

CLIMATE CHANGE, SMALL FARMERS AND SIDS – THE PARIS AGREEMENT AND COP22 ¹

The 22nd session of the Conference of the Parties (COP 22) to the United Nations Framework Convention on Climate Change (UNFCCC) provides a valuable opportunity for Small Island Developing States (SIDS) to review progress since the successful COP21 held last year in Paris. The Paris Agreement entered into force on November 4th 2016, and does take note of the special circumstances of SIDS, which are on the frontline in terms of risks and exposure to climate change.

The Paris Agreement's central aim is to:

- strengthen the global response to the threat of climate change by keeping a global temperature rise *well below* 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (Art. 2.1a)
- strengthen the ability of countries to deal with the impacts of climate change

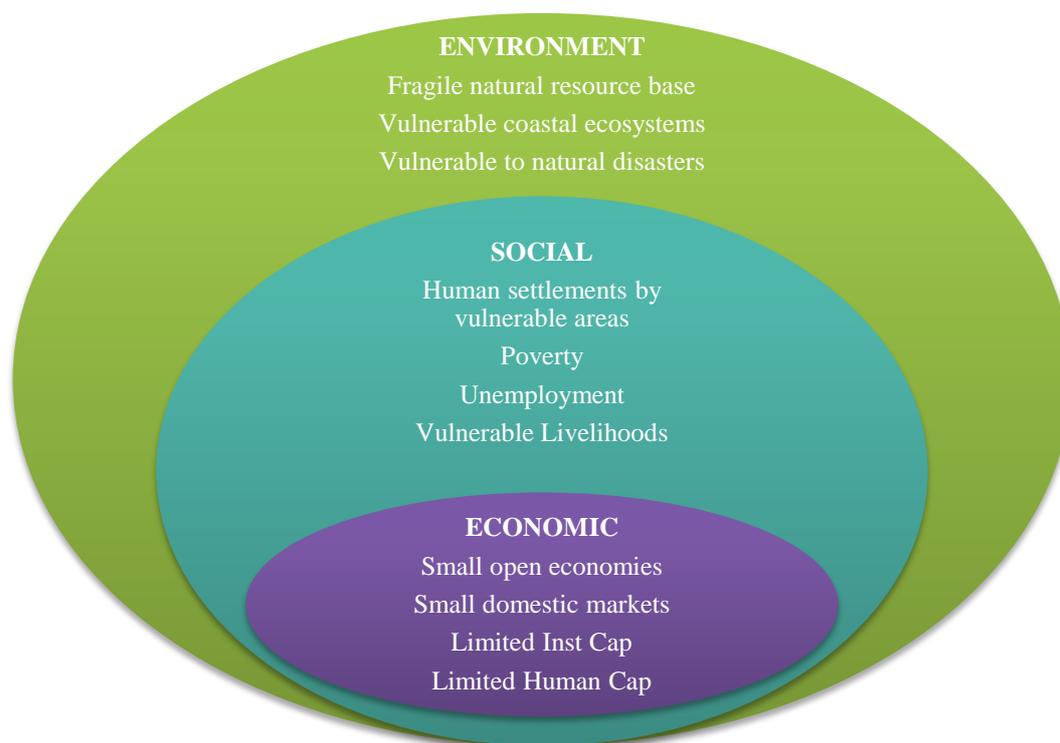
To be able to face future and current challenges posed by climate change, COP22 provides SIDS with an important platform through which to assess the assistance that they have actually received to support themselves and their small farmers deal with and adapt to a changing global climate.

SMALL FARMERS IN SIDS

Some of the handicaps that SIDS face are: their small land mass, populations, and economic size; many are geographically remote and dispersed, vulnerability to natural disasters, limited access to markets, limited volume and range of natural resources, limited technological capacity and development and weak and poorly resourced institutional structures. Many of them are remote from major international markets and lack adequate and competitive air and sea freight connections. These problems are compounded by the negative impact and consequences of climate change.

¹ A thought piece prepared by: Sharma-Khushal, S (November 2016) that updates the Ramphal Institute Policy Brief: **Climate Change and SIDS: A Voice at COP21 for Small Farmers (Annex 1)**.

FIGURE 1: THE SPECIAL CIRCUMSTANCE OF SIDS



Small farmers in SIDS are among the most affected victims of climate change, but their voices and concerns are not adequately understood and taken into account in international negotiations. Small farmers in Small Island Developing States (SIDS) are bearing the brunt of the negative impact of climate change. The changing weather and climate patterns and the increasingly frequent extreme weather events such as prolonged drought, hurricanes and cyclones are bringing new challenges that affect productivity, costs and competitiveness of farming.

