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A Comprehensive Technique to Agricultural Risk Management for Enhancing Resilience

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Abstract: Agricultural Sector is subject to a vast number of risks not solely to the ones experienced by major businesses but also to all of the risks connected with the living and the organic material such as fresh produce, livestock and seeds including their biological processes. Agriculture entails the science and practice of farming including the rearing of animals and the cultivation of soil for the growing of crops for providing food, wool, and other products. Agricultural Risk Management (ARM) is aimed at safeguarding the Agriculture Businesses, Nations and Farmers from the potential and major losses incurred as a result of the unpredictable scenarios and also becoming a means to enhance the resilience of the unpredictable scenarios and a means to enhance the resilience at various levels. Platform for Agricultural Risk Management (PARM) has recognized that which are the elements that make an agricultural project an Agricultural Risk Management (ARM) one. Platform for Agricultural Risk Management (PARM) PARM has developed and ensured a participatory technique that recognizes five pillars that if included and added in a Project would have the capacity of maximizing agricultural risks including the limit consequences of the negative and the pessimistic shocks. Properly Managing Agricultural Risks ultimately translates in a better and a proper food security and resilience.

Keywords: Agriculture Risk Management, Agricultural Risk, Resilience

1. Introduction

Agriculture is the practice or way of cultivating plants (crops) and livestock's. Agriculture was the major and core development in the rise or emergence of sedentary human civilization, whereby the farming of domesticated (household) species created or ensured for food surplus which enabled or allowed Individuals to live or inhabit in cities. The history or origin of Agriculture started thousands of years ago. Modern or Present Day Agronomy, Plant Breeding, Agrochemicals such as Fertilizers and Pesticides including technological advancements have sharply and majorly maximized crop yields, which causing or resulting to a widespread environmental and ecological damage (havoc). The Main and Major agricultural Commodities can be majorly classified into fibers, foods, raw materials (such as rubber) and fuels. Food Classifications entails Vegetables, Grains (Cereals), Oils, Fruits, Milk, Meat, Eggs as well as Fungi. Modern practices and Selective Breeding in Animal Husbandry have also maximized the output (production) of meat but have raised concerns or worries pertaining environmental damages and animal welfare.

Agriculture is a specifically and precisely vulnerable sector, not solely affected or influenced by idiosyncratic risks witnessed and experienced by major businesses but as well as by covariate situations (that is, weather) and all the risks associated, linked and connected working with living and organic material such as fresh produce, livestock and seeds including their biological procedures or processes. These risks pessimistically affect and influence the livelihoods of farmers, production including the capacity or capability of the sector to innovate and invest.

There is an agreement that shocks such as epidemics, floods, droughts, market volatility and conflicts have become more and more severe, complex and frequent, hitting with more intensity or severity the wellbeing (welfare) of the population and the Whole Nations, most especially the most

vulnerable groups in developing Nations [1].

Between 2003 and 2013, Natural Disasters and Hazards affected and influenced nearly 2 billion Individuals causing USD 495 billion in approximated wreckages and damages in developing Nations; in these areas or communities, agriculture has absorbed or ensured more than 20% of economic effect caused by medium to vast scale disasters and hazards [2].

Both Resilience Initiatives and Agricultural Risk Management (ARM) work towards managing and handling the consequences and repercussions of negative or pessimistic shocks and in synergy for the common and primary objectives of lifting Individuals from Poverty traps, ensuring farmers to safeguard their assets and enhancing food security at Macro and Local Level.

Resilience has continually regained and seek attention migrating from a humanitarian technique and concept at the catastrophic stage to an optimistic and positive capacity to transfer, reduce, cope to and/cope with a wider and vast range of pessimistic hazards to generate and create enduring solutions to chronic and abject poverty.

