

Research on social protection to foster sustainable management of natural resources and reduce poverty in fisheries and forestry dependent communities in the Caribbean



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List of acronyms and abbreviations

ACS	Association of Caribbean States
ADB	Agricultural Development Bank
BAICO	British American Insurance Company
CALFICO	Calliaqua Fisherfolk Cooperative
CANARI	Caribbean Natural Resources Institute
CARICOM	Caribbean Community
CBO	Community Based Organization
CDAP	Chronic Disease Assistance Programme
CDB	Caribbean Development Bank
CDM	Comprehensive Disaster Risk Management
CEPEP	Community-based Environmental Protection and Enhancement Programme
CFTDI	Caribbean Fisheries Training and Development Institute
CLICO	Colonial Life Insurance Company Limited
CORE	Communities Organised and Ready for Emergencies
CRFM	Caribbean regional Fisheries Mechanism
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
DFID	Eastern Caribbean Marine Managed Network
ECMMAN	Human immunodeficiency virus
EU	European Union
FACRP	Fondes Amandes Community Reforestation Programme
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
GATE	Government Assistance for Tuition Expenses
GEF	Global Environment Facility
GoRTT	Government of the Republic of Trinidad and Tobago
HACCP	Hazard Analysis Critical Control Point
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation on Agriculture
IMF	International Monetary Fund
NEDCO	National Entrepreneurship Development Company Limited
NIBTT	National Insurance Board of Trinidad and Tobago
NIS	National Insurance Scheme (Trinidad and Tobago)
NIS	National Insurance Services (St. Vincent and the Grenadines)
NRWPTT	Network of Rural Women Producers Trinidad and Tobago
NRWRP	National Reforestation & Watershed Rehabilitation Programme
ODPM	Office of Disaster Preparedness and Management
OECS	Organisation of Eastern Caribbean States
PA	Protected Area
TTUF	Trinidad and Tobago United Fisherfolk
URP	Unemployment Relief Programme

Executive summary

This report presents the findings of a research study on social protection to foster sustainable development of natural resources and reduce poverty in fisheries and forestry dependent communities in the Caribbean. The study specifically examines social protection programmes and their use among small-scale fish harvesters and forest-users in the communities of Calliaqua and Diamond Village in Saint Vincent and the Grenadines and Blanchisseuse and Caura in Trinidad and Tobago. The report notes the key findings, and makes specific recommendations for the improvement of national social protection measures to benefit small-scale fishers and forest-users in each country.

Social protection includes “all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalised; with the overall objective of reducing the economic and social vulnerability of poor vulnerable and marginalised groups” (FAO, 2015).

Social protection measures typically include policies and programmes designed to facilitate employment and promote the efficient operation of labour markets (labour interventions, security against life-cycle events and livelihood risks or shocks (social insurance), and income transfers (cash) or consumption transfers (food or vouchers or subsidies) to the poor (social assistance).

In Trinidad and Tobago there is a comprehensive social protection programme aimed at reducing poverty. The paucity of information on the linkages between social protection, natural resource management and poverty alleviation in fisheries and forestry dependent communities in the country, however, makes it difficult to determine whether national and sectoral social protection programmes are contributing to the reduction of poverty in these communities. Findings indicate that while poverty among small scale fishers and forest-users and their communities may be low, vulnerability may be of more concern. They also show that while these smallholders may be benefitting, to some extent, from the broad range of social protection schemes, the direct benefit from sector oriented schemes are limited. It highlights the need for clearly defined fisheries and forestry policies and plans that incorporate social security, climate change adaptation and disaster risk management, and for a more participatory approach to policy development and implementation.

In Saint Vincent and the Grenadines fishing communities depend on each other to cope with shocks rather than using the more formal programmes that are available because of mistrust and lack of awareness of some of the programmes among fisherfolk. Forest-based enterprises and the households that depend on them, use all the programmes that are available to them because there is greater awareness of the programmes and longer history of their use in forest-based enterprises. Private insurance was however, not seen as a viable coping method because of past negative experiences with companies such as Colonial Life Insurance Company [Trinidad] Limited that went bankrupt. Some were unable to recover their monies. The National Insurance Service (NIS) was seen as too expensive for regular payments for the self-employed in both forestry and fisheries. The need for improved trust between fishers and government and fishers and the private sector and awareness building strategies to improve use of national social programmes are key areas to address. Tailoring the National Insurance Service to treat with the varying needs and capacities among self-employed persons should also be explored.

INTRODUCTION

This report is part of an overall study which is aimed at understanding the linkages between social protection, natural resource management and poverty alleviation in fisheries- and forestry- dependent communities in two Caribbean countries – Trinidad and Tobago and Saint Vincent and the Grenadines. The results of this study are intended to contribute to the overall goal and objectives of a United Nations Food and Agriculture Organization (FAO) global project on social protection to foster sustainable development of natural resources and reduce poverty in fisheries and forestry-dependent communities. The project is seeking to enhance national social protection systems to empower rural communities and their organizations so that these can help in the transition towards more sustainable and equitable natural resource management and poverty reduction.

METHODS

The findings for this study were generated from three key activities:

- i. The conduct of a desk study to examine:
 - o key regional policies which may be relevant to social protection and sustainable forestry and fisheries development that may be/are being implemented at the national level;
 - o policies and social protection schemes relevant to fisheries and forestry-dependent communities being provided by government, private sector, civil society and the local community;
 - o risks to, needs of and transitions taking place in small-scale fisheries and forestry sectors;
 - o stakeholders and their roles and responsibilities; and
 - o available information on the need for and access to social protection by rural communities and coverage
- ii. Semi-structured interviews with key informants focused on the community and household level:
 - o Semi-structured interviews were conducted with small-scale fishers in the coastal fishing communities of Blanchisseuse in Trinidad and Calliaqua in Saint Vincent, and small-scale forest users in the forest communities of Caura in Trinidad and Diamond Village in Saint Vincent. Potential interviewees were identified based on communication with fisherfolk and community leaders who identified persons that they thought would be willing to participate in the survey.

In addition to questions on the access and use of social protection programmes by the respondent and members of his/her household, the questionnaire used for the interviews (see Appendix 1) included questions on financial capital such as the respondent's main sources of income and average household earnings and regular expenses; human capital including educational level; social capital such as the respondent's participation in community groups; and questions related to vulnerabilities and coping strategies experienced by the respondent and his/her household. Approximately 16 percent of the fishers in the Blanchisseuse community were surveyed and 12 percent in Calliaqua.

Eight households in the Caura community were surveyed. It is uncertain what percentage of the small-scale forest using population the eight households represent as statistics on small-scale forest using populations are generally difficult to locate. One of the community leaders estimated that it could be in the range of 200-250 persons. However, the eight households represent approximately 1 percent of the population (776 persons at 2011 census) of Caura. Efforts were made to interview a variety of forest-users including women. The hunters in the community were reluctant to participate in the survey, as at the time the interviews were being conducted a moratorium on hunting was still

in force. In Diamond Village, there are approximately 100 persons who use the forest as a source of income, ten percent were surveyed.

Validation workshops:

- Validation workshops with key public sector agencies and members from the surveyed communities were undertaken in each of the project countries to verify the accuracy of the information obtained from the desk studies and community surveys.

LIMITATIONS

Due to the exploratory/pilot nature of this study, the sample sizes for the community (1 forest-dependent community, 1 fisheries-dependent community in each country) and household surveys were relatively small. As such, the findings should be viewed as being indicative of common issues faced by some small-scale fishers and forest users in these countries. To gain a better appreciation and be more statistically representative, future studies should be expanded to include more communities and larger household survey samples.

Survey respondents were not selected using a random sampling approach, but rather identified based on communication with community leaders, who identified persons that they thought would be willing to participate in the survey. This method of sampling could have potentially created a bias in the responses garnered from the sample groups.

DESCRIPTION OF PILOT COUNTRIES

Trinidad and Tobago

The twin island Republic of Trinidad and Tobago is a small but high-income country. With a population of 1.3 million people and rich in natural resources, it has one of the highest per capita incomes in Latin America and the Caribbean (US\$15,640 in 2013). The economy is largely based on oil and gas production.¹

Social protection in Trinidad and Tobago is provided by a mix of actors from the public and private sectors and civil society. However, the Government of the Republic of Trinidad and Tobago (GoRTT) is the main provider of social protection for the citizenry. The main social protection agency in Trinidad and Tobago is the Ministry of Social Development and Family Services which administers many social programmes targeted at social protection and poverty reduction funded by the Government.

Compared to some of its regional counterparts, Trinidad and Tobago is a more economically wealthy nation, due, in large part, to revenues realised from its oil and gas based economy. As such, the country is able to allocate a significant amount of the national budget to provide social protection for its citizens. In its July 2014, quarterly bulletin, the IDB noted that “Trinidad and Tobago has one of the most generous set of labour and social programmes, if measured by amount spent and variety, compared with other Caribbean countries” (IDB, 2014).

According to data available on the Central Bank of Trinidad and Tobago’s website, in 2014, the government’s expenditure related to “Transfers and Subsidies”² was roughly TT\$27 billion (US\$4 billion). To put this in perspective, the total government expenditure for that same period was roughly TT\$62.2 billion (US\$9.4 billion). Expenditure related to transfers and subsidies for 2014 therefore accounted for over forty-percent (40 percent) of total government expenditure. This indicates that the citizenry is provided with a significant level of social protection coverage from various subsidies and other government funded grants, programmes and services aimed at reducing poverty. In spite of this however, 2005 poverty estimates from the national Survey of Living Conditions

1 <http://www.worldbank.org/en/country/trinidadandtobago/overview>

2 Subsidies, grants, and other social benefits include all unrequited, non-repayable transfers on current account to private and public enterprises; grants to foreign governments, international organizations, and other government units; and social security, social assistance benefits, and employer social benefits in cash and in kind.

found that 16.7 percent of the population were poor³, with 1.2 percent indigent⁴ or severely poor. An additional 9 percent of the population was estimated to be vulnerable to poverty, but not poor⁵.

Information on rural poverty can be seen as being indicative for small-scale fisheries and forest-users in Trinidad and Tobago, as the majority of small scale natural resource users are rurally based.

Compared to urban areas, rural communities in Trinidad and Tobago are typically characterised by lower standards of living and higher poverty rates. The Survey of Living Conditions found that the poorest parts of the country in 2005 were the remote north east and the other extreme end, the south-west of the country. An analysis of the Trinidad and Tobago Survey of Living Conditions found that the counties of St. Andrew (30-40 percent of population below poverty line) and St. Patrick (18-30 percent of population below poverty line), counties have a significant proportion of rural communities, contributed a far larger share of the indigent and the poor (Kairi, 2007).

There is also a perceived bias by the Government for the development of urban areas compared to rural areas. For instance, rural communities often complain that basic infrastructure such as roads, public utilities and amenities such as water and electricity, education and training are often respectively in deteriorated condition, inconsistently supplied (if supplied at all) and of a lower quality or difficult to access. Some of these claims would appear to have been substantiated in the country's National Human Development Atlas survey of 2012 which found that access to clean water and electricity was better in urban areas compared to rural areas of the country (Human Development Atlas, 2012). These claims would appear to have been further substantiated among small-scale fishers in Trinidad and Tobago, in the CRFM's diagnostic study to determine levels in fishing communities, who identified the main concerns related to their community needs as asphaltting of roadways (30.59 percent of interviewees); the need to strengthen the drainage network (20.09 percent), running water (9 percent), more health centres (9 percent) and public transport (8.6 percent) (CRFM, 2012).

Livelihood opportunities are considered to be relatively scarce in rural areas. In general, rural dwellers depend to a large extent on the use of the natural resources in their communities for livelihoods and subsistence. However, there is the perception that the Government is not providing adequate support to stimulate the sustainable development of potentially viable sectors, such as tourism, fisheries, agriculture and forestry, that can bring benefits to rural communities.

In addition to government led educational, entrepreneurial and social employment programmes targeted at rural populations to reduce poverty on the ground, efforts at sustainable natural resource management at the national level through the development of various policies (e.g. National Forests Policy, National Protected Area Policy, National Wildlife Policy) have contributed (though the extent of this contribution is not fully known) in reduction of the risks and vulnerability of persons with natural resource based livelihoods. The connection is made when it is considered that natural

3 The poverty line was estimated at TT\$665 per month for the 2005 Survey of Living Conditions. There are two stages involved in the calculation of the poverty line – first food expenditure is estimated, then this expenditure value is inflated for non-food expenditure. Implicit in the food component is the notion that there is a minimum quantum of food below which an individual is likely to suffer ill-health. This is the indigence line: individuals and households who are unable to secure even this minimum level are not only poor, but are extremely poor and are regarded as indigent. Analysis of the Trinidad and Tobago Survey of Living conditions: <http://economicswebinstitute.org/data/trinidadliving.pdf>

4 Is the "Food" share of the Poverty Line.

5 Caribbean Development Bank. Country Strategy Paper 2011-14 Trinidad and Tobago http://www.caribbank.org/uploads/2014/12/BD74_11_CSP_Trinidad_and_Tobago_2011-14_FINAL.pdf

resource management can contribute to social protection because it would assist in conserving the natural resource base upon which many rural livelihoods depend, thereby reducing vulnerability to resource depletion. Fisheries policies however, are currently in draft form indicating that the development of the sector may largely be occurring in an ad hoc manner. It should also be noted that even in instances where formal management approaches have been established that these are still very top down and do not adequately promote participatory governance and management or fully consider or appreciate the challenges faced by small-scale natural resource users and rural households.

St. Vincent and the Grenadines

St. Vincent and the Grenadines (SVG) is comprised of the main island of St. Vincent and 32 smaller islands and cays representing the northern part of the Grenadines. It is roughly 390 km² in area with the main island of St. Vincent representing 344 km². Approximately 67 percent of the mountainous St. Vincent is forested. There are approximately 109,400 inhabitants in the country.⁶

St. Vincent and the Grenadines is heavily dependent upon agriculture (bananas, eddoes, dasheen (taro), arrowroot starch), tourism, light manufacturing, construction activity and some offshore banking for revenue. Banana was the main revenue-generating crop, but in 2007 when the Caribbean lost its preferential arrangements for banana exports with the European Union, the economy of St. Vincent and the Grenadines was severely affected. Tropical storms in 1994, 1995 and 2002 and unseasonal rainfall in 2013 which resulted in US\$12 million in damages negatively impacted the economy. St. Vincent and the Grenadines currently exports agricultural products mainly to its Caribbean neighbours and the United States. The country's ability to respond to external shocks and invest in social protection is hindered by a high public debt burden that was estimated at 67 percent of the approximately US\$1.335 billion Gross Domestic Product (GDP)⁷ in 2013. St. Vincent and the Grenadines is a member of the Organisation of Eastern Caribbean States (OECS) and the Caribbean Community (CARICOM).

In St. Vincent and the Grenadines, as in much of the Caribbean, forestry and fisheries related activities are carried out in rural communities where there is access to the natural resources. Fishing in rural communities such as Chateaubelair is mainly small-scale using pirogues. Pot fishing⁸, banking⁹ and trolling¹⁰ are some of the more common fishing practices being used by fishers in fishing communities. In forested communities such as Diamond Village economic activities include using the timber from the trees for craft and drum-making and agroforestry, while hiking is popular with tourists. Forested lands are cleared to make room for agricultural activities such as planting bananas, dasheen and plantains. Marijuana is illegally grown as an economic activity in forested areas.

In his 2015 budget speech, the Prime Minister of St. Vincent and the Grenadines reported that 30.2 percent of the population lived below the poverty line while 2.7 percent lived in extreme poverty. A further 18 percent were vulnerable to economic shocks. Unemployment stood at approximately 21 percent in 2012. Approximately 55.6 percent of the poor are located in the rural north of the country. Agriculture in forested areas, agroforestry and fishing are the main activities in those rural communities suggesting that a significant number of the forestry and fisheries-dependent households in rural communities are poor. A regional study to determine

6 <http://data.worldbank.org/country/st-vincent-and-the-grenadines>

7 http://www.indexmundi.com/saint_vincent_and_the_grenadines/economy_profile.html

8 http://www.indexmundi.com/saint_vincent_and_the_grenadines/economy_profile.html

9 A type of line fishing where a weighted line with one or a few hooks are sunk to capture species such as grouper.

10 Baited lines are pulled slowly behind a moving vessel (Staskiewicz and Mahon 2007)

the levels of poverty in fishing communities in CARICOM countries, found that for St. Vincent and the Grenadines 5.41 percent were considered poor and 10.81 percent were considered vulnerable . No such study seemed to have been done for forestry in St. Vincent and the Grenadines.

Communities in rural areas in St. Vincent and the Grenadines have limited access to infrastructure such as paved roads, potable water, education and training. The Caribbean Regional Fisheries Mechanism's (CRFM's) Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities investigated poverty levels in fishing communities in St. Vincent and the Grenadines and found that the needs of the communities included the asphaltting of roadways (31.4 percent of interviewees), strengthening the drainage network (15.12 percent), provision of health centres (13.95 percent) and public transport (9.30 percent) .

The recent causes of poverty in St. Vincent and the Grenadines included several factors that impacted the national economy. The loss of preferential treatment in the European markets saw the decline in banana production from 80,000 tonnes in the 1990s to 18,000 tonnes in the 2000s. The global economic crisis in 2008, several tropical storms in 1994, 1995 and 2002 and heavy rainfall in 2013 causing damage estimated at US\$12 million, all affected the national economy.

Literature Review

Social protection in its broadest sense can be thought of as a set of actions that seeks to reduce poverty and vulnerability. Common types of social protection include:

- Labour market interventions - policies and programs designed to facilitate employment and promote the efficient operation of labour markets.
- Social Insurance - security against life-cycle events and livelihood risks or shocks (e.g. unemployment insurance).
- Social Assistance - income transfers (cash) or consumption transfers (food or vouchers or subsidies) to the poor.

While there is no single definition of social protection, a broadly representative definition is “all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalised, with the overall objective of reducing the economic and social vulnerability of poor, vulnerable and marginalised groups” (FAO, 2015). In line with this definition, social protection instruments are frequently interpreted as being preventive, protective, promotive and transformative ((Devereux and Sabates-Wheeler, 2004):

- Protective measures are narrowly targeted safety nets for income and consumption smoothing in periods of crisis or stress (e.g. social assistance programmes for the chronically poor and coping strategies).
- Preventive measures seek to avert deprivation (e.g. social insurance such as pensions and maternity benefits and diversification mechanisms).
- Promotive measures aim to enhance real incomes and capabilities, and provide springboards and opportunity ladders out of poverty through economic advancement.
- Transformative measures seek to address concerns of social equity and exclusion through social empowerment (e.g. collective action for workers’ rights, building voice and authority in decision-making for women).

In this context it is also important to be clear about the definitions of *poverty and vulnerability*. Further, it is important to understand how poverty and vulnerability are linked with social protection.

DEFINING POVERTY AND VULNERABILITY

Poverty is not merely the absence of financial resources. As studies on poverty continue to emerge, definitions that articulate the multi-dimensional nature of poverty are understood. For example, the UN Committee on Social, Economic and Cultural Rights (2001) defines poverty as:

“...a human condition characterised by the sustained or chronic deprivation of the resources, capabilities, choices, security, and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights (UN Committee on Social, Economic and Cultural Rights, 2001, work cited in E.H. Alison et al, 2011)”.

By this definition, it is clear that in understanding poverty one must consider, in addition to financial assets, people’s ability to access other types of capital including human capital, social capital, physical capital and environmental capital. Access to the aforementioned types of capital are significantly influenced by the institutional environment in which communities and households operate.

In recent years the term vulnerability has become significant in understanding poverty and notably in its relation to the impacts of climate variability and change on natural, man-made and human systems. In regard to the latter, the term vulnerability, according to Allison et. al, (2011), is understood in terms of:

“...people’s exposure to risks, the sensitivity of their livelihood systems to these risks and their capacity to use their assets and capabilities to cope with and adapt to these risks”

Vulnerability then can place a household on a sliding scale of poverty so to speak. That is to say, a household not currently exposed to a certain risk may be able to avert poverty, but under exposure to certain risks or hazards may find it difficult not to fall into poverty (or get back out). A household’s or individual’s ability to avert poverty is therefore linked to their level of vulnerability.

The Department for International Development’s (DFID) Sustainable Livelihoods Framework in Figure 3.1 below shows the linkages between the abovementioned factors.

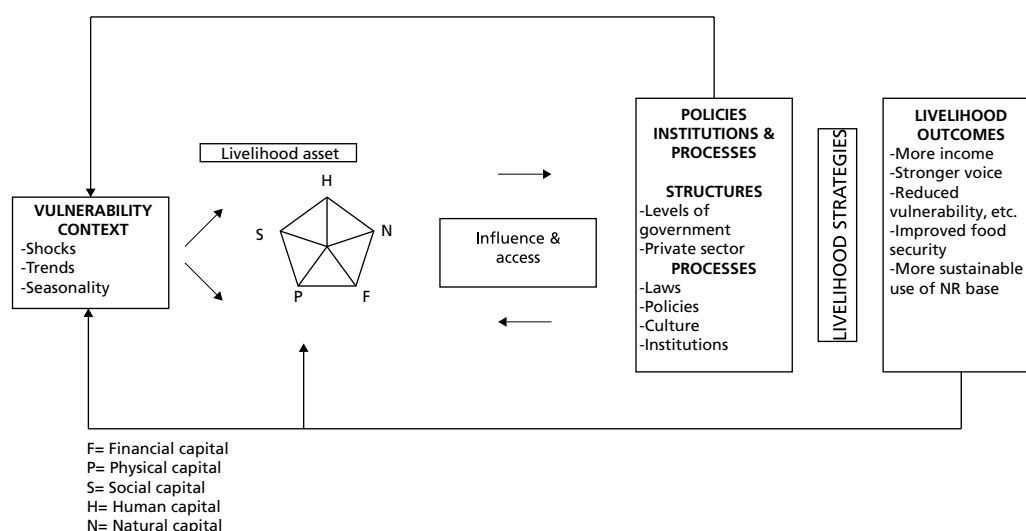


Figure 3.1 DFID's Sustainable Livelihood Framework showing the linkages between livelihood assets, vulnerability and the institutional environment

THE LINK BETWEEN POVERTY, VULNERABILITY AND SOCIAL PROTECTION.

Based on the above definitions, Figure 3.2 below attempts to show the links between poverty, vulnerability and social protection. As the diagram illustrates, poverty can be defined in terms of people’s access to certain assets and degree of vulnerability. Social protection actions, can then seek to reduce poverty by either reducing vulnerability, specifically by either reducing exposure (or frequency of exposure) to risks and hazards, reducing livelihood sensitivity to risks and hazards and/or increasing adaptive/ coping capacity; and/or by improving access to assets/capital through, for example, a sustainable livelihoods approach.

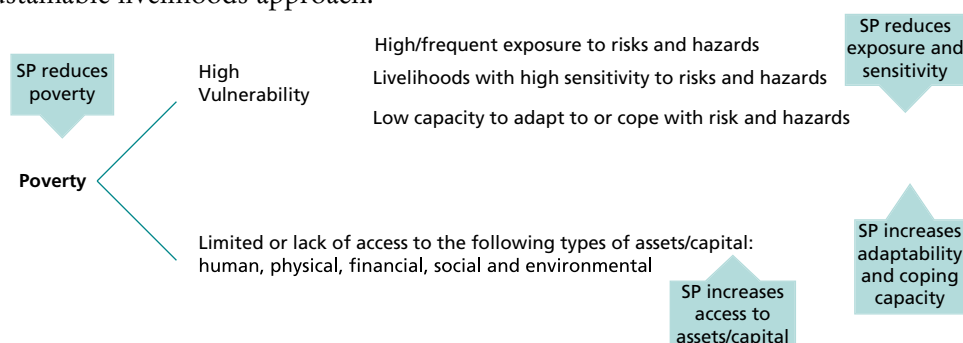


Figure 3.2: The links between poverty, vulnerability and social protection (SP).

Poverty and vulnerability in the Caribbean

At a regional level Caribbean states are exposed to a number of economic and environmental shocks including downturns in the global economy, global trade fluctuations and natural hazards such as hurricanes, earthquakes and volcanic eruptions (Barrientos, 2004). For example, the revocation of the preferential trade agreement between the European Union (EU) and the Caribbean brought about major adverse economic impacts in banana exporting countries such as Saint Lucia and Saint Vincent and the Grenadines. Similarly, natural hazards such as the devastating earthquake that impacted Haiti in 2010 have long-term adverse effects, especially on national Caribbean economies that have low resilience to hazards and shocks.

