BUILDING BACK BETTER ROADMAP FOR THE REHABILITATION OF 310 AGRICULTURAL BUSINESSES IN THE GAZA STRIP

Prepared for PARC and DKH

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1 Introduction/Background/Context

Gaza was subject to ongoing military assault for seven weeks in July 2014 by land, sea and air. At least 2,145 people were killed and over 60,000 homes were damaged or destroyed[1]. The conflict created a scarcity of water, energy, food and shelter, whilst the agriculture industry in particular suffered heavily. Rapid damage and loss assessments conducted in 29 locations showed extensive damages to crop production, poultry farmers, livestock farms and fisheries amounting to nearly 23 million USD in damages and losses[2].

As a result of the urgent need to support and rehabilitate the impacted agricultural sector, the Agricultural Development Association (PARC) in partnership with Diakonie Katastrophenhilfe (DKH) launched a project to *improve food security and enhance resilience in Gaza through optimized rehabilitation of agricultural infrastructure*[3].

The objectives of this project are to:

- Strengthen the resilience of 310 households and their agribusinesses (Greenhouse, Poultry and Livestock and Dairy Farming), and Fisheries against future shocks via the use of a **Building Back Better** approach in the rehabilitation process
- Restore the means for minimum subsistence and improve food security for 310 households
- Rehabilitate 310 agribusinesses and fisheries to be able to contribute to food security in the region by increasing production and supply of food products to the markets in Gaza
- Introduce the **Building Back Better** approach to the agricultural sector in Gaza, with best practices shared with relevant actors and allow for possibilities of replication and improvement

[1] State of Palestine 2014. The National Early Recovery and Reconstruction Plan for Gaza. Gaza: Higher Inter-Ministerial Committee for Gaza Recovery and Reconstruction and Inter-Governmental Technial Committee.

[2] PARC & DKH 2015. Improving Food Security and Enhancing Resilience in Gaza through Optimized Rehabilitation of Agricultural Infrastructure after the 2014 Conflict. Gaza: The Agricultural Development Association and Diakonie Katastrophenhilfe.

[3] PARC & DKH 2015. Improving Food Security and Enhancing Resilience in Gaza through Optimized Rehabilitation of Agricultural Infrastructure after the 2014 Conflict. Gaza: The Agricultural Development Association and Diakonie Katastrophenhilfe.

This document serves as a roadmap to assist PARC AND DKH rehabilitate the chosen 310 agricultural businesses in the Gaza Strip using the Build Back Better approach. The roadmap aims to clarify what Building Back Better (BBB), and how to successfully incorporate BBB concepts into the agribusiness recovery process tailored to the specific conditions of the beneficiaries chosen for this project.

This roadmap was created using:

- A BBB roadmap for the agricultural sector developed by compiling international research conducted by disaster management and BBB experts from the University of Auckland and Victoria University of Wellington
- Data collected from field visits conducted in Gaza with focus groups for Greenhouse Farmers in Rafah, Poultry Farmers in WadiSalqa, Livestock Dairy Farmers in Bedouin Village and Al-Boraij and Fishery Farmers from the Gaza Fishermen Association by an international BBB and humanitarian expert and the staff of PARC and DKH

This roadmap is comprised of the following sections:

Introduction – Provides information about the Gaza agribusiness sector background, agribusiness rehabilitation objectives, and explains the purpose and structure of this roadmap document.

What is Building Back Better? – Explains what Building Back Better is, introduced the BBB Framework for agribusiness recovery and explains its key elements.

Building Back Better in the Agribusiness rehabilitation Process. Consists of five sub-sections detailing the considerations that need to be made while using the Building Back Better approach in rehabilitating the four types of agribusinesses that form part of the project discussed above.

Summary – Provides a summary of the roadmap and concluding remarks.

2 What is Building Back Better?

"Building Back Better" (BBB) became popular as a catch-phrase particularly following the 2004 Indian Ocean Tsunami. The devastating impact caused in 14 countries urged the need to make communities stronger and more resilient. It was recognized that the time period following a disaster is an optimal time to make changes in a community. Reconstruction and recovery presents a unique opportunity to introduce new ideas, technologies and methods to improve on pre-disaster conditions.

It is with this understanding that the concept of Building Back Better emerged, signifying the use of this window of opportunity following a disaster to introduce resilience into communities and eliminate vulnerabilities.