This definition and explanation of resilience entails two essential and vital mechanisms and techniques: recovery from change and resistance to change [3]. Resilience can be seen as the capacity and the ability of a system to absorb disturbance as well as to reorganize in ways and manners that retain fundamentally, the same and exact functions [4]. This is significantly what Agricultural Risk Management (ARM) does but with of course a particular concentration on agriculture risks managing and anticipating potential risks for the agricultural sector, planning or providing solutions in advance to limit and restrict pessimistic consequences with action which contain both the elements of disturbance absorption as well as the reorganization of the exercises.

There is a vivid two ways relation between Agricultural Risk Management (ARM) and also resilience: Agricultural Risk Management (ARM) practices aim to mitigate and reduce negative shocks as well as boost or enhance resilience and, at the same time, the comprehending of a single or a solely component and aspect of resilience can assist to better target and aim Agriculture Risk Management (ARM) tactics and strategies in a virtuous cycles.

The Theoretical Connection between Agricultural Risk Management (ARM) and resilience is vivid. Agricultural Risk Management (ARM) contributes to the building and creating of resilience at the country, community and household levels, enhancing or revitalizing the ability and willingness of stakeholders along agricultural supply chains to mitigate and reduce the effects of crises and disasters and also to anticipate and recovering from them in an efficient, timely and sustainable way and manner. In that sense, Agricultural Risk Management (ARM) can be viewed as a building block of resilience, looking precisely at risks connected or associated to agriculture and implementing or recognizing risk management tactics and strategies for government and agricultural stakeholders to effectively plan for and experience an array of shocks.

At Practical Stage, Agricultural Risk Managements very context precise and the Agricultural Risk Management (ARM) strategies effectiveness are complex or difficult to determine. Data (Information) analysis can assist recognizing particular Ad hoc interventions to enhance Agriculture Risk Management (ARM) impacts and effects on resilience. Although; the best and appropriate practices to develop an Agricultural Risk Management (ARM) Project or Initiative that can be applied and used across the board needs to be recognized and identified.

Platform for Agricultural Risk Management (PARM) has enhanced and improved to investigate or explore in qualitative way the elements which make a good and better Agricultural Risk Management (ARM) –proofed and confirmed initiative. The major and significant objective is to create and provide a framework or principle that follows and adheres to a holistic technique (approach) to Agricultural Risk Management (ARM) which can as well result to progress or success in the building and ensuring of resilience.

This proceedings has been created and formed by the Platform for Agricultural Risk Management (PARM) from the results and outcomes of Workshop “Agricultural Risk Management (ARM): Lessons and Practices applied and learned for development’s” held on the 25th of October 2017 at the International Fund for Agricultural Development (IFAD) Headquarters.

The essence and motive for the Workshop was to amalgamate together differentpractitioners involved in evaluating, executing and designing of policies and initiatives related and connected to Agricultural Risk Management (ARM) to learn and adapt from the challenges and opportunities of an existing and present set of Agricultural Risk Management (ARM) Policies and Initiatives and to attain an agreement over a set or array of methodological measures and guidelines for good or better Agricultural Risk Management (ARM) practices.

The Platform for Agricultural Risk Management (PARM) is a global and a worldwide initiative and project which is focused and concentrated on ensuring risk management as an integral and essential part and aspect of policy implementation and planning in the agricultural sector in Developing Nations. The Platform for Agricultural Risk Management (PARM) is an outcome initiative or ideology of the 2010-2012 G8-G20 dialogues on Food Security and Agricultural Growth. It is supported and backed up through a Multi Donor Funding or Financing Partnerships between the French Development Agency (FDA), the European Commission (EC), and the International Fund for Agricultural Development (IFAD), the Italian Development Cooperation (IDC), New Partnership for Africa's Development (NEPAD) as well as the Development associates and partners. The Platform for Agricultural Risk Management (PARM) objectives is to strengthen and enhance Agricultural Risk Management (ARM) in developing Nations in a holistic approach or technique and on a demand driven (propelled) basis by supporting and backing up Partner Nations in making Agricultural Risk

Management (ARM) Institutional component of Agricultural Policy as well as contributing to the Sustainable Agricultural Growth, enhance the livelihoods of poor and rural farming households and minimizing food insecurity in developing Nations. Agricultural Risk Management (ARM) is an Institutional Component of Agricultural Policy in beneficiary Low and Middle Income Countries (LMIC) and Least Developed Countries (LDCs) as well as African Union (AU) and Interested Regional Economic Communities (RECs).