FIGURE 2: CLIMATE CHANGE IMPACTS OF SMALL FARMERS



These place in jeopardy the already precarious income and livelihoods of this most vulnerable group. However, their voices are not heard nor are their concerns sufficiently taken into consideration in climate change negotiations. These small farmers though are particularly important. Whilst their individual holdings are small, generally averaging just one hectare, they are often the foundation of rural communities and critical for nutrition security, employment and social cohesion in their low income communities.

THE PARIS AGREEMENT

Agriculture has been underrepresented in the UNFCCC previously, however this was not the case at COP21, where agriculture was firmly on the agenda. In the Paris Agreement there is no direct mention of industrial or smallholder agriculture specifically, but it is indirectly included through explicit mention of food production and security in the preamble [*Recognizing the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change*] and in Art 2.1b [*Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production*].

Following the Paris Agreement a few considerations for small farmers in SIDS are identified:

1. Small farmers in SIDS tend to have low absolute emissions per hectare even if worldwide, agriculture is the second biggest contributor to Green House Gas emissions. To meet population growth and rising food consumption demand, agricultural production will increase substantially, estimated to do so by 70% by 2050². Therefore, tackling agricultural emissions is essential for progress in reducing global emissions to limit warming to well below 2 degrees Celsius.
 - For SIDS, their overall contribution to emissions from agriculture remains marginal however agricultural land-use practices are critical in enabling climate resilient communities. There is opportunity for agriculture in SIDS to refocus on domestic markets to improve food security and nutrition and advance sustainable growth and rural development, but SIDS face gaps in capacity building, finance and technology
 - New and promising strategies and technologies for resilient agriculture (such as Climate Smart Agriculture) target both mitigation and adaptation to enable farming with improved productivity, increased resilience to climate change and reduced GHG emissions. SIDS can benefit from such dual strategies as it can open new partnerships and opportunities for their small farmers.

Whilst SIDS small farmers should not have undue mitigation pressures they should not be excluded from new agricultural adaptation and mitigation technologies and systems.

2. To reiterate, small farmers are amongst the most vulnerable to the impacts of climate change with the least adaptive capacity. For SIDS agriculture is integral to food production, food security, and rural livelihoods, and is under threat from the adverse effects of climate change. The Paris Agreement looks to limit warming well below 2 degrees Celsius however with the emissions reductions highlighted in the Intended Nationally Determined Contributions (INDCs), it is project that warming will exceed 3 degrees Celsius.
 - In a 1 degree Celsius warmer world, agriculture has already been negatively impacted in SIDS who are contending with substantial losses. For instance, the damage to crops and livestock due to Cyclone Winston in Fiji cost in excess of USD 61 million in 2016. The severity and frequency of extreme weather events have increased and require urgent adaptation. As such for small farmers in SIDS adaptation and addressing loss and damage are urgent priorities.
 - Art. 8 of the agreement sets out for the first time, loss and damage as a standalone issue in an international agreement on climate change.

At COP22 a five-year rolling work plan will be considered to build upon the results of the initial work plan initiated at COP20 and provides a further opportunity for SIDS to push for an integrated and fair approach

² Seebauer, M. (2014). Whole farm quantification of GHG emissions within smallholder farms in developing countries. *Environmental Research Letters*, 9(3)

to risk reduction, transfer and management with appropriate mechanisms for insurance, rehabilitation, compensation and risk management.

3. Agriculture was included in 119 INDCs for emissions reductions and 127 noted agriculture as an adaptation priority. In order to achieve the collective goals laid out in the NDCs it is important to:
 - Align public policies and institutions at different levels
 - Secure financial and technical support
 - Determine and strengthen sectoral responsibility and leadership
 - Encourage and facilitate cross sector collaboration
 - Encourage partnerships to enable sustainable, and climate resilient agriculture
 - Engage stakeholders at every level for equitable adaptation planning and governance
 - Have clear targets and monitoring
 - Have incentives and mechanisms to enable scaling of measures

To facilitate this, it is integral that Agriculture is represented in international climate frameworks. At the Bonn Climate Change Conference (SBSTA) in May 2016, agriculture was once again represented at side events. This is repeated at COP22 where on Thursday 17th November Agriculture will be the theme for the side event in the Green Zone.