Thus, Building Back Better (BBB) is defined as a way to use the reconstruction process following a disaster to *improve* a community's physical, social, environmental and economic conditions to create a more *resilient*[4] community in an *effective* and *efficient* way[5]. BBB differs from traditional approaches to reconstruction and recovery in that it takes an *all-inclusive holistic* approach, where all aspects related to community recovery are attended to *simultaneously* to determine a successful recovery programme that *enhances the overall process*.

The Sendai Framework for Disaster Risk Reduction[6] published in March 2015, which was the successive document to the Hyogo Framework for Action 2005-2015 (HFA)[7] created by the United Nations Office for Disaster Risk Reduction (UNISDR) identifies Building Back Better as a key priority for action in the next 15 years.

[4] UNISDR defines resilience as "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including the preservation and restoration of its essential basic structures and functions".
[5] Definition of BBB developed from international research.
[6] UNISDR, *Sendai Framework for Disaster Risk Reduction 2015-2030,* UNISDR, 2005, www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf
[7] UNISDR, *Hyogo Framework For Action 2005-2015: Building the Resilience of Nations and Communities to Disasters,* UNISDR, 2005, www.unisdr.org/we/inform/publications/1037.

International research conducted on understanding and defining BBB shows that building back better requires consideration given to three elements:

1. **Disaster Risk Reduction** - i.e. reducing the risks from prevalent hazards

2. **Community Recovery** - Supporting the psycho-social recovery of affected people and regenerating the economy

3. **Effective Implementation** - Implementing reconstruction and recovery in an effective and efficient way

This is represented using the (modified) "BBB Framework"[8] shown below. The BBB Framework shows the elements and sub-elements required to build back better.

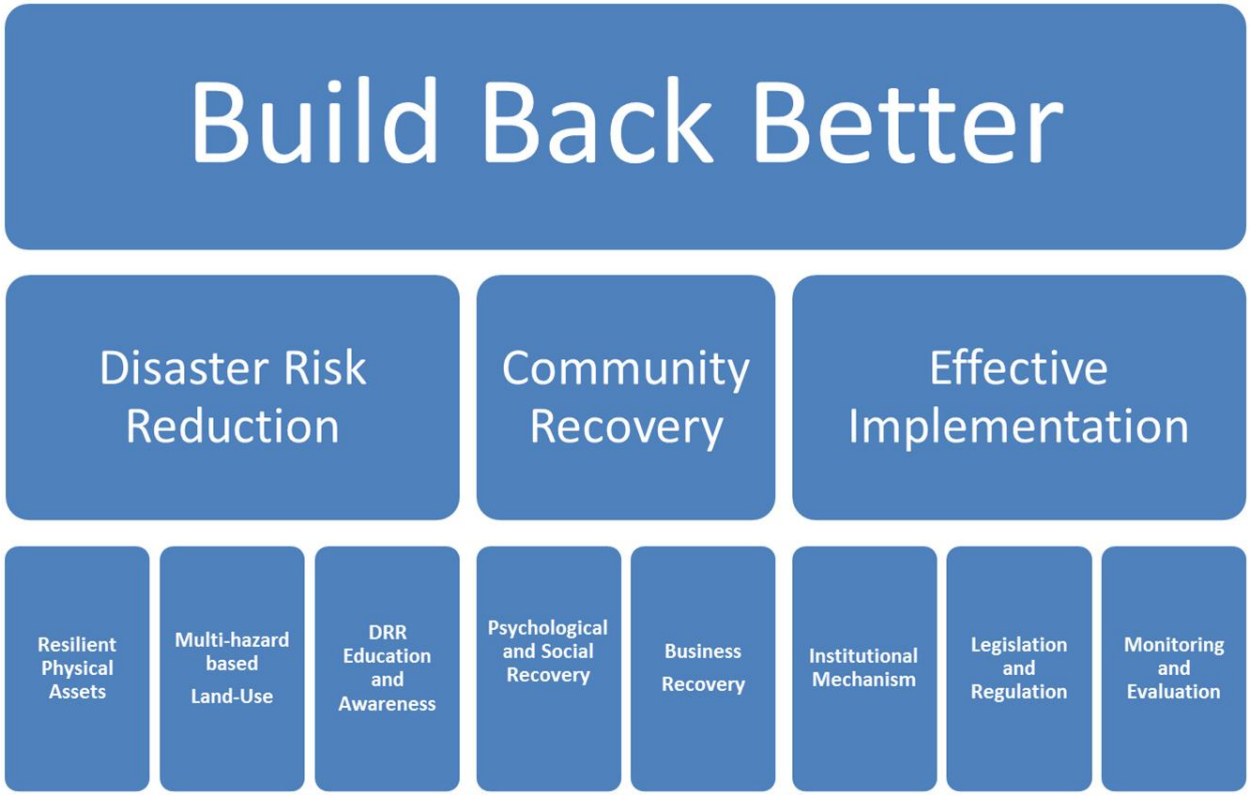

Figure 1: The Build Back Better Framework for Agricultural Business Recovery

[8] Source: Mannakkara, S. *A Framework for Building Back Better During Post-Disaster Reconstruction and Recovery.* Doctor of Philosophy in Civil Engineering (Disaster Management), University of Auckland, 2014, http://hdl.handle.net/2292/22357.

