanding. Furthermore, the most important framework to consider for this level would be the WHO framework observed in Part 1 of the paper. Any health related activity should refer to the WHO framework as foundational base for its operations. Important things to consider from the WHO framework for this level are the accessibility of information for everyone involved, and the use of media to raise awareness within a large group (WHO). As technology is fairly advanced in this level and infrastructure is established, creative programs such as mobile and social media campaigns can be effective in this level as well. Furthermore, in this level the community members are already involved in communication technologies, enabling them to tell their own stories would also be beneficial in getting certain messages across. An example would also be to “Direct media attention to an incident which the target audience can relate to” or “Use messages to show the health threat is close to home by highlighting community members who have experienced or are susceptible to the health problem”. The important thing to note is that, even though the WHO framework is developed for Health activities, the approaches outlined in the framework can be adapted for any of the four categories within the matrix. Organizations would simply adjust their communication strategies to convey messages and outcomes for the



respective categories. The FAO framework can also be of use in this level, as it contains sections that outline the use of communications to build markets and agricultural advantages for the community members.

## *Level 2*

As this kind of intervention often revolves around long term development activities with a lack of infrastructure. This kind of interventions should take approaches similar to the e-development approach that was established in Sri Lanka, as outlined by Hanna (2008). As a long term goal, approaches in this level should look to be involved with respective governments frequently. As Hanna (2008) points out, such approaches should rely heavily upon policy creation that enable the development of communication of community members. Whether it is the Health and Sanitation quadrant or any of the other four quadrant, the approaches to e-development should be one of the key strategies to be considered by organizations for their projects. It is also important to note that the strategies outlined by Hanna (2008), can be above the capacity of some organizations, however, the organizations should look to adapt some of the approaches outlined below (see Table 3).

Table 3: Approaches and goals for E-development, (Hanna, 2008).

ICT policy, leadership, and institutional development	a policy development and capacity-building program to create an enabling environment Introduction 5 for the knowledge economy and develop the local institutional capacity to lead and implement an ambitious ICT program
ICT human resource development and industry promotion	an innovation fund to build ICT human resource capacity and create jobs through a dynamic ICT sector, foreign and local investment in the sector, and diffusion of ICT among small and medium-size enterprises

Regional telecommunications network development	a smart, least-cost subsidy scheme to extend the information infrastructure and connectivity to serve poor communities and rural areas
Telecenter development	smart subsidy and entrepreneurial development schemes to develop affordable access to ICT tools, ICT literacy, local content, e-government services, and e-commerce applications—using the new information infrastructure, e-government applications, and a grassroots-oriented innovation fund
Reengineering government	a coherent investment program in ICT applications, information sharing, knowledge management, process re engineering, service innovation, and human resources to deliver faster, more efficient, and more transparent government services to all citizens and businesses
E-society	an innovation fund to mobilize local knowledge, digitize and share local content, and use ICT for social development and grassroots participation, with the aim of promoting ICT-enabled rural development, social capital, mutual understanding, equitable access to knowledge, and empowerment of the poor.

Furthermore, the IBM-WASH framework is very helpful framework for wash initiatives in which infrastructure is an issue. As Dreibelbis et. al (2013) state “The IBM-WASH model aims to provide both a conceptual and practical tool for improving our understanding and evaluation of the multi-level multi-dimensional factors that influence water, sanitation, and hygiene practices in infrastructure-constrained settings”. With contextual, psycho-social, and technological factors that are considered within the framework, the IBM-WASH model can also assist an organization by determining the different levels of communication proliferation, which can include societal, community, interpersonal/household, individual, and habitual (Deibelbis et al, 2013). This therefore can allow an organization to break through some of the communication barriers that may have been existing with the communities. In this level, programs such as the

Meena project executed by UNICEF, can be a great model of a communication strategy to spread important messages -specifically to the categories- through a popular form of media to the masses.

### *Level 3*

For this level, interventions are at a state of emergency, therefore importance should often go towards those alleviating the issue and less on long term goals such as building policies or infrastructure. Unlike level 4 however, this level includes somewhat of an existing communication infrastructure, and contains less barriers of communication. However, approaches should be smaller in nature. Organizations in this level should aim to be more direct in nature such as the street theatre approaches in Pakistan (Rashid, 2015). For this level, the Community Engagement and Accountability Model can serve as the perfect small term model for engaging with the community through efficient ways. Although it may not be for full blown emergency, this model is a simpler model to follow in an emergency situation, but can function without a fully built communication infrastructure. The CEA guide relies on community feedback and engagement to assist the planning of communication strategies. Some examples of technologies used in such activities can include radio chat shows, feedback telephone line, mobile cinema, mass sms (IFRC, 2017). Furthermore, OCHA Community of Practice (CoP) concept discussed before can also be extremely helpful as it not only considers all forms of communication infrastructure and technologies available in the region, but aims to provide guidelines for strategies before, during, and after an emergency.

#### *Level 4*

Similar to level 3, the CEA guide could also be helpful, but due to the fact that this level contains many barriers of communication in addition to being emergency relief, other approaches should be considered. In this level, communication needs to be based on what the community can understand, as there are barriers, communication materials need to be adapted and appropriated for the community members. For this, the emergency and telecommunication cluster (ETC) can be of great assistance in developing the appropriate plan for assistance. The ETC is important as it aims to “advocate for the restoration of critical communications services for affected populations. It will commit to facilitating the required technical infrastructure, but not the content and platforms, for communication with and among affected communities in the aftermath of emergencies, by facilitating links between service providers, governments, humanitarian actors and communities” (ETC Strategy, 2017). The Community of Practice (CoP) concept can also be helpful in this situation, but an organization needs to consider the limitations in technological advancement and barriers of communication in this level. However, specific strategies from the model such as using low-tech communication methods within communities, or using communication hubs can be beneficial in this level as well.

## **2.5 Limitations and Barriers**

For this implementing framework, there are some limitations and barriers that have arisen throughout the research. The most obvious one is the fact that all of the

suggestions and research are predominantly hypothetical. By this I mean, the effectiveness or the practicality of the usage of such a matrix and framework cannot be determined without piloting the matrix in actual development work. Without case studies of the matrix in use, and feedback from development organizations on the field, the effectiveness and practicality is difficult to determine. Furthermore, as the context for any region and community is different, it is difficult to pinpoint particular social barriers that may rise within a community. For example, a community leader with a political agenda, may not want particular messages being spread across in a participatory manner. Rather, they may want communication approaches to be more hierarchical in nature. Other social barriers such as language, cultural context, and sensitivities are some of the hardest factors to pinpoint in a situation, as communities can entail a complex layers of such barriers. Furthermore, although the matrix can suggest certain approaches, it is difficult to determine the limitations of an organization or even the government. Certain governments may not be as open to particular strategies such as those outlined in level 3. Other limitations to consider is also the lack of budget for implementations, and governmental policies. An organization may want to take particular approaches, but it may not have the resources or required funding to implement its activities. This can be even difficult for organizations that operate in a more local context. In addition to this, governmental stake holders can limit or often handicap organizations in implementing particular strategies due to pre-existing policies and laws that have yet to be updated or adapted for communication development efforts. Lastly, the matrix serves only as suggestions and a tool for organizations in a situation to determine its scope and develop communication strategies collaboratively

with all other stakeholders in relation to the issue. It does not serve to provide particular activities, but rather approaches and frameworks that have been previously developed or implemented, which could be used as foundational assistance in determining their own activities. Due to the lack of on field testing, it is difficult to determine the logistical nature of the matrix and as a result it is only limited to a theoretical framework.

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