For the past decades, numerous International Organizations and Institutions have placed considerable importance and essence on Agricultural Risk Management (ARM). However, Bottlenecks or Obstacles in regards to the insufficient knowledge transfer between Nations, lack of capacity including low and minimal uptake of innovation persist or thrive in the area of Agricultural Risk Management (ARM). Different Regional, Local and International (Foreign) Development Institutions including Stakeholders have expressed or stated the need or essence for a support facility which promotes the exchange or dissemination of experience and knowledge to assist the private and Public Sector in Developing Nations to build or ensure a more structured or properly knowledge, basic technique or approach towards Agricultural Risk Management (ARM).

The Decisions at the G20 and G8 Summits of 2012, 2011 and 2010 created and formed an optimistic and positive momentum around or saturated question of Agricultural Risk Management (ARM) and Food Security. It resulted to the decision and outcome to set up a Platform on Agricultural Risk Management (PARM) that was explicitly emphasized in the G20 and G8 Communiqués. By December 2013, Platform on Agricultural Risk Management (PARM) was set up or launched as well as mandated and demanded to support and back up the development of holistic techniques and approaches to Agricultural Risk Management (ARM) as well as facilitate and ensure the knowledge exchange and dissemination in the field.

In the next section, we focus on what are risks as well as the need and demand for a holistic technique and approach as well as on the five pillars and foundations that synthesize what makes and comprises of a good and better Agricultural Risk Management (ARM) Proofed Initiative or Project.

2. WhatIs a Risk and What Is a Holistic Approach (Technique) to Agricultural Risk Management (ARM)

Agricultural Risks affect and influence farmers' livelihoods and initiatives -and at a wider level, the whole value chains, similar businesses including the economy in general. Risk is a major and significant motive why a Business may not be yielding or profitable, nor attain or reach its capacity and potential or not been sustainable overtime [5].

Risks experienced and witnessed by agricultural stakeholders are much and are usually context-specific depending on the market context, farming system, climatic conditions, etc. They vary and differ from Market Disruption to Unpredictable extreme weather conditions, from Institutional or Policy Change to Biological Harm. These risks can be correlated, isolated, idiosyncratic and systemic. What they have in similarity is that Stakeholders are usually not sufficiently or fully ready to witness and encounter them and thus recovery from shocks usually entails disruption of livelihood and depletion of assets, most especially essential in the availability of systemic risk [6].

Risk is comprised of three elements: Loss, Uncertainty, and Threat. Inthis regards, risk entail the threat of damage or loss caused and as a result of unfavorable and unwanted event that is uncertain. The uncertain event or scenarios can be both the result and outcome of human activities or natural hazards.

Therefore; Risk is a combination or amalgamation of the severity of loss caused by the event and the likelihood of the event. Likelihood entail: to the possibility or chances of an event happening or transpiring; it can be measured and determined quantitatively (e.g. a 30% chance) or qualitatively (e.g. highly likely). Severity entails to the extent and level of the effect or impact, usually measured and determined as physical damage (e.g. number of livestock dead, percentage of crop damaged, etc.) or monetary losses. Negative consequences of risks can be mitigated or contained through preventive actions, channeled to a third party or absorbed.

Agricultural Risk Management (ARM) is a process and a means of dealing with or handling agricultural risks; it entails planning solutions and anticipating major or serious challenges, in order to limit or restrict their negative consequences. Many or a lot are the ways and manners to manage and handle agricultural risks. Selecting the most appropriate and necessary tools depends and focuses on the type or form of risk, household's and farmer's approach or ways to risks, development goals, availability or presence of resources including infrastructures or services available and present in the geographical region.