2.1 Disaster Risk Reduction

Disaster risk reduction refers to improving *disaster resilience* in a community by minimising/eliminating disaster risks. Disaster risks include physical and non-physical risks. Physical risks refer to risks posed to the built environment[9]. Non-physical risks refer to risks incurred at the community and/or organizational level, such as the impacts of disasters on service delivery.

Increasing resilience to reduce risks during post-disaster reconstruction in the agricultural sector can be achieved in two ways. (1) Improving the physical resilience of physical assets by using revised design and construction methods and technologies to resist and withstand current and anticipated disaster risks. (2) Controlling land-use based on hazard risks to ensure people are not faced with unreasonable levels of risk. Both these methods for BBB require accurate multi-hazard risk assessments to be conducted first to determine optimal solutions that consider safety, practicality, affordability and impact on local people.

Increasing community and organizational resilience can be achieved through raising risk reduction awareness and by implementing disaster preparedness mechanisms. Education and training on disasters and risk reduction enables communities to understand the importance of risk reduction measures as well as learn how to incorporate disaster capacity into their lives. Disaster preparedness plans allow people and businesses to be better prepared to respond to and recover from all ranges of possible disaster scenarios. Disaster preparedness mechanisms include the establishment of early warning systems, disaster management plans, and risk-averse future development plans.

2.2 Community Recovery

A core part of BBB is ensuring that post-disaster recovery occurs in the best interests of local communities. The theory behind BBB supports the inclusion of the people aspect into every stage of reconstruction planning and implementation. This means the psychological, social and economic impacts of every reconstruction and recovery decision made need careful consideration in order to ensure that people's needs are put first. As presented in the BBB Framework, community recovery in terms of BBB includes two factors.

[9] Built environment includes infrastructure (transport, water and sanitation, energy, community infrastructure) and buildings (residential, education, health, commercial).

Firstly, the *psychological and social recovery* of people needs to be considered a priority. Support mechanisms for psychological and social recovery such as advisory services to assist with decision-making and guidance with the recovery process, counselling and methods of empowerment to help people recover from disaster-related psychological trauma and re-establish a sense of normality must be incorporated into reconstruction programmes.

Secondly, *business recovery* through supporting livelihood recovery and regenerating of local economies need to take place to revive affected communities. Being able to return to their livelihoods and seeing their community's economy performing well is integral to encourage disaster-affected community members to remain in their communities and rebuild their lives. Therefore supporting the livelihoods of people and overall economy through various mechanisms is essential to building back better.

2.3 Effective Implementation

Building back better also implies that the reconstruction and recovery process needs to be carried out smoothly and successfully. Currently due to the lack of pre-planning, knowledge and resources reconstruction efforts are often ad-hoc and inefficient. BBB suggests ways of improving the effectiveness and efficiency in the reconstruction and recovery process, to obtain recovery solutions that are high in quality and well-timed. The BBB Framework shows that effective implementation of post-disaster recovery activities can be improved in three ways.

Understanding the *Institutional Mechanism* plays an important part in enabling communities to build back better. Reconstruction and recovery is multi-faceted and often large scale, involving stakeholders from many different backgrounds such as national and local government authorities, local and international NGOs, the private sector, civil service sector as well as local community members. The chaos, duplication and confusion that can occur with having such a large number of stakeholders involved, implementing different agendas for reconstruction and recovery need to be eliminated. Adopting an institutional mechanism or enhancing the current one to allow the production of a unified recovery vision and programme, effective management of stakeholders with clear roles and responsibilities, an appropriate amount of centralization/decentralization to suit the local community and effective funding mechanisms are necessary.

Legislation and regulation is necessary to implement reconstruction and recovery in-line with BBB principles. Legislation and regulation and policies can be used to create the mandates of institutional mechanisms put in place for reconstruction and recovery, enforce compliance with risk reduction and community recovery, and facilitate bureaucratic procedures to speed up the recovery process and enhance efficiency.

