Insurance for smallholder farmers and vulnerable households against catastrophic events

Guiding principles for donors and governments
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In 2010, SDC published a Project Cycle Management (PCM) handbook for preparing, implementing and evaluating financial sector development projects: A Manual on Managing Cooperation in Financial Sector Development\(^1\). This paper provides complementary information specific to projects dealing with agricultural and catastrophe insurance (thereafter referred to as “ACI”). It aims to provide high-level guidance on designing or assessing ACI projects and includes a section on monitoring, too.


The paper has highly benefited from representatives from Allianz Re, GiZ, KfW, MiCRO Insurance Catastrophe Risk Organisation, Microinsurance Centre, PlaNet Guarantee, SDC, SECO, Syngenta Foundation for Sustainable Agriculture, Swiss Re, University of St. Gallen, the World Food Programme, and Richard Carpenter (consultant) who participated in a SDC organised agricultural & catastrophe insurance expert meeting on 12.9.2013.
Project Preparation or, if a project is proposed to the public funder, Project Assessment, is a key phase that leads to the decision on whether or not to support a specific project. It is also during this phase that indicators for success and impact on the target population have to be agreed upon.

### 2.1 ACI background information

When preparing or assessing an insurance project targeting the low-income population, three key characteristics should be kept in mind:

1. **Insurance is a risk management tool** – it is a means to an end only and not a goal in itself. What ultimately counts are the direct and indirect effects resulting from being insured. However, these effects are often difficult to assess properly.

   **Implication:** A clear result chain and plausible hypotheses on outcome and impact are required in order to set up a meaningful monitoring and evaluation framework, at least for larger projects.

2. **There is little spontaneous demand for insurance products in the low-income population segment.** The reasons are many, including non-familiarity with the concept of insurance, low levels of trust in insurance companies and other spending priorities.

   **Implication:** ACI products have to demonstrate high customer value in order to generate demand and projects may have to put substantial efforts into financial literacy campaigns, educational marketing or similar activities to raise the awareness and understanding of insurance and to develop an appreciation of the benefits of insurance. Alternatively, insurance is often bundled with a service clients have a natural demand for: such as credit, farm inputs, building materials etc., which may help to reach larger numbers of people quickly, but does not exempt project partners from the need to educate clients about ACI.

3. **Insurance is an intangible service** and direct benefits can only be measured in the event of a loss. While it is relatively straightforward to calculate the financial value of having bought insurance after a loss has occurred and a claim has been made, the indirect benefits of having insurance are more difficult to assess. Indirect benefits may stem from i) peace of mind of the insured and flowing from this a better planning horizon; ii) access to services which would otherwise not be accessible (e.g. farm credit); iii) facilitation of increased business investments, resulting in higher net income.

   **Implication:** If ACI projects are promoted on the grounds of supporting poverty reduction efforts, great care has to be taken in establishing clear result chains and identifying suitable indicators. Defining result chains and measurable indicators of success is not always straightforward in the field of ACI. Linking results to project inputs is already challenging. However, when dealing with ACI, establishing these relationships often becomes very challenging. Part of the complexity is the interplay of many different stakeholders, such as regulators, public administration at national, regional and local level, farm extension services, lending institutions, community-based organisations, etc. Insurance is in most cases not the most binding constraint to development and hence progress depends on other types of interventions, too.

**Pilot tests:** Agricultural and catastrophe insurance often include substantial degrees of innovation and research components: client needs and country contexts are different, some approaches prove to be unsustainable and technological advances open up new opportunities. One clear consequence of this is the need for pilot tests where new technologies or approaches are involved. Pilot tests aim at validating an approach in a controlled environment without impacting a whole market or spending money on activities that directly depend on the...
success of the innovation being tested. Setting up pilot tests require great care to ensure they are well designed, do not ignore critical matters or try to achieve too much. Only then will they be able to prove something useful.