Once conscious of the risks for their activities, stakeholders may create and prepare an array of methods and techniques for managing them, which can be categorized as:

i. *Ex Ante Measures:* That is, measures or techniques applied before the potentially and major event or scenario occurs such as share cropping, crop diversification, disease and pest management and drought tolerant crop varieties.
ii. *Ex Post Measures:* That is, measures or initiatives applied after the damaging or wrecking event or scenario have transpires, to try and intend to limit or restrict its negative or a pessimistic consequences such as the application of replanting and emergency irrigation, applying savings in other to maintain and ensure an off farm employment and an adequate livelihood.

Agricultural Risk Management (ARM) Strategies and Plans are actually an amalgamation of both to anticipate or seek for a wider array of intensity or level of events, from mild ones to catastrophic risk. Majorly risks management plans and strategies for both need to be recognized and executed prior to risk scenarios or events; some Ex Ante Measures provide and ensure for actions to be applied on as Ex Post Measures. Reacting to risks wholly in Ad hoc basis is majorly a more costly or expensive risk management alternative or option.

A Holistic Technique and Measure to Agricultural Risks entails to consider a vast array of risk including a broad array of solution and that no risks is considered or seen in isolation [7]. This entails dealing and handling at the same time with synchronized and various actions to manage risks. Applying the definition or emphasis in a wider way, an holistic technique not solely encompasses every of the interlinked or interconnected risks involved but as well as on the different stakeholders or participants along the agriculturalsupply chains and in the entire set of Agricultural Risk Management (ARM) tools necessary and present. In taking into consideration various elements, the holistic technique intends to design and prepare Comprehensive Agricultural Risk Management (ARM) strategies and plans that contributes or results to resilience building from Farm to National (county) level.

However, the major objective is to improve and enhance the livelihood of farmers', Agricultural Risk Management (ARM) covers and entails in fact the major stakeholders that work at various levels or stages and with various roles or responsibilities. Micro Level Stakeholders entails actors operating, working or functioning on Individual or Personal Basis, delivering or manufacturing services or commodities with the major concern of raising incomes and outputs of the various farms including businesses; they are for instance Small Businesses and Farmers. Meso Level Stakeholders (actors) rather entails a maximum level or extent of portfolio activities and thus higher risk inclusion, as well as Non Governmental Organizations (NGOs), Farmers' Organizations, Financial Service Providers, Supplier of Inputs. Macro Level Stakeholders or Players entails to the highest and maximum aggregation and inclusion of agricultural activities at sector level, which risks are majorly the concern or worry of International Organizations and Governments. Their responsibility and role lays on the policy making, strategic planning including the provision of Public commodities for risk management for the entire sector and vulnerable stakeholders or actors precisely.

3. What Makes a Good Agricultural Risk Management (ARM) –Proofed Initiatives: Five Pillars for ARM

Regardless of the Diversity of approaches and contexts to manage risks, some basic guidelines and general steps emerge from field encounter and experiences. They can be categorized in five pillars which can be applied and used when executing or designing an initiative or plan which entail an Agricultural Risk Management (ARM) component so as to ensure and enable a sustained management to agricultural risks.

They entail:

i. *Risk Evaluation (Assessment) and Prioritization:* At the inception or beginning of a project that entails an Agricultural Risk Management (ARM) component; prioritizing and evaluating risks is a key and major elements.
ii. *Tool Identification (Recognition) and Execution:* Necessary Tools which match and fit with the risk prioritized needs to be identified and recognized as well and it should be known their accessibility and availability including the responsibility and role for the executionor implementation.
iii. *Capacity Building and Access to Information:* Information is necessary and essential to plan and forge ahead and apply decisions while capacity building empowers so as to take and apply informed decisions on Agricultural Risk Management (ARM).
iv. *Policy Integration and Partnership:* Coordinated Actions taken or applied at different levels are necessary to create and ensure synergies as well as effectively or properly handle risks. The integration of Agricultural Risk Management (ARM) into policies ensures its sustainability.
v. *Evaluation and Monitoring:* These two components are thus important to allow and ensure for Agricultural Risk Management (ARM) learning and adoption, considering or weighing Agricultural Risk Management (ARM) as a continuous and an ongoing process prone to recurring transformation and changes.