Entrenching agriculture and smallholder priorities in climate change frameworks would be in the interest of SIDS smallholders, facilitating the partnerships and resources necessary to meet agricultural adaptation and, where appropriate, mitigation targets.

4. Dedicated financing for agricultural adaptation and mitigation needs scaling up. Between 2013-2015, two-thirds of climate finance in SIDS went towards adaptation efforts, a total of USD 525 million³. In the preamble of the Paris agreement a floor of USD 100 Billion/year till 2020 was established for mitigation and adaptation. The Green Climate Fund is the designated financial mechanism of the UNFCCC. It commits a 50:50 balance between adaptation and mitigation, with 50% of adaptation finance going towards the most vulnerable, namely: SIDS, LDCs and African States. The fund has USD 10.2 billion in pledges. The Adaptation for Smallholder Agriculture Programme (ASAP) is the only dedicated smallholder adaptation fund with a value of USD 336.25 million. It is unclear how much of this goes to SIDS. SIDS could benefit from clear projections of finance required for smallholder adaptation/mitigation/loss and damage. The following types of finance need to be developed and strengthened to meet the agricultural needs of SIDS and developing countries:
 - Adaptation finance
 - Agricultural adaptation finance
 - Mitigation finance
 - Agricultural mitigation finance
 - Private sector

³ Watson, C., Patel, S., Durand, A., & Schalatek, L. (2016). Climate Finance Briefing: Small Island Developing States. ODI. Retrieved from: <https://www.odi.org/sites/odi.org.uk/files/resource-documents/11053.pdf>

TABLE 1: FUNDS SUPPORTING SIDS (2003-16)⁴ – SHOWING THE MAJOR SOURCES OF CLIMATE FINANCE IN SIDS

Funds and Initiatives	Amount Approved (USD Mn)	Projects Approved
Pilot Programme for Climate Resilience (PPCR)	179.14	22
Least Developed Countries Fund (LDCF)	134.65	41
Global Climate Change Alliance (GCCA)	86.5	18
Adaptation Fund (AF)	72.78	10
Green Climate Fund (GCF)	56.33	8
Norway's Intl Climate Forest Initiative (ICFI)	65.95	1
Global Environment Facility (GEF 5)	38.69	19
Special Climate Change Fund (SCCF)	35.98	5
Forest Carbon Partnership Energy Programme (SREP)	26.6	7
Scaling up Renewable Energy Programme (SREP)	27.19	8
Germany's Intl Climate Initiative (ICI)	27.73	9
Global Environment Facility (GEF 6)	17.49	6
Australia's Intl Forest Carbon Initiative (IFCI)	3.04	1
United Nations REDD+ Programme (UNREDD)	6.93	2
Global Environment Facility (GEF 4)	16.97	14
Strategic Priority on Adaptation (from GEF 4)	2.07	1
Total	798.04	172

Climate finance, particularly in relation to agriculture, needs to be better defined and represented in order to meet adaptation and mitigation targets set out in the INDCs.

CLOSING THOUGHTS

The Paris Agreement is a step in the right direction. But it is just one small step in the beginning of a long road. It is important that the international community continues to adhere to its commitments to SIDS through other multilateral processes such as the 'SIDS Accelerated Modalities of Action (SAMOA) Pathway and subsequent Milan Declaration. These highlighted the urgent need to develop food security in SIDS amongst other things, with multi-lateral trading systems and trade policies playing a critical role. However, implementation of commitments has been slow. The progress achieved at COP21 and the accelerated momentum for change that it has instigated is promising for SIDS. The global community has recognized the urgency of acting on climate change and have reiterated the special circumstance of SIDS. Now is the time to keep the momentum going and forge the necessary partnerships and acquire vital resources to benefit SIDS small farmers.

⁴ Ibid

ANNEX 1

Climate Change and SIDS: A Voice at COP21 for Small Farmers

Briefing Document - Excerpts

November 2015

Small farmers in SIDS are among the most affected victims of climate change, but their voices and concerns are not adequately understood and taken into account in international negotiation

THE SPECIAL CASE OF SIDS

Being a small island state can make sustainable development especially difficult. Whilst SIDS are all developing countries, several of their features and constraints differ in unique ways from the characteristics of other countries at similar levels of development and in the same geographic zone. This requires that remedies i.e. policy prescriptions aimed at adaptation and resilience building must be specially tailored to their circumstances. Recognising SIDS Their land mass, populations, and economies are very small; many are geographically remote and dispersed; they are particularly vulnerable to natural disasters, which when they occur, cause complete national devastation; they have: a limited volume and range of natural resources; limited technological capacity; weak and poorly resourced institutional structures. Many of them are remote from major international markets and lack adequate and competitive air and sea freight connections.