Monitoring and evaluation (M&E) of the recovery process by putting in M&E mechanisms through all stages of short and long-term recovery serve as a way of ensuring that BBB concepts are complied with. Regular and thorough M&E also brings to attention any issues with recovery activities so that they can be promptly dealt with. The process of M&E also provides a good database with valuable knowledge and lessons that can be retained to assist with and improve future recovery efforts.

Adding to the three key elements required to build back better detailed above, it is important to understand that in reality these three elements are often intertwined and influenced by each other. BBB requires looking at recovery in a comprehensive way, therefore the interrelationships between Disaster Risk Reduction, Community Recovery and Effective Implementation require as much consideration as the individual elements. Although BBB literally refers to the reconstruction process following a disaster, it is a good opportunity to initiate pre-disaster planning activities such as adopting early-warning systems and changing future development plans to incorporate DRR and climate change.

3 Building Back Better in the Agribusiness rehabilitation Process.

The BBB theory presented in the previous section will now be used to provide recommendations on how to build back better within the framework of the PARC/DKH rehabilitation project discussed above. At the start of the recovery phase two sets of information need to be collected in order to understand the context and determine how to plan recovery: prevalent hazards and risks in the community and the specific needs of the agribusinesses of concern. Sections 3.1, 3.2 and 3.3 will address how to effectively collect this information. This will then be followed by a list of considerations needed for building back better grouped under Disaster Risk Reduction, Community Recovery and Effective Implementation.

3.1 Identify Hazards and Risks

First and foremost it is necessary to understand the types of hazards (both manmade and natural) in the environment and the levels of risk associated with them. Understanding risk is the first step to determining what measures can be taken to withstand, minimize or eliminate the risk.

Box 1: Community Multi-hazard Risk Assessment

The first step towards building back better is to understand and identify all the types of hazards and risks involved for the community in which the agribusiness of concern is located. This can be achieved by conducting a community multi-hazards mapping and vulnerability assessment exercise. A multi-hazard risk assessment should be used to generate multi-hazard risk maps which provide clear information about the levels of risk posed from different hazards in any given location. The multi-hazard risk maps should be readily available for agricultural business owners to understand the types and levels of risks they are facing.

Participatory Multi-Hazard mapping at the community level take place according the following steps[a]

- Focus group discussion sessions are performed in the targeted communities with farmers. Each focus group engage 8-12 participant from that community. In each community at least two focus group sessions should be performed one for women and one for men.
- The participants in the FGD should be encouraged to list all hazards that affect them and their agribusinesses
- The participants then would be able select the five most impactful hazards specially to their agribusinesses
- The participants should be assisted to map the variation in terms of frequency and severity of each hazards within their community. Orange means highly prone to hazard; Yellow means medium hazard and Green means low hazard.

[a]DKH & PARC 2015. Participatory Risk Assessment in the Gaza Strip. Gaza: Diakonie Katastrophenhilfe and The Agricultural Development Association

Box 1: Community Multi-hazard Risk Assessment Contd.

- The participants in the FGD then should be encouraged qualitatively describe how these hazards affect them and their agribusinesses
- The participants then should be encouraged to describe how they face such hazards currently
- The participants then define what makes agribusinesses more or less vulnerable to each hazard
- The participants then discuss how they can improve their agribusinesses and make them more resilient to those hazards and what they need to make such improvements.

3.2 Technical Assessment of Agribusinesses' Damages and Resilience Needs

In order to be able to rehabilitate agribusinesses and build back better the below aspects should be well defined:

- The damages encountered by the agribusiness of concern
- The hazards threatening the agribusiness physically based on the community multi-hazard map and other hazards defined by the owners of this agribusiness
- The physical status of the agribusiness before the damage in relation to the above mentioned hazards
- The status of the agribusiness in terms of vulnerability to the economic and political conditions in the Gaza Strip (Inputs, diversification of products, access to market, organization and networking, etc.)

Box 2: Technical Assessment

A comprehensive technical assessment too need to be developed which can capture the key information needed to design interventions at the agribusiness physical structure level that both restore the pre-damage production capacity and decrease its vulnerability to natural and manmade hazards.

The technical assessment tool needs to be simple, comprehensible to the targeted farmers and easy to fill. The tools need to be administered by the field staff in the field where the field staff can better understand the context of the agribusiness of concern.

The Technical assessment needs to include:

1. Pre-disaster description of the agribusiness physical structure in terms of size, materials used, and machines, or tools used to be available.