3.1. Pillar 1: Risk Assessment and Prioritization

The First and Primary step entails to identify and recognize the major and severe risks in the area or aspect of interest that impacts and effects can be analyzed and evaluated at various levels. As already emphasized, risk is identified and recognized as well as rated by severity and frequency. For the former, both maximum and average severity can be relevant and essential when assessing and evaluating risks.

Then; the risks needs to be prioritized (ranked) and taken into consideration the capacity or ability to manage. This is essential to ensure evidence and rational based decision making to recognize policy instruments and tools including priority investment areas. To elaborate and highlight on the Agricultural Risk Management (ARM) initiatives, strategies and plans at Country and Local Level; it is essential to consider and examine the relationship and connection between priority risks to elaborate comprehensive and well structured or detailed strategies.

Table 1. *Good Practice and Issue to consider for Pillar 1: Risk Assessment and Prioritization.*

Good Practices	Necessary Issues to Consider
Defining Clear responsibilities and roles to manage the tools and risks prioritized at the Micro, Meso and Macro Levels	Risk Causality, Correlation and Interaction
Engaging Local Stakeholders in the Prioritization and Risk Assessment (Evaluation) to ensure or allow engagement and involvement across the process (tools identification, risk analysis….)	Compounding factors which can mitigate or exacerbate risk effect or risk impact
Estimating or Approximating the potential (major) impact and effect of the assessed and evaluated risks developing or creating various scenarios (worse case and average scenarios)	Gender Inequalities as there might be a gendered differentiated or categorized response and impact (effect)
Applying a historical information (data) on a long time period and if not available or present, developing and ensuring a qualitative evaluation and analysis	The difference between constraints, risks and trends for the strategies or initiatives to address and emphasize solely risk
Assessing (Evaluating) severity and frequency of risks at the level of analysis (supply chain, farm, geographical sector and area)	Scale of the risk level aggregation under evaluation (assessment): National, regional or local assessments (evaluation) will not yield or bring the same or exact results. Aggregation masks risks at lower or minimal level of aggregation
Identifying and recognizing the capacity to manage and handle risks by affected stakeholders by these risks, taking into cognizance their attributes (gender, age, etc.)	Quality, quantity, sources, accuracy or genuineness of data (information) applied.
Identifying and recognizing all risks, however solely prioritized or ranked ones will be analyzed and evaluated in detail.	

3.2. Pillar 2: Tools Identification and Execution (Implementation)

Following the Prioritization and Identification of the risks; adequate instruments or tools (among the present ones) requires to be selected and executed. Looking at the holistic technique, an amalgamation of tools to handle and deal with the prioritized or ranked risk(s) is the appropriate alternative. There is an agreement to consider and select Information Systems and Capacity Building (or Capacity Development) as two cross cutting Agricultural Risk Management (ARM) Instruments or tools to complement a particular tool.

Generally, Agricultural Risk Management (ARM) fall into three divisions: risk mitigation strategies, risk transfer strategies and risk coping strategies.

i. *Risk Mitigation Strategies (Ex Ante):* it is geared at reducing, mitigating or decreasing the impact or effect of a risk as well as its severity (extent) of the losses. They can be directly undertaken at a community level or by the farmers individually andit entails irrigation systems, income diversification, good agricultural practices, climate smart agriculture, etc. however, these measures or approaches are executed by farmers, their availability (presence) including accessibility might depend or focus on the support and assistance from Governments as the provision of public goods.
ii. *Risk Transfer Strategies (Ex Ante)* are put in place or into consideration for the residual risk whose effects (implications) cannot be entirely mitigated. Risk Transfer Tools ensures for the transfer or the dissemination of the potential (major) financial consequences or repercussions of a risk to a willing or capable third party, usually against a fee such as in the case or scenario of insurance. These strategies or plans usually entail the private sectors (insurance companies, financial institutions) intervention to operate and design programmes evaluated and assessed by the farmers.
iii. *Risk Coping (Ex Post) Strategies:* For Risks which cannot be transferred or mitigated, Coping Techniques (Mechanisms) are important to enable and allow farmers to recover immediately the shock that has transpired. These entail specific or precise disaster compensations (cash or in kind), social protection initiatives and programmes. However, they are applied once or immediately the risk has materialized, they must be planned in advance and are the major responsibility and role of Governments.