Poverty rates vary widely in the Caribbean. Estimates for persons living below the poverty line in the Bahamas for example are 9.3 percent (2010 estimate) while in Haiti the estimated percentage of persons living below the poverty line is 80 percent (2003 estimate). The data for the region indicates that poverty levels for the region vary between 14 and 43 percent of the population over the 1995 to 2004 period (Downes, 2010). Country Poverty Assessments (sponsored by the Caribbean Development Bank) undertaken in recent years indicate that levels of poverty are particularly high in the Eastern Caribbean states of St. Kitts and Nevis, St. Lucia, Grenada, and Dominica and moderate in Antigua and Barbuda. In countries where several poverty estimates are available the data suggest an increase in poverty amongst individuals in Belize (1996 to 2006), Grenada (1998 to 2008) and St. Lucia (1996 to 2006), while it decreased in Guyana (1993 to 1999), St. Kitts and Nevis (2000 to 2007) and Trinidad and Tobago (1992 to 2005) (Downes, 2010).

The incidence of indigent (food) poverty is relatively low in the region, generally under 10 percent of the population. Belize, Guyana, Dominica and St. Vincent and the Grenadines, however, displayed significant levels of indigent poverty (that is, between 13 and 29 percent of the population) (Downes, 2010).

SOCIAL PROTECTION IN THE CARIBBEAN

Social protection includes a wide range of interventions, from macroeconomic policy, social and market insurance, social assistance, labour standards, employment generation, micro-credit and micro-insurance, education and training and disaster prevention and relief. These are all interventions that protect the vulnerable from natural, economic, and social hazards (Barrientos, 2004).

The level of social protection offered at national levels within the Caribbean region varies widely, and depends to some extent on a country's ability to allocate national funding for such measures. Studies show however that, in general, social protection expenditure at the national levels is insufficiently well targeted on poor and vulnerable groups, and that coverage is patchy (Barrientos, 2004).

SOCIAL PROTECTION POLICY IN THE CARIBBEAN

Social protection and related policies, strategies and programmes in the Caribbean are articulated by a number of regional bodies and institutions including the Association of Caribbean States (ACS), CARICOM, OECS and the Caribbean Development Bank (CDB). Policies may be broad-based dealing with poverty and vulnerability at the national level (or across all sectors) or focused on addressing vulnerabilities unique to a particular sector.

The Regional Framework for Achieving Development Resilient to Climate Change and the CARICOM Regional Food and Nutrition Security Policy are examples of broad-based policies that seek to respectively address vulnerabilities across sectors related to climate variability and climate change and food and nutrition security in the region. Similarly, the CARICOM Agreement on Social Security aims to harmonise social security legislation of the Member States of the Caribbean Community to ensure that CARICOM nationals are entitled to benefits and provision of equality of treatment when moving from one country to another. Other broad-based policies include the Declaration on Health for the Caribbean Community (1982) and the CDB's Education and Training Policy and Strategy.

REGIONAL POLICIES RELEVANT TO THE FISHERIES AND FORESTRY SECTORS IN THE CARIBBEAN

Forestry and fisheries resources are very important to the economies of many Caribbean countries. Although, CARICOM and the OECS have no specific forestry policy they do have a number of policies related to the use of forest-based resources and activities. Focused policies that speak (directly or indirectly) to the fisheries and forestry sectors in CARICOM and/or the OECS include the:

- CARICOM Agricultural Policy
- Liliendaal Declaration on Agriculture and Food Security
- Caribbean Community Energy Policy
- Revised OECS Regional Plan of Action for Agriculture 2012-2022
- St. George's Declaration Principles of Environmental Sustainability
- OECS Policy on Protected Areas System
- OECS Environmental Management Strategy
- Liliendaal Declaration on Climate Change Development
- Regional framework for achieving development resilient to climate change
- Caribbean Regional Fisheries Mechanism's (CRFM) Strategic Plan (2013-2021)
- Castries (St. Lucia) Declaration on Illegal, Unreported And Unregulated Fishing
- Caribbean Community Common Fisheries Policy

To some extent, each of these policies incorporates either protective, preventive, promotive or transformative social protection measures (See Appendix 2).

SOCIAL PROTECTION FOR SMALL-SCALE FISHERS AND FOREST USERS

Natural resource-based livelihoods, such as fisheries and agriculture contribute significantly to food security, poverty alleviation and employment for rural and coastal communities in the Caribbean. However, natural resource-based livelihoods are vulnerable to a number of risks and shocks including: natural shocks such as climate variability and change and natural disasters and unsustainable resource use; human capital risks such as low literacy rates and inadequate training opportunities; and social exclusion in terms of inadequate participation in the governance and management processes for the fishery and forestry resources. In addition, social protection, in the form of social insurance, labour standards and disaster relief and prevention are considered to be generally tenuous for small-scale natural resource users.

A Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities¹¹, undertaken by the Caribbean Regional Fisheries Mechanism (CRFM), found that more than half of the fisherfolk interviewed for the study were not participating in a social security system (CRFM, 2012). The reasons for low participation

¹¹ The Diagnostic Study was conducted in ten selected CARICOM countries: Barbados, Belize, Grenada, Guyana, Jamaica, Montserrat, St. Kitts and Nevis, St. Vincent and the Grenadines, Trinidad and Tobago and The Bahamas

may vary, such as inadequate awareness among fishers about social security systems, insufficient outreach by social security bodies and the attitude of fishers to participate in social protection services (Phillips, 2014). It should also be noted that social security systems, such as social insurance schemes, have not evolved to adequately capture earnings and determine appropriate contributions that would confer benefits to the self-employed. The inadequate inclusion of small-scale fishers and forest-users in social protection systems means that these groups are disproportionately more vulnerable to macro and micro level economic and natural shocks.

Macro-level policies at national levels to address, market access, small-scale enterprise development, climate change adaptation, disaster risk management and other areas that can confer social protection benefits in the fisheries and forest sectors may not be adequately serving small-scale natural resource users at the community level. This is especially the case when these policies are not supported by an enabling environment such as legislation and institutional frameworks and action plans for implementation, with adequate budgetary support.

Fisheries and forestry policies at the national levels

In many instances while fisheries policies have been approved at the regional level, they are yet to be reflected in national fisheries and related food and nutrition security policies. Another common issue with fisheries policies in the region is that in many countries, national fisheries policies and management plans are outdated, or, even though developed, are still in draft form/not approved. Consequently, there is a tendency to address issues in an ad hoc or piecemeal manner without any clearly articulated policy framework (Phillips, 2014).

Conversely, a study on forestry policies in the region found that the low performance in the forestry sectors in the region was not due to an absence of approved forestry policies, but partly due to the inadequate conceptual framework and understanding of what public policy is and the absence of the necessary complementary programmes for policy implementation (FAO, 1998).

GAPS IN REGIONAL POLICY AND INSTITUTIONAL FRAMEWORK FOR SOCIAL PROTECTION POLICIES IN THE CARIBBEAN

- Absence of an overarching policy and strategy on social protection in the CARICOM region
- Inadequate inter-sectoral planning to address issues of poverty and vulnerability at the regional and national levels
- Inadequate monitoring and evaluation of the implementation of regional policies and strategies that relate to the reduction of poverty and vulnerability and the provision of social protection
- Inadequate institutional arrangements to promote participatory governance and management of natural resources at the regional and national levels

Structure of the report

The remainder of this report is structured into two main sections as follows:

Section A: Findings from the national desk study and community-level surveys (fisheries and forestry) conducted in Trinidad and Tobago; and

Section B: Findings from the national desk study and community-levels surveys (fisheries and forestry) conducted in Saint Vincent and the Grenadines.

SECTION A

DESK STUDY AND COMMUNITY SURVEY FINDINGS FOR TRINIDAD AND TOBAGO

Institutional environment for social protection in Trinidad and Tobago

In this section, some of the policies and social protection schemes and measures in Trinidad and Tobago applicable to fisheries and forestry dependent communities being provided by government, private sector, civil society and local communities will be identified and discussed. The measures outlined (which are not exhaustive) can be categorised as either targeted (specifically applicable to fishers and forest-users) or universal (applicable to all persons including fishers and forest-users). Social protection schemes and programmes listed include social assistance initiatives (transfers in cash or in-kind to poor/vulnerable households), social pensions, social insurance and social employment. Policies and strategies aimed at social protection identified include labour market interventions, sustainable natural resource management policies and strategies, poverty reduction strategies and efforts at reducing vulnerability to natural disasters.

NATIONAL POLICY FRAMEWORK FOR POVERTY REDUCTION IN TRINIDAD AND TOBAGO

The Government of the Republic of Trinidad and Tobago (GoRTT) developed a Medium Term Policy Framework for the period 2011-2014. This framework outlined seven interconnected pillars of sustainable development toward the realisation of the GoRTT's commitment of "Prosperity for all". Pillar Two (2) - "Poverty Eradication and Social Justice" - is the most applicable to social protection. In an effort to achieve the GoRTT's goal of a two-percent annual reduction in poverty, a number of social protection programmes were established and are currently being implemented by the public sector. These are reported on annually in the government's Social Sector Investment Programme report¹².

Two key social protection initiatives established under the Social Sector Investment Programme are the National Poverty Reduction and Eradication Programme and the Social Welfare Division. These initiatives are implemented by the Ministry of Social Development and Family Services. The purpose of each are summarised in Table 5.1 below.

¹² Social Sector Investment programme 2015: <http://finance.gov.tt/wp-content/uploads/2014/09/SSIP-2015.pdf>

Table 5.1: Summary of objectives of the National Poverty Reduction and Eradication Programme and Social Welfare Division

Initiative	Purpose
National Poverty Reduction and Eradication Programme	<ul style="list-style-type: none"> Strengthen the institutional framework for poverty reduction through the establishment of a network of civil society organizations; Decentralise poverty interventions by establishing Regional Social and Human Development Councils; and Deliver key poverty eradication projects that would address poverty, vulnerability and sustainability at individual and community levels
Social Welfare Division	<p>To provide:</p> <ul style="list-style-type: none"> income support to persons over sixty-five (65) years who satisfy other criteria of income and residence; income support to the disabled financial assistance to the infirm and needy; assistance on behalf of children whose parents have died, deserted, or are ill, or imprisoned; assistance to victims of natural disasters Senior Citizens' Pension; and Grants e.g. Public Assistance Grant; Disability Assistance Grant; General Assistance Grant which provides grant funding for, inter alia, house repair, home help aid, clothing, funeral expenses and education expenses.

PROTECTIVE SOCIAL PROTECTION MEASURES IN TRINIDAD AND TOBAGO

Table 5.2 below shows the protective social protection measures that are available to the general public in the country including those in fisheries and forestry- dependent communities.

Table 5.2: Table showing protective social protection measures in Trinidad and Tobago

Organization type	Examples of social protection programmes	Formal	Informal
Government	<ul style="list-style-type: none"> Targeted Conditional Cash Transfer Programme- a short-term food assistance and development programme that provides conditional cash transfers to eligible recipients to assist in meeting nutritional needs of the household. Public Assistance Grants – a monthly subsistence grant designed to provide financial aid to adults who are unable to work because of ill health. Emergency Case Fund/General Assistance Grant -this fund provides several grants designed to assist needy persons as well as persons who have been victims of natural disasters such as hurricane, fire or flood. 	Y	N
Private Sector	<p>Cash and in-kind transfers as part of Corporate Social Responsibility efforts¹³</p> <ul style="list-style-type: none"> Compensation to fishers by oil companies after seismic surveys are conducted Established programmes by oil companies that offer grants and transfers (cash, equipment etc.) to communities within their range of operation 	Y	N

¹³ Although there is no national CSR policy, a project to map corporate social responsibility in Trinidad and Tobago report found that the private sector played an important role in the provision of social and environmental programmes in the country (Balboni et.al, 2007). According to the report, for the period 2001-2006 the companies sampled for the mapping project spent approximately TT\$54 million on external social and environmental programmes; which at that time represented between 2 percent and 4 percent of the annual expenditure of the Government on social and developmental programmes over the previous few years. While the mapping project found that some companies have established CSR programmes with set goals aimed at offering social protection, the majority of others operate on a more ad hoc basis. As such, it was difficult to gain a full appreciation of the level of CSR activity within the private sector.

PROMOTIVE SOCIAL PROTECTION MEASURES IN TRINIDAD AND TOBAGO

The table below shows the promotive social protection measures that are available to the general public in the country including those in fisheries and forestry- dependent communities.

Table 5.3: Table showing promotive social protection measures in Trinidad and Tobago

Organization type	Examples of social protection programmes	Formal	Informal
Government	<ul style="list-style-type: none"> Free education up to the tertiary level - education in the country is free up to the secondary level (this refers to tuition only, books uniforms, meals and other school supplies must still be purchased although programmes are available to support lower income households). At the tertiary level, education is highly subsidised through the Government Assistance for Tuition Expenses (GATE) programme. Under the GATE programme tertiary education is free for all eligible citizens of Trinidad and Tobago. Education Grant- a grant of TT\$500 (US\$75.36)/month/child for children from extremely low level income households who are unable to meet basic needs for school attendance. School Nutrition Programme- the programme provides breakfast and lunch for children from low income earning households Free school transport service (in select areas only). Free public health care ¹⁴ - Under the public health system, health care services and some medications (through the Chronic Disease Assistance Programme (CDAP) which provides citizens with free prescription drugs and other pharmaceutical items to combat a variety of chronic health conditions) are provided free of charge. Unemployment Relief Programme (URP)¹⁵ is a social safety net programme that provides short term employment opportunities for participants, but also seeks to build entrepreneurial skills. Community-Based Environmental Protection and Enhancement Programme (CEPEP) provides part-time employment for unemployed persons eighteen (18) years and old to provide environmental protection, enhancement and beautification services. Micro-Enterprise Loan Facility- a community empowerment and poverty reduction initiative, which equips Community Based Organizations (CBOs) to actively engage in promoting sustainable livelihoods among the poor through the provision of micro loans and support to micro entrepreneurs National Entrepreneurship Development Company (NEDCO) Limited is a state agency with a mandate to develop small and micro businesses whose needs are not met by traditional lending agencies. 	Y	N

¹⁴ Previous livelihood studies undertaken by CANARI have found that residents in rural areas regard the quality of service provided by the public health centres in their regions as poor. For example, in a livelihood survey conducted by CANARI in 2014, residents from the rural areas of Brasso Seco and Blanchisseuse noted that a doctor only visited the health centre that served their communities once per week. In many instances, these centres represent the most immediate access to health care in rural communities, as access to hospitals, due to remoteness or poor access to transport (private and public) may be difficult.

¹⁵ The unemployment rate in Trinidad and Tobago is estimated at 3.3 percent (2014 estimate), one of the lowest unemployment rates since the country's unemployment rate peaked at 20 percent in 1990. This reduction in unemployment has in part been attributed to the increase in social employment programmes administered by the State such as the aforementioned URP and CEPEP programmes which offer short-term employment to unskilled/semi-skilled labourers at a wage (TT\$17.25/hour or US\$2.60) above the minimum wage (US\$15.00/hour or US\$2.26). In a recent IMF report however, the organization noted, that while government administered social employment programmes may be contributing to a reduction in unemployment figures, the programmes themselves were adding very little value to the labour market. The report also suggested that these programmes may be masking a more serious issue of underemployment (IMF, 2014).

Private Sector	<ul style="list-style-type: none"> Private sector services that cater to the poor and vulnerable e.g. Private institutions that provide loans and financial services to owners of micro-enterprises, specifically targeting entrepreneurs that are unable to secure loans through more formal lending institutions. 	N	Y
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PREVENTIVE SOCIAL PROTECTION MEASURES IN TRINIDAD AND TOBAGO

Contributory social insurance scheme

The National Insurance System (NIS) is a contributory social insurance scheme administered by the National Insurance Board of Trinidad and Tobago (NIBTT). The NIBTT was established by Act of Parliament No. 35 of 1971. Under the System, employed persons between the ages of 16 and 65 years who work in State sponsored or private sector enterprises are required to register with the NIBTT and make contributions based on their earnings. Employers are also required to register and make contributions to the System. Persons who register and pay contributions are entitled to benefits in the following categories: Sickness Benefit, Maternity Benefit, Invalidity, Funeral Grant, Retirement, Employment Injury, Employment Injury(Death) and Survivors' Benefit. Self-employed persons currently do not receive coverage under the System even though coverage for self-employed persons is outlined in the National Insurance Act No. 35 of 1971. This has implications for small-scale fishers and forest-users who may generally be categorised as self-employed. The Eighth Actuarial Review of the National Insurance System (2010) outlines, inter alia, the following reasons in Box 1 for the non-inclusion of self-employed persons in the National Insurance System.

BOX 1 – Excerpt from the Eighth Actuarial Review of the National Insurance Board of Trinidad and Tobago: Challenges with the inclusion of self-employed persons in the National Insurance System

- **Earnings basis for the calculation of contributions and benefits.** The definition of covered earnings is an issue. Many self-employed persons have irregular earnings over the year and many self-employed jobs are seasonal. There is thus an issue concerning the equalization of earnings over the year for many self-employed persons.
- **Definition of self-employed status.** The employment status may be difficult to establish in some industries. For example, fishermen may be classified as self-employed or salaried (and presently few salaried fishers pay NIS contributions).
- **Definition of retirement.** Retirement is not a clear-cut event for a self-employed person. For example, the owner of a taxi may continue to receive income from the operation of his taxi after he retires. (Centre for the International Promotion of Québec, 2012)

Non-contributory senior citizens pension

The Senior Citizens Pension, commonly referred to as “old age pension”, is a non-contributory social pension provided by the State to all citizens and legal residents sixty-five (65) years or older whose monthly income does not exceed TT\$3000.00 (US\$452.19). Beneficiaries can receive between TT\$1000 (US\$150.73) - TT\$3000 (US\$452.19) per month based on their monthly income. Self-employed persons, currently unable to secure a pension through NIS are reliant on senior citizen pension benefits.

CIVIL SOCIETY'S ROLE IN FACILITATING SOCIAL PROTECTION FOR SMALL-SCALE FISHERS AND FOREST USERS IN TRINIDAD AND TOBAGO

While the Government is the main provider of social protection in Trinidad and Tobago, civil society also plays a key role in this regard. There are a wide range of civil society organizations operating in Trinidad and Tobago. These include community based organizations such as the Caura Valley Farmers' Group and primary fisherfolk organizations such as the Blanchisseuse Marine Life Association that operate at the local level, and national level organizations such as the Hunters Association of Trinidad and Tobago and the Trinidad and Tobago Unified Fisherfolk (TTUF). Technical non-governmental environmental organizations such as CANARI with national and regional foci also exist.

CANARI's work in promoting and facilitating participatory natural resource management has fostered relations with national and regional fisherfolk and forest-based organizations.

In terms of providing social protection for rural small-scale fisheries and forestry communities, civil society organizations in Trinidad and Tobago provide support in different ways. These include:

- advocating and negotiating for enhanced social protection measures and inclusion of small-scale fishers and forest-users in decision-making;
- holding government accountable when they fail to implement policies, legislation and direct financing toward social protection efforts;
- developing programmes relevant to the social protection of vulnerable groups in an effort to secure donor funding; and
- implementing projects that contribute to social protection of vulnerable groups

Many civil society initiatives geared toward the social protection of small-scale fisherfolk and forest-users are also aimed at conserving the resource base upon which these groups depend and/or building their capacity, through education and training to sustainably use these resources. Civil society organizations may implement projects under established programmes with specific goals and targeted outcomes or on an ad hoc basis. The Caribbean Natural Resources Institute (CANARI) is an example of the former, as it implements a variety of projects targeted at small scale fishers and forest-users through the organization's Coastal and Marine Livelihoods and Governance¹⁶; Forest, Livelihoods and Governance¹⁷, Climate Change and Disaster Risk Reduction and Rural Livelihoods programmes.

COMMUNITY-BASED SOCIAL PROTECTION INITIATIVES

Community-based social protection can be defined as 'institutional arrangements where people rely upon community and family relationships to meet their security needs' (Browne, 2013). The key features are that institutions are locally developed, that they usually rely on family or community networks, and have a strong element of reciprocity (Browne, 2013).

Livelihood analyses conducted by CANARI have shown that community-based social protection mechanisms mostly include mutual assistance e.g. fund raising in times of need and assistance with labour; and savings groups using a traditional form of saving called sou-sou (CANARI, 2014). A sou-sou is a rotating savings arrangement where a group of people each contribute an equal amount of money for a pre-determined period of time and then each person gets a chance to all the money. While this form of saving is free from interest and traditional banking procedures, it is based on a high degree of trust and reciprocity.

There appears to be very little documented information on the effectiveness of community-based social protection mechanisms in Trinidad and Tobago.

16 Strengthening Caribbean Fisher folk to Participate in Governance project: <http://www.canari.org/strengtheningcaribbean-fisherfolk-to-participate-in-governance>

17 Support to Improve the Effectiveness and Sustainability of Forest-Based Community Businesses in St. Vincent and The Grenadines: <http://www.canari.org/support-to-improve-the-effectiveness-and-sustainability-of-forest-basedcommunity-businesses-in-st-vincent-and-the-grenadines>

National climate change and disaster risk reduction policies and strategies

Trinidad and Tobago's Climate Change Policy (2011) specifically acknowledges the potential impacts of climate change on the country's coastal resources and the role of forests in mitigation. The policy further speaks to the implementation of adaptation and mitigation strategies of coastal ecosystems to ensure the continuous provision of food and sustainable livelihoods for communities. One effort toward the realization of this objective has been the appointment, by the Cabinet of Trinidad and Tobago in 2012, of a Multi-Sectoral Steering Committee to develop an Integrated Coastal Zone Management Policy Framework, Strategies and Action Plan for Trinidad and Tobago. One of the outputs of the Committee to date has been a draft Integrated Coastal Zone Management Policy Framework which considers the impacts of natural hazards, including climate change and variability, on the coastal zone.

The National Climate Change policy also highlights the need to integrate adaptation planning into national policy and planning. The mainstreaming of climate adaptation and mitigation considerations into national sectoral policies, programmes and projects however is still tenuous and it is expected that many sectoral policies will need to be revised in order to comply with the 2011 climate change policy.

THE OFFICE FOR DISASTER PREPAREDNESS AND MANAGEMENT

At the national level, comprehensive disaster management is coordinated through the Office for Disaster Preparedness and Management (ODPM), a division of the Ministry of National Security. The ODPM functions as the national coordinating agency that manages all phases of the Disaster Management Cycle; prevention, mitigation, preparedness, response and recovery as well as climate change adaptation programs (ODPM, 2011)¹⁸. The ODPM uses a Comprehensive Disaster Risk Management (CDM) approach, which considers all aspects of the disaster spectrum including risk identification, reduction and transfer. The objectives of the CDM approach are to achieve:

- A national culture of Disaster Risk Management
- Dynamic partnerships between the public and private sectors and among all stakeholders
- A state of preparedness for impacts of all hazards
- Minimal loss in the event of extreme events or emergencies
- Systems for rapid recovery.

At the community level, the ODPM administers the Communities Organised and Ready for Emergencies (CORE) programme which is meant to disseminate disaster risk reduction information and training to communities.

Decision makers in the agriculture, food security and fishery sectors have become increasingly concerned with climate risks to their sectors. However, most are challenged when it comes to integrating and applying available climate related information into their decision making and planning¹⁹.

There is currently no Disaster Risk Management Plan that specifically addresses disaster risks to the fisheries or forestry sectors in Trinidad and Tobago.

¹⁸ ODPM Strategic Plan 2010-2015.

¹⁹ Concept Note for a National Consultation on Climate Services & National Climate Outlook Forum for Trinidad and Tobago

Poverty and vulnerability in small-scale fisheries communities in Trinidad and Tobago

In May 2012, the Caribbean Regional Fisheries Mechanism (CRFM) published the findings of a regional diagnostic study to determine poverty levels in CARICOM small-scale fishing communities, see Table 12.1 below. Based on the findings of this study it was reported that 15.23 percent of the 167 households surveyed in Trinidad and Tobago were vulnerable, in terms of education and economic capacity, but only 1.32 percent could be classified as poor²⁰. In terms of economic vulnerability, the study reported that: “Trinidad and Tobago [fisheries dependent] households have a considerable dependency on fisheries income. Household members do not tend to belong to other sectors so households barely receive economic contributions from other sources of revenue” (CRFM, 2012).