2. Pre-disaster description of the agribusinesses' production in terms of type and quantity, profitability, inputs, access to market, etc.

3. Assessment of the disaster's effects – i.e. description of the disaster event (geographical scope, population affected, evolution to date and distinct consequences on agricultural sector); damages (destruction and damage of infrastructure and physical assets); and losses (disruption of services, production and access to goods, disruption of governance and decision-making processes, and emerging risks and vulnerabilities).

4. Assessment of the disaster's impacts – i.e. The current status of the agribusiness in terms of its physical structure, production, profitability, and its social impact on the owner.

5. Defining the hazards threatening the agribusiness based on the community multi-hazard map and the experience of the owners of the agribusinesses. Such definition should discuss hazards frequency, and severity, impacts, adaptation strategies, and suggested improvement to increase resilience)

3.3 Quality of Life Survey

An essential component of Building Back Better is facilitating and supporting psychological and social recovery of affected people. In order to understand and address issues in these areas it is necessary to administer a survey on Quality of Life (QoL) to complement data collection.

The Depression Anxiety Stress Survey (DASS42) is a QoL tool developed by Lovibond at the University of New South Wales, Australia[10] and has been used extensively to examine and support community

[10] Manual for the depression anxiety stress scales S.H. Lovibond, P.F. Lovibond. Edition 2nd ed. Published Sydney : Psychology Foundation of Australia, 1996.

recovery initiatives in many countries[11]. The DASS42 survey is easy to use, does not require any psychological knowledge or expertise to administer and only needs one simple survey to be carried out to determine a QoL rating. The survey can be easily translated to other languages and so far has translations in many languages including Arabic. DASS42 allows comparisons to be made between different demographics, as well as age and gender.

Box 3: DASS42 Tool for Quality of Life Survey

DASS42 consists of 42 statements to be rated from 0 to 3 as follows based on what they felt in their daily life over the past week:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

- The survey takes about 15 minutes to complete
- It is best done individually (not as a family unit or couple)
- Each question needs to be answered

The results of the survey allows the determination of the levels of Depression, Anxiety and Stress in individuals ranging from normal to extremely severe.

3.4 Disaster Risk Reduction

Building Back Better involves developing a practical and effective plan towards Disaster Risk Reduction using the information obtained from conducting the PRA and PDNA. Disaster Risk Reduction for BBB can be achieved in three ways: (1) reduce risks through physical assets, (2) reduce risks through risk-based land-use, and (3) DRR education and awareness.

[11] Potangaroa, R., Santosa, H., and Wilkinson, S. (2014). The Application of Quality of Life Metrics. Anthony J Masys (ed.) Disaster Management: Enabling Resilience

3.4.1 Reduce Risks through Physical Assets

Once the hazards and their level of risks are understood by the technical assessment, building back better involves considering how to replace or restore the physical assets in a given business in order to reduce, withstand and/or resist the posed risks in a certain location.

Reducing risks and improving the resilience of physical assets to build back better for agricultural business owners involves asking the following questions:

- What are the key physical assets required for the business of concern?
- What are the technologies used to protect the business from the defined hazards if any?
- What available technologies can I adopt for these physical assets in order to reduce, withstand and resist the risks identified in the PRA maps?
- How do I practically implement the upgrading of my physical assets?

In the Gaza context agricultural business owners will need extensive assistance for implementation. It is the role of the project team to discuss the status of the agribusiness and the threatening hazards with the farmers. Such discussion will help the farmer better understand the vulnerabilities of his agribusiness and decide options to decrease those vulnerabilities. The project's team will finalize a final intervention plan tailored to every agribusiness that optimally uses the available resources including funds, farmers' knowledge, farmers' financial capacities, and staff knowledge.

The two key messages in building back better are practicality and meeting people's needs. Therefore along with appropriate external advice, suggestions and support, business owners need to make decisions that are suitable and practicable for them.

Box 4: Reducing Risks through Physical Assets for Greenhouse Farmers

Greenhouse farming is highly reliant on assets and infrastructure. One of the key issues for greenhouse farming is drainage and water related damage.

Indicators for BBB by reducing risks through physical assets include:

- Fixing physical damages incurred to greenhouses
- Strengthening drainage systems inside the greenhouse
- Use of reflective sheeting over plastic
- Installing ventilation windows
- Adopting insect and salt-resilient crops
- Using thermal disinfectants for the ground to prepare soil for next growing season
- Rain-water harvesting
- Installing on-site water storage tanks

Box 5: Reducing Risks through Physical Assets for Poultry Farmers

Poultry farmers face quite different disaster risk reduction issues to greenhouse farmers. Production cycles are shorter and the consideration of disease and genetic defects amongst poultry stock is a major concern.