Table 2. *Good Practices and Necessary Issues to Consider for Pillar 2: Tools Identification (Recognition) and Implementation.*

Good Practices	Necessary Issues to Consider
Monitoring or examining the execution and the functioning of each tool	Factoring unplanned and planned costs of the tools execution (implementation)
Carry out a cost/benefits analysis (evaluation) of the potential and major tools	When necessary, designing or preparing clear (vivid) indicators to measure and determine the results (outcomes) of each individual tool and to comprehend better or properly the results or outcomes of the combination or amalgamation of implemented (executed) tools
Acceptance by Stakeholders as a Practical and effective solution	Validate or rectify the conditions and terms for replicability
Checking or evaluating the applicability of modern and present tools in the context so as to ensure its uptake by stakeholders (members) including the sustainability	
Revitalizing existing ad current tools that have proven to be effective	
Consideration of the application content	

3.3. Pillar 3: Capacity Building and Access to Information

In Managing and Handling risks, timely (prompt) access to Information as well as capacity building exercises are very paramount to agricultural stakeholders (workers) as well as to the policy makers and extension workers to make or ensure informed decisions and successively improve their skills on Agricultural Risk Management (ARM) practices. As already emphasized, irrespective of the tools being put into consideration, these should be accepted or seen as cross cutting requirements.

Information is a major component for every stakeholder. It is paramount for planting crops, for fetching the highest and maximum price in the market, for avoiding or prohibiting post harvest losses, for designing policies and for placing a bank loan. An information source varies, and their accessibility, accuracy including costs differs tremendously. Information can be gathered by the farmers themselves through Ad hoc surveys (primary information or data), they can emanate from dedicated or specialized systems such as websites, specialized weather agencies, newspapers, radios, mobile based applications, National Bureau of Statistics.

Nations needs to be specifically sensitive to the issue and case of access to Information for Agricultural Risk Management (ARM). Another essential and basis of cross cutting attribute of Agricultural Risk Management (ARM) is capacity development which is to enhance management and knowledge capacity among various stakeholders. Such activities needs to be undertaken or carried out after a thorough or severe needs and demands assessment, targeting (aiming) its audience and in collaboration with the local institutions [8].

Capacity Building is another significant and better cross cutting attribute of Agricultural Risk Management (ARM) to enhance management and knowledge capacity among various stakeholders. Such activities must be undertaken and carried out after a thorough or severe needs and demands assessment (evaluation), targeting or aiming its audience and in collaboration with Local Institutions [9].

PARM Capacity Development Strategy

PARM supports and ensures Capacity Development (CD) initiatives and exercises to drive, trigger and propel a Sustainable Institutional and Behavioral Change. Capacity Development (CD) on Agricultural Risk Management (ARM) is geared at strengthening and empowering endogenous capabilities and abilities of every involved stakeholders, disseminating expertise and knowledge to allow and ensure for Local and National System to manage and handle similar (same) tasks for the future, mainstreaming solutions and planning or ensuring strategies in the National Policy Initiative or agenda. In details, PARM Capacity Development (CD) Strategy and initiative is articulated in three stages or levels.