Table 7.1: Percentage of poverty and vulnerability among small-scale fisherfolk in Trinidad and Tobago

Trinidad and Tobago Region	Non-poor	Vulnerable	Poor	Percent Responses per Region
Nariva	6.62%	0%	0%	6.62%
St. Andrew	3.97%	0%	0%	3.97%
St. George / East	2.65%	0%	0%	2.65%
St. John / East	5.30%	0%	0%	5.30%
St. Mary / East	2.65%	0%	0%	2.65%
St. Paul / East	3.31%	0%	0%	3.31%
Mayaro	3.31%	0.66%	0%	3.97%
St. David / South West	10.60%	0.66%	0%	11.26%
St. George	12.58%	0.66%	0%	13.25%
Victoria	6.62%	0.66%	0%	13.25%
St David/ North East	1.32%	1.32%	0%	2.65%
St. Andrews / South West	5.96%	1.32%	0%	7.28%
St. David	1.99%	1.32%	0%	3.31%
Caroni	7.95%	1.99%	0%	9.93%
St. Patrick / South West	1.32%	1.99%	0%	3.31%
St. Mary / North East	1.32%	1.99%	0.66%	3.97%
St. Patrick	5.96%	2.65%	0.66%	9.27%
T & T	83.44%	15.23%	1.32%	100%

²⁰ It should be noted that the CRFM Study used the Unsatisfied Basic Needs for the quantitative analysis of poverty in CARICOM fishing communities, while Poverty Assessments usually are based on minimum food requirements (indigence lines) and minimum food requirements plus an element of non-food expenditure (poverty lines). It is important then to recognise that the results of studies based in different methodologies cannot be compared as different criteria for poverty assessment are used.

SOCIAL PROTECTION MEASURES RELATED TO THE AGRICULTURE AND FISHERIES SECTOR

Social protection measures related to the small scale fisheries sector in Trinidad and Tobago include measures aimed at reducing input and operational costs as well as those aimed at improving human capital through, for example, sector specific training and skills development.

Seafood Industry Development Company-The Seafood Industry and Development Company (SIDC) is a State entity that was established under the Ministry of Trade and Industry in 2006. Since 2011 the company has been placed under the purview of the Ministry of Agriculture, Lands and Fisheries and serves as a project implementation agency with the mandate to partner with all stakeholders to ensure that the seafood industry of Trinidad and Tobago is modernized and attains viability on a sustainable basis.

The SIDC implements projects related to the sustainable utilization of resources, capacity building, business development and infrastructure development. Some of their recent projects include: establishment of a commercial tank based aquaculture project focused on Tilapia production, hosting financial literacy seminars and computer literacy training, organizational management courses for fishing associations, preparation of technical designs for fish processing facilities and establishment of an ice making facility for the North Eastern Region of the country.

Fisheries training and skills development-The Government of Trinidad and Tobago continues to support the Caribbean Fisheries Training and Development Institute (CFTDI) established with the assistance from FAO, which provides a broad range of courses in both maritime and seafood technologies to meet the training requirements of fishers in the Caribbean (CRFM, 2012). The CRFM's diagnostic poverty study found that Trinidad and Tobago had one of the highest rates of fishermen benefiting from training courses (26.56 percent of respondents). Training courses at CFTDI include: Fishing Gear Technology & Fishing Methods, Outboard Engine Maintenance and Repair, Fibre Glass Reinforced Plastic Technology, Net Mending, Navigation, Basic Safety Training and Boat Master III.

Subsidies for fishers-The Agricultural Incentive Programme²¹ offers social protection targeted at small scale fishers in Trinidad and Tobago. The Programme provides promotive social protection by offering subsidies to farmers and fishers for the purchase of equipment and supplies relevant to their work. Subsidies include for example:

- Subsidy on fishing vessels (pirogue). Registered vessel owners are eligible for a subsidy of 25 percent of the purchase of pirogues to a maximum of TT\$5000.00 (US\$753.65) for a replacement vessel.
- Ten percent subsidy on purchase of used multipurpose vessel to a maximum of TT\$50,000.00 (US\$7523.78)
- Twenty percent subsidy on purchase of new multipurpose vessel to a maximum of TT\$100,000.00 (US\$15047.55)
- Subsidy on fuel for use in fishing vessels is available to boat owners whose fishing vessel and engine are registered with the Fisheries Division.

To access funds from the Programme fishers must be registered with the implementing line Ministry and apply to the Ministry providing proof of original receipts for goods and services. Once the application is received, a site visit will be conducted by an agricultural county officer and the equipment or completed work inspected. A recommendation is then submitted and upon approval of this recommendation, payment is disbursed. Payments are given as a percentage (between 15-100 percent) of the total cost of the good or service. Incentives are offered in a variety of areas including

21 Agricultural Incentive Programme 2011 http://www.agriculture.gov.tt/images/AIP_Brochures/Agricultural%20Incentive%20Programme%202011.pdf Vehicles Guaranteed prices

- Post-harvest and marketing
- Security
- Marine fisheries
- Aquaculture

In addition to the aforementioned subsidies, fishers benefit from Duty and Value Added Tax (VAT), concessions for new vessels, new engines, engine parts and spares, new fishing tackle, new marine accessories including electronic equipment, other capital equipment and construction material for new boats and imported fishing vessels²².

In the diagnostic poverty study undertaken by the CRFM it was noted that, in both 2008 and 2009, Government subsidized the fishing sector with TT\$ 7,000,000 (US\$ 1,055,106.72). Subsidies were focused primarily on VAT waivers for locally purchased marine accessories and engine parts; fuel rebates and VAT exemptions for imported marine accessories for imported marine accessories, engine parts and new engines (CRFM, 2012).

Access to loans, credit and micro-financing-The Agricultural Development Bank (ADB) is the funding arm of the Ministry of Agriculture, Land and Fisheries. The ADB is mandated “to encourage and foster the development of agriculture, commercial fishing and associated industries, including all segments of the production chain-support services, marketing and agro-processing”. The Bank has recently expanded its mandate to include micro-enterprise financing and support for farmers’ projects, lifestyle, and community needs. The ADB offers a portfolio of financial products, including concessionary loans and services that are tailored to meet the needs of farmers and other agri-entrepreneurs. According to the Bank’s website among its key aims are to contribute to:

- increased employment;
- farmers' and agri-entrepreneurs' standard of living;
- increased sector competitiveness;
- sector sustainability;
- food and nutrition security; and
- rural development.

Institutional arrangements

NATIONAL FISHERIES POLICIES, PLANS AND LAWS

At present, there is no formal national fisheries policy or plan that guides development and investment in the fisheries sector in Trinidad and Tobago. Though over the years, there have been draft versions of national marine fisheries policies, they have never formally come into being. As such, it would appear that issues related to the fisheries sector have mainly been dealt with in an ad hoc manner, which could be attributed to the low priority assigned to the fisheries sector (National Development Atlas, 2012).

In April 2004, the Government of Trinidad and Tobago under the Standing Committee on Business Development, created an Industry Team comprising stakeholders from both the private and public sectors, to draft a Strategic Plan for the development of the 'Fish and Fish Processing Industry'²³. In that draft Strategic Plan, in addition to the absence of a national policy for the sector, the absence of a social policy for coastal fishing communities, with respect to alternative or new job opportunities was highlighted as a key gap. Almost a decade later, the situation remains true for the sector.

Many of the objectives of the current draft Fisheries Management Policy (2011) speak to the reduction of socio-economic and environmental vulnerabilities in the sector. These include, *inter alia*:

- To ensure through the elaboration of appropriate fishery management plans the sustainable management and conservation of fisheries resources.
- To modernize the legislative and regulatory framework that governs fisheries management (this includes systems for monitoring, surveillance and enforcement).
- To promote transparent decision-making by facilitating the consultative process between Government and industry stakeholders.
- To promote an ethic of human resource development including thorough training within the fishing industry and its associated communities and to promote public education as a means of ensuring that marine living resources are exploited in a sustainable manner.
- To maintain, in good working order, and achieve optimal utilization of assets related to fish and seafood production
- To ensure that the productive capacity of marine habitats is increased or maintained, such that fish may be harvested for the benefit of present and future generations.
- To ensure that the socio-economic implications of policy options are identified, analysed and addressed and an appropriate incentive scheme is implemented with respect to all sectors of the fishing industry.
- To establish procedures for effectively dealing with conflict resolution and compensation issues for the fishing industry.

23 <http://www.sidctt.com/uploads/fish%20and%20fish%20processing%20strat%20plan.pdf>

Risks, needs and transitions of small scale fishers in trinidad and tobago

Outlined below are some of the key risks, needs and transitions that are impacting or will likely impact small-scale fishers in Trinidad and Tobago.

Social security and access to insurance coverage

Small-scale fishers are generally self-employed, and, currently, cannot receive benefits under Trinidad and Tobago's national contributory social insurance scheme which does not provide coverage for self-employed persons. As such, small-scale fishers do not have access to benefits such as sickness benefit, maternity benefit, Invalidity, funeral grant, retirement, employment injury, employment injury (death) and survivors' benefit covered by the National Insurance System. CRFM's diagnostic study on poverty in fisheries in Trinidad and Tobago found that only 14.06 percent of the fishers they interviewed were participating in a social security system (CRFM, 2012).

Insurance coverage for boats and other fishing related equipment and gear is also difficult for small-scale fishers to access from private insurance companies, which is largely attributed to the high risk profile associated with fishing. In a recent newspaper article about the impact of rough seas on fishers, the General Secretary of Fishermen and Friends of the Sea, Gary Aboud, is quoted as follows:

"Fishermen cannot obtain insurance on their vessels, engines and nets. We have lobbied for insurance and no government has done anything to help or support us. Our members are without insurance... How many business people have been operating without insurance?" Aboud contended. He said fisherfolk had never encountered such water before along the north coast, which exceeded storm surges. He said boats and engines had sunk since the rough seas began." (Guardian newspaper, 2015)

In 2011, in another newspaper article about the cost of fishing equipment in Trinidad and Tobago, Krish Mankee, the manager at a boating supplies store was quoted as follows:

"Another major problem which affects fishermen working in Trinidad and Tobago is the problem of insurance coverage for their expensive equipment. In cases of accidents, fires or thefts, fishermen can get no compensation as insurance companies do not offer such coverage." (Newsday newspaper, 2011)

Inadequate fisheries infrastructure and facilities

Fishing facilities at many landing sites in Trinidad and Tobago are considered to be inadequate²⁴. The infrastructural development at these sites vary from a simple jetty to a more elaborate structure with facilities for the storage of fishing gear and equipment, repair of boats and engines, production and storage of ice and wholesale and retail marketing. In general, these sites do not attain the standards for good manufacturing practices for the handling and storage of fish and fish products. They cannot be said to be compliant to the principles of Hazard Analysis Critical Control Points (HACCP)²⁵.

24 National Spatial Development Strategy for Trinidad and Tobago: Surveying the scene

25 FAO Profile of Fisheries- Trinidad and Tobago. 2006. <http://www.fao.org/fi/oldsite/FCP/en/TTO/profile.htm>

In addition, fishers often complain that, among other issues, the facilities, where they secure their boats, are poorly maintained and offer little security resulting in theft and damage to their costly fishing equipment. In a livelihoods survey conducted by CANARI in 2014, fishers from the north coast community of Blanchisseuse noted that the jetty and ramps at the landing site in their community were in serious disrepair. The fishers further reported that due to the dilapidated condition of the structures there were several instances in which fishers, while moving their vessels from the ramp to the jetty, have fallen through holes in the jetty resulting in serious injuries. The poor condition of the ramp resulted in increased damage to the fishers' boats increasing the frequency with which they have to undertake costly repairs. In the survey, inadequate physical capital was identified as a major livelihood limitation for many fishers, that in some instances precluded income generation. Other fishers identified similar issues along the north coast in a participatory video²⁶ produced by the fishers.

Climate change and natural disasters

According to the country summary for Trinidad and Tobago in the *Summary of Country Annexes of the Climate Change Adaptation and Disaster Risk Management in Fisheries and Aquaculture in the Caribbean Region Assessment Study* (CRFM, 2013):

- Trinidad and Tobago is exposed to a wide range of geological and hydro-meteorological hazards, including earthquakes and thunderstorms, which can trigger flooding in low lying or poorly drained areas and landslips in hilly regions.
- Coastal and offshore industrial infrastructure and sensitive ecological areas are exposed to marine and coastal threats, including tsunamis and flooding and other effects of sea-level rise.
- Boaters consider the country a relative safe haven, being on the southern edge of the Atlantic hurricane belt, but rough seas from Hurricane Iris (1995) and the storm surge from Hurricane Lenny (1999) caused problems even though these systems were some distance away.
- Flooding and landslides from heavy precipitation and intense rain events are common hazards
- Rough Seas Bulletins are issued by the Trinidad and Tobago Meteorological Service, and, in January 2012, several days of fishing were lost due to particularly rough seas.
- In October 2005, rough seas destroyed several fishing boats along the north coast of Trinidad.
- The vulnerability of coral reefs to the impacts of increased sea-surface temperature, as well as increased siltation in Trinidad and Tobago's rivers and pollution is expected to adversely impact aquatic life.

The fisheries sector in Trinidad and Tobago is not guided by a national fisheries policy and plan, and the sector under which it falls, Ministry of Agriculture, Land and Fisheries, similarly has no current overall guiding policy on climate change and natural disasters. As such, development of the fisheries sector in Trinidad and Tobago is not led by any sectoral policy which requires climate adaptation or mitigation. Therefore, there is no strategic plan/approach to ensure that climate change adaptation is being integrated into the fisheries sector.

Open access fishery and over-fishing

Access to fisheries resources is largely open with few fisheries being currently regulated (Fisheries Division, 2011). The draft fisheries management policy for Trinidad and Tobago notes that the primary contributor to over-fishing and over-capitalisation is the prevailing "Open Access" to harvesting marine fisheries in the country, where limited entry and fishing effort control for local fishermen is not incorporated into the legislative and management regimes. This is compounded by poor enforcement for existing regulations.

26 Caribbean Natural Resources Institute (CANARI). 2014. Fishing for a living. Accessed July, 2015: <https://www.youtube.com/watch?v=Gw4Tffu4tZQ>

Impacts of trawling

It is estimated that an annual discard of approximately 7,000 tonnes of bycatch (50 percent of total annual landings for Trinidad and Tobago) results from trawl fishing (Fisheries Division, 2011). In a study that evaluated the needs of the fishing and associated livelihoods in the coastal fishing sector of Trinidad and Tobago, it was reported that many are convinced that the deep-sea trawlers are destroying the seabed. It is opined that the activities of the trawlers would eventually lead to a collapse of the industry. The inadequate legislation and enforcement of the laws was cited as the main cause of the problem (Potts, A. et al., 2011)

The government of Trinidad and Tobago is currently drafting a management plan and supporting legislation to manage the island's artisanal and non-artisanal shrimp trawl fishery. The draft management plan proposes a closed season of two months for artisanal fishers and four months for non-artisanal fishers. To deal with the livelihood implications from the implementation of the closed seasons, Cabinet appointed a Multi-Sectorial Committee to recommend social relief measures, including options for livelihood diversification, for trawl fishers during these periods. The full report of the Committee is still being finalized and not yet available for public review.

Weak fisherfolk organizations and cooperatives

Cooperatives are not extensive in Trinidad and Tobago (CRFM, 2012). There are 34 fishing organizations (9 co-operatives and 25 Associations). Of these, 24 are in Trinidad and 10 in Tobago (Potts, et al., 2011). By providing social capital, strong fishers' organizations play a key role in protecting fishers' livelihoods and reducing poverty and vulnerability. By organising, fishers are better positioned to facilitate the transfer of resources, for example funding and training, from other societal levels (Amarasinghe and Bavinck, 2011). Cooperatives in particular "have the potential to empower small-scale fishers against environmental and socioeconomic shocks such as catch shortfalls, sickness and death in their families, natural disasters and hunger" (FAO, 2012).

In CRFM's diagnostic study on poverty in small-scale fisheries in Trinidad and Tobago only 34.38 percent of respondents in the study claimed to belong to a cooperative, and only 21.88 percent of respondents believed in their proper functioning (CRFM, 2011). The Trinidad and Tobago United Fisherfolk (TTUF), the national umbrella organization for fisherfolk organizations in Trinidad and Tobago was awarded a small grant from the Fisherfolk Strengthening Fund²⁷ for a project to improve participation in TTUF and its member organisations by creating awareness about their roles and the benefits of collective action, and strengthening internal governance in all fisherfolk organisations by building leadership, management and communication capacities.

²⁷ The Fisherfolk Strengthening Fund is a small grant facility that was established under the EU funded project "Strengthening Caribbean Fisherfolk to Participate in Governance". This project is being implemented by CANARI in partnership with the Centre for Resource management and Environmental Studies of the University of the West Indies, Caribbean Regional Fisheries Mechanism, Panos Caribbean and the Caribbean Network of Fisherfolk Organisations.

Survey Findings - Blanchisseuse

BRIEF DESCRIPTION OF THE COMMUNITY

Blanchisseuse is a coastal village located along the Northern Coast of Trinidad. The village is about twenty-four kilometres from the Borough of Arima with a population of roughly one thousand people. Blanchisseuse's varied coastal and land-based resources, including the ocean, rivers and surrounding forests support the community's two main natural resource-based livelihood activities - fishing and agriculture. The natural beauty of the community also makes it a popular long stay holiday spot for the more affluent in Trinidadian society (a trend that has seen the construction of many large vacation homes along portions of the village's picturesque coast).

Among small-scale fishers, trolling²⁸ and a-la -vive²⁹ are key artisanal fishing methods. There are approximately thirty-two (32) active fishers (15 full-time fishers and 17 part-time fishers) in the community³⁰. Common fish species landed at the depot in Blanchisseuse include Kingfish (*S. cavalla*), Carite (*Scomberomorus brasiliensis*), Cavalli (*Caranx hippos*), Ancho (*Pomatomus saltatrix*), Lane Snapper (*Lutjanus synagris*) and shark. Landed fish is typically sold in the domestic market by way of direct sales to wholesale vendors who wait at the depot for the fishers' daily catches.

SURVEY FINDINGS

All the fishers interviewed were male³¹ with an average age of forty-two (42) years (the youngest fisher was 29 and the oldest was 54) and an average of 24.4 years fishing. The average household size consisted of approximately four (4) persons. Forty percent of the fishers interviewed were married and the remaining 60 percent classified themselves as single.

FINANCIAL CAPITAL

Sixty percent of the fishers interviewed stated that fishing was their primary occupation or the livelihood activity that earned them the most amount of money. Each fisher interviewed had at least one additional source of income in addition to fishing. Fishing, whether as a primary or secondary livelihood activity, was generally categorised as regular work by respondents. In terms of their additional income sources, 80 percent of respondents were employed with the government and, as such, entitled to participate in the country's social insurance scheme. Jobs included occupations as labourer, security watchman, water system operator and water truck driver.

28 Trolling is a method of fishing where one or more fishing lines, baited with lures or bait fish, are drawn through the water. This may be behind a moving boat, or by slowly winding the line in when fishing from a static position, or even sweeping the line from side-to-side, e.g. when fishing from a jetty. Trolling is used to catch pelagic fish such as salmon, mackerel and kingfish. [https://en.wikipedia.org/wiki/Trolling_\(fishing\)](https://en.wikipedia.org/wiki/Trolling_(fishing))

29 A la vive fishing is hand line fishing with live bait. <http://www.ima.gov.tt/home/what-new/183-piloting-theintegration-of-coastal-zone-management-and-climate-change-adaptation-in-tobagoq.html>

30 Personal communication with President of Blanchisseuse Marine Life Association

31 Given the relatively small number of surveys undertaken, the study only targeted one group among fisherfolkharvesters. Fishing (harvesting) in Blanchisseuse is a male dominated activity. No female fishers were identified.

Fishers indicated that they did not have insurance on their boats, engines or other equipment. It was difficult for fishers to get insurance due to the risky nature of their work and the types of vessels being used. Also, based on responses from fishers, insurance may not be viewed as being important until some costly damage is sustained to vessels or equipment. Fishers generally paid “out of pocket” for repairs and damages to their boats and equipment.

Contributions by other household members to the household income were generally low. Only 40 percent of those interviewed said that other household members contributed to the household income. In most cases this was due to many of the household members being below the legal working age and attending school. Low household contributions were also common in instances where there were adults that met the legal working age and who had completed secondary schooling but were not employed or currently pursuing tertiary education.

Of those surveyed, only 20 percent indicated that their households received additional regular inflows of money through the pensions of older family members. While remittances are usually cited as a source of household income in other studies on poverty in the Caribbean, no respondent in this study identified remittances as an additional inflow.

Eighty-percent of respondents indicated that they saved money in either banks or credit unions. When asked if other members of their household saved money, most respondents (80 percent) were either unaware if their household members saved money or indicated that they did not

On average the monthly household income for a month where earnings from fishing were considered to be “good” was reported as TT\$8,400 (US\$ 1,266.13), and for a bad month as TT\$3003 (US\$ 452.64). The lowest reported monthly earning for a bad month was reported as TT\$0 and the highest as TT\$20,000 (US\$ 3,014.59) for a good month. Respondents that reported the highest monthly household incomes were from households with multiple earners in a single household. Respondents that reported the lowest monthly household incomes were generally the only regular income earners in their household.

In terms of household poverty lines, as shown in Table 10.1 below, most households (60 percent) reported monthly incomes that placed their households above the estimated poverty lines for their households. Due to monthly income variability, the remaining households showed significant economic vulnerability to falling below the estimated poverty line for their household. These households (Households 2 and 3 in Table 10.1 below) had the highest dependence on income earned from fishing.

Table 10.1: Household poverty among small-scale fishers in Blanchisseuse³²

Household (HH) Number	Composition of HH (age in years)	Estimated family poverty line based on composition of HH (per month)	Reported estimated household earnings (per month)	Estimated earnings from fishing (per month)
1	Female (60) Female (25) Male (66) Male (34) Male (29)	TT\$3961.98 (US\$597.19)	TT\$15,000 –TT\$20,000 (US\$2,260.94 – US\$3,014.59) (Highest number of income earners in HH)	TT\$10,000-TT\$15,000 (US\$1,507.30 -US\$2,260.94)
2	Female (15) Female (11) Male (42) Male (18)	TT\$3129.39 (US\$471.69)	TT\$1,500 –TT\$7,000 (US\$226.09 -US\$1055.11) (Highest number of dependents; Single income earner)	TT\$1,500 - TT\$7,000 (US\$226.09 -US\$1055.11)

32 Refer to Appendix 3 for sample calculation for household poverty line for Trinidad

3	Female (23) Male (34)	TT\$1646.04 (US\$248.11)	TT\$1,500 – TT\$2,000 (US\$226.09-US\$301.46) (Not a boat owner)	TT\$1,500 – TT\$2,000 (US\$226.09-US\$301.46)
4	Female (22) Male (54) Male (18)	TT\$2440.35 (US\$367.83)	TT\$3,000 – TT\$8,000 (US\$452.19 – US\$1,205.84) (Single HH income earner)	TT\$0 – TT\$5,000 (US\$0-US\$753.65)
5	Female (44) Male (51) Male (21) Male (20)	TT\$3292.08 (US\$496.21)	TT\$9,000 – TT\$10,000 (US\$ 1356.57 – US\$1507.30) (Part-time fisher)	TT\$4,000 – TT\$5,000 (US\$602.92 -US\$753.65)

Four of the five fishers interviewed were boat owners and one worked as a crew member on a fishing vessel. In terms of expenses related to their livelihoods as fishers (refer to Figure 15.1), 75 percent of the boat owners indicated that their start-up capital to purchase such equipment as boats and engines was obtained using money from their personal savings. Twenty percent of respondents stated that they secured bank loans from either traditional banking institutions or concessionary loans from the Agricultural Development Bank, for their start-up capital.