Emerging insights: one emerging insight from both agricultural and catastrophe insurance is that offering these insurance services solely to individuals is unlikely to produce sufficient demand to sustain business on a commercial basis. It is only when embedded into a broader risk management and development strategy that ACI services are able to show their full potential. A second insight is that pilot projects, which try to innovate at too many frontiers, almost invariably fail, especially if distribution options are limited. Finally, the timeframe required to develop, introduce and reach scale is typically at least five years for sustainable ACI projects. Much depends on (i) the existence and capacity of aggregators that can reach the target groups, (ii) the quality of the legal and regulatory framework and the general business environment and (iii) the availability of quality data to support the development of valuable insurance contracts.

2.2 Context Assessment

2.2.1 Rational for supporting ACI projects – development objectives

For governments and public funders, there are two main objectives for supporting ACI projects: (1) generation of income and employment through increasing agricultural productivity – partly through facilitated access to agricultural loans – and subsequently developing rural/agricultural markets; (2) social protection (or humanitarian aid) by ensuring the basic livelihood of low-income populations hit by natural disasters. In the latter case, ACI may represent an effective and efficient alternative to traditional disaster relief approaches, or at least complement them. These two goals often go hand in hand: better risk management options should allow local communities to strengthen their resilience against natural disasters. This helps them to better secure their livelihoods and may eventually translate into increased investments and more productive activities, thus contributing to poverty reduction. Nevertheless, the primary objective of each project will inform its specific design and influence target setting and outcome monitoring.

ACI projects can approach the topic of risk and rural development from at least three different angles:

I Comprehensive risk management: prevention, adaptation, mitigation and transfer of risk. ACI as part of the risk transfer mechanisms within the broader risk management approach.

II Insurance market development: developing efficient insurance markets as part of a financial sector deepening strategy, laying the foundation for future developments.

III Social protection: ACI as one component in extending social protection to rural populations.

Risk is one of the central themes in farming, weather often playing a dominant role, especially for smallholder farmers who engage in most cases in rain-fed agriculture. Depending on the farming activity and location, pests and disease, bush fires, trampling by large animals, price fluctuations on the world markets and other events may add significantly to the level of uncertainty under which smallholder farmers have to make investment decisions and ultimately survive. While returns on farm inputs can be substantial in good years, a number of constraints prevent smallholder farmers from realizing the full potential from their farming activities. In consequence, ACI projects should enable smallholder farmers to better manage their production risks.

Part of the risk smallholder farmers face could be insured. Insurance, and especially agricultural microinsurance, can positively impact rural communities in two distinct ways by:

• providing protection against set-backs due to crop losses or lost livestock and hence help farmers to get back on their feet as fast as possible when struck by a natural calamity. If insurance payouts swiftly reach those who suffered, it can help smoothing consumption as well as preventing the sale of productive assets and other negative coping strategies.

• enabling farmers to engage in more risky, but on average more lucrative farm activities, such as alternative or new crops, extended surface cultivated, the increased use of fertilizer and pesticides, or irrigation. In other words, agricultural insurance can lead to (intended) behavioural change.

Natural catastrophes affect all people in a given area, but low-income households are often even more exposed as they usually live and work in areas that are more vulnerable to natural calamities. Insurance against natural calamities usually meets even lower demand from end-clients than agricul-

2 e.g. to test the reliability of a new index for use in parametric insurance products, no single policy has to be sold, as correlation between the index and actual yield can be assessed outside an insurance contract.

3 As opposed to risk aggregators or local and national governments. Sometimes, this is also called the micro-level, while risk aggregators would be called meso-level and governments the macro-level.

4 Note that unintended behavioural change – moral hazard – is a key concern in all agricultural insurance programmes: insured farmers may not care as much about their crops as uninsured farmers would.
tural insurance, as people tend to ignore the potential consequences of severe but rather infrequent events (low-frequency, but high impact events). And unlike in agriculture, insurance against natural disasters is hardly enabling clients to engage in more rewarding, but riskier businesses.

Disaster risk management: Insurance is only one component of a well-balanced disaster risk management strategy. Prevention and adaptation is in most circumstances more cost effective than insuring unsustainable conditions. However, once disaster risk has been reduced and risk management improved, insurance still has value to protect investments made. There may be a trade off between risk reduction and insurance. Generally, enhanced risk management allows for lower levels of insurance. And until all these different measures are put in place and complement each other, humanitarian aid interventions may be required to quickly respond to immediate events. A holistic approach to sustainable risk management solutions is thus required calling for the right mix of disaster risk reduction measures, humanitarian relief approaches, and catastrophe insurance solutions.