Indicators for BBB by reducing risks through physical assets include:

- Fixing physical damages incurred to barns
- Installing an efficient heating system
- Installing effective humidity control
- Enable easy access to chemicals and medicine for disease prevention
- Access to quality food for bird stock
- Desalinisation of water

Box 6: Reducing Risks through Physical Assets for Livestock Dairy Farmers

Indicators for BBB by reducing risks through physical assets include:

- Fixing physical damages incurred to barns
- Providing access to secure and cost-effective barns for animals including modern technology such as steel feeders, mechanical drinking and isolation units for lambs
- Installing better drainage and ventilation systems in barns
- Providing equipment and tools for safer birthing
- Water harvesting

Box 7: Reducing Risks through Physical Assets for Fishermen

Indicators for BBB by reducing risks through physical assets include:

- Fixing physical damages incurred to boats and equipment
- Providing good quality spare parts for repairs
- Providing good quality fishing equipment including boats, nets, tools, motors etc.

3.4.2 Reduce Risks through Land-Use Changes

An alternative way to reduce the impact of hazards is to alter land-use based on the risks indicated in the PRA maps.

In a situation where an entire farm or crop area is suffering from recurrent hazards, a business owner's options include:

- Altering land-use – i.e. changing the type of crop/farm or use the land for a different purpose other than agriculture
- Diversify crops and products.-i.e. planting more than one type of crops in greenhouses, growing a variety of poultry types, establishing a diverse agricultural unit that include livestock and vegetable production, etc. For this two main consideration are needed:

1. Is it possible to diversify products to decrease risks and how can that be applied at the agribusiness level?

2. How can the farmer with his knowledge base handle the new technologies or the new style of production (diversification)

- Relocating to a different location – i.e. move the crop/farm to a location with a lower risk if feasible

Altering land-use or relocating to reduce risks requires a lot of support from PARC/DKH. An extension program and maybe a training program is needed to help farmers become better acquainted with the new style of production they adopted.

Box 8: Reducing Risks through Land-Use Changes for Agribusinesses and Fisheries

The field visits conducted with greenhouse, poultry, livestock and dairy farmers and fishermen showed clearly that relocating was an impossible and impractical option.

However, greenhouse, poultry and livestock and dairy farmers collectively agreed that minor alterations of land-use was possible for disaster risk reduction such as:

- Changing the orientation of greenhouses and barns for better ventilation
- Using sections of land in poultry and livestock dairy farms to plant crops using in-house manure

3.4.3 Reduce Risks through DRR Education and Awareness

In order for disaster risk reduction initiatives such as using the community multi-hazard mapping, conducting the technical assessment, improving resilience of physical assets and altering land-uses to be effective agricultural business owners and the other actors involved need to be fully informed and educated about the importance of DRR for Building Back Better.

Engaging farmers in the above mentioned process should focus on raising the awareness of the farmers in terms of the hazards and risks threatening them, their families, and their agribusinesses. Farmers also need

to start thinking differently in ways that protect their agribusiness, and families from future risks. Such discussions need to be an important part of all the steps described above and of the outreach activities to follow the rehabilitation process.

Box 9: DRR Education and Awareness for Agricultural Business Owners

DRR Education and Awareness programmes for agricultural business owners include participatory exercises to:

- Use local knowledge and traditional technologies for early warning
- Develop effective disaster risk and emergency communication methods and evacuation plans for future emergencies
- Introduce new/improved technologies to minimize the impact of disasters to businesses (i.e. physical assets and land-use)
- Provide training to upgrade skills and knowledge of business owners to use the new/improved technologies
- Train business owners to make contingency plans on how to operate following a future disaster
- Educate on the importance of establishing strategic partnerships with other businesses to secure supply chains and collaborate to meet extra demands during emergency periods
- Introduce ways to back up and store important information and resources
- Introduce new capabilities to enable participation in reconstruction and recovery efforts (i.e. building skills etc.)
- Provide training in BBB, DRR, disaster response and disaster recovery

Box 10: DRR Education and Awareness Needs of Greenhouse Farmers

- Training from local authority engineers and supply companies on:

  -Thermal disinfection

  -Sterilisation

  -Composting

  -Recycling of waste

  -Greenhouse orientation

  -Managing water salinity

  -Use of integrated bio-insecticides

  -Preparing for storms

  -Changing crop types

- Facilitating knowledge-sharing in local neighbourhood and friend networks

Box 11: DRR Education and Awareness Needs of Poultry Farmers

- External training from CBOs on bird care and health
- Formal and informal mentoring and training from experienced farmers
- Facilitating knowledge-sharing in local neighbourhood and friend networks