Their specific features that need to be highlighted are:

1. Economic Characteristics

- Lack of diversification: A major consequence of smallness is that the limited range and volume of resources can preclude the range of goods/services in which production can achieve economies of scale and consequently minimum levels required for economic viability. SIDS tend to be heavily dependent on a single or very narrow range of economic activity for their livelihood; their economies are not sufficiently diversified. Their income often comes from just a particular agricultural commodity such as sugar or bananas or a service like tourism. Some SIDS are developing offshore tax havens and shipping registries, however these do not offer significant employment and income opportunities, particularly in rural areas.
- Competitiveness: Because of limited volumes for export, their frequent remoteness and for many their wage structures, the unit costs of production in SIDS can be very high and as well as the cost getting goods to overseas markets making it difficult for them to compete on the basis of low cost.

2. Environmental

- They are environmentally fragile and often contain delicate and fragile ecosystems that in many cases are reliant on the protection provided by forest cover, coral atolls and mangrove swamps. Their biodiversity and profile can come under pressure from a variety of climate related threats and invasive species.

3. Capacity

- Their institutional capacity is limited as a result of scarce resources and the small size of the pool from which qualified staff can be drawn. These demands can be exacerbated by the archipelagic character of several SIDS which can require duplication of certain facilities such

as schools and medical units in scattered and outlying islands. In essence the per-capita cost of management is higher in SIDS than in large countries. The lack of institutional capacity also extends to the private sector where limited human and other resources also constrain the producer organisations and such bodies.

AGRICULTURE SECTOR IN SIDS

Agriculture has always played an important role in the economies of most SIDS and subsistence agricultural production remains vital to their nutritional status, and social wellbeing.

- **Structure of the Sector:** In many SIDS agriculture is dominated by small farms that produce either for the local or the export market or some combination of the two. Historically for SIDS, their production has been within rigid and narrow production structures and protected trade agreements with the main export being an agricultural commodity. In general small holders are on more marginal and less productive land.
- **Low farm capitalization:** Given the high levels of rural poverty in many SIDS; the level of capitalisation relative to labour (often family) is low⁵. This has a range of implications including the inability to finance activities and acquire assets that might be high cost. For instance the installation of irrigation or the provision of credit demanded by purchasers of produce, such as hotels, supermarkets and foreign buyers might not be affordable. Significant capital investment is required to enable diversification of farm systems and adopt best practice.
- **Lack access to credit:** Small farmers in SIDS often operate outside of the formal financial sector. They lack collateral for loans from the banks and often their sole assets are the farm and home, which farmers might be unwilling to risk and sometimes do not have clear title to anyway. This means that the small farmers have very limited scope to undertake investment even in basic activities like soil preparation; purchase of planting material; installing water management systems, especially those like trickle irrigation that can be quite expensive. The combination of low capitalisation and unavailability of credit leave the farmer in a precarious financial position and exposed to bankruptcy should a crisis occur.
- **Export orientation:** The absorptive capacity of the very small domestic markets is limited and easily flooded, with disastrous financial consequences for farmers. This means that any major expansion of farm production must find an outlet overseas; i.e. be exported.
- **Inadequate plant hydration:** There is minimal artificial irrigation on small farms in SIDS, hence they generally rely exclusively on rainfall. Given the increasing vagaries in rainfall patterns as climate change takes hold, productivity levels could be affected.
- **Overseas Marketing:** This is a challenge. Historically traditional exports of products like sugar and bananas have been collected locally and marketed on behalf of the farmer. However in respect of other produce the farmer has no support and has to undertake market investigations, find and arrange with buyers, arrange packaging, freight and insurance, delivery and collect payment.
- **Regulatory challenges:** As small island states seek to diversify exports away from traditional export commodities where the value of traditional trade preferences have been severely eroded (e.g. bananas and sugar), a key regulatory obstacle that they face is in the operation of the SPS in the countries to which they export. The systems can have the consequence of

⁵ Thapa, Ganesh and Raghav Gaiha (2011). Smallholder Farming in Asia and the Pacific: Challenges and Opportunities. Paper presented at the IFAD conference on New Directions for Smallholder Agriculture, 24-25 January, 2011, International Fund for Agricultural Development, Rome, Italy

their produce having to meet higher SPS fees than competitors from larger and more established competitors.