2.2.2 Essential preconditions for successful ACI projects

Agriculture is for many countries a very important sector, both from an economic and social perspective, as large proportions of the population directly depend on it. Natural disasters have the potential to disrupt fragile states in addition to causing potentially huge losses in lives and assets. Formal insurance services therefore stand in direct competition to ad-hoc activities by various government bodies, local and international NGOs, as well as by bilateral and multi-lateral organisations. In consequence, insurance projects for smallholder farmers or more generally addressing risks from natural catastrophes operate in relatively complex political and institutional environments, where a minimum of preconditions have to be present in order to give ACI projects a fair chance of success.

In almost all cases, the following five factors have proved to be critical to long-term project success:

- **Receptive policy environment**: the success of ACI projects is highly dependent on the policy framework in place: is it supportive enough to allow market-based insurance solutions playing an important role? Where public funds and agencies are involved, stable and predictable public-private development partnerships are essential. Ideally, they should not depend on the electoral cycle.

- **Regulatory framework**: all insurance activities must operate within a country’s set of laws and regulations. A functioning insurance sector that complies with these laws and regulations is a precondition to launch an ACI project. Where the regulatory framework is not supportive of innovative approaches (e.g. parametric insurance contracts), the regulator should at least express interest and flexibility regarding future changes.

- **Reinsurance**: is required to effectively transfer peak risk exposure from primary insurers to a level where it can be handled through diversification, very often at the international level. As ACI projects need to reach scale in order to become sustainable, reinsurers should at least express some appetite. In fact, reinsurers typically provide not only financial capacity, but also technical support to primary insurers when developing such products as they do the structuring and pricing of the ACI products.

- **Historical data**: the better available data on past events (both on the hazard and loss side), the easier it is to calculate an appropriate insurance premium. In the absence of good historical data, insurers and reinsurers tend to add hefty ‘security margins’. The availability of data will to a large extent dictate product design options.

- **Distribution network**: efficient and low-cost distribution has proven to be a key bottleneck far beyond ACI. For agricultural insurance, farmer organisations, out-grower schemes, input suppliers and rural lenders may play a key role. Both high client value of proposed ACI products and well-aligned interest and incentives for all involved partners are critical to success. Projects without a clear distribution strategy are unlikely to succeed.

Depending on the specific context, the following aspects may be important to a greater or lesser extent:

- **Disincentive through generous ex-post interventions**: where individuals and companies can count on aid in the wake of natural disasters, the incentives to invest in ex-ante instruments – such as insurance – are significantly reduced. For local and central governments, the temptation to promised support may often be high, but they have to be aware of the antagonistic effect on formal insurance market development. However, in the absence of any significant coverage through insurance, ex-post interventions are still needed in order to avoid humanitarian crises. Consequently, a transparent communication and gradual shift towards ex-ante mechanisms is required.

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5 While the number of reinsurance companies is large, those engaged in agricultural insurance is relatively limited. If a specific company expresses no appetite for a given project this may simply mean that this company has other priorities, but not necessarily that the project has little chances of success in itself. Likewise, expressed reinsurance support does not indicate that the project will truly benefit the target population, as reinsurers are primarily profit driven.
• **Interest and buy-in from primary insurers:** Primary insurance companies may shy away from engaging in new, untested products that expose them to potentially significant risks. They may be willing to participate in a project, but not to fully integrating it into their core business. Low levels of interest from primary insurers can partly be balanced by a stronger involvement of international reinsurance companies. However, this is likely to increase overall costs. Nevertheless, a substantial part — often more than 50% of total risks — needs to be transferred to the international re-insurance market for risk diversification purposes of primary insurers and for mitigating potential losses to be borne by government budgets.

• **Market pool:** Typically, primary insurance companies do not have the required financial and human resources to implement and sustain agricultural or catastrophe insurance on their own. The creation of a market pool with uniform products may allow the development and retention of such business on a larger scale than if left to individual insurers. The downside of this approach is that innovation and competition is likely to be relatively low.