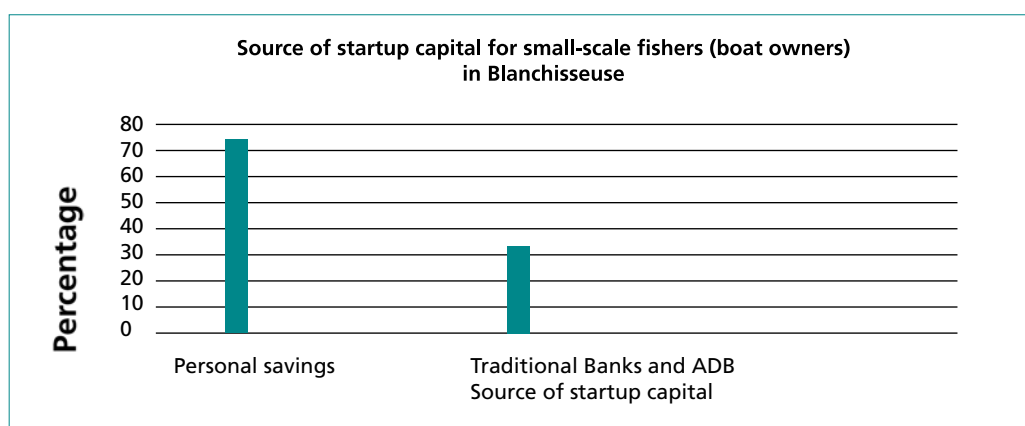


Figure 10.1: Source of start-up capital for small-scale fishers (boat owners) in Blanchisseuse

Regular monthly expenses related to fishing, including the purchase of fuel and boat repairs, ranged between TT\$2,400 to TT\$24,000 (US\$361.75 to US\$3,617.51). In almost every instance (80 percent), the respondents reported that their monthly expenses related to fishing was high relative to what they earned from fishing.

Eighty percent of respondents reported that they were not satisfied with their income from fishing and further indicated that their incomes had shown an overall decline in the last five years.

HUMAN CAPITAL

Eighty-percent of respondents indicated that they terminated their formal schooling at the primary level (Refer to Figure 10.2). Reasons for not moving on to higher levels of education included:

- failure of the Common Entrance Examination (now defunct since 2001) aptitude test in English, Mathematics and Comprehension (which determined whether primary school students would move on to receive secondary schooling, based on marks attained and space available at a then limited number of secondary schools);
- chronic illness at a young age; and
- inability of parents to afford schooling.

Students who failed the Common Entrance Examination, either remained at the primary level to complete post-primary courses or dropped out of school.

Of those who terminated their schooling at the primary level, most indicated that they started earning a wage through fishing by the ages of 15 -18 years.

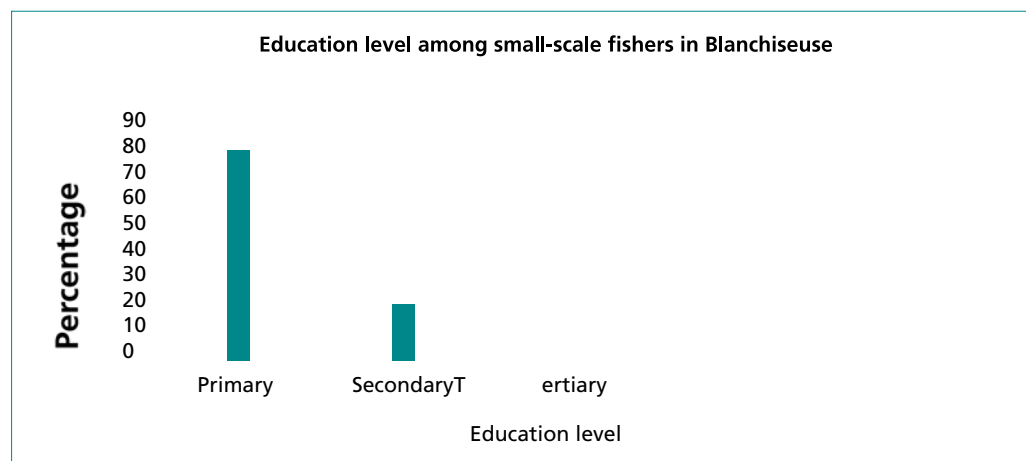


Figure 10.2: Education level among small-scale fishers in Blanchisseuse

All respondents indicated that they had acquired their skills for fishing by learning from older, more experienced, fishers or from their family members who were also fishers. Sixty percent of respondents indicated that they had furthered their fishing skills by making use of free training courses (for example in Engine Maintenance; Navigation; Safety Training; Fish Handling and Quality Control) offered by the Fisheries Division.

In spite of their dissatisfaction with their income earnings, the majority of respondents (80 percent) indicated that they would encourage others in their family to get into fishing. Reasons given included “Fishing is sustainable and profitable”, “My father was a fisher and I would like to continue that as a family tradition”, “You can make good money fishing. Better to fish than to thief” and “Fishing is an honest living. You can be your own boss”. One fisher, who was the sole income earner in his household with the highest number of dependents under the age of 19 (3 dependents) stated that “It is tough to maintain a family with fishing. I also miss a lot of time with my family.”

SOCIAL CAPITAL

Social capital refers to the social resources upon which people draw in pursuit of their livelihood objectives. These are developed through:

- networks and connectedness, either vertical (patron/client) or horizontal (between individuals
- with shared interests) that increase people’s trust and ability to work together and expand their access to wider institutions, such as political or civic bodies;
- membership of more formalised groups which often entails adherence to mutually-agreed or commonly accepted rules, norms and sanctions; and
- relationships of trust, reciprocity and exchanges that facilitate co-operation, reduce transaction costs and may provide the basis for informal safety nets amongst the poor (DFID, 1999).

While each respondent demonstrated awareness of social groups in their community, membership and participation in these groups were generally found to be low. Forty percent of respondents stated that they were members of the community’s fishing group, the Blanchisseuse Fisherfolk and Marine Life Association. However, very few respondents, even those who were members of the Association, stated that they did not derive any benefits from being a part of the organization, and further noted that it had not been functioning for quite some time.

In a previous livelihood study conducted by CANARI in Blanchisseuse in May 2014, one of the fishers from the community indicated that fishers in the Association were dissatisfied with the progress that the group had made in getting assistance for repairing the community's fishing facilities, and, as such, they felt that it was not worth being a part of the group. This has resulted in members not attending meetings and being inactive in the group (CANARI, 2014). Similar sentiments were expressed during the interviews for this study.

PHYSICAL CAPITAL

At the household level questions on physical capital in the survey mainly focussed on the status of ownership of the respondents' houses, land and boats and at the community level their access to quality fishing facilities. The latter, however, was more of a discussion point during the interviews to determine the adequacy of the facilities used by the fishers and if these enabled them to function more productively or acted as a constraint.

In terms of the ownership of their physical housing structures, all respondents indicated that they owned their homes. However, none of the respondents had homeowners' insurance. None of the respondents indicated that they owned the land upon which their homes were built. In all cases, land was either being leased or rented from private holders, including the Roman Catholic Church.

Fishing facilities in the community were generally described as being inadequate. Box 2 is an excerpt from a previous livelihood study undertaken by CANARI in May, 2014 in the community of Blanchisseuse which describes the condition of the fishing facilities in the community at that time. During the period when surveys for this study were being conducted, repair works were being undertaken on the facilities by the State entity responsible for the maintenance and management of fishing facilities in Trinidad. However, during the interviews, fishers indicated that the repairs being undertaken were not what they would have preferred and that the quality of some of the works was not in line with what they desired. For example, the refurbished locker rooms, in which fishers are to secure their engines, were already showing signs of defects that would make them easy to break into by intruders. The need for fishers to have a secure location for their engines is very important to avoid theft. In fact, fishers alleged that, the day before the interviews for this study were conducted, a fisher's engine had been stolen.

BOX 2 – Fishing facilities in the Blanchisseuse community.

Inadequate physical capital is a major livelihood limitation for the fishers in Blanchisseuse. Each of the fishers interviewed lamented the condition of the ramp and jetty at the Blanchisseuse Fishing Facility. The ramp, shown in Figure 1, is the only point that allows fishers to haul their boats from the ocean onto the jetty at the fishing facility.



Figure 1: Defective ramp at the Blanchisseuse Fishing Facility.

However, the ramp is broken in many sections making it difficult for fishers to push their boats along its surface. As a result, to move the boats from the sea to the jetty, several fishers have to lift the boats in a time consuming and strenuous process.

Moving the boats up the defective ramp damages the bottom of the boats. As such, the fishers at Blanchisseuse have equipped the bottom of their boats with metal strips for protection. Over a short period of time, these strips become worn or damaged and must be replaced, which has become quite costly. One fisher reported that strips had to be changed almost monthly at a cost of five-hundred dollars (TT\$500/US\$75) per strip. Another reported that it costs about three-thousand dollars (TT\$3000/US\$450) to have the strips removed and installed and this had to be done about three times per year. The President of the BFMLA noted that the Blanchisseuse Fishing Facility is the only facility in Trinidad where the fishers have to pull their boats in by hand and use steel strips. The increased cost of boat maintenance and the days lost in undertaking repairs result in lost wages for the fishers in Blanchisseuse.

The jetty is another issue for the fishers. Shown in Figure 2, the jetty, on which the fishers secure their boats, is in a serious state of disrepair. Over time, the primarily wooden structure has weakened, and is missing several planks, leaving many gaping holes on its surface. The fishers interviewed reported several instances where, while moving their vessels from the ramp to the jetty, men have fallen through these holes resulting in serious injuries. Sea access to the jetty is limited because the ramp on the western end has been completely blocked by a landslide.

Overcrowding on the jetty compounds the issue of access, as fishers have to manoeuvre their vessels from among the fifty boats on the jetty to get to the ramp on the eastern end.



Prior to this study, repair works had also been completed to replace the broken boards on the jetty (refer to Figure 2 in Box 2 above) and fix the cracks in the ramp. The refurbished ramp is shown in the photograph at Figure 10.3 below.



Figure 10.3 Refurbished ramp at the Blanchisseuse Fishing Facility

VULNERABILITY CONTEXT

In an effort to assess household and community vulnerability, respondents were asked to identify any shocks or adverse events that had impacted their household or individual income (idiosyncratic shocks) in the past twelve (12) months. They were also asked to identify any shocks or adverse events that had ever (no timeframe) affected their household or community (covariate shocks) and to further identify if and how they were able to cope with or recover from these adverse impacts.

The vast majority of shocks experienced by respondents were related to changes in the natural environment, illness/injury and conflicts with other resources users. Economic shocks, namely increases in food prices, were the least commonly identified by respondents, although 40 percent of those interviewed identified food as being their main household expense.

While positive coping strategies to shocks, such as having and using savings, livelihood diversification and depending more on subsistence agriculture for food during periods of low household income were identified by fishers during the study, in some instances, it was discovered that negative coping strategies such as reducing household food intake were utilised. Strategies such as reducing intake of meat and dairy products, which are comparatively more expensive products, were used. Such negative coping strategies, especially if applied over the long-term or with high frequency, can have negative impacts on household nutritional health.

The shocks and coping strategies identified are set out in more detail in Table 10.2 below.

Table 10.2: Idiosyncratic and covariate shocks and coping strategies identified by small-scale fishers in Blanchisseuse

Shock/risk type	Shocks/risks identified by respondents	Impact on household	Coping strategies identified by respondents
Natural	<ul style="list-style-type: none"> Rough seas that caused damage to their boats Decline in fish stocks Siltation of ocean water caused by landslides near river Reduced rainfall caused desiccation of river. River is a source of bait. Changes in water temperature (when water is too cold it is harder to catch fish) 	<ul style="list-style-type: none"> Reduced fishing days from illness, injury and damage to boats resulting in reduced household income Low catch from stock depletion, changes in water temperature and fish migration due to seismic surveys resulting in reduced household income. Rising food prices resulting in more money spent on food or not enough money to spend on food for the household. 	<u>Positive</u> <ul style="list-style-type: none"> Looked for alternative sources of income compatible with existing skills e.g. small construction jobs. Spent less on entertainment Planted more food (subsistence farming) Used savings (one respondent indicated that he could not always use his savings for food in times of need as he also had to purchase school supplies and books for his children)
Health	<ul style="list-style-type: none"> Injury to knee (chronic) Chikungunya (acute) 		
Management	<ul style="list-style-type: none"> Poor enforcement resulting in shrimp trawl fishers illegally fishing out of zone and depleting fish stock. Oil companies conducting seismic surveys causing fish to flee from traditional fishing grounds Overfishing 		<u>Negative</u> <ul style="list-style-type: none"> Ate less Ate less meat products and cut out expensive products such as butter and cheese. Fished longer hours/more days.
Economic	<ul style="list-style-type: none"> Rising food prices 		

The majority of respondents identified physical barriers due to the inadequacy of the fishing facilities in Blanchisseuse as their main barrier. One part-time fisher explained that it was demotivating to have to go out and expend so much physical energy just to get his boat onto the water and back on to the jetty. He stated that as a result of the physical conditions he did not fish as often. Sixty percent of those interviewed identified natural, social and economic barriers as their main livelihood constraints. Management barriers were the least identified by respondents.

USE OF SOCIAL PROTECTION PROGRAMMES AMONG RESPONDENTS

All respondents indicated that they or their household members had benefitted or were benefitting from different types of social protection programmes including social insurance, social pensions, social assistance cash transfers and promotive programmes such as access to free training and tertiary education. Private insurance, for example health, life and homeowners' insurance, was not common among respondents. Social protection schemes/programmes identified are described in more detail in Table 10.4 below.

Table 10.4: Social protection instruments utilised by small-scale fisherfolk in Blanchisseuse

Instrument	Social protection measure	Programme offered by	Description
Access to training and education	Promotive	Government	<ul style="list-style-type: none"> Free training in engine maintenance; navigation; safety training; fish handling and quality control offered by the Fisheries Division Access to tertiary education through subsidization of tuition through the GATE programme.
Social Insurance	Preventive	Government	Fishers were able to benefit from NIS through livelihood diversification that included employment in government jobs. Fishers' households also benefitted from NIS in cases in which household members who were not fishers, were employed by government or private sector companies.
Social Pension	Preventive	Government	Fishers households with family members over 65 years old benefitted from income gained through the non-contributory old age pension programme.
Compensations schemes/cash transfers	Protective	Private Sector	Cash transfers identified included: compensation packages offered by oil companies for losses to fishers resulting from the conduct of seismic surveys by the companies, and secondary school scholarships for students living in the Blanchisseuse community from oil companies.
In-kind transfers	Protective/Promotive	Government	Free laptops given to students entering secondary school through the government's Laptop Programme
Concessionary loans/Subsidies	Promotive	Government	Fuel subsidy for registered fishers. Concessionary loans provided by the ADB for start-up costs

Discussion and recommendations

Based on the findings from this study it is evident that small-scale fishers in Blanchisseuse are exposed to a variety of shocks such as rough seas, injury and inadequate management of fisheries resources and facilities, which increase their vulnerability. The study also found that fishers are participating and benefitting from universal and targeted social protection programmes. Targeted social programmes may not be fully addressing the vulnerability needs of fishers and in some instances may be contributing to their vulnerability. For example, with respect to the latter, social protection programmes that reduce input costs and thus facilitate entry of more fishers into the fishery sector may be increasing fishing pressure on an otherwise overexploited and ineffectively regulated open access fishery.

While some of the findings from the community surveys may only be specific to the community and households studied, some aspects of the vulnerabilities identified through this research can be extrapolated to other small-scale fishing communities and households, such as the exposure of fishers to natural risks and shocks, non-participation in national insurance schemes and the inability to access insurance for their boats, engines and other equipment through the private sector.

Some of the findings from this study are comparable with the findings of the Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities which examined Trinidad and Tobago as a pilot country. While the CRFM study found that poverty rates in fishing communities in Trinidad and Tobago were relatively low (1.32 percent), it found, much like this study, that economic vulnerability (15.23 percent) was a more significant factor. That is, the fishing households depend significantly on income earned from fishing. Therefore, when fishers are unable to fish due to such things as illness, injury or natural disasters, their households are significantly affected.

Coming out of this study, the following issues are highlighted as key areas that if addressed could contribute to social protection and reduced vulnerability in fisheries dependent communities in Trinidad.

The need for a national fisheries policy and management plans - Natural shocks and risks such as resource depletion caused by overfishing and illegal trawling were identified as key contributors to vulnerabilities during the community surveys. Some reports confirm these risks as they indicate that the stocks of key species targeted by fishers in Blanchisseuse such as kingfish and carite are fully exploited³³. Long-term vulnerability to overfishing is compounded when coping strategies such as increased fishing pressure are implemented to deal with low catch or income periods.

In this instance the sustainable management of fisheries resources and enforcement of management measures can contribute to social protection for fishers by ensuring long-term viability of the resource base upon which they depend. Such measures are necessary to avoid the “tragedy of the commons” effect. The enforcement of existing marine fisheries management measures and regulations in Trinidad is currently regarded as poor^{34 35}.

33 Report on Commercial Fisheries within the Gulf of Paria and the impacts of proposed port development activities on fisheries in the Claxton Bay area. http://www.ema.co.tt/docs/public/comments/NEC_PLSEIP%20SUPPL%20EIA_APP%20XII_090306.pdf

34 National Development Strategy for Trinidad and Tobago: Surveying the scene

35 Evaluating the Needs of the Fishing and Associated Livelihoods in the Coastal Fishing Sector of Trinidad and Tobago

To mitigate against these risks, efforts must be made to improve the management of fisheries, specifically in terms of developing and implementing management plans for the various fisheries and improving enforcement. Management should be guided by an approved policy for the sector that reflects the outcomes which include reduced vulnerability of fishers and economic and environmental sustainability of the sector.

The need to mainstream disaster risk reduction and climate change adaptation in fisheries sector planning and development - Fishing is a high-risk profession, not only because of the inherent safety risks associated with the job, but also because of high exposure of life and collateral to disasters. To mitigate against man-made and natural shocks (e.g. like rough seas that was commonly reported among fishers for this study) which can affect incomes and cause costly damages to boats and engines, there is need to mainstream climate change adaptation and disaster risk management into sectoral planning.

While the issue of lack of insurance on fishing vessels and equipment emerged as a key vulnerability in this study, the idea of insurance for fishers is only one aspect of an overall need for a holistic planning approach to deal with sustainable development of the sector and the reduction of vulnerability of fishers, including actions for climate change adaptation and disaster risk management. Such an approach should consider the full range of strategies related to disaster prevention, mitigation and preparedness.

Strategies such as climate proofing fishing facilities; building the capacity of small scale fishers to adapt to climate change and recover from a disaster, for example by building human capital to increase the likelihood of securing alternative income sources; or by reducing the sensitivity of fisheries-dependent households to income derived from fishing can go a long way in mitigating disaster risks. The latter is especially important in the Trinidad and Tobago context as fisheries' households have a considerable dependency on fisheries income (CRFM, 2012).

One regional project, which includes Trinidad and Tobago as a project country, which is seeking to address the issue of building climate resilience in the fisheries sector is the FAO Global Environment Facility (GEF) funded, Climate Change Adaptation in the Eastern Caribbean Fisheries Sector project (CC4Fish). The goal of CC4Fish is to increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean fisheries sector, through introduction of adaptation measures in fisheries management and capacity building of fisherfolk and aquaculturists as well as implementing an ecosystem approach to fisheries management and mainstreaming of climate change.

The need to include self-employed persons in the National Insurance System - Box 1 in section 10.4.1 of this document outlines the reasons why fishers are not included in the national insurance scheme which provides benefits such as Sickness Benefit, Maternity Benefit, Invalidity, Funeral Grant, Retirement, Employment Injury, Employment Injury(Death) and Survivors' Benefit. Efforts must be made to address the non-inclusion of self-employed persons in this system. Alternatively, as recommended by the CRFM, a Fishermen's Pension and Social Security Benefit Scheme, that would cater to the circumstance of small-scale fishers could be established (CRFM, 2012).

The need for stronger fishers' organizations- At the national level, labour interventions provide support for the creation of cooperatives and provide institutional support for the organization of fishers. There are approximately (34) primary fishing organizations in Trinidad and Tobago of which nine (9) are fishing co-operatives and twenty-five (25) are fishing associations. In the Caribbean context, fishers' organizations are challenged by governance and capacity issues including inadequate leadership; inadequate business management skills; lack of strategic focus; low membership and participation; and low levels of trust (Phillips, 2014). Some of these issues were supported by the responses given by fishers during this study.

In terms of providing and contributing to social protection, stronger and resilient

fisherfolk groups would not only put fishers in a better position to advocate for improved policies and management aimed at addressing their challenges, but could also: i) increase fishers' price negotiating power with market intermediaries, improve postharvest practices and facilities, provide marketing logistics and information, and facilitate investment in shared structures such as ice plants and fish processing facilities; ii) use their greater negotiating power to make cost-saving bulk purchases of fishing gear, engines, equipment and fuel; and iii) facilitate microcredit schemes for fishers, to reduce their dependency on intermediaries and give them greater freedom in selecting buyers (FAO, 2012).

Understand that sustainable natural resource management can contribute to social protection - It is important that when designing social protection measures to address vulnerability and poverty among small-scale fishers (and other natural resource based livelihoods) that the root causes of poverty and vulnerability are understood. Addressing all issues of poverty and vulnerability with social protection measures may be financially unsustainable and ineffective if the root of the vulnerability or poverty may be better addressed by improving sustainable management measures.

For example, in the Trinidad and Tobago context, effective management and enforcement of regulations in the fishery may confer significant benefits toward reducing vulnerability of small-scale fishers in the sector by reducing overfishing which can ultimately lead to stock depletion and reduced income earning capacity for fishers.

STAKEHOLDERS' ROLES AND RESPONSIBILITIES

Based on the findings of this study the following recommendations in Table 11.1 for key fisheries stakeholders are outlined as being advantageous to the reduction of poverty and vulnerability among small-scale fishers in Trinidad.

Table 11.1: Recommendations for key fisheries stakeholders to facilitate the reduction of poverty and vulnerability among small-scale fishers in Trinidad

Stakeholder	Role	Recommendation
Government		
Fisheries Division	Management	<ul style="list-style-type: none"> Strengthen enforcement of existing measures for the management of marine fisheries Draft national participatory fisheries policy and management plan with input from small-scale fishers and get the policy and plan formally approved. Social protection, climate change adaptation and disaster risk management should be mainstreamed into the sectoral policy and plan. Develop a research agenda to improve on the quality of information for decision-making for sustainable small-scale fisheries development, including information on poverty and vulnerabilities in fishing communities As part of disaster risk management, examine possible means of securing insurance for fishers, potentially through public and private partnerships.
Ministry of Agriculture, Lands and Fisheries and Ministry of Energy	Policy Development	<ul style="list-style-type: none"> Integrate the national CSR policy* into the agriculture and fisheries sectors that ensures private sector companies, such as oil companies, working in the coastal and marine space provide compensation and adaptation policies/programmes for small-scale fishers and other natural resource users when their activities disrupt the livelihood actions of natural users in coastal communities' activities.
Cooperatives Division	Training	<ul style="list-style-type: none"> Undertake participatory assessment of fishers' cooperatives in Trinidad and Tobago to determine the challenges and likely solutions (e.g. capacities and policies required). Align capacity building strategies and policy interventions based on findings of the needs assessment.

Social Divisions	Monitoring and evaluation	<ul style="list-style-type: none"> • Undertake participatory monitoring and evaluation exercises to determine the effectiveness of current social protection programmes and schemes. • Develop a national policy on corporate social responsibility (CSR)*
National Insurance Board	Social Insurance	<ul style="list-style-type: none"> • Develop a system and programmes to facilitate the inclusion of small-scale fishers (or smallholders) as self-employed persons in the national insurance system
Private Sector		
Insurance companies	Insurance	<ul style="list-style-type: none"> • Examine possible strategies for securing insurance for fishers' assets, through public and private partnerships.
Oil companies and other private sector companies operating in fishing communities	Corporate Social Responsibility	<ul style="list-style-type: none"> • Based on national CSR policy, promote a culture of CSR that could contribute to improving the livelihoods of small-scale fishers in communities of operation. • Align corporate social responsibility efforts with the policy and management objectives for the small-scale fishing sector
Civil Society		
Fisherfolk organizations	Advocacy Social capital	<ul style="list-style-type: none"> • Build resilient organizations to improve collective voice of fishers and social capital. • Advocate for inclusion in social insurance programmes • Advocate for the inclusion of targeted social protection measures in fisheries policy and plans that will address needs of vulnerable fishing communities
Civil Society Organizations	Advocacy Capacity Building	<ul style="list-style-type: none"> • Advocate on behalf of fisherfolk organizations for improved national strategies to reduce poverty and vulnerability among small-scale fishers. • Design and implement projects that can help to build the capacity of fisherfolk organizations to function more effectively and influence policy.