i. *General Agricultural Risk Management (ARM) Training (CD 1):* It is a seminar or workshop towards providing basic knowledge and creating awareness on Agricultural Risk Management (ARM). Generally, Capacity Development targets and aims at Public Officers and Farmers.
ii. *Institutionalization of High (Maximum) Level Agricultural Risk Management (ARM) Knowledge (CD 2):* it aims or ensures the creating of a pool or vast local Agricultural Risk Management (ARM) Professional through an advanced or a higher training (tutoring) delivered by research center and/or local Tertiary Institutions. It is meant or intended to be a Training of Trainers (TOT). Trainees are anticipated to train or tutor agricultural stakeholders across the Nation. Targeted (aimed) groups are public officers with higher (maximum) educational background, tertiary institutions students and extension workers. The Agricultural Risk Management (ARM) training or tutoring can also be incorporated and welcomed into academic curricula.
iii. *Specific Agricultural Risk Management (ARM) Tool Capacity Development (CD 3):* it is a flexible way and manner to transfer, share or disseminate knowledge, idea or initiative on a particular tools to raise awareness and expertise (professionals) on a particular risks targeted and aimed by each Nation [10].

Table 3. *Good Practices and Issues to Consider for Pillar 3: Access to Capacity Building and Information.*

Good Practices	Necessary Issues to Consider
Linking or Connecting Theoretical Knowledge with Knowhow and Practical experience	Application of the Concepts learned and planning for follow up during capacity development
Adapting or Applying the Material taught to the precise role and needs of the different stakeholders	Assessing and evaluating necessary synergies and as well as consistency and coherency with other available trainings in an area, to ensure that the target audience has incentives (knowledge) to participate and involve in the activities and that time is effectively and properly utilized
Evaluating the Capacity Development demands of each targeted or focused group	Integrating the high (increased) turnover rate of International Staff and Government Officials into Capacity Development Initiatives and Strategies
Identifying and recognizing the major stakeholders for capacity development	Bearing in Mind that Information is strategic, there could be specific or precise motives why Information is not disseminated by Governments, Farmers or Private Sector Actors
Identifying and recognizing data (information) needs and demands of stakeholders including challenges to accessing this data	Determining and knowing the Price in which Stakeholders are willing or able to pay for Information compared to strengthening (revitalizing) an Information System or cost of setting up
Assessing and evaluating the quality or genuineness of the available information and data	Knowing and Determining what type of data and information is being gathered, what type can be collected (gathered) and who is collecting it
Identifying and recognizing present or current Information Systems as well as areas for possible and necessary integration and/or cooperation	

3.4. Pillar 4: Policy Integration and Partnership

The facilitation of a holistic technique and approach to Agriculture Risk Management (ARM) materializes or ensures partnerships and synergies across various levels of stakeholders, from farmer's cooperatives to the International (foreign) institutions. The role and responsibility of the government, most especially for the integration of Agricultural Risk Management (ARM) into interventions and policies is significant and important to consolidate partnerships as well as to create and ensure the framework to ensure and enable Agricultural Risk Management (ARM) Strategies' Sustainability including a Conducive Environment for Investment.

Partnerships permits and ensures the coordination or gathering of actors dealing with various forms of tools or risks, the design of broad and wide development activities, and the pooling of resources while prohibiting the duplication of works, conflicting agendas or execution of contradicting instruments. This is precisely essential for Agricultural Risk Management (ARM) that usually entails actions at various stages to reach or attain a common objective with stakeholders (members) having various operating purposes and methods.

The Mainstreaming and Integration of Agricultural Risk Management (ARM) in National Policies is essential as well as to shape and transform the Political Agenda in favor of trade, agriculture and environmental policies. In this way, Agricultural Risk Management (ARM) becomes not solely more operationalized and sustainable but as well as cross cutting by integrating risk management tools and strategies into new and modern operations as well as guiding principle or actions for the development partners and the private sectors.