Box 12: DRR Education and Awareness Needs of Livestock Dairy Farmers

- External training on birthing, breeding and disease control
- Facilitating knowledge-sharing in local neighbourhood and friend networks

Box 13: DRR Education and Awareness Needs of Fishermen

- External training on first aid, using GPS, boat building and maintenance
- Facilitating knowledge-sharing through “magia” (Fishermen Cooperative) networks
- Formal and informal mentoring and training from experienced fishermen

3.5 Community and Farmers' Recovery

Community Recovery for Building Back Better addresses two key aspects: (1) supporting the psychological and social recovery of the farmers affected and (2) rejuvenating the local economy through supporting local agribusiness recovery. Similar to DRR for BBB, Farmers' Recovery for BBB requires the development of a psycho-social recovery plan and a business recovery plan which address practical and effective ways of supporting psycho-social recovery and business recovery based on the information obtained from the PDNA.

3.5.1 Supporting the Psychological and Social Recovery of People

In communities frequently subject to disaster events, and in particular when considering the recovery of a specific sector, considering the psychological and social recovery of the people involved can often be neglected. Overall recovery of a community is heavily dependent on individual and family-level recovery, therefore an important part of building back better is ensuring that the people and their families who have been affected are supported as much as the rebuilding or business recovery processes.

To ensure that due consideration is given to psychological and social recovery in the agricultural sector as part of building back better, the following questions need to be asked by the project team (PARC and DKH)

- What are the community's psycho-social needs based on the Quality of Life Matrix
- How can we include and empower local business-owners in the recovery process?
- How can we support their psychological recovery?
- How can we support vulnerable groups?
- How can we support social recovery?

The DASS42 survey was conducted on 96 individual beneficiaries to assess their Quality of Life and levels of depression, anxiety and stress. The analysis of the survey showed that overall, the depression

level amongst the individuals interviewed was rated mild; anxiety was rated moderate and stress was rated normal. The data showed that there were six individuals within that group with unusually high anxiety and one with unusually high depression. This data serves very useful in determining what psychological and social interventions are required at the community level as well as identify and support people at the individual who may be struggling.

Box 14: Supporting Psychological and Social Recovery

Local business-owners can be empowered and supported by including them in the recovery process and providing necessary psychological and social support. Practical ways of inclusion and empowerment include:

- Consulting local business-owners through processes such as the multi-hazard mapping, technical assessment and designing intervention plans to empower them and engage them in the decision making process
- Create groups consisting of similar business-owners and/or strengthen existing relationships for collaborative and collective decision-making and for supporting each other
- Keep local business owners regularly informed of recovery plans, decisions and implementation related to their businesses through newsletters, community meetings, radio, television and social media as appropriate
- Ensure recovery plans and interventions are culturally and religiously appropriate
- Coordinate with partner NGOs to provide psychological, spiritual or religious support and counselling available to business-owners, their employees and families
- Provide assistance for individuals and families to move back to their homes and commence rebuilding and re-gain stock

3.5.2 Supporting Business Recovery

Businesses need various forms of support to recover as soon as possible following a disaster and to rejuvenate their businesses making them more productive and resilient. The fast rehabilitation of businesses plays a significant role in the overall recovery of a community.

The following questions need to be considered to support business recovery for building back better:

- What are the agribusiness' recovery needs based on the technical assessment?
- How can we create immediate jobs?
- How can we support rapid recovery of businesses?
- How can we upgrade and promote businesses?
- How can we provide practical support to local businesses?

Box 15: Supporting Business Recovery for Agribusinesses and Fisheries

- Arranging alternative employment options for impacted business-owners such as labour work
- Providing access to social support from Government
- Providing DRR and business recovery training
- Assisting with the replacement and repair of of damaged physical assets
- Facilitate collaboration and cooperation between businesses (resources and knowledge)
- Assistance with diversification of the business

3.6 Effective Implementation

Along with Disaster Risk Reduction which addresses the safety and disaster resilience of the community and agribusiness level, Community Recovery which supports the people and businesses in a community, the third and final element required for Building Back Better is Effective Implementation. Effective Implementation advocates measures taken to ensure recovery and reconstruction is smooth, efficient and practical. Effective Implementation for Building Back Better comprises of understanding and utilizing: (1) the Institutional Mechanism (2) Legislation and Regulation and (3) Monitoring and Evaluation for agricultural business recovery.