Poverty and vulnerability in small-scale forestry dependent communities in Trinidad and Tobago

While there is no official definition for a small-scale forest user in Trinidad and Tobago, the country's National Forestry Policy identifies some of the small-scale extractive and non-extractive uses, shown in Table 12.1 below, of forests in Trinidad and Tobago.

Table 12.1: Small-scale extractive and non-extractive uses of forests in Trinidad and Tobago

Category	Uses
Extractive uses (Timber products)	<ul style="list-style-type: none"> Small-scale processing, furniture making and use of timber for construction.
Extractive uses (Non-Timber Products)	<p>Forests play a critical role in supporting socio-economic development through the extraction of the following products:</p> <ul style="list-style-type: none"> food and food additives (edible nuts, mushrooms, fruits, herbs, spices and condiments, aromatic plants, game animals); fibres (used in construction, furniture, clothing or utensils); resins, gums, and plant and animal products used for medicinal, cosmetic or cultural purposes (e.g. beekeeping); plants for landscaping and horticultural use wildlife (hunting)
Non-extractive uses	<ul style="list-style-type: none"> nature tourism

In a country case study report for Trinidad and Tobago on Facilitating Financing for Sustainable Forest Management in Small Island Developing States and Low Forest Cover Countries, it was noted that a high incidence of poverty existed within regions of the country where forest cover and national parks are dominant (Pantin and Ram, 2010). In the report, it was also noted that according to official data, there was little employment related to forests (Pantin and Ram, 2010). It could be inferred from this that a significant number of small-scale forest users operate either on a subsistence level or within the informal economy in the case of commercial users.

Vulnerability of forest resources

Approximately 44.1percent or about 2260.0km² of Trinidad and Tobago is forested (ODPM, 2014). Forests resources in Trinidad and Tobago are highly vulnerable to indiscriminate use, including housing (both formal and informal), farming and quarrying resulting, in part, from poor enforcement and limited management capacities. It has been suggested that sustainable forest management, has the potential to alleviate poverty and provide employment opportunities (Pantin and Ram, 2010).

Targeted social protection measures applicable to forestry dependent communities

Ongoing government -led programmes that offer social protection for small scale forest users in Trinidad and Tobago include the following:

Natural resource protection and employment generating programmes

Forestry Development Programme, which offers preventive social protection by implementing various natural resource management strategies, such as reforestation, wetlands and watershed management and fire protection, that reduce vulnerability of forest based livelihoods to degradation.

Forestry Incentive Programme- the Forestry Incentive Programme assists in reversing the cycle of de-forestation and land degradation on private lands by encouraging the use of reforestation and conservation methods and promoting private forestry. As part of a nationwide effort to preserve and increase forest reserves in Trinidad and Tobago, individuals and businesses are granted rebates for fire tracing, machinery and equipment used in reforestation projects.

National Reforestation and Watershed Rehabilitation Programme (NRWRP) which offers promotive social protection by creating jobs for and offering entrepreneurship training to unemployed persons in rural communities. Through the programme, rural persons are employed to rehabilitate and protect the forests in their communities as well as offered training that would help them to undertake entrepreneurial ventures.

National Nariva Restoration, Carbon Sequestration, Livelihood and Wildlife Project seeks to restore 1339 ha of the Nariva Swamp that has been degraded by illegal rice farming. It also aims to develop sustainable livelihood opportunities for the communities of Biche, Cascadoux, Kernahan and Plum Mitán that depend on the Nariva Swamp's natural resources by providing employment through reforestation activities and training community based organizations within the project area.

Access to subsidies, loans, micro-credit and financing and land

Agricultural Incentive Programme provides a variety of subsidies for small-scale farmers. For example, new farmers are eligible for a subsidy of 50percent of their start-up costs up to a maximum of TT\$30,000 (US\$4,521.89).

Agricultural Land Distribution- Unoccupied State land is made available periodically for lease. State land may be leased on a short, medium or long-term basis. Lease rates vary between 2 percent and 5percent of the free market value of the land, depending on land use and the duration of the lease.

Agricultural Development Bank (ADB) - the ADB is the funding arm of the Ministry of Agriculture, Land and Fisheries. The ADB is mandated "to encourage and foster the development of agriculture, commercial fishing and associated industries, including all segments of the production chain-support services, marketing and agro-processing". The Bank has recently expanded its mandate to include micro-enterprise financing and support for farmers' projects, lifestyle, and community needs. The ADB offers a portfolio of financial products, including concessionary loans and services that are tailored to meet the needs of farmers and other agri-entrepreneurs. According to the Bank's website among its key aims are to contribute to:

- increased employment;
- farmers' and agri-entrepreneurs' standard of living;
- increased sector competitiveness;
- sector sustainability;
- food and nutrition security; and
- rural development.

TARGETED SOCIAL PROTECTION BY CIVIL SOCIETY

Forest dependent communities have benefited from work undertaken by civil society. These include projects aimed at building the capacity of community based organizations, resource management skills development, adaptation of small-scale forest-based enterprises to climate change and protection of forest based resources. Some of these are listed below.

- **Fondes Amandes Community Reforestation Project (FACRP)** is an example of a community based organization initiative aimed at reforesting and protecting the forests in the Fondes Amandes community. The project also promotes sustainable livelihoods by providing training for community members in tour guiding, natural craft and the preparation of fire trails and reforestation techniques to protect the community's forest resources.
- **Empowering rural women through improving livelihoods** - In June 2012, under its Rural Livelihoods Programme, the Caribbean Natural Resources Institute (CANARI), with funding from the United Nations Development Fund for Women (UN Women), initiated an eighteen-month project "Empowering rural women through improving livelihoods". The purpose of the project was to, in part, build the capacity of rural women with natural resource –based enterprises to adapt to the challenges of unsustainable natural resources practices and climate change.
- **Network of Rural Women Producers Trinidad and Tobago (NRWPTT)** is the national chapter of a regional network of rural women producers that works to provide rural women with access to credit for micro-business projects, contribute to government policies that are sensitive to and supportive of the special needs of rural women producers, contribute to the elimination of the gender bias in the ownership of land, and ensuring that women have the same opportunities as men to own property. The NRWPTT also seeks to provide marketing support for rural women producers and to offer training, research, technical support and outreach services³⁶.
- **Implementation of Sustainable Farming Practices in Northern Range Communities**³⁷ – In 2009, the Cropper Foundation implemented a 30-month project that targeted small-scale farmers from two selected rural farming communities in the Northern Range of Trinidad to improve their use of sustainable farming practices that would assist in improving the returns and sustainability of agriculture for small-scale farmers. The project sought to address the loss of forest cover in the Northern Range brought on by increased cultivation by small-scale farmers using unsustainable agricultural practices such as "slash and burn" resulting in soil erosion, water run-off and aggravation of downstream flooding and siltation of watercourses.

³⁶ <http://e-edition.guardian.co.tt/womanwise/2012-07-01/caribbean-network-rural-women-producers-womenagents-change>

³⁷ http://thecropperfoundation.org/Approved_Plan_of_Operations.pdf

Institutional arrangements

MANAGEMENT BODIES, FORESTRY POLICIES, LAWS AND PLANS

The Forestry Division is the primary State agency responsible for the management of the State's forests, wildlife and national park resources in Trinidad. The Department of Natural Resources Environment (DNRE) is responsible for the management of State lands in Tobago. The Forestry Division and DNRE operate under the recently approved 2011 National Forest Policy. This policy replaced the previous (1942) policy which became a limiting factor to efficient operations in a vastly changed and very dynamic and critical island environment³⁸.

In terms of management plans, there appear to be no current long-term management plan for forested areas in Trinidad and Tobago. However, there are a number of laws in Trinidad and Tobago that directly and indirectly relate to the management of forests and their associated resources. The key legislative instruments covering forest management in Trinidad and Tobago are the Forests Act and the Conservation of Wildlife Act. Related legislation includes the Environmental Management Act, Sawmills Act and the Agricultural Fires Act. Enabling legislation for the implementation of the National Forest Policy and the National Protected Areas Policy, including regulations, are currently in draft form (PSIP, 2015).

As previously mentioned, forest resources in Trinidad and Tobago are highly vulnerable to indiscriminate use and enforcement by the Forestry Division is seen as being weak. Constraining factors contributing to the latter include:

- inadequate forest management financing (Pantin and Ram, 2010).;
- insufficient inclusion of civil society and the private sector in forest management (National Forest Policy, 2011);
- low enforcement capacity at the management level;
- inadequate fines to act as disincentives for offenders (Ramlogan, 2013); and
- several policies and laws of relevance to forest management overlap, and provide unclear management direction, or, in extreme cases, are in direct conflict ((National Forest Policy, 2011)

SOCIAL PROTECTION FUNCTION OF NATIONAL FORESTRY AND RELATED POLICIES AND PROGRAMMES

In addition to the National Forest Policy, there are a number of other policies related to the management of natural resources relevant to the forestry sector in Trinidad and Tobago. These include the National Protected Areas Policy, National Wildlife Policy, National Environmental Policy and the National Climate Change Policy. Each of these policies recognises the importance of natural resources to livelihoods while the objectives of the National Forestry Policy, National Wildlife Policy and National Protected Areas Policy speak directly to optimising the contribution of forest, wildlife and protected area resources to livelihoods. The National Forestry Policy notes however that few of the poverty reduction programmes in Trinidad and Tobago consider the linkages between forest resources and livelihoods (National Forestry Policy, 2011).

³⁸ Personal communication between CANARI and Raynaldo Phillips, Forest Officer with the Forestry Division on 21 August, 2015

In terms of providing social protection for small-scale forest users, the National Forest Policy specifically outlines a number of strategies to promote livelihood opportunities for both extractive and non-extractive forest resource users. In this regard, the policy, inter alia, outlines the following objectives:

- provide technical and financial support for sustainable forest-based industries and small businesses; and
- ensure equitable access of the population to forest goods and services, recreation, etc.

More specifically, in terms of extractive non-timber forest resources, the policy highlights the following actions to be taken by the State in collaboration with all relevant stakeholders:

- promote the sustainable harvesting and utilisation of wildlife resources, especially hunting of game animals through, development and adoption of a National Wildlife Policy and undertake appropriate revisions to the Conservation of Wildlife Act (Chap. 67:01), as a priority action;
- promote the sustainable extraction and utilisation of forest resources, especially native plants or plant parts, including orchids and medicinal plants;
- support traditional (cultural, spiritual/religious), subsistence and small-scale extractive uses of forests and cottage industries that are legal, sustainable and compatible with the conservation objectives of this Policy, especially those uses that are capable of bringing livelihood benefits to local communities;
- continue to promote forestry's contribution to food security through sustainable agro-forestry and wildlife farming practices

In terms of the development and management of non-extractive uses the policy outlines the following:

- promote the sustainable development of nature-based tourism on both private and State lands;
- provide equitable access to, and manage recreational opportunities (e.g. hiking, bird watching) for, all stakeholders;
- support lifestyles that value the livelihood benefits of forests, both in rural communities and through greening of urban spaces

Other strategies, outlined in the policy, aimed at improving management of forest resources such as capacity building to facilitate effective participatory management of forests; development of financial mechanisms for the sustainable financing of forest management and technical support to facilitate sustainable use and conservation of forest resources also contribute indirectly to social protection.

The National Wildlife Policy (2013) also clearly acknowledges the role of wild life resources to sustainable livelihoods. The Policy identifies that the quality and extent of these wildlife resources have deteriorated due to the direct loss of wildlife populations and their associated habitats through multiple factors including forest fires, unsustainable harvesting of game and timber, lack of appropriate regulation of the horticulture and pet trade, increased habitat loss and fragmentation through industrial and infrastructural developments (e.g. roads, bridges, ports etc.) by State and private landowners, quarrying and unsustainable agricultural practices. In addition, the Policy acknowledges that indirect factors such as climate change and pollution have important ramifications for wild species and their habitats (National Wildlife Policy, 2013).

Much like the National Forest Policy there are many aspects of the National Wildlife Policy that directly and indirectly speak to the social protection of resource users. In fact, one of the stated objectives of the Policy is:

“To optimise the contribution of wildlife resources to livelihoods, cultural and spiritual/religious use, while ensuring sustainable use of wildlife resources, including hunting, capture of cage birds, captive breeding, artificial propagation and international trade, and non-destructive uses such as ecotourism, and ecosystem services where possible, feasible and desirable.”

The Policy speaks directly to the development of social protection mechanisms in instances where the management of a wildlife species will have adverse effects on livelihoods. In this regard the policy states that it will:

“develop compensation mechanisms in cases where the management of any designated critically endangered, endangered, vulnerable, or near threatened wildlife species or their habitats negatively impacts livelihoods”

In addition, the Policy seeks, in some instances, to enhance conservation efforts by promoting social protection through labour market interventions that would encourage sustainable use of forest resources. For example, as an alternative to the collection of wild species of plants for sale, the policy promotes the use of floriculture/horticulture and seeks to support this by offering market based incentives and low interest loans for the development of wild plant farms.

It should be noted however, that while all the above policies and strategies point to the actions to be taken, there are no approved action plans in place to do so.

Risks, needs and transitions of small scale forest-users in Trinidad and Tobago

INADEQUATE ENFORCEMENT AND MANAGEMENT OF FOREST RESOURCES

The natural resource base upon which small-scale forest users depend is vulnerable to indiscriminate use. Poaching and over-harvesting in forested areas in Trinidad and Tobago are serious issues impacting the sustainability of forest resources. Deforestation is also a serious issue impacting forest resources and forest-based livelihoods. Activities such as housing development (formal and informal), illegal quarrying, illegal logging and unsustainable agricultural practices all contribute to a general trend of declining forest cover³⁹. In addition, forest fires, largely caused by negligent behaviours such as slash and burn agriculture, hunting, smoking and malicious acts contribute to this decline⁴⁰.

Deforestation and the illegal use and taking of forest resources are partially attributed to the inadequate capacity of government to enforce regulations and manage forested areas. Low penalties and fines set out in the Forestry and Conservation of Wildlife Acts that would act as disincentives for offenders' also compound illegal use. For example, hunting outside of the closed season only carries a fine of two-hundred Trinidad and Tobago dollars (TT\$200.00/US\$30.15).

Efforts are however currently underway to improve the management of protected forested areas in Trinidad and Tobago through a FAO/Global Environment Facility (GEF) funded project titled "Improving Forest and Protected Area Management in Trinidad and Tobago". The key outputs of the project are expected to be:

- Draft National legislation for establishing and managing PAs
- Systematic biodiversity monitoring and site-specific interventions to address threats
- Management plans for six new PAs
- User-fee system operating in two PAs

CLIMATE CHANGE IMPACTS ON FORESTS AND LOW ADAPTATION CAPACITY OF SMALL-SCALE FOREST USERS

There are no specific studies which examine the impacts of climate change on forest-based livelihoods in Trinidad and Tobago (FAO, 2010). However, according to a FAO Working Paper on Forests and Climate Change in the Caribbean, the impacts of climate change on forest-based livelihoods and communities are expected to include:

- loss of ecosystem services from degraded forests;
- the loss of subsistence materials (food, wood fuel, medicines, construction material) from forest fires, storms, disease or drought;
- the loss of revenues from tourism, the sale of forest products and recreational services when:
 - vast areas of dead or dying forests reduce scenic appeal;
 - access into forests is closed off or becomes difficult;
 - degraded forests are unable to support wildlife attractions; and

39 <https://www.cbd.int/doc/world/tt/tt-nr-04-en.pdf>

40 <https://www.cbd.int/doc/world/tt/tt-nr-04-en.pdf>

- income opportunities are lost from the sale of forest products due to limited resources or poorer quality of forest products (for example, seeds for jewellery-making being washed away in heavy rains, low plant productivity in drought conditions) (FAO, 2014).

As mentioned above, the current National Forest Policy and Protected Areas Policy both speak to the need to protect and conserve forests so that they will better be able to adapt to climate change but neither policy directly addresses the need to build resilient forest-based livelihoods in the face of a changing climate. The impacts of climate change and other natural disasters on forest based livelihoods could however contribute to increased poverty rates among forest dependent communities.

Survey findings - Caura

BRIEF DESCRIPTION OF THE FORESTED COMMUNITY OF CAURA

Caura is a small rural village located in the Northern Range of Trinidad with a population of approximately seven hundred and seventy-six persons. The area is traditionally associated with agriculture and recreational areas of the Caura River (UNDP, 2005). It is one of the catchment areas south of the Northern Range and supplies settlements downstream of farming areas with a water supply (UNDP, 2005). Key natural resources in Caura include forests, rivers and abundant biodiversity. In addition to agriculture, vending near nature-based recreational sites that attract visitors are major natural-resource based livelihoods.

SURVEY FINDINGS

Fifty percent of forest-users interviewed were female⁴¹, with an average age among all respondents of fifty and a half (50.5) years (the youngest respondent was 30 and the oldest was 70). On average respondents reported using the forest in Caura as a source of livelihood for fifteen (15) years (range: less than one year to 30 years). The average household size consisted of approximately three (3) persons. Fifty percent of respondents reported their marital status as single (of those 75percent were single women). Twenty-five percent (25 percent) of respondents said that they were in common-law relationships and 12.5 percent each reported being either married or widowed. Small-scale forest livelihoods identified in the surveys included farming, eco-tour guiding, wine making, floriculture, aquaponics, hunting and handicraft. Farming was the most common livelihood activity among respondents.

FINANCIAL CAPITAL

Approximately 63percent of respondents had at least two sources of income derived from forest-based livelihoods. Income sources were generally categorised as self-employment and regular except for hunting which was described as seasonal.

Seventy-five percent of households reported having other household members above the working age contributing to the household income. The remaining households were either single-occupant households or consisted of household members below the legal working age. Household members contributing to the household income were generally employed in community make-work programmes (CEPEP) or non-forest-based livelihoods e.g. bank teller, office assistant and proof-reader.

Of those surveyed, 38percent indicated that their households received additional regular inflows of money through the pensions of older family members (old age pension and NIS pension) and child maintenance from one single-mother headed household. Remittances were not identified as an additional inflow.

Seventy-five percent of respondents indicated that they saved money in either banks or credit unions. However, 33 percent of those who saved said that it was sometimes difficult to do so because of the number of regular expenses they had. Fifty percent of respondents reported that other household members saved money.

⁴¹ Forest users were targeted as one group with no distinction in activity. In the case of Caura, the respondents involved in small scale forest activities were mostly women.

Monthly household incomes among respondents ranged from TT\$2,000.00 to TT\$20,000.00 (US\$301.46 to US\$3,014.59). Earnings from forest-based livelihood income sources generally made up between 4 percent to one-hundred percent of the total household income.

In terms of household poverty lines, refer to Table 15.1, most households (75 percent) reported monthly incomes that placed their households above the estimated poverty lines for their households.

Table 15.1: Household poverty among small-scale forest-users in Caura

Household (HH) Number	Composition of HH (age in years)	Estimated family poverty line based on composition of HH (per month)	Reported estimated household earnings (per month)	Estimated earnings from forest-based livelihood activities (per month)
1	Female (34) Female (11) Male (54) Male (12)	TT\$3081.54 (US\$464.48)	TT\$2,000 (US\$301.46)	TT\$600.00 (US\$90.44)
2	Female (63) Female (8) Female (6) Male (39) Male (26)	TT\$3502.62 (US\$527.95)	TT\$2,400 (US\$361.75)	-
3	Female (36) Male (8)	TT\$1445.07 (US\$217.81)	TT\$4,000 (US\$602.92)	TT\$4000 (US\$602.92)
4	Female (52) Female (35) Male (32) Male (5)	TT\$2995.41 (US\$ 451.50)	TT\$2,400 – TT\$3,200 (US\$361.75 -US\$482.33)	-
5	Female (65) Female (21) Male (62)	TT\$2172.39 (US\$ 327.44)	TT\$20,000 (US\$3,014.59)	TT\$800.00 (US\$120.58)
6	Female (33) Female (7) Male (34)	TT\$2258.52 (US\$340.43)	TT\$5,000-TT\$8,000 (US\$753.65 -US\$1,205.84)	Less than TT\$3000.00 (US\$452.19)
7	Male (70)	TT\$699.90 (US\$105.50)	TT\$5,000 (US\$753.65)	TT\$0 - TT\$2,000 (US\$0-301.46)
8	Female (54) Female (3) Male (30)	TT\$2057.55 (US\$310.13)	TT\$3,000 - TT\$7,000 (US\$452.19 -US\$1055.11)	TT\$4,800 (US\$723.50)

The economic vulnerability of small-scale forest-using households was relatively lower compared to small-scale fishing households as the number of households depending on income from forest-based livelihood activities was generally lower.

In terms of expenses related to their livelihoods as forest-users (refer to Figure 15.1), seventy-five (75 percent) of respondents indicated that their start-up capital (e.g. to purchase equipment and materials) was obtained using money from their personal savings. Twenty-five percent of respondents (25 percent) stated that they secured bank loans from either traditional banking institutions or concessionary loans from the Agricultural Development Bank for their start-up capital. Twenty-five percent of respondents pointed out that they received financial assistance from their family members when starting up their small operations.

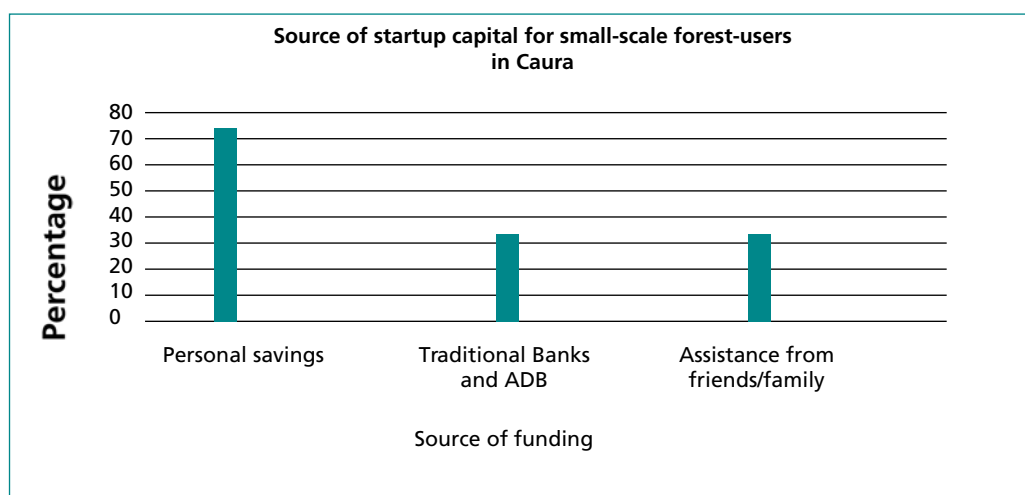


Figure 15.1: Source of start-up capital for small-scale forest-users in Caura

Regular monthly expenses related to small-scale forest activities ranged between TT\$187 – TT\$2000 (US\$28.19 – US\$301.46). For all respondents' monthly expenses related to their livelihoods as forest-users did not exceed their income derived from those activities.

Seventy-five percent of respondents reported that they were not satisfied with the income from their forest-based livelihoods and further indicated that incomes had been fluctuating or declining over the last five years.

HUMAN CAPITAL

Fifty-percent (50percent) of respondents indicated that they terminated their formal schooling at the primary level (refer to Figure 15.2). Twenty-five percent of respondents (females only) reported completing their schooling at the tertiary level. Respondents who terminated their schooling at the primary level cited reasons such as poverty and the need to start working at a young age to help support their families and failure of the Common Entrance Exam (refer to section 10.4 of this document.)

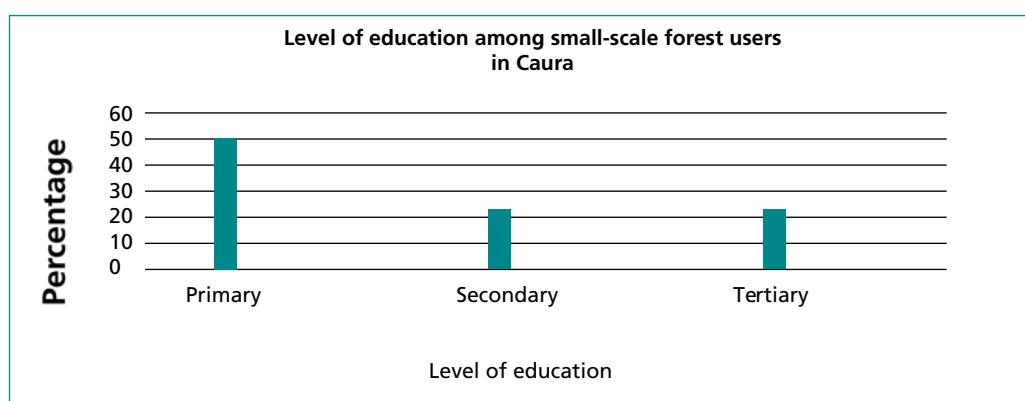


Figure 15.2: level of education among small-scale forest users in Caura

Respondents who did farming indicated that they had acquired their skills by learning from family members who were involved in agriculture. These skills were supplemented with training courses (e.g. small agro-entrepreneurship, small-business training, soil conservation, pest control and preservation of forests) offered by the Inter-American Institute for Cooperation on Agriculture (IICA) and various government Ministries. Skills for other forest-based livelihoods, such as winemaking

and floriculture, were learnt from training courses conducted in the community.