- Complying with Private Standards: A related challenge facing small farmers is keeping abreast of and complying with such standards including those set by GLOBAL G.A.P. and others set by individual supermarkets, which are continuously becoming more onerous and demanding.

THE NEED FOR SUPPORT

The Ramphal Institute surveyed and undertook consultations with small farmers to understand their actual experience of the extent and the impact of recent changes that might be attributed to climate change. As well as ascertaining what concrete support they would require to deal with the new challenges.

The survey and consultations confirmed that the small farmers cannot adapt and build resilience all on their own, they need external help, both from the State and the international community.

The international community has already committed to providing support. Some of the relevant undertakings are enshrined in the declaration adopted at the Third United Nations International Summit Conference on Small Island Developing States namely the '**SIDS Accelerated Modalities of Action (SAMOA) Pathway**'.

World leaders renewed these commitments at the SIDS conference and made new pledges amounting to approximately US\$1.9 billion for implementing the Pathway. In Paragraph 63 of the SAMOA Pathway the Heads specifically concluded: "63. ... we are committed to working together to support the efforts of small island developing States:

- a) To promote the further use of sustainable practices relating to agriculture, crops, livestock, forestry, fisheries and aquaculture to improve food and nutrition security while ensuring the sustainable management of the required water resources;
- b) To promote open and efficient international and domestic markets to support economic development and optimize food security and nutrition
- c) To enhance international cooperation to maintain access to global food markets, particularly during periods of higher volatility in commodity markets;
- d) To increase rural income and jobs, with a focus on the empowerment of smallholders and small-scale food producers, especially women;
- e) To end malnutrition in all its forms, including by securing year-round access to sufficient, safe, affordable, diverse and nutritious food;
- f) To enhance the resilience of agriculture and fisheries to the adverse impacts of climate change, ocean acidification and natural disasters;
- g) To maintain natural ecological processes that support sustainable food production systems through international technical cooperation."

This urgent need to develop food security in SIDS was reiterated in the 'Milan Declaration on Enhancing Food Security and Climate Adaptation in Small Island Developing States, in the framework of the SAMOA Pathway'.

The Milan Declaration stated that the multilateral trading system must play a critical role in addressing food security. In particular it highlighted the need for the designations of "small, vulnerable economies", and "the net food-importing developing countries", to continue beyond the Doha round. In addition, it stated that trade policies should not have a negative impact on local food production, taking into consideration the vulnerability and lack of resilience of SIDS. It also noted that sustainable food systems are essential in promoting healthy living in SIDS. Finally, it reiterated the means of implementation through developing partnerships, the technology facilitation mechanism and financing.

SIDS will need access to greater financial resources in order to adapt. Financial support for improving smallholder agriculture could come from the traditional sources of development and environment finance as well as performance-based funding. The latter would include the sale of carbon credits (through for instance REDD+ mechanisms) or certified commodities, payments for ecosystem services, and Nationally Appropriate Mitigation Action budgets, however this would require the development of better data and research infrastructure to measure emissions and carbon stocks, and subsequently capture mitigation finance to its full extent.

An important source of global financing for smallholders is the Adaptation for Smallholder Agriculture Programme (ASAP). This was launched by the International Fund for Agricultural Development (IFAD) and it aims to channel climate finance to smallholder farmers, so they can access the information tools and technologies that they need in order to build resilience to climate change. IFAD will attempt to mobilize more climate finance at COP21, for SIDS ensuring that they are fairly represented in such programmes is essential.

RECOMMENDATIONS

As with COP21, SIDS representatives are urged to:

- Sensitise the international community to the serious predicament and challenges facing their small farmers as a result of Climate Change that is exacerbating their already tenuous economic positions.
- Remind the international community and donors of their specific commitments under the Samoa Pathway and the Milan Declaration on Enhancing Food Security and Climate Adaptation in SIDS, and seek to get firm and concrete guarantees that will give effect to these commitments

Specifically delegates are urged to seek:

1. The provision of adequate financial and technical support that will be used for: product upgrading to meet international quality standards; an affordable and sustainable insurance facility that will cover all losses of crops and farm-property; a well-financed post-disaster reconstruction fund; support for small farmer collaboration in: production, transportation and marketing and the development of inter-island small farmer organisations and their collaboration
2. An end to all discrimination against SIDS in the management of national SPS arrangements because of the limited numbers of shipments of consignments.
3. In view of the limited volumes of agricultural products exported by SIDS, which nonetheless are of considerable economic and social importance to the countries and their small farmers, target countries are urged to not to apply and to exempt SIDS agricultural exports from any safeguard measures or quantitative restrictions that they impose.
4. Call for greater international financial support for the development of associations of small farmers in SIDS and their collaboration and exchange of best practice within their regions and internationally.