• **Subsidies:** In many countries, subsidies for agricultural insurance have a long and volatile history. While they clearly help to reach scale quickly, they may also disrupt the market, if found too expensive, and cut back on short notice (see discussion on smart subsidies below).

• **Rural lending and input supply:** ACI products are often expected to catalyse rural lending and boost demand for higher value inputs such as seeds and fertilizer. Experience so far has revealed that these services should ideally exist already and work properly before ACI products are introduced. If these services are not available, they will need to be developed as part of — or in conjunction with — the ACI project.

### 2.2.3 Smart subsidies in agriculture

The overwhelming majority of OECD countries support their farmers through subsidized agricultural insurance. However, for most developing countries, securing adequate resources for financing agricultural subsidies over time has proven extremely challenging.

Main reasons for subsidising ACI include:

• **Equity concerns:** Where insurance premiums are high, large proportions of the population may be excluded from these services. Yet, especially smallholders stand to see substantial welfare improvements through better protection against severe setbacks.

• **Food security:** Once farmers are insured, they may be more inclined to invest in their farming business, raising total output. In addition, agricultural lenders may be willing to finance such investments only if harvests are insured.

• **First-mover disadvantage:** In order to develop and test new insurance products, substantial investments in data collection, infrastructure, product design and building public-private partnership development have to be made. Private insurers may find the potential returns too low for heavy up-front investments and hence neglect ACI as business lines.

• **Externalities:** Raising awareness on the benefits of insurance will benefit the whole sector, not just the sector in which ACI is offered. Investments in data generation (e.g. harvest, weather) may lead to public goods – if made publically accessible — that can be used by competitors. And once a product is successfully introduced, competitors may find it easier to improve upon it.

In consequence, smart subsidies may be defined as subsidies that are put in place with a clearly stated goal in mind, targeting those people or companies contributing most to achieving the goal and administered in the most cost-efficient way. Smart subsidies will include a clear exit strategy or rely on secured, long-term financing where required. Results have to be continuously monitored and evaluated. A subsidy that may be smart within today’s financial sector context may turn ‘non-smart’ with a changing sector context in even the near future. There is, therefore, a thin line between subsidising the market entrance of the ‘first mover’ insurance company without cementing its monopolistic position.

The following risks need to be considered when deciding on smart subsidies:

• **Inefficient spending:** There may be more cost-effective alternatives compared to subsidies in achieving the stated development objective of ACI projects.

• **Sustainability:** Subsidies to agricultural insurance can quickly become too costly to most governments in emerging economies.

• **Targeting:** Subsidies to those that need it most is invariably difficult. Either subsidies reach also sub-

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6 This chapter draws upon a paper commissioned by the Gates Microinsurance Innovation Facility (to be published) as well as upon the SDC Note entitled “Development Aid and Subsidies – An Art”, 2007, accessible under http://www.sdc-employment-income.ch/en/Home/Making_Markets_Work_for_the_Poor/Resources_on_the_M4P_approach?page=3&action=search&searchCategory=4440&searchCategory=4440.

stantial numbers of subjects that would not need it or costs to run the scheme become very high. A solution may be indirect targeting by limiting the insurance coverage to the needs of low-income households (e.g. size of arable land insured).

- All subsidies will attract rent-seeking: where subsidies are available for a specific group of clients or for specific activities, individuals and companies will always try to profit from them even if they are not intended to be among the target group.

- Subsidies may lead to perverse incentives: if the insurance premium paid by clients is lower than the risk premium, individuals have an incentive to extend their business and buy as much insurance as possible, as they will be positioned to gain in any case.

Many smallholder farmers may contend that they are too poor to afford ACI products. While income restrictions can be overcome by subsidies, the risk-sharing principles of insurance should remain in place: sharing the fortunes of the many with the few struck by misfortunes. Otherwise, such schemes become conditional cash transfers.