Although 75 percent of respondents indicated that they were not satisfied with their income, all respondents said that they would encourage others in their family to use forests as a source of income for their livelihoods. Reasons for this included, *“There are opportunities for making money especially with natural herbs. More people are buying natural herbs”*; *“I would encourage them to do aquaponics (non-conventional agriculture) as it is more lucrative as a business. The traditional way is labour intensive and you don't make a lot of money”*; *“Forests can provide resources for you to make a good living”*; and *“I think it is profitable with the right market”*.

SOCIAL CAPITAL

Fifty percent of respondents indicated that they were members of and participated in community groups such as the Caura Valley Village Council, Caura Valley Farmers' Group and the Northern Range Hiking Club Association. Stated benefits of being in the groups included, in the case of the farmers group, better access to training programmes and opportunities to learn from other farmers. In the case of the Village Council one respondent noted that through the Council the community has a louder “voice” to advocate for changes. Those who did not participate in community groups identified issues such as corruption and unfairness within the groups and a desire to be more independent as their reasons for non-participation.

Social protection at the community level was noted among respondents who stated that the community groups would pool funds or provide in-kind services for community members in need. For example, respondents stated that the groups would pool funds to assist members who could not afford school books for their children, or for those who were suffering from ill health. Respondents also indicated that they would raise funds for families who needed assistance to cover funeral costs for deceased family members or for households that had lost their homes due to fire.

PHYSICAL CAPITAL

Questions on physical capital in the survey mainly focussed on the status of ownership of the respondents' houses and land.

In terms of the ownership of their physical housing structures, all respondents indicated that they owned their homes. However, only 12 percent reported having homeowners' insurance. Seventy-five percent of respondents were leasing agricultural land through the government's Agricultural Land Distribution Programme. Under this programme, the government ensures that the distribution and regularisation of agricultural state lands in Trinidad and Tobago is carried out in a productive manner, consistent with proper environmental and natural resource conservation practices, and in accordance with government policy.

The remaining 25 percent of respondents stated that they owned the land upon which their homes were constructed.

VULNERABILITY CONTEXT

In an effort to assess household and community vulnerability, respondents were asked to identify any shocks or adverse events that impacted their household or individual income (idiosyncratic shocks) in the past twelve (12) months. They were also asked to identify any shocks or adverse events that had ever (no timeframe) affected their household or community (covariate shocks) and to further identify if and how they were able to cope with or recover from these adverse impacts.

The majority of respondents identified shocks associated with the natural environment such as crop pests and diseases, and impacts related to the rainy season (e.g. landslides and high winds). Illness (asthma, flu [influenza], high blood pressure) and rising food prices were identified by 38 percent of respondents

as shocks experienced within the last 12 months. Some of the female farmers interviewed, indicated that because of their advancing age and gender that they were unable to work on their farms as much as they used to.

Respondents identified positive coping strategies for dealing with shocks, such as having and using savings, planting short-term and long-term crops and depending on income from household members with non-forest-based livelihoods. Negative coping strategies such as reducing food intake were identified by approximately 38 percent of respondents. The shocks and coping strategies identified are set out in more detail in Table 15.2 below.

Table 15.2: Idiosyncratic and Covariate shocks and coping strategies identified by small-scale fishers in Blanchisseuse

Shock/risk type	Shocks/risks identified by respondents	Impact on household	Coping strategies identified by respondents
Natural	<ul style="list-style-type: none"> • Crop pests and diseases • Landslides (during rainy season, also caused by deforestation during the dry season) • Reduced rainfall during the dry season • High winds (during Rainy Season) 	<ul style="list-style-type: none"> • Loss of produce due to landslides; reduced rainfall and crop pests and diseases result in lower household income • Unable to work (or work for longer periods) due to ill health and advancing age result in lower household income • Reduced household income resulting from death of key income earner • More of household income spent on food due to rising prices 	<p>Positive</p> <ul style="list-style-type: none"> • Used savings • Harvested and stored rainwater • Planted short-term and long-term crops • Community support in times of need • Depended on family members with non-forest-based livelihoods <p>Negative</p> <ul style="list-style-type: none"> • Ate less • Ate less meat products and cut out expensive products such as butter and cheese
Health	<ul style="list-style-type: none"> • Asthma • Common cold/influenza • High blood pressure • Age (especially among women) 		
Economic	<ul style="list-style-type: none"> • Death of key income earner • Rising food prices 		

BARRIERS

Respondents were asked to identify key barriers that they believed were affecting their livelihoods as forest-users, with them being requested to identify the barriers (if any) in the following categories: natural, physical, social, financial/economic, and institutional/management. Respondents were also asked to identify any steps, they, their community organizations, civil society, government or private sector agencies had taken to address these barriers. Table 15.3 below outlines the responses given for each category.

Table 15.3: Barriers identified by small-scale forest-users in Caura that are constraining their livelihoods

Barrier Type	Percentage of respondents identifying barrier type	Description of barrier	Intervention taken by individual, forest users association, civil society organizations, government or private sector to address barrier (if any)
Natural	25	<ul style="list-style-type: none"> • Deforestation • Climate Change 	
Social	38	<ul style="list-style-type: none"> • Conflict with other resource users (persons doing beekeeping near hiking trails) • Need to improve business management skills • Need assistance with labour (older women) 	<p>Farmers in the community used to pool work, but this is no longer done</p> <p>Pursuing small-business management courses</p>

Financial/ Economic	38	<ul style="list-style-type: none"> • High cost of equipment • Insufficient access to markets • Need better access to loans 	Waiting to use old age pension to start a small business that would improve income.
Management/ Institutional	25	<ul style="list-style-type: none"> • Poor management of nature trails by Government 	CEPEP workers used to clear trails but this has stopped
Physical	0		

The majority of respondents identified financial and social factors as the main barriers affecting their livelihoods. Natural and management barriers were less frequently identified. No respondents identified physical barriers.

USE OF SOCIAL PROTECTION PROGRAMMES

All respondents indicated that they or their household members had benefitted or were benefitting from different types of social protection programmes including social insurance, social pensions, social assistance cash transfers and programmes such as access to free training and tertiary education. Private insurance, for example health, life and homeowners' insurance, was not common among respondents. In fact, only one of the eight households surveyed reported having homeowner's insurance. Social protection was primarily offered by the government and secondarily by civil society and through community level interventions. Social protection by the private sector was not identified by respondents. Social protection schemes/programmes identified are described in more detail in Table 15.4 below.

Table 15.4: Social protection instruments utilised by small-scale forest users in Caura

Instrument	Social protection measure	Programme offered by	Description
Access to training and education	Promotive	<ul style="list-style-type: none"> • Government • Civil Society 	<ul style="list-style-type: none"> • Free training in small business management; agro-business management, forest conservation, soil conservation, tour guiding, floriculture, winemaking, sustainable farming techniques etc. • Access to tertiary education through subsidization of tuition under the GATE programme. • School feeding programmes • Free public transport for school children
Social employment	Protective	<ul style="list-style-type: none"> • Government 	Participation in government make-work programme CEPEP was significantly high in Caura. Approximately 63 percent of respondents either worked in CEPEP or had a household family member working in CEPEP. This provided a regular source of income for households.
Social Insurance	Preventive	Government	Small-scale forest-users in Caura were able to benefit from NIS through their participation in government make-work programmes such as CEPEP. Forest-users' households also benefitted from NIS in cases in which employed household members (non-forest based livelihoods) were participating in NIS.

Social Pension	Preventive	Government	Households with family members over 65 years old benefitted from income gained through the non-contributory old age pension programme.
Social assistance	Protective	Government	Widow's grant provided to households that experienced death of key income earner
In-kind/cash transfers	Protective	<ul style="list-style-type: none"> • Community • Government 	<ul style="list-style-type: none"> • Community groups would pool funds to assist community members in need e.g. assistance with funeral costs, purchase of books and uniforms for children and assistance with replacing house supplies after fires destroyed homes. • Free laptops given to students entering secondary school through the government's Laptop Programme
Concessionary loans/subsidies	Promotive	Government	Use of concessionary loans and subsidies available through the Agriculture Incentive Programme and Agricultural Development Bank
Grants	Promotive	<ul style="list-style-type: none"> • Government • Civil Society 	Micro-enterprise development grants

Discussion and recommendations

The findings of this study reveal that small-scale forest users in Caura are exposed to a variety of natural, health and economic shocks which could increase their vulnerability. The study also found that small-scale forest-users are participating and benefitting from universal and targeted social protection programmes. Universal social protection programmes such as the make-work programme CEPEP is a significant source of social protection for forest-using households in Caura. In fact, without it some households may fall into poverty. Targeted social programmes such as reforestation programmes may be successfully reducing risks such as forest fires and deforestation to small-scale forest users as these were less frequently identified as risks. However, the relatively low earnings from forest based activities may be an indication that targeted programmes should be working toward improving factors such as small-business development and market-access that could help improve earnings for small-scale forest users. Adopting such an approach would require improved management of forest resources to ensure sustainability and guard against overexploitation of these resources.

Based on the above and other findings from this particular study, the following issues are highlighted as key areas that if addressed can contribute to improved social protection and reduced vulnerability in forestry dependent communities in Trinidad.

The need for more research on poverty in forestry dependent communities- There is a dearth of research on poverty and vulnerability in forestry-dependent communities making it difficult to get a full appreciation of the root causes of poverty and vulnerabilities among small scale forest users. Undertaking more research on the causes of poverty and vulnerability in forest dependent communities can help tailor social protection measures to address specific needs.

The need to mainstream climate change adaptation and disaster risk management into forestry planning and development- Natural shocks such as crop pests and diseases, landslides during rainy seasons and low water supply during the dry season were key issues identified by small-scale forest users in Caura. Based on projections for climate variability and climate change impacts in the Caribbean these shocks could start to occur with greater frequency and intensity, further increasing the vulnerability of forest-based livelihoods. Including Climate Change Adaptation and Disaster Risk Management in ecosystem approaches to forest management, including livelihood development, is important to reduce current vulnerability and projected increase vulnerability brought on by the impacts of climate variability and climate change in the Caribbean.

The need to include self-employed persons in the National Insurance System - Box 1 in section 5.4.1 of this document outlines the reasons why self-employed persons are not included in the national insurance scheme which provides benefits such as *Sickness Benefit, Maternity Benefit, Invalidity, Funeral Grant, Retirement, Employment Injury, Employment Injury(Death) and Survivors' Benefit*. Efforts must be made to address the non-inclusion of self-employed persons, like small-scale forest users, in this system to ensure benefits reach to all those that need it.

The need for improved market access for small-scale forest-resource based enterprises- Improving constraints on the sale of products and services due to limited market access were identified as barriers to the livelihoods of small-scale forest users in Caura. Improving market access and climate-proofing small-scale forest resource-based enterprises may improve the economic sustainability of these enterprises and contribute

to improved earnings from small-scale forest enterprises.

The need for stronger community-level forest-user organizations, including cooperatives – social protection at the community level can be greatly enhanced through the formation and strengthening of forest-based community groups. The formation of cooperative enterprises in particular have been highlighted as a way for small-scale forest producers to gain increased economic power⁴². Organised arrangements also facilitate better access to training and funding opportunities such as grants as organizations providing such opportunities typically prefer working with groups rather than individuals. Opportunities for co-management of forest resources would be greatly enhanced through group arrangements.

Understand that sustainable natural resource management can contribute to social Protection–It is important that when designing social protection measures to address vulnerability and poverty among small-scale forest-users (and other natural resource based livelihoods) that the root causes of poverty and vulnerability be understood. Addressing all issues of poverty and vulnerability with social protection measures may be financially unsustainable and ineffective, if the root causes of the poverty or vulnerability could be better addressed by improving sustainable management measures. In the Trinidad and Tobago context improving management of forestry resources and enforcement of forestry regulations may confer significant benefits toward reducing vulnerability of small-scale forest-users. In this regard implementing co-management strategies involving forest communities may be beneficial.

STAKEHOLDERS' ROLES AND RESPONSIBILITIES

Based on the findings of this study the following recommendations, set out in Table 16.1 for key forestry stakeholders are outlined as initiatives that could lead to the reduction of poverty and vulnerability among small-scale forest-users in Trinidad.

Table 16.1: Recommendations for key fisheries stakeholders to facilitate the reduction of poverty and vulnerability among small-scale fishers in Trinidad.

Stakeholder	Role	Recommendation
Government		
Forestry Division	Management	<ul style="list-style-type: none"> Strengthen enforcement of existing measures for the management of forest resources Draft ecosystem based forestry management plan with input from small-scale forest-users and get plan formally approved. Social protection, climate change adaptation and Disaster Risk Management should be mainstreamed into the sectoral plan Undertake research on the needs of forest-dependent communities in Trinidad and Tobago to address issues related to poverty and vulnerability.
Cooperatives Division	Capacity building and training	<ul style="list-style-type: none"> Promote the formation of small-scale user forest cooperatives Undertake an assessment of small-scale forest-users cooperatives in Trinidad and Tobago and determine areas of need. Align training and capacity building strategies based on findings of needs assessment
Social Divisions	Monitoring and evaluation	<ul style="list-style-type: none"> Undertake participatory monitoring and evaluation exercises to determine the effectiveness of current social protection programmes and schemes. Develop a national policy on corporate social responsibility
National Insurance Board	Social Insurance	<ul style="list-style-type: none"> Develop a system to facilitate the inclusion of self-employed persons in the national insurance system

⁴² Cooperatives for the promotion of forestry in rural development <http://www.fao.org/docrep/s4550e/s4550e06.htm>

Private Sector		
Private sector companies operating in forestry-dependent communities	Corporate Social Responsibility	<ul style="list-style-type: none"> • Promote corporate social responsibility as an ongoing practice to improve the livelihoods of small-scale forest-users in communities of operation. • Align corporate social responsibility efforts with the policy objectives for the forestry sector
Civil Society		
Community Forest Organizations	Advocacy Social capital	<ul style="list-style-type: none"> • Strengthen organizations to improve collective voice of small-scale forest users and social capital. • Advocate for inclusion in social insurance programmes • Advocate for the inclusion of targeted social protection measures in forestry management plans that will address needs of vulnerable small-scale forestry-dependent communities
Civil Society Organizations	Advocacy Capacity Building	<ul style="list-style-type: none"> • Advocate on behalf of small-scale forest users for improved national and sectoral strategies and plans to reduce poverty and vulnerability in small-scale forestry communities. • Design and implement projects that can help to build the capacity of small-scale forestry organizations to function more effectively and influence policy.

SECTION B

DESK STUDY AND COMMUNITY SURVEY FINDINGS FOR SAINT VINCENT AND THE GRENADINES

Institutional environment for social protection in St. Vincent and the Grenadines

This section highlights the institutional environment for social protection and some of the programmes that are available to all citizens in the country including the forestry and fisheries- dependent households.

The 2015 budget reported that social protection accounted for approximately 0.5% of the 2014 expenditure. The World Bank also reported that St. Vincent and the Grenadines (SVG) spent just over 2% of its GDP on social safety net programmes between 2010 and 2014. While there is no overarching social protection policy, the government developed the National Economic and Social Development Plan for St. Vincent and the Grenadines that covers the period 2013-2025. The main over-arching goals include:

- reduced unemployment and poverty; and,
- high level of human and social development.

The plan also includes “improving physical infrastructure, preserving the environment and building resilience to climate change” as one of the strategic goals demonstrating the importance placed on the environment to economic development. The government also made poverty reduction through education one of its main activities and aggressively pursued improvements in education. It spent approximately 16.8% of its recurrent budget on education between 2000 and 2011 to provide more schools, employ more teachers, conduct curriculum reform and build safety nets for school drop-outs, including the Re-entry of Teen Parents Programme, in an effort to ensure that there was free primary and secondary school access for all children .

As part of an earlier Poverty Reduction Strategy (2002), the government recommended expanding and diversifying income sources including tourism, forestry and fisheries as a way to reduce vulnerability to poverty. It recognised that a large proportion of the poor operated in natural resource based- industries and that supporting those sectors would have a greater impact on poverty reduction . It recommended the strengthening of small and micro enterprises that were constrained by lack of financial resources. The Strategy recommended the further development of institutions that assist enterprises to develop. The Poverty Reduction Strategy also recognised that women and the elderly were particularly prone to poverty.

THE TYPES OF SOCIAL PROTECTION PROGRAMMES

Protective, preventive, promotive and transformative social protection measures can be found in St. Vincent and the Grenadines. Formal and informal measures play important roles in reducing the vulnerability of the general population including those in fisheries and forestry-dependent communities. Both formal and informal policies are protective and preventive, but there were few instances of promotive and transformative measures in informal policies in St. Vincent and the Grenadines.

THE TYPES OF ACTORS IN SOCIAL PROTECTION IN ST. VINCENT AND THE GRENADINES

Many social protection programmes are carried out formally by government institutions. Government’s main role in social protection has been to:

- develop and implement policies that target social protection and poverty reduction- e.g. Ministry of Mobilization, Social Development, Family, Gender Affairs, Persons with Disabilities and Youth implements many of the social protection programmes such as Public Assistance that provides a monthly fee for families who have no income;
- manage natural resources such as forest trees and lands, and nearshore fisheries that the livelihoods of some households are dependent on as sources of income e.g. Forestry Department and Fisheries Division manage the respective natural resources; and,
- provide education, training and employment opportunities for the general public.

Private sector and civil society organizations (CSOs) normally play roles in social protection through offering grants, micro-credit and volunteering. They also advocate for changes in policies and practices that will improve social capital in countries.

Communities, community groups and families also offer social protection to reduce the vulnerability of community members. These are normally informal types such as offering food, money and labour when needed.

The following sections show examples of policies and strategies undertaken by St. Vincent and the Grenadines. They aim to improve social capital in the country.

PROTECTIVE SOCIAL PROTECTION MEASURES IN ST. VINCENT AND THE GRENADINES

The table below shows the protective social protection measures that are available to the general public in the country including those in fisheries and forestry- dependent communities. These are designed to provide relief from poverty and deprivation.

Table 17.1: Table showing protective social protection measures in St. Vincent and the Grenadines

Organization type	Examples of social protection programmes	Formal	Informal
Government (e.g. Ministry of National Mobilization, Social Development, Family, Gender Affairs, Persons with Disabilities and Youth)	<ul style="list-style-type: none"> • Public Assistance Programme- a monthly grant of EC\$200 for adults who are unable to work. • 'No Child Left Behind' that provides free primary and secondary school education for all Vincentian children. 	Y	N
Community/ families	<ul style="list-style-type: none"> • In-home elderly assistance 	N	Y

PREVENTIVE SOCIAL PROTECTION MEASURES IN ST. VINCENT AND THE GRENADINES

There are several preventive social protection measures in SVG (see 17.2).

Table 17.2: Table showing preventive social protection measures in SVG

Organization type	Examples of social protection programmes	Formal	Informal
Government (e.g. Ministry of National Mobilization, Social Development, Family, Gender Affairs, Persons with Disabilities and Youth)	<ul style="list-style-type: none"> • Maternity benefit • Public assistance of EC\$200/ month • Pension • National Insurance Service (including the Self Employed Contributions) • Immediate assistance e.g. (Basic Amenities) • Programme that pays for utility bills) • Meals and transportation for children from indigent and poor familie 	Y	N
Private sector	<ul style="list-style-type: none"> • Credit unions (e.g. General Employees Cooperative Credit Union [GECCU]) providing death benefits, life and health insurances 	Y	N

Civil society	<ul style="list-style-type: none"> Friendly societies (e.g. Mariaqua United Friendly Society [BUNPAN]) providing savings clubs and death benefits Marion House providing assistance to children and families who need food and other assistance. 	Y	Y
Community/ families	<ul style="list-style-type: none"> Remittances from family members abroad 	N	Y
Other (e.g. Basic Needs Trust Fund)	<ul style="list-style-type: none"> Infrastructure for primary health care facilities, increasing delivery of potable water 	Y	N

PROMOTIVE SOCIAL PROTECTION MEASURES IN ST. VINCENT AND THE GRENADINES

Promotive social protection measures in SVG are shown in the table below.

Table 17.3: Promotive social protection programmes in SVG

Organization type	Examples of social protection programmes	Formal	Informal
Government (e.g. Ministry of National Mobilization, Social Development, Family, Gender Affairs, Persons with Disabilities and Youth)	<ul style="list-style-type: none"> 'No Child Left Behind' that provides free primary and secondary education to all children and safety nets for dropouts such as the Re-entry of Teen Parents Programme Subsidies on uniforms and books Free primary health care Micro credit from government programmes such as the Farmers' Support Company Youth Empowerment Service (YES) Policy Re-entry of Teen Parents Programme Community Enterprise Development where the government works in partnership with residents/communities/groups to develop their leadership abilities to enable them to implement small businesses and other innovative social development projects that have the potential to enhance their livelihoods 	Y	N
Private sector	<ul style="list-style-type: none"> Micro credit from organizations such as National Development Foundation and banks that give low interest loans or make credit easy to access 	Y	N
Civil society (e.g. YWCA)	<ul style="list-style-type: none"> Job opportunities through projects that provide jobs when projects are occurring Training for employment and adult education 		
Community [groups]/ families (e.g. North Lee-ward Tourism Association)	<ul style="list-style-type: none"> Jobs through at-home or community projects 	Y	Y
Other (e.g. Basic Needs Trust Fund)	<ul style="list-style-type: none"> Entrepreneurship training 	Y	N

TRANSFORMATIVE SOCIAL PROTECTION MEASURES IN ST. VINCENT AND THE GRENADINES

Transformative social protection measures in SVG are shown in the table below.

Table 17.4: Transformative social protection programmes in SVG

Organization type	Examples of social protection programmes	Formal	Informal
Government (e.g. Ministry of National Mobilization, Social Development, Family, Gender Affairs, Persons with Disabilities and Youth)	<ul style="list-style-type: none"> Supporting the development of cooperatives and other groups Developing and implementing policies such as the Education Revolution 	Y	N
Civil society (e.g. SVG Public Service Union)	<ul style="list-style-type: none"> Advocating for worker's rights and holding government accountable 	Y	Y
Community [groups]/ families	<ul style="list-style-type: none"> Forming community groups/ cooperatives/ associations to be involved in decisions and policies 	Y	Y

Risks to, needs of and transitions taking place in small-scale fisheries and forestry sectors

There are several risks to the small-scale fisheries and forestry sectors in St. Vincent and the Grenadines.

Weather, climate variability and change and natural disasters. Weather, climate variability and change and natural disasters have the potential to cause the loss of lives, damage infrastructure and destroy resources for forestry and fisheries sectors. Managing and recovering from events like tropical storms and floods can also divert funding from social protection schemes/ initiatives. St. Vincent and the Grenadines was affected by tropical storms in 1994, 1995 and 2002 that caused damage to infrastructure. Also, the country was affected by unseasonal rainfall in 2013 that caused damage worth US\$12 million. Forest and fishing communities, including the households within them, were affected by these events. In the 2013 rainfall event for example, three fisherfolk in Calliaqua lost fishing vessels because the river located near the landing site flooded its banks before they could be placed somewhere safe. The unseasonal rainfall affected transportation that impacted communities' abilities to move their goods and services throughout the country. This was particularly true for those located in the rural north of St. Vincent .

Diseases such as chikungunya that are borne by mosquitoes will increase as temperatures become more favourable for their development. This will negatively impact the workforce as happened in the chikungunya outbreak of 2014 in the Caribbean.

Policies to manage natural resources are not in place. Both the forestry and fisheries sectors have drafted policies to manage their respective resources. However, in both cases, the draft policies are awaiting final approval. Forestry Department is revising the draft policy developed in the early 1990s and which had not been approved. Both Departments indicated that they have been using the draft policies to guide the management the resources. However, the failure to put approved policies with the appropriate legal and institutional frameworks and action plans in place could result in inadequate capacities and resources being provided for sustainable development of these sectors.