3.6.1 Understanding the Local Institutional Mechanism for Agricultural Business Recovery

To take advantage of the support available from the local agricultural business institutional mechanism for post-disaster recovery and resilience it is necessary to identify:

- Who are the main actors in each agricultural business sector and what are their roles in the recovery process?
- What key partnerships can assist with agricultural business recovery and Building Back Better?

Box 16: Strategies for Effective Implementation for Building Back Better

Implementation of recovery activities in each agricultural sector is dependent on its individual dynamics and situation. Building back better of the affected agribusinesses and fisheries can be supported achieved through:

- Introducing farmers to each other and assist collaboration and cooperation
- Encourage farmers to share knowledge and resources
- Strengthen existing community and business networks

3.6.2 Utilising Legislation and Regulation for Agricultural Business Recovery

Legislation and regulation have a hand in supporting effective and efficient recovery for Building Back Better in two ways.

1. Legislation and Regulation for Enforcement – i.e. what legislation and regulation can be used to enforce compliance with Disaster Risk Reduction and Psycho-Social and Business Recovery measures taken for Building Back Better?
2. Legislation and Regulation for Facilitation – i.e. what legislation and regulation can be used to facilitate the recovery process?

However, at the grassroots level, the use of legislation and regulation for building back better of the chosen agribusinesses and fisheries is not applicable. Legislation and regulation should be used to support building back better of businesses at the agriculture sector level.

3.6.3 Monitoring and Evaluation for Agricultural Business Recovery

Regular monitoring and evaluation in the form of field visits and surveys during and after post-disaster recovery is fundamental for Building Back Better. Monitoring and evaluation for building back better involves:

1. Conducting a pre- intervention survey that assess the damages affected the agribusinesses of concern, their current status and the socioeconomic welling of the targeted farmers and finally the psychosocial wellbeing of the farmers
2. Monitoring and Evaluation for Compliance – i.e. ensuring recovery is progressing in compliance with Building Back Better and the adopted recovery strategy
3. Monitoring and Evaluation for Improvement – i.e. identifying shortcomings and issues to improve ongoing and future recovery and disaster management efforts
4. A few month after the intervention, conducting post intervention survey that cover the same issues as in the pre-intervention survey in addition to farmers' evaluation of the services they received.

Box 17: Monitoring and Evaluation for Compliance

Monitoring and Evaluation for Compliance includes putting systems in place to ensure compliance with:

- PARC's Agricultural Sector Rehabilitation Strategy
- Legislation and Regulation
- Building Back Better Requirements
- Quality Assurance Standards

Box 18: Monitoring and Evaluation for Improvement

Monitoring and Evaluation for Improvement includes putting systems in place to improve post-disaster recovery, development of business and community resilience and future pre-disaster planning through:

- Performing pre-intervention survey as described above
- Undertaking regular monitoring and reporting exercises to identify on-going issues with post-disaster recovery and rectify them
- Monitoring regularly to track rebuilding and recovery progress on repair and replacement of physical assets, adoption of new technologies as required byt he businesses, acquiring stocks to the pre-disaster level or more and re-establishment or improvement of earnings
- Performing pot-intervention survey as described above
- Extracting lessons learnt to improve future post-disaster response, recovery and reconstruction plans and processes
- Using lessons learnt to design training programmes and education campaigns for business-owners and stakeholders

4 Summary

The agricultural business sector in Gaza is in dire need for rehabilitation following the 2014 conflict. The rebuilding, rehabilitation and recovery process provides an opportunity to introduce resilience and sustainability to businesses in response to pre-existing constraints and limitations posed by prevalent hazards, ineffective technologies, lack of training and innovative practices.

This roadmap focused on the concept of Building Back Better to introduce:

- Disaster Risk Reduction through improving the resilience of physical assets, hazard-based land-use changes and DRR education and awareness
- Community and farmers' Recovery through supporting the psychological and social recovery of local people and business recovery
- Effective Implementation through effective utilization of local institutional mechanisms, legislation and regulation and monitoring and evaluation

The BBB considerations provided in this roadmap provide non- guidance to PARC and DKH as well as the individual agricultural businesses and fisheries chosen for this project to rehabilitate their busiensses whilst addressing and incorporating BBB best-practices. The BBB roadmap intends to develop and enhance a culture of resilience, sustainability and innovation amongst the businesses in this project as well as the wider agriculture sector in Gaza to increase productivity, business longevity and improve overall food security.