2.2.4 Sustainability of agricultural and catastrophe insurance projects

In general, people tend to underestimate the impact of low-frequency/high-severity events, which may partly explain the low levels of demand for insurance products that provide protection against such events. In addition, ACI products tend to be relatively costly. Unlike other microinsurance products, ACI is often rather technical and usually involves many partners in the insurance service chain. This adds to the relatively high fixed costs. ACI per unit cost is invariably unattractive in schemes that reach a few 10'000 clients only. As a direct consequence, aiming at scale is critical for long-term sustainability. Scale in ACI can be secured by:

- Building scalable systems right from the beginning: while pilot schemes are often required to test a product, care should be taken to create scalable pilots. Scaling pilots could for example be restricted by the availability of critical infrastructure, data or distribution mechanisms.

- Providing cover at the meso-level: insuring risk-aggregators instead of individuals has many advantages, including targeted marketing and education; fewer transactions but with better educated partners, and additional design options which may provide better value to customers. Of course care has to be taken to ensure that benefits reach down to the end clients, either directly or indirectly.

- Subsidies: smart subsidies are likely to help reaching scale quickly, though sustainability of subsidies may be an issue (see above).

2.2.5 Complementary or alternative approaches to realize development objectives

Insurance – a means to an end: Insurance is a tool to manage risk and thus can contribute to enhanced resilience of local communities towards natural disasters, to income and employment generation, and ultimately reduced poverty levels. What matters are the results of being insured – rather than the fact of being insured – while comparing these results with other alternatives to reach the same objectives. It is important to be clear about these alternatives, their degree of complexity, risks and the cost-benefit ratio in order to make an informed decision. More often than not, these additional options are not alternatives in a strict sense, but rather valuable components of a more holistic risk management approach. The two lists below discuss some of these potential interventions in the field of agriculture/food security, as well as in natural disasters more generally.

Agriculture/food security: In this area, rural livelihoods can be strengthened and smallholder farmers can be supported in many ways, including by:

- Promoting and supporting farmer organisations. Organizing farmers in co-operatives has many advantages, ranging from a better negotiating position and bargaining power (for buying inputs or marketing produce), being heard by local or national government, becoming a more interesting partner for extension or other services etc. From an insurance perspective, farmers are becoming more interesting, if they are organised. Insuring pre-existing groups reduces transaction costs and adverse selection and it opens the way to new product designs and combinations of services (e.g. savings), which potentially allows insurance to play its appropriate role: providing protection against infrequent events with huge impacts: the catastrophic losses.
• Promoting good agricultural practise through extension services. In many developing countries, smallholder farmers are not well trained and could significantly increase their income while maintaining or even improving soil fertility, if better farming techniques were applied. As a consequence, the provision of well-structured extension services may have a tremendous impact and prepare the ground for insurance to play its proper role.

• Providing farmers with market information. If smallholder farmers have access to several markets, providing them with price information can make a notable difference and allow them to arbitrage. As a result of rapidly increased mobile phone coverage, such services can be provided at low cost on a wide scale.

• Reducing post harvest losses and increasing earnings through the provision of storage facilities. Smallholder communities often have inadequate access to good storage facilities. In the absence of such infrastructure they are forced to sell immediately after harvest (often at a lower price) or see their harvest diminished by post-harvest losses.

• Strengthening the smallholder farmers’ position within the respective value chains, promoting access to adequate financing methods in the value chain and encouraging participation in contract farming schemes.

Natural catastrophes: in this field, some approaches to reduce negative impacts include:

• Promoting risk awareness and offering simple protection mechanisms. For example, traders could protect their goods by wrapping in plastic or elevating them from the floor so that goods are less likely to get damaged in the event of a flood. Damage to buildings through heavy rains can be reduced if small leakages in the roofs are repaired.

• Protecting villages and larger areas through appropriate investments in infrastructure, such as dams or well-kept drainage systems.

• Attenuating floods and landslides by large-scale afforestation efforts.

• Saving human lives through the construction of decentralized disaster refuge centres and early warning systems for risks such as tsunamis and floods.