Unsustainable use of the resource. On the main island of St. Vincent, most people practice some form of agriculture either as their main source of income or to supplement their revenues or diets. Agriculture is one of the main sectors on the island representing 7 percent of the GDP and 26 percent of the land space in 2012 . In some cases, people have resorted to cutting down parts of the forest to plant their crops including marijuana. Slash-and-burn agriculture is still routinely practiced in forested and agricultural lands. This is a technique where the land is burned periodically to clear the land for new crops. When the land becomes infertile, the farmers move onto more fertile areas, and repeat the process.

Monitoring and evaluation of programmes. St. Vincent and the Grenadines has several pro-poor programmes that have seen the reduction of the indigent population in the country, e.g. free primary health care, houses for a wide range of individuals at varying income levels, and free primary education, that are accessible to both fisherfolk and forest users. However, some of these programmes have not been properly monitored and evaluated to ensure that they are not being abused .

Fisheries policies and programmes in St. Vincent and the Grenadines

The fishing industry in St. Vincent and the Grenadines is mainly small-scale. Approximately 2,500 persons participate in the industry. The goal of the Fisheries Division is to ensure the sustainable use of the natural resources and to improve the livelihoods of the people involved in the fishing industry.

The Fisheries Act (1986) and Regulation (1987) include conservation measures, licensing of fishers, use of closed seasons and the creation of marine reserves, among other things. In 2012, the Fisheries Division drafted the Fisheries and Aquaculture Policy and Action Plan that included both economic development of the industry and improvement of livelihoods of fisherfolk. It also seeks to contribute to the food and nutrition security of the country. This is still awaiting Cabinet approval.

The Fish Processing Regulations (2001) sets rules for the quality of fish leaving the country. St. Vincent and the Grenadines lost export access to European markets because it did not achieve the European Union's Sanitary and Phytosanitary requirements for export of fish and fish products to the EU. This affected the fishing industry. The High Seas Fishing Act of 2001 regulates registered vessels fishing in the high seas. This is critical for monitoring vessels engaged in fishing offshore for important commercial species such as tunas.

The fishing industry is managed by the Fisheries Division of the Ministry of Agriculture, Industry, Forestry, Fisheries and Rural Transformation. The National Parks Authority also assists with management of marine managed and protected areas.

There are several programmes, specific to the fishing industry, that seek to enhance the livelihoods of fisherfolk in St. Vincent and the Grenadines. These are listed below.

PROTECTIVE MEASURES

The government replaced boats and engines to licenced fishers who lost them in hurricanes/ storms in the past, as a way to protect their income and in direct response to storms. Material was given for the construction of vessels, while the government paid the monetary value of the engine at the time of loss directly to the supplier. The affected fisher was expected to provide the remaining funds.

PREVENTIVE MEASURES

The fisherfolk of St. Vincent and the Grenadines have been benefitting from regional and sub-regional projects that are being implemented in partnership with the government of St. Vincent and the Grenadines and several other types of organizations. These projects provide options for alternative livelihoods for fisherfolk and their households, as part of strategies for income diversification that should prevent the fisherfolk and their households from falling into poverty. Such projects include:

- Caribbean Fisheries Co-Management (CARIFICO) Project, with the objective being to develop a fishery co-management approach suitable for each target country by providing technical assistance for capacity development of stakeholders of target fisheries. The Fisheries Division has been working with the Japan International Cooperation Agency (JICA) to provide training in the use of fish aggregating devices (FADs) to increase the fish catch.

- Eastern Caribbean Marine Managed Area Network (ECMMAN) Project, with one of its objective being “supporting fisher organizations and providing support for new livelihood opportunities”. It is being managed by The Nature Conservancy (TNC), an NGO. In Calliaqua, the Calliaqua Fisherfolk Cooperative (CALFICO) is using a grant from this project to provide alternative livelihoods by purchasing equipment to develop a regular fish fry arrangement to attract consumers, and to train fisherfolk to dive as another source of income.

PROMOTIVE MEASURES

- These can assist in improving the real income of fisherfolk. They are mainly programmes offered by the Fisheries Division, including:
- Subsidies on fishing equipment for licenced fishers;
- Duty-free concessions on engines 75 horsepower and below for licenced fishers;
- Training members of fisherfolk households in fish processing to develop value added products; and,
- The National Fleet Expansion Programme aimed at helping fisherfolk to upgrade their boats with better technology and safety equipment so that they can fish further at sea for longer periods and target the higher value species such as tunas.

TRANSFORMATIVE MEASURES

Governments and CSOs in particular have been supporting and advocating for the development of fisherfolk cooperatives to improve equity in decision-making in the fishing industry. Fisheries Division and the Cooperative Division provide advice to cooperatives, and helps to develop fisherfolk’s organizational capacities. CSOs like the Caribbean Natural Resources Institute (CANARI) have been providing support to St. Vincent and the Grenadines National Fisherfolk Organization through an EU funded project to build its capacity to influence policy at the national and regional levels. This project, called *Strengthening Caribbean Fisherfolk Organizations to Participate in Governance*, seeks to improve the contribution of the small scale fisheries sector to food security in the Caribbean through building the capacity of regional and national fisherfolk organization networks to participate in governance⁴³. It benefits fisherfolk organizations in 17 Caribbean countries including St. Vincent and the Grenadines.

⁴³ See the webpage for the project Strengthening Caribbean Fisherfolk Organizations to Participate in Governance at <http://www.canari.org/strengthening-caribbean-fisherfolk-to-participate-in-governance>.

Risks, needs and transitions of small scale fishers in St. Vincent and the Grenadines

Social security programmes

Small-scale fishing is considered as a high risk venture. The cost to insure vessels and equipment is correspondingly high, making it less affordable for the small-scale fisher whose income is not always certain. The National Insurance Services has a Self Employed Contributions component, but it is not used often by small-scale fishers because of mistrust of such systems, despite its use being occasionally promoted by the Fisheries Division. This is validated by the CRFM's Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities which found that only 27.78 percent of fishers interviewed said that they participated in a social security system, suggesting that a large proportion of fishers is vulnerable, if their equipment/ vessels are lost or damaged or if they are injured. Participation in private insurance schemes is less favoured by small-scale fisherfolk, because of past experiences in which some fisherfolk lost their money in companies like Colonial Life Insurance Company (CLICO) Limited, when a liquidity crisis prevented it from meeting its commitments. This is shown by section 28.1.6 where fisherfolk in Calliaqua were reluctant to use private insurance.

Climate change and disaster risk management

Climate change will have an impact on the fishing industry. It can cause a change in the fish stocks as fish that prefer certain temperatures migrate to areas that are more favourable. Diseases such as those carried by mosquitoes can become more prevalent and prevent people from working to gain an income. The chikungunya outbreak in the Caribbean in 2014 temporarily crippled the workforce in several countries including St. Vincent and the Grenadines. Storms are expected to become more intense in the region causing infrastructural damage and loss of lives. They have already affected St. Vincent and the Grenadines as recently as 2011 and 2013 causing more than EC\$100 million in damages.

Ageing industry

The Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities found that the average age of fishers in St. Vincent and the Grenadines was between 36 and 65 years. The ageing industry brings concerns about food security and therefore the vulnerability of the general population.

Given that more than half of the fishers are not participating in social security systems such as NIS, the ageing fishing population may not be eligible for many benefits when they are unable to work, making them more vulnerable to the effects of poverty.

INADEQUATE PARTICIPATION IN COOPERATIVES AND ASSOCIATIONS

The Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities found that only 22.22 percent of fishers participate in cooperatives. In a meeting in December 2015 to support this project, participants said that fisherfolk cooperatives in St. Vincent and the Grenadines have not been effective at providing support for their members. However, resilient cooperatives could help to reduce vulnerabilities by providing more affordable equipment, providing in-kind support and financial assistance, and working in partnership with the government to develop and implement policies.

Survey findings - Calliaqua

Calliaqua is small community located near the southernmost point of the island of St. Vincent. It is located approximately 8.1 kilometres away from the capital of Kingstown. Both are located in the parish of St. George, one of the more densely populated areas in the country⁴⁴. Calliaqua is a popular tourist destination because of the beaches and related marine activities such as fishing and diving.

There are 50-70 active fishers that use Calliaqua as a landing site. Most practice banking and trolling. Targeted species include mahi mahi (*Coryphaena hippurus*), red hind (*Epinephelus guttatus*) and red snapper (*Lutjanus campechanus*). An average of 4,000-5,000 pounds of fish are landed in Calliaqua each month that are sold mainly at the local markets in St. Vincent, particularly at Calliaqua and Kingstown.

SURVEY FINDINGS

Eight males and two females participated in the survey representing approximately 13 percent of the fisherfolk population. The average age of respondents was 36 with the oldest respondent at 60 and the youngest at 21. Of the nine respondents, five fell

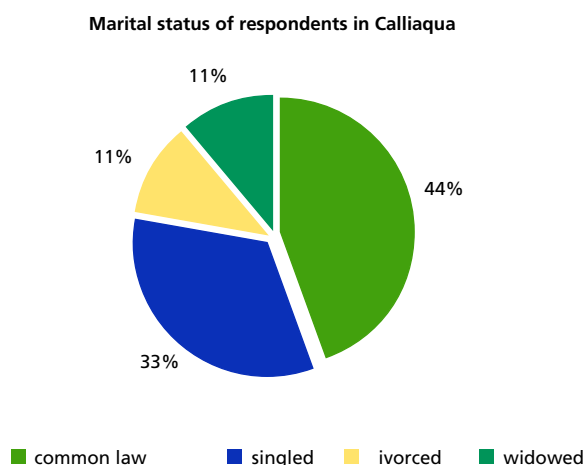


Figure 21.1: Marital status of respondents in Calliaqua

within the youth category of 18-35⁴⁵. Most respondents (44 percent) were in common law relationships while others were single (33 percent) (see Figure 21.1). There was an average of five persons in each respondent's household. One respondent lived alone. Respondents had been fishing for an average of 16 years, reflecting the relative youth of the industry in Calliaqua. The longest recorded years fishing from the survey was 35 years (one respondent) while two respondents fished for three years Figure 21.2 below

⁴⁴ https://en.wikipedia.org/wiki/Saint_George_Parish,_Saint_Vincent_and_the_Grenadines

⁴⁵ Participants in the validation meeting in December 2015 were asked if the high youth population in the survey was an accurate reflection of the fishing industry in the community. They responded that there were many youth taking part in the fishing industry there.

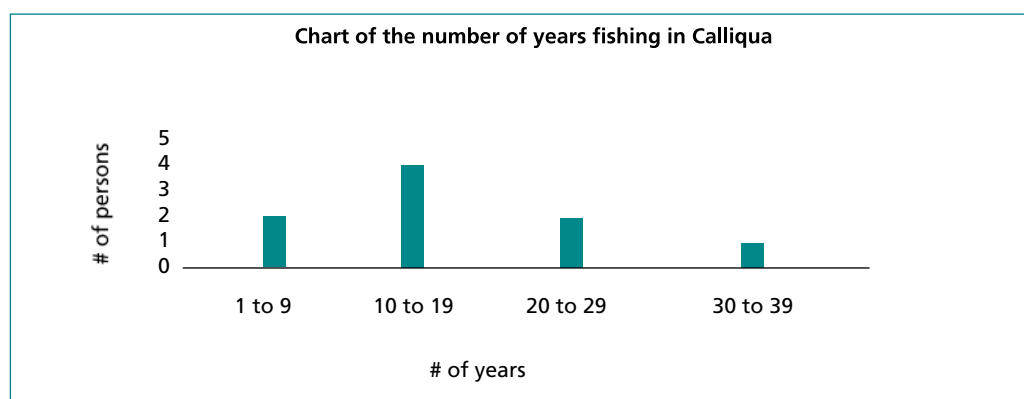


Figure 21.2: Distribution of years fishing in Calliaqua

FINANCIAL CAPITAL

Eighty-nine percent of the respondents said that fishing was the main source of income. One respondent's primary income source was from fish vending, with fishing as a secondary source of income. Fifty-six percent of the respondents had secondary sources of income while 11 percent had tertiary income sources. Only two persons participating in the survey said that they were employed by someone else in their primary sources of income (mainly fishing on someone else's vessel as part of the crew). In all cases secondary and tertiary income sources were self-employed meaning that participation in the country's social insurance scheme was voluntary. All primary income sources provided regular income. Sixty percent of the secondary income sources and 100 percent of the tertiary income sources were seasonal. This demonstrated that most fishers placed most of their livelihood effort in fishing. Secondary and tertiary sources of income were derived mainly from farming, fish vending and diving. One respondent sometimes worked as an electrician while another sometimes practiced carpentry/ masonry.

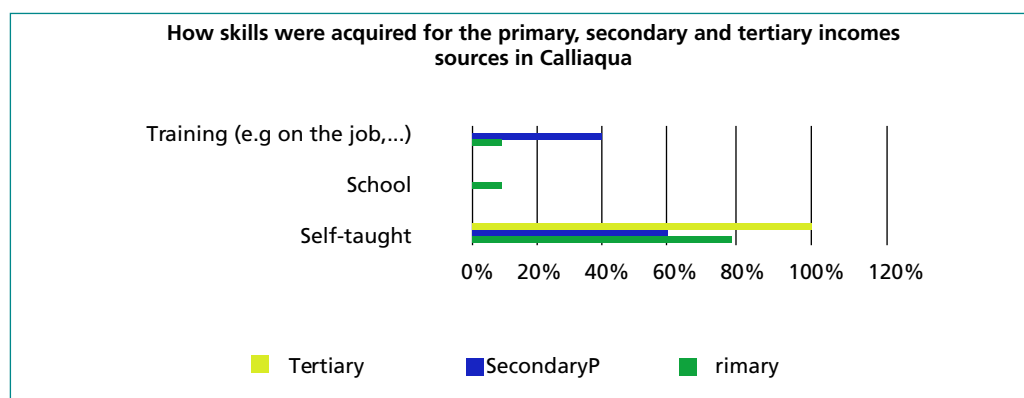


Figure 21.3: How skills were acquired for primary, secondary and tertiary income sources in Calliaqua

Figure 21.3 shows that for the primary, secondary and tertiary income sources, most of the respondents were self-taught. One respondent indicated that he learnt his entrepreneurial skills in particular at high school and deliberately studied subjects that would enhance his future fishing business. Two others had on-the-job training (e.g. in filleting fish and diving) while another reported that his training was provided as part of a government training programme.

Fifty-six percent of respondents reported that other persons in their households contributed to income. Most of the contributors were female (82 percent). The average contribution was EC\$1,120 (US\$ 414.82) per month (the highest was EC\$2,500 [or US\$925.93] from a household with four female contributors). Of those contributors

only 22 percent worked in the fishing industry, with others having varied occupations such as a beautician, an air traffic controller, a domestic worker and a farmer. Most of the contribution to income sources came from regular work. There were no reported cases of remittances or other inflows of income into the households.

Main household expenses in Calliaqua

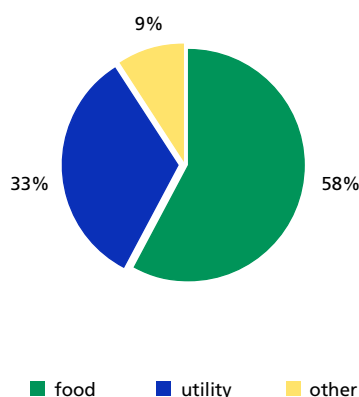


Figure 21.4: Main household expenses in Calliaqua

Seventy-eight percent of the respondents saved money. Of those, 43 percent saved money at credit unions (e.g. General Employees Cooperative Credit Union [GECCU]) while 57 percent saved money in banks. Most contributors to household income also saved money (78 percent). All used banks for their savings. Food was the highest household expense among the respondents while the cost of utilities closely followed (see Figure 21.4). ‘Other’ included luxury items such as cable television.

Only one respondent did not use savings to purchase equipment related to his/her fishing business. Three respondents used loans or equipment transfers from the private sector.

The average monthly earning from banking is approximately EC\$3,000 (US\$1,111.11) while trolling yields approximately EC\$6,000 (US\$2,222.22) when averaged throughout the year. Expenses from banking are roughly EC\$2,030 (US\$ 751.85) per month while monthly expenses related to trolling could be EC\$3,200 (US\$1,185.89) or more. Fuel and equipment costs were reportedly high. Sixty-seven percent of respondents said that their income changed over the past five years. Most indicated that income had declined (50 percent). Twelve and a half percent of respondents noted that their income increased. One respondent who was not satisfied with his income (but indicated that his income increased over the past five years) said that he wanted to gain more experience so that he could be better at fishing.

HUMAN CAPITAL

Figure 21.5 shows that highest level attained by many of the respondents in Calliaqua was the primary school level. Most failed to continue with school because there was no money to continue their education⁴⁶ and there was need to work to provide income for their families. One person said that he was tired of school and wanted to be on the water. Their households, however, had most members finishing school at the secondary level (47 percent of respondents). Most respondents said that they learnt fishing from older generations or through their own experiences. Two were trained through government programmes in areas such as FAD fishing. One person was trained on-the-job to learn how to fillet fish while another indicated that he learnt some of his skills in secondary school. 87.5 percent of respondents said that they would encourage others to participate in fishing because there is money to be made from the industry and they can work for themselves.

⁴⁶ This was before the implementation of the free education policy and families had to provide their own books, transportation and meals for school.

Highest level of education attained by respondents

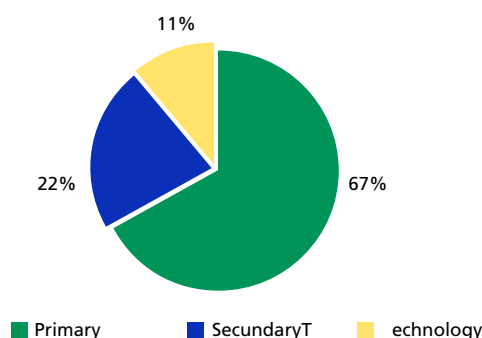


Figure 21.5: Highest level of education attained by the respondents in Calliaqua

SOCIAL CAPITAL

Most respondents (56 percent) were licenced fishers. Of those that were not licenced, 50 percent said that they were not interested because they did not see the benefits of having one. One person was in the process of getting a license at the time of the interviews in August 2015.

Everyone knew of the fisherfolk organization, Calliaqua Fisherfolk Cooperative (CALFICO), but 33 percent of respondents were not members. All respondents said that they were either not active in CALFICO or were not interested in joining because of the conflicts within the organization on the management of the organization and its finances. Transparency in accounting was one of the conflicts cited. Most also said that there was no cooperation in the area and that neither CALFICO nor the wider fishing community provided any kind of support in times of need. Four respondents, however, said that other fishers had provided in-kind support or cash when they were unable to work or they lost vessels/equipment/ engines.

PHYSICAL CAPITAL

All respondents either owned their own homes or were in a common law relationship with the person who owned the home. Sixty-seven percent of respondents owned the land that the houses were built upon, while 22 percent rented from either the government or the St. Paul's Anglican Church in Calliaqua. Eleven percent of respondents squatted.

While the fishing facility at Calliaqua offered sale of ice and fish, storage facilities and locker rooms for the fisherfolk, some expressed unhappiness with the lack of facilities for on-site boat repair. One major concern was that the facility was located some distance from the main road. Respondents were concerned that consumers were unaware of its location. One person said that he continued to sell fish on the main road despite being warned by the police because he needed to meet his customers.

VULNERABILITIES AND BARRIERS CONSTRAINING LIVELIHOODS IN CALLIAQUA

Respondents were asked to identify any shocks or adverse events that impacted their household or individual income over the past 12 months. They were also asked to identify any shocks or adverse events that had ever (no timeframe) affected their household or community and their coping strategies.

Over the previous 12 months, illness in the form of the mosquito-borne Chikungunya was the most common shock (67 percent) cited. Most said that the impacts on their income were minor, and they were able to recover. Others mentioned theft of engines as a threat. One person said that his engine was stolen, resulting in an estimated loss of

EC\$11,000 to EC\$14,000 over eight months. Damage to engines by the sargassum (*S. natans* and *S. fluitans*) was also a threat that impacted a few of the fishers though many said that the sargassum⁴⁷ was welcomed, because they believed that it helped to increase the fish stock in the area since it acted as a fish aggregating device.

Coping strategies included depending on other household members to provide income, fishing on other vessels or having other fishers use their vessels and receiving a portion of the fish sales.

Natural disasters such as hurricanes, storms and flooding were the most commonly cited shocks to ever impact Calliaqua (50 percent of respondents). Respondents said that approximately three fishers lost boats in the 2013 floods while others lost vessels and engines in storms in the past. Theft of equipment, engines and boats were also cited as threats in the fishing community. One person said that theft of engines was increasing partly because of the unavailability of the popular two-stroke Yamaha 75HP engine in the country. Respondents mentioned reduced fish stocks as a cause for concern and partially attributed declining income to this.

In all cases, those affected by the negative impacts were able to cope and recover in less than one month. Coping strategies included fishing with someone else (four respondents mentioned this); fishing for other species with other equipment until they could purchase appropriate fishing gear for their target species; and supplementing income with their secondary and tertiary sources of income.

No one had insurance on his/her equipment, engines or vessels. Insurance was not seen as a viable coping strategy for fisherfolk because of past negative experiences with companies like British American Insurance Company (BAICO) and Colonial Life Insurance Company [Trinidad] Limited (CLICO) that “crashed” during the financial crisis in 2007/2008. They also said that it was expensive. Most said that they preferred to put their money in banks or credit unions as they believed that there was more security. Only one respondent mentioned participating in the government’s NIS programme as part of fishing. Two respondent’s households had health and life insurance and participated in NIS while only one household had insurance on the home.

Table 21.1 below shows the barriers that are obstructing fishers’ livelihoods in Calliaqua.

Table 21.1: Table of identified barriers to livelihoods in Calliaqua

Barrier type	Description of barrier	% of respondents identifying barrier type	Intervention taken by individual, fishing association, civil society organizations, government or private sector to address barrier (if any)
Natural	<ul style="list-style-type: none"> Depleting fish stocks 	11	<ul style="list-style-type: none"> Using other fishing techniques to target other species
Social	<ul style="list-style-type: none"> Competition among fishers Conflicts among fishers 	22	<ul style="list-style-type: none"> No real action was taken though all fishers said that they were either not active in CALF-ICO or were not members as a way to reduce negative impacts by conflicts.

⁴⁷ Sargassum is a free-floating, brown algae that grows in the Sargassum Sea. It provides habitats for fish and other marine species. Since 2011, there has been massive amounts of the algae washing ashore in the Caribbean posing a threat to tourism and some fishing activities.

Financial/ economic	<ul style="list-style-type: none"> • High fuel and equipment costs • No insurance on equipment and vessel • Other (price of fish during some seasons so low that fishers operate at a loss) 	89	<ul style="list-style-type: none"> • No interventions were taken to address high fuel and equipment costs • The cost of insurance on boats and engines is prohibitive. This is compounded by the fact that fishers do not trust insurance companies. • No real action was taken to address the low cost of fish in some seasons.
Institutional/ management	<ul style="list-style-type: none"> • Government policy/ management decisions (leasing the Calliaqua fishing facilities to a private company) 	22	<ul style="list-style-type: none"> • No action taken
Physical	<ul style="list-style-type: none"> • Inadequate fishing facilities (physical markets located far from roads) 	11	<ul style="list-style-type: none"> • Fishers have been discussing placing a sign at the roadside so that people are aware of the location of the market for fish sales. Some have continued selling fish on the roadside despite it being against the law.

Financial barriers had the most impact on the livelihoods of fisherfolk in Calliaqua. The high cost of fuel and equipment in particular was frustrating for many. One respondent who practiced trolling indicated that at the time of the interview in August 2015, fuel cost approximately EC\$13.00 (US\$4.81) per gallon. It took 45 gallons to go to sea each day for a total daily cost of EC\$585 (US\$216.67). There was no guarantee that going to sea would yield a catch so operating at a loss was sometimes expected. Small-scale fisherfolk in St. Vincent and the Grenadines do not have access to fuel subsidies. A representative from the Fisheries Division was of the view that if the cooperatives were fully functional and operating as a cohesive group, that was able to collectively present the impact of expenses on their livelihoods, decision makers would better understand their perspective and take them into consideration when making decisions that impact fisherfolk's livelihoods.