Table 4. *Good Practices and Issues to Consider to Pillar 4: Policy Integration and Partnership.*

Good Practices	Necessary Issues to Consider
Discovering a key or major resource individual with successful and better experience in executing Agricultural Risk Management (ARM) and to promote or encourage it within the specific/country context	Try or Intend to Synchronize Agricultural Risk Management (ARM) Proposals with Government Planning and Budgeting
Working with different ministries or with an Inter Ministerial Body, Positioning or Placing Agricultural Risk Management (ARM) as a Cross Cutting issue.	Ensuring Coherency or Consistency at various levels and between the action of various actors (development partners, government)
Ensuring Partnerships or Collaborations with various forms of actors for enhanced and improved sustainability and effectiveness	Defining vividly the responsibilities and roles in partnership
Identifying and recognizing Local actors already involved in Agricultural Risk Management (ARM) and discovering their demands and possible or necessary complementary with their task or work	

3.5. Pillar 5: Evaluation and Monitoring

By explanation, a holistic approach and technique to Agricultural Risk Management (ARM) is attributed by synchronized and various actions which spillovers and effects are challenging to disentangle. Direct Impacts and effects or results and outcomes of Agricultural Risk Management (ARM) tools cannot be easily and simply established and formed in long and short term.

However; Evaluation and Monitoring Tool are basic and necessary steps to comprehend the Agricultural Risk Management (ARM) strategy and tools performance. Monitoring entails an overall or entire strategy or the routine surveillance of tools; evaluation entails a comparison between the performance of the tools or outcomes including the strategies and tactics in place with their required and expected outcomes and results.

It is essential that Information derived or gotten from M & E is adequately or promptly updated and reported. This process entails regular and continuous reporting as well as clear and vivid performance indicators set when the Agricultural Risk Management (ARM) strategy is prepared and designed. For instance, if disease and pest emerged or occurred as major risks and pesticides are applied at farm level, farmers' needs to monitor and check how effective and useful the pesticides are on the crop under cultivation as well as redefine the prioritization of risk in the event that risk attributes may change.

Table 5. *Good Practices and Issues to put into consideration for Pillar 5: Evaluation and Monitoring.*

Good Practices	Necessary Issues to Consider
Considering or Looking at the External Factors to Contextualize Effect (Impact)	Developing or Creating a qualitative technique or approach for some activities which are challenging to monitor qualitatively (e.g. capacity building)
Creating awareness of Stakeholders on the essence of monitoring and record keeping	
Collecting Sex and age disaggregated Information (Data) to assess or evaluate the effectiveness of the tools for various groups	
Building or creating an M & E System from the beginning of the Initiative or Ideology, Identifying or recognizing the baseline; responsibility and timing for data collection and defining clear indicators	

The evaluation or assessment of an Agricultural Risk Management (ARM) Strategy, whether immediately

(instantly) Ex Post or to look and glance at the longer term effects, gears at determining and knowing if the intervention has excelled or prospered in strengthening and enhancing Agricultural Risk Management (ARM) capacities of farmers. The Evaluation and Assessment ensures for progress and potentially (significantly) the comparison between several Agricultural Risk Management (ARM) initiatives or principles focused on their benefits and costs. The Evaluation and Assessment of related public policies to Agricultural Risk Management (ARM) is also vital to guide and direct the actions of the Government.

4. Conclusions

A Long term and Holistic Approach to Agricultural Risk Management (ARM) is essential as this enables or permits involved Agricultural Stakeholders to become conscious, resilient and empowered to Agricultural Risk. A two way relation and connection exists or transpire between Agricultural Risk Management (ARM) and Resilience. Agricultural Risk Management (ARM) practice aims and intends to mitigate or control negative or pessimistic shocks and enhance resilience and also at the same time, comprehending resilience contributes to building or ensuring more grounded and better Agricultural Risk Management (ARM) strategies.

PARM offers and provides a platform to develop and ensure the necessary policy solutions and practices to assist stakeholders, precisely Governments and Farmers in responding and reacting to the array of risks they experience. Through a participatory technique, PARM has recognized five pillars that need to be included and added in a Project gearing at minimizing agricultural risks and/or limiting repercussions or consequences of the negative shocks. In order to guarantee and ensure the success of Agricultural Risk Management (ARM) initiatives, some substantial and paramount questions remain to be emphasized. These entails for instance the adaptability of Agricultural Risk Management (ARM) technology to stakeholder realities and the scalability of Agricultural Risk Management (ARM) Proofed Initiatives (Projects), since various contexts as well as external validity elements (techniques) remain constraints or challenges to be handled.

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