All these approaches are not mutually exclusive. On the contrary, they often present opportunities for substantial synergetic gains. Cost-benefit considerations should be part of the decision-making process when prioritizing and sequencing risk mitigation interventions. Risk carriers and their clients will find it significantly less expensive to engage in insurance once the overall level of risk is reduced through prevention and adaptation.
Depending on the development objectives identified (see above), the definitions of project success will vary widely. If the project is aimed at deepening the financial sector through the promotion of insurance, then the number of companies active, premium written etc. will be informative. When improved agricultural risk management is the main focus, then the overall productivity and resilience of the agricultural sector will need to be monitored and assessed. If the provision of social safety nets for rural households is the key goal, then the response activities in case of major calamities and long-term impact will need to be reviewed.

From a customer perspective, potential outcomes linked to ACI may therefore include:

• Consumption smoothing: one of the core goals of insurance is to smooth consumption: in ‘good’ years disposable income is a bit lower than compared to an uninsured status (as premiums have to be paid), but in ‘bad’ years consumption can be maintained at an acceptable level thanks to claims payments.

• Better credit terms and conditions: insured clients are better clients for a lending institution, as their default risk is significantly lower. This should translate into better terms and conditions for insured clients, e.g. reduced interest rate and even allow the lender to extend credit to people considered too risky in the absence of insurance.

• Increased investment and income: insurance may enable individuals to develop new business opportunities that more than compensate for the expense of insurance.

From an insurance sector perspective, potential outcomes may include:

• Sustainability: financial sustainability is a key indicator of all insurance products. Experience has shown that break-even points for ACI products can rarely be achieved in less than 5 years of operation. Where subsidies are involved, the focus should be on economic sustainability and efficiency of funds used.

• Increased demand for insurance services: over time, clients should become more familiar with the concept of insurance and acknowledge its value. This should lead to increased demand and ultimately to additional insurance services.

Individual insurers typically measure their business success in terms of:

a) Number of insured households, properties and area under cultivation  
b) Total sum insured  
c) Gross premium written  
d) Profit margin  
e) Loss ratio\(^8\)  
f) Expense ratio

In addition to the above performance indicators, the microinsurance sector has developed a set of key indicators\(^9\). These indicators provide valuable measures for the efficiency and value proposition of individual products from a given company. However, in the case of ACI, development partners typically aim at more: transforming the ways rural

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\(^8\) Calculating a sensible loss ratio is difficult, as ACI is by definition highly volatile: a row of years with little to no losses may be followed by a catastrophic loss, wiping out reserves. As a consequence, the anticipated loss ratio and management expenses are better indicators.

\(^9\) John Wipf and Denis Garand (2010): Performance Indicators for Microinsurance. ADA, BR5 and MiN
communities deal with risk and, once better risk management tools are available, how they change agricultural production. To capture this, additional indicators are required than those mentioned above.

Generally, not enough effort has gone into monitoring and evaluation of ACI for low-income populations, as noted in several recent publications. One critical aspect that is rarely looked at is whether ACI project have had any unintended negative outcomes – i.e., whether they do no harm! Developing and promoting insurance products is often seen as relatively safe in the sense that there is a low risk of doing harm. Clients are highly unlikely to get into deep trouble because they buy too much insurance (unlike offering credit). At the same time, many insurance products offer relatively poor value to clients. If so, clients face opportunity costs (they could use the money spent on premium on other, more valuable, goods or services). In addition, poor value products contribute to the negative perception of insurance in general and hence impact the prospects for selling better products in the future. Lastly, ACI products can put the insurer and sometimes even aggregators at risk, if accumulation or basis risk is not properly managed. For that reason, great care should be taken to clearly limit the financial risk to involved partners, either through reinsurance or contractual limits.

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10 E.g. World Bank (2011), GlobalAgRisk (2011)
4 Key assessment questions

The following questions are grouped along the sub-sections of this paper.

4.1 Questions related to Rationale for supporting ACI projects

- **What is the primary motivation** for the proposed ACI project?
  - a. Offering better risk coping and management services to target clients?
  - b. Promoting income and employment, such as promoting agricultural/rural value chains, deepening the domestic financial sector through supporting the development of an ACI market, etc?
  - c. Social protection (or humanitarian aid) objectives, such as strengthening the resilience of local communities against natural disasters, increased food security, etc?

- **Are the risks targeted by ACI a key concern to all project stakeholders?**
  - If yes, what is likely to change once ACI is in place?
  - If no, what are the prospects that ACI will still have a significant development contribution?