Support needed: International financial and technical support is needed to enable small farmers and governments to undertake the adaptation and resilience building required.

The key measures include:

1. Diversification: Following review and upgrading of horticultural practices for Climate smart agriculture. This would entail support for investment, research, marketing for
 - a. Replacing less profitable crops with those that are more profitable and sustainable.
 - b. Having crops that are more suited to the changing weather and climatic patterns.
2. Overseas marketing: For diversification into new products to be successful farmers need to be able to deliver and market their goods effectively and remuneratively. Whilst they have often been able to do

so reasonably well on the local market, it generally is too small to be able to absorb the entire output of the small farming community; export is therefore vital. The markets that tend to be most available are the sophisticated and competitive markets of developed countries like those of Western Europe for the Caribbean and Australia and New Zealand for the Pacific. To be able to succeed here, the farmer needs, among other things, to fund investment and credit, market intelligence and have the capacity to monitor and comply with product standards and requirements.

3. Water management: The availability of water is already a serious problem for most small farmers, an increase in the incidences of drought and more erratic rainfall patterns makes the widespread reliance on rain-fed agriculture untenable. At the farm level micro systems might be devised that can include for instance, rainwater harvesting, conservation and plant hydration via drip-irrigation or canals. Adequate drainage is also an important part of the investment in water management.
4. Wind breaks: Open fields with such fragile plants like bananas and sugar-cane can be very vulnerable to high winds associated with storms hurricanes and cyclones. Strategically planted large trees can help protect the crops. These can also provide additional income if the trees themselves produce cash crops like mangoes for instance.
5. Insurance: Given the inevitability of weather and climatic shocks that can result in catastrophic losses to the farmer, some form of adequate crop insurance is vital if livelihoods are not to be jeopardised whenever disaster strikes. Under the ACP-EU Lomé Convention, a system entitled the Stabilisation of Export Earnings, STABEX existed which provided compensatory financial support when earnings dropped suddenly often as a result of destruction and loss caused by hurricanes or prolonged drought. This facility has not been replicated in the Economic Partnership agreement (EPA). The Caribbean has a CCRIF SPC, formerly the Caribbean Catastrophe Risk Insurance Facility that was launched in 2007 as “a regional catastrophe fund for Caribbean governments to limit the financial impact of devastating hurricanes and earthquakes by quickly providing financial liquidity when a policy is triggered”,³ but it is Governments that are the policy holders, not farmers or the private sector.
6. Renewable Energy: The energy use profiles of small farms in SIDS does not diverge substantially from the patterns in the wider society where there is in general heavy dependence on energy derived from fossil fuel. Developing and harnessing renewable supplies from such sources as solar, wind, biomass, biogas etc. can, in addition to reducing the carbon footprint of the farm, actually be more cost-effective in the long term. On certain farms where there are fast running streams, micro plants for generating power might be feasible

The Governments of SIDS have an important role to play via providing the supportive framework, specific adaptation and resilience building measures. They too will require support in:

1. Developing and properly maintaining infrastructure: In particular feeder roads, bridges, coastal and flood defences. The effort and costs entailed in this are expected to increase in line with the growing frequency of storms, hurricanes, cyclones, deluges, landslides and sea-surges which degrade and destroy infrastructure.
2. Supporting diversification: By undertaking and disseminating appropriate technical and market research on alternative crops and providing targeted advice to farmers.
3. Crop insurance: Helping devise and support a viable and affordable arrangement for providing crop insurance for small farmers.
4. Providing a post-disaster reconstruction fund. Catastrophic events like hurricanes and cyclones can result in substantial losses of farm equipment and property as well as to perennials like coconut, nutmeg and cocoa. Even if the farmer were to receive a crop insurance pay-out, he/she is often unable to fund farm reconstruction, replanting and reinvestment. Governments should therefore provide a disaster fund that would contribute to the cost of eventual recovery. Without

such facility, the pace of recovery is slowed because of a lack of funds and in some cases farmers can be obliged to abandon the land altogether because they lack the capital to invest.

It is imperative that, where appropriate, small farmers and their organisations are directly consulted and engaged in the conceptualisation, construction and management of the financial and technical support systems. This will ensure the appropriateness of the systems and the commitment and support of the farmers.