4.2 Questions related to essential preconditions for successful ACI projects

Are the following essential preconditions met?

- **Receptive policy environment**, that accommodates and supports market-based risk management tools.
- **Regulatory framework**, which is expressed in a functioning insurance market and that provides enough flexibility to introduce innovative insurance services.
- **Insurance and reinsurance committed capacity or at least expressed appetite.**
- **Historical data**: availability of quality data sets, spanning several decades.
- **Distribution network**: efficient and low-cost distribution strategy, where all partners have well-aligned interests and incentives.

Which of the following aspects may become relevant?

- **Disincentive through ex-post interventions**: how did local and central governments and/or third parties react in previous cases of large disasters? Will post-disaster relief activities work against the intended insurance project?
- **Interest and buy-in from primary insurers**: are primary insurance companies seriously interested in developing and selling new ACI products? Do they have enough capital to retain meaningful portions of the business?
- **Market pool**: what are the prospects of creating a market pool for ACI services?
- **Subsidies**: are subsidies likely? If yes, are they reasonably secured over the next decade?
- **Rural lending and input supply**: do these services already exist and work properly?

4.3 Questions related to Smart Subsidies in Agriculture

- **What are the concrete issues** to be addressed by the subsidies?
- **What is the cost-benefit ratio** of the proposed subsidies – and how does it compare to alternatives?
- **What is the time horizon** for the planned subsidy? What is the exit strategy?
- **How secure** are subsidies over the time period they are proposed?
- **What would be the impact**, if subsidies were withdrawn unexpectedly?
4.4 Questions related to Sustainability in ACI projects

- What is the potential to reach several 100,000 clients within the project term?
- Are there concrete prospects to insure risk aggregators, such as producer cooperatives, rural lenders, input suppliers etc?
- Are new approaches tested in a controlled pilot? If no pilot is proposed, what are the reasons to skip that step?
- Will the project be sustainable when donors withdraw their support?

4.5 Questions related to Complementary approaches

- Is ACI embedded into a broader intervention strategy?
  - a. If yes, what are the other, mutually reinforcing activities? What should be in place prior to launching ACI services?
  - b. If not, on what grounds does the project expect to be able achieving a lasting impact?
- In case of agricultural insurance, the following complementary approaches could be considered:
  - a. Strengthening farmer organisations
  - b. Providing or improving extension services
- In case of catastrophe insurance, the following complementary approaches could be considered:
  - a. Training people in preventive and mitigating measures
  - b. Investment in preventive infrastructure
  - c. Encouraging afforestation
  - d. Build early warning systems and disaster shelters for at-risk populations

4.6 Questions related to Definition of success and outcome monitoring

- Through which mechanisms should the proposed ACI product help the target population?

<table>
<thead>
<tr>
<th>Proposed key mechanism</th>
<th>Agriculture</th>
<th>Catastrophe</th>
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<tbody>
<tr>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peace of mind and higher quality of life: insured customers have one important issue less to worry about and can better plan</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance pay-outs after an event are disbursed in a sufficiently timely manner to enable clients to immediately restart their businesses after an event</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACI facilitates access to other services for which clients typically have a high demand (e.g. input credits); or terms of such services are better, if the client is insured.</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removing important parts of the risks clients typically face allows them to invest more into their business and/or engage in more lucrative, but more volatile businesses</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

- What is expected to change once the ACI is in place? Some examples include:
  - a. Lending institutions consider insured clients as more creditworthy and are willing to extend more credit (for farm inputs or general business) to them. Alternatively, insured clients are able to access credit on better conditions compared with uninsured clients. As clients make use of a better or additional offer, their average income and net earnings increase and consumption is smoother.
  - b. Lending institutions can reduce the risks of their agricultural loan exposure and can thus growth their loan portfolio allowing them to serve population segments, business activities and geographic areas which otherwise would be too risky for them. As a result, their new and existing clients benefit through accessing these services.
  - c. Clients change their business practises and engage in more rewarding, but riskier activities (e.g. high-yield seeds, more fertilizer, other crops, etc). This translates into increased average income and growing employment.