USE OF SOCIAL PROTECTION PROGRAMMES

Only 45.5 percent of respondents initially indicated that either they or their households participated in any social protection programmes. This was because the cost of participating was prohibitive (e.g. NIS), they did not trust the programme (e.g. private insurance) or they believed that they were able to withstand external shocks as demonstrated by their past experiences. All have however, benefitted from social protection programmes/ initiatives without realising it. Informal social protection schemes like those practiced by the community of fishers have been important coping strategies in Calliaqua, despite the general belief among respondents that fishers do not cooperate with each other. Table 21.2 below shows the types of programmes that fisherfolk in Calliaqua have participated in.

Table 21.2: Social protection programmes that fisherfolk in which Calliaqua have participated

Type of social protection programme	Programme offered by	Description
Protective	<ul style="list-style-type: none"> • Government 	<ul style="list-style-type: none"> • One-time replacement of boats and engines after loss in storms

Preventive	<ul style="list-style-type: none"> • Government • Private companies (insurance companies, credit unions) • CSOs • Communities 	<ul style="list-style-type: none"> • NIS • Duty-free concessions on engines up to 75 HP and on fishing equipment as part of the Value Added Tax Act of 2006. • Insurance for health, home and life • Death benefits from credit unions • Development of alternative livelihoods as an income diversification strategy. • Cash and in-kind transfers from the fishing community when fishers fall ill.
Promotive	<ul style="list-style-type: none"> • Government • CSOs • Private companies • Communities 	<ul style="list-style-type: none"> • Access to free primary education that most (~90%) respondents used. • Training programmes (e.g. FAD fishing, older generation of fishers training younger ones) • Employment programmes (e.g. Youth Empowerment [YES] programme where people leaving school can work for a period of time for a monthly stipend.) • Grants from regional CSOs (e.g. CALFICO is a recipient of a grant from the Eastern Caribbean Marine Managed Areas Network (ECMMAN) project that will help them and their families with alternate livelihoods) • Micro-finance and low interest loans
Transformative	<ul style="list-style-type: none"> • Government • CSOs • Private companies • Communities 	<ul style="list-style-type: none"> • Advocating and supporting the development and strengthening of fishing cooperatives so that fisherfolk can have a voice in decision-making in St. Vincent.

Discussion

The overall study identified vulnerabilities to livelihoods in fisheries-dependent communities in St. Vincent and the Grenadines, including impacts of climate change on fish stocks and human health, natural disasters, economic downturn and rising food prices. The field research in Calliaqua identified risks that mirrored those in the desk study, such as limited use of formal social protection measures e.g. insurances.

Social protection programmes are available to fisherfolk and their households to cope with shocks. They are offered by a wide range of stakeholders including government, private sector, communities and civil society organizations. These include protective measures (e.g. Public Assistance Programme that is open to Vincentians without a source of income and offered by the government to the elderly, chronically poor, etc.), preventive measures (e.g. duty-free concessions on some fishing equipment and engines that is offered by the government), promotive measures (e.g. micro-financing opportunities, livelihood grants, etc. that are offered by the private sector and some civil society organizations) and, transformative measures (e.g. CSOs and governments supporting and advocating for the development of fisherfolk cooperatives and associations so that they can have a voice in decision-making in the fishing industry).

The study in Calliaqua showed that fisherfolk tended not to actively seek to participate in many of the formal social protection measures available to the general public such as those offered by the government (e.g. the Public Assistance Programme), because of mistrust of the formal systems and limited awareness of benefits of programmes, other than those which are specific to the industry (e.g. duty-free concessions on engines and equipment perceived as being more important to their livelihoods). Informal social protection measures were important coping strategies when they are unable to earn an income from fishing (e.g. providing labour or cash to each other when unable to earn income).

CRFM's Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities showed that 10.81 percent of fisherfolk in St. Vincent and the Grenadines were vulnerable and 5.41 percent poor, however, it indicated that Calliaqua had no vulnerable and no poor fisherfolk. This suggested that Calliaqua fisherfolk fared better than the country. This may account for Calliaqua's fisherfolk lack of participation in many of the formal social protection schemes that are available to the general public.

The study was not able to draw any conclusions for women in the fishing industry, but it was able to show that women in fisherfolk households were benefitting from social protection programmes including formal ones (e.g. employment and training programmes).

Respondents in Calliaqua also indicated that youth were particularly encouraged to participate in fishing industry there. They are taught fishing methods by the older generation. Traditional coping strategies are also shared/passed on (e.g. fishing other species when preferred targeted species are scarce).

Recommendations

Several recommendations can be made to improve the resilience of fisherfolk and fisheries- dependent households in St. Vincent. These are shared below.

- **Recommendations for fisherfolk**

- Fisherfolk cooperatives and associations offer opportunities for inclusion in decision-making in the fishing industry by having a united voice (i.e. empowerment). They can also help individuals when their sources of income are vulnerable (e.g. when ill and unable to fish), provide assistance to market fish and get subsidies on fuel. When fisherfolk do not participate actively in their organizations, the cooperatives become weak and ineffective. *Fisherfolk should seek to become active participants in their organizations.* Regular audits and meetings can improve transparency and accountability that may allow fisherfolk to feel included in the cooperatives or associations. It helps to mobilise members.
- *Fisherfolk need to build their own awareness of some of the more formal social protection strategies in the country in case there is need for access to them.* Not many of the fisherfolk interviewed in Calliaqua were aware of some of the initiatives available to them as part of the general public. This can also be attributed to the fact that fisherfolk's coping strategies were effective at that point so there was little need for formal social protection initiatives that are available to the general public.

- **Recommendations for government**

- *Supporting the development of fisherfolk cooperatives and associations can help to improve the management of the natural resource as well as to improve the livelihoods of the stakeholders.* Cooperative Divisions and Fisheries Divisions can work with the fisherfolk to find a balance in the support that is offered. One of the reasons purported for the lack of transparency in CALFICO is the inadequate enforcement of a cooperative law that says that the organization's finances should be audited. Several persons at this project's validation meeting in December 2015 mentioned that audits were not completed in a while.
- Climate change will have an impact on the fish stock, on human health and therefore ability to work and on infrastructure. *Measures to address the projected impacts of climate change and natural disasters should be mainstreamed in fisheries policies and action plans to build resilience.*

There are a few regional projects, which include St.Vincent and the Grenadines as a project country, that are seeking to address these issues. For example, the FAO GEF funded project, Climate Change Adaptation in the Eastern Caribbean Fisheries Sector project (CC4Fish) is seeking to increase resilience and reduce vulnerability to climate change impacts in the Eastern Caribbean fisheries sector, through introduction of adaptation measures in fisheries management and capacity building of fisherfolk and aquaculturists as well as implementing an ecosystem approach to fisheries management and mainstreaming of climate change.

- Although the NIS has Self- Employed Contributions, not many fisherfolk contributed partly because they are not aware of all the benefits it offers. For some, NIS contributions appeared to be too expensive to make on a regular basis since their incomes were not always certain. *NIS should specifically target those involved in natural resources livelihoods like fishing to devise appropriate*

-
- contribution schemes and build awareness of the benefits.*
 - Many fisherfolk did not trust insurance companies because of past negative experiences. Fishing vessels, particularly those in the small-scale industry, are seen as high risk so they are expensive to insure. Yet the importance of insurance to the security of their livelihoods was recognised. Lack of insurance was mentioned as one of the key financial barriers that constrained livelihoods in Calliaqua. *Governments can work with the private sector and fisherfolk organizations to find ways to provide affordable insurance for the small-scale fishing industry.*
 - *Governments need to make policies and their impacts clear to stakeholders.* Confusing policies make it difficult for fisherfolk to understand benefits that are available to them. Fisherfolk should have greater involvement in the development and implementation of policies.
A FAO GEF funded project -Developing Organizational Capacity for Ecosystem Stewardship and Livelihoods in Caribbean Small-Scale Fisheries (StewardFish)- is currently being developed to, *inter alia*, develop organisational capacity of fisherfolk organisations for fisheries governance. St. Vincent and the Grenadines is a project country.
 - *Create stronger linkages between sustainable use of natural resources and poverty reduction.* Programmes should be developed and sustained that promote the wise use of natural resources as viable sources of income and poverty reduction for the populace.
 - **Recommendations for private sector and civil society organizations**
 - *Form public-private partnerships to strengthen the support offered to fisherfolk and their cooperatives.*
 - *Promote the formation of fisherfolk cooperatives and/or build the capacity of existing fisherfolk organizations.*
 - *Private sector and civil society should have clear policies and should be transparent to build trust with stakeholders such as fisherfolk.*

Institutional environment for forestry in St. Vincent and the Grenadines

The Forest Resources Conservation Act (1992) is the main legislation governing the use of forests in St. Vincent and the Grenadines. It recommends the formation of, among others, cooperative forests that recognises private land ownership and use in the forests (i.e. livelihoods). The Wildlife Protection Act (No. 16 of 1987) states that wildlife should be protected through mechanisms such as closed hunting seasons that could affect livelihoods of hunters. In 2002, the National Parks Act was adopted by the government that sought to manage terrestrial and marine parks and protected areas. It recognised the involvement of all stakeholders in the management of parks including those in terrestrial areas. It was a direct response to decline of the banana industry to improve the tourism product.

The Forestry Department has responsibility for the management of the forests in the country. The Forestry Department is housed in the Ministry of Agriculture, Industry, Forestry, Fisheries and Rural Transformation. The National Parks, Rivers and Beaches Authority plays a coordination role for all parks including forest and wildlife reserves. It works through Memoranda of Understanding with relevant stakeholders including the Forestry Department in order to avoid duplication of activities.

Forestry specific social protection programmes in St. Vincent and the Grenadines

Forestry contributed less than EC\$1million (US\$370,370.37) to the GDP in 2013 , but there are a few specific programmes and initiatives available to forest users in St. Vincent and the Grenadines. These are addressed in the sections that follow.

Protective measures

No forestry- specific protective measure was found for St. Vincent and the Grenadines.

Preventive measures

The Forestry Department managed the Integrated Forest Management and Development Programme (IFMDP) that began in 2001. It was developed to foster a new participatory approach to forest management in St. Vincent and the Grenadines, incorporating all stakeholders, from resource management agencies (governmental and non-governmental) to individual communities. The IFMDP developed viable alternatives to alleviate poverty and prevent deforestation for the cultivation of illegal crops such as marijuana as an alternative livelihood component. Alternatives included wildlife farming, using non-timber forest resources for craft, production of charcoal and bottling water⁴⁹.

Promotive measures

Timber in St. Vincent and the Grenadines is a cottage industry. The price of local lumber is subsidised to encourage its local purchase.

Organizations like the United Nations Food and Agriculture Organization have provided support for alternative livelihoods for forest users in such areas as basket-weaving, drum-making and ecotourism to support livelihoods components to laws such as the National Parks Act. The Forestry Department is also working along with prisoners to conserve the soil along the new prison site through planting grasses and shrubs and by training them in basket-weaving .

The Forestry Department has an informal policy of hiring people from nearby communities for projects that are undertaken. This is mainly because transportation is very expensive and it is cheaper to hire persons from nearby (Providence, 2015). The indirect benefit is that persons from forest communities obtain employment.

Transformative measures

Organizations like the Caribbean Natural Resources Institute (CANARI) have provided support for the strengthening of forest-based enterprises in St. Vincent and the Grenadines so that there would be equity in decision-making. CSOs and inter-governmental organizations have also supported the growth and development of the Forestry Department through training in participatory natural resource management so that it can better support its stakeholders and include them in decision-making.

49 http://www.agriculture.gov.vc/index.php?option=com_content&view=article&id=154:the-integrated-forestmanagement&catid=60:integrated-forestry-mgmt-a-dev-prog

Risks, needs and transitions of forestry in St. Vincent and the Grenadines

There are several risks to, needs of and transitions taking place in forestry in St. Vincent and the Grenadines.

The decline of the banana industry benefitting forestry

When the banana industry on the main island of St. Vincent declined, efforts were made to diversify crops through the use of agroforestry. It stemmed the encroachment on the boundaries of the forest and encouraged planting tree crops. This was mainly in response to the global Fair Trade marketing system. The decline of the banana industry meant that other sources of income had to be found. The National Parks System was developed partly in response to use the forest resources as a tourism product so that those in the rural communities affected could have a sustainable livelihood.

Cooperatives, associations and community groups non-functioning

The study found very few functioning groups associated with forestry in St. Vincent e.g. the Rose Hall Cultural and Development Organization. This seems to suggest that stakeholder groups do not always participate as unified organizations in decision-making. The Georgetown Craft Makers Association that received funding from the FAO to develop bamboo craft had a very small group of people still practicing, but as individuals. Diamond Village has received funding from the FAO twice to develop the ecotourism product, and once from a grant from civil society for the same enterprise, but has been unable to develop a consistent ecotourism product. Most have pointed to insufficient cooperation within the communities to support these enterprises beyond the life of the projects.

Attracting markets and entrepreneurs

Most of the forest resources are located in remote, rural areas such as Georgetown. Attracting tourists, for example, proved difficult for community groups. Local tourists have been uninterested in participating in ecotourism ventures and in purchasing items made locally. Some groups reported that they were told that the items were expensive. So, the groups were forced to abandon the enterprises since they could not get any returns/earnings from them.

In the validation exercise in December 2015, participants said that working with forest resources was hard work and young persons were more interested in earning money quickly from illegal activities. There were very few social programmes that supported the development of forest enterprises in the country.

Economic instability

St. Vincent and the Grenadines has suffered many shocks to its economy. Storms every few years have cost the country more than EC\$100 million (US\$37,037,037.00) in damages. Also, the country is still feeling the impacts of the decline of the banana industry. These were compounded by the global economic crisis in 2008 that has resulted in an economic downturn in SVG.

Survey findings- Diamond Village

Diamond Village is a small farming community located on the eastern coast of the island of St. Vincent. There are approximately 350 persons residing in the community. Approximately 100 persons earn their income from the forest resources. Banana was the main crop planted in the community until the preferential European markets were lost. Banana is still being planted, but many root crops such as yams and sweet potatoes are being planted as well. Many farmers practice agroforestry where trees such as oranges and breadfruit are inter-cropped with their main economic crops. Most of these are on the periphery of the farms. The loss of the preferential markets meant that farmers stopped clearing parts of the forest to expand their farms.

Several people in the community used the resources directly in the forest for their livelihoods. A small community group has a small eco-tourism business, while others have been involved in charcoal burning, craft making, bottling spring water and some timber harvesting.

SURVEY FINDINGS

Seven men and one woman participated in the survey representing approximately ten percent of the forest users. The average age of respondents was 55.5, with the oldest respondent at 69 and the youngest at 35 (see Figure 27.1 for age distribution of respondents). Only one respondent was classified as youth. Fifty percent of respondents were single while the other 50 percent were married. There was an average of 3 persons in each respondent's household. Respondents made an income from the forest for an average of 28 years.

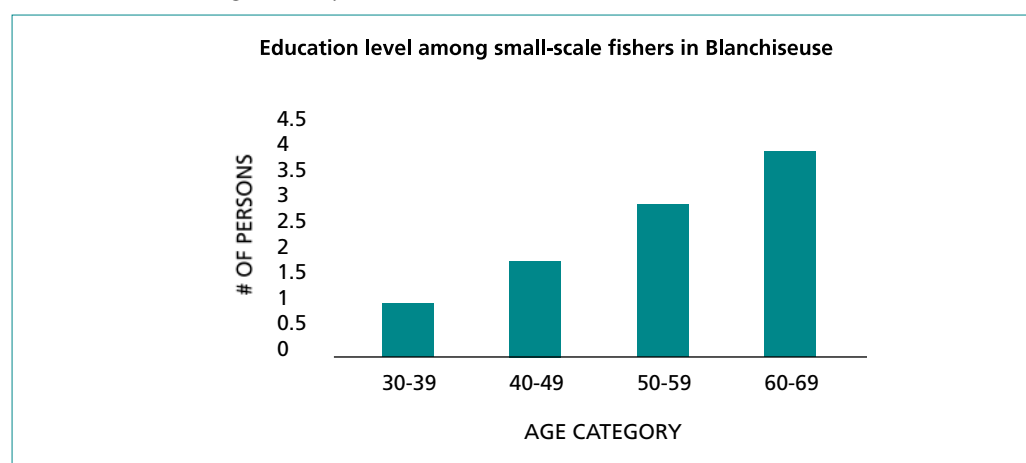


Figure 27.1: Age distribution of forest users in Diamond Village

Financial capital

Eighty percent of the respondents said that farming was their main source of income. Upon further examination, all practiced some form of agroforestry (i.e. planting citrus trees, etc. among their other crops). One respondent's primary income source was as a result of working with the Forestry Department. Only one person participating in the survey acknowledged being employed by someone else as primary sources of income. Everyone else was self-employed. All respondents had secondary sources of income,

while 40 percent had tertiary income sources. Only one person was not self-employed as in a secondary income source, but all were self-employed in the tertiary income sources.

All primary income sources provided regular income, while 86 percent of the secondary income sources and 100 percent of the tertiary income sources were seasonal. Secondary and tertiary sources of income were derived mainly from the forest (e.g. charcoal burning, artisanal craft and ecotourism). Most respondents were self-taught for the primary, secondary and tertiary income sources though 50 percent reported receiving some training in the past.

Primary income source-Diamond Village

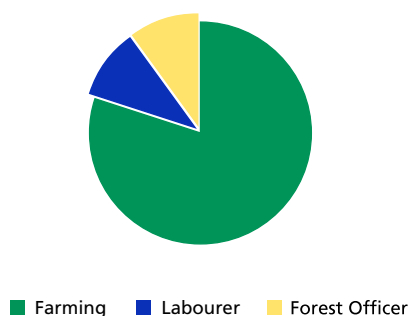


Figure 27.2: Primary income source for respondents in Diamond Village

Eighty percent of respondents reported that at least one other person in their households contributed to income. Most of the contributors were female (75 percent). The average contribution was EC\$610 (US\$225.93) per month, with the average age of contributors being 42. Many worked with the respondents on the family farm. Other sources of income included working with the government as a Research Officer or as a sailor (see Figure 28.3). Most of the contribution to income sources came from regular work (75 percent). The average yearly remittance was EC\$2,000 (US\$740.74) while other inflows averaged EC\$250 (US\$92.59).

Occupation of household contributors in Diamond Village

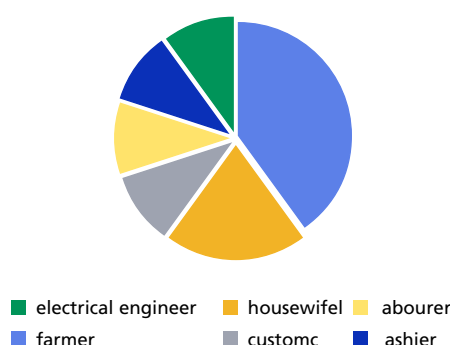


Figure 27.3: Occupation of household contributors in Diamond Village

Seventy percent of the respondents saved money. Of these, 86 percent saved money at credit unions (e.g. General Employees Cooperative Credit Union [GECCU]). No one saved money in banks. One person said the money was being saved “under the bed” as this way it was know where the money was being kept. Most contributors saved money (60 percent), with the credit union being the more popular choice to save money. Utilities was the highest household expense among the respondents while the cost of food was the only other major expense reported. No one reported luxury items such as cable television costs.

Only one person did not use savings to purchase equipment related to his/her forestry business. Three persons used micro-loans from the government and the private sector to finance their income sources. One person received grants as part of a community group to finance eco-tourism.

The average monthly income per household was approximately EC\$980 (US\$362.96). Many of the incomes from agroforestry averaged EC\$400 (US\$148.15) per month. Expenses associated with the livelihood were roughly EC\$185.20 (US\$68.59) per month. Eighty percent indicated that income had declined over the past five years, with the charcoal burner reporting an increase in income. Only forty percent of respondents were satisfied with their income. Many of the dissatisfied were banana farmers who previously reported weekly incomes of EC\$15,000 (US\$5,555.56) before the end of the preferential trade markets with Europe.

Human capital

Figure 28.4 shows that 80 percent of the respondents finished school at the primary level. All said that there was no money to continue school⁵⁰ or that they had to help out in the home. Forty-seven percent of the household members finished school at the primary level while 20 percent went on to secondary school. Few other household members went on to have a tertiary education. Of the 50 percent who received some form of training to support their livelihoods, 80 percent received free training from the government. Thirty percent of respondents said that they would encourage other household members to get into similar livelihoods (agroforestry) because it was better to work for yourself and there would be less stress in the fresh air. A further 30 percent said that they would not encourage others in their livelihoods because there was no money to be made and it was hard work. Forty percent were already working along with the respondents.

Highest level of education attained for respondents in Diamond Village

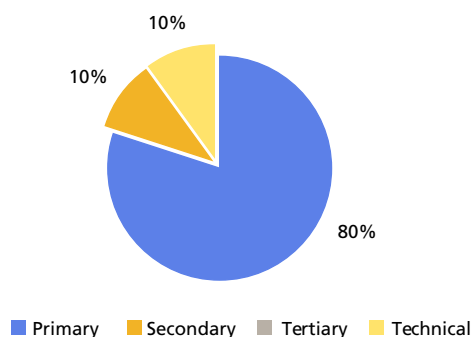


Figure 27.4: Highest level of education attained for respondents

Social capital

Community groups provide benefits to their members by being sources of financial and in-kind assistance when needed and presented a united front in discussions. Sixty percent of respondents said that there was at least one community organization located in Diamond Village (e.g. Diamond Village Community Heritage Organization which is supporting ecotourism development as an alternative livelihood). Of those respondents, only 50 percent said that they belonged to the group. All who did not belong to a group said that there was no cooperation in the community anymore and that people had lost the “family feeling” (community spirit). Those that belonged said that the group members sometimes helped them by providing labour when needed. Despite the low participation in community groups, 70 percent said that the general community helped out people who needed it in the form of labour.

⁵⁰ Persons going to school in the 1960s to 1980s had to provide their own books, transportation and meals and were not beneficiaries of the free education policy.

Physical capital

All respondents owned their own homes and the land the houses were built upon.

Physical capital associated with income was minimal. All farmers depended on the ‘speculators’ or ‘traffickers’⁵¹ to purchase the majority of their harvest to then sell in the local or export markets. The vacuum packing plant in Lauders that was established by the government to receive goods from farmers was reportedly not functioning. The charcoal burner reported that there was enough land to meet the demand for this activity, while the hiking trail to the Bubby Stone that constituted a major part of the ecotourism enterprise was cleared through a grant from the FAO and maintained through similar grants and by the Tourism Division.

Vulnerabilities and barriers constraining livelihoods in Diamond Village

Respondents were asked to identify any shocks or adverse events that impacted their household or individual income over the past 12 months. They were also asked to identify any shocks or adverse events that had ever (no timeframe) affected their household or community and their coping strategies.

Type of shock affecting the respondent over the past 12 months

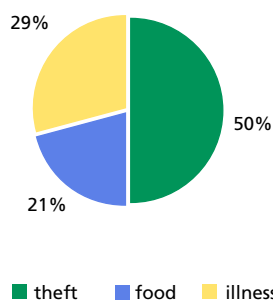


Figure 27.5: Type of shock affecting respondents over the past 12 months in Diamond Village

Over the previous 12 months, theft of farmed crops and equipment affected 50 percent of the respondents. Illnesses such as the mosquito-borne chikungunya chronic diseases were also (29 percent) cited. Most said that the impacts on their income were minor and they were able to recover. Rising food prices affected 21 percent of the households.

Coping strategies included depending on other household members to provide income, selling other farm products, using their secondary and tertiary income sources to supplement the shortfall or reducing the amount of food purchased. Two of the persons who said that they reduced the amount of food purchased said that they supplemented rice for example with the root crops such as yams that they grew themselves. One person reported receiving medicine for chronic diseases worth EC\$55 (US\$20.37) three times each year from the government. Another person received public assistance (EC\$200/ month or US\$74.07).

The most mentioned shock ever impacting the community was the loss of the banana markets. Ninety percent of respondents said that they were negatively impacted when the preferential markets were lost in the mid-2000s. The loss of income was substantial. One person lamented that EC\$15,000 (US\$5,555.56) per week on average was being earned from bananas alone, but now, at an old age, current crops were yielding only EC\$400/ month or US\$148.15 on average.

In more recent times, natural disasters such as hurricanes and storms have impacted the community (62 percent of respondents). Theft, diseases to crops and livestock and, rising food prices also impacted the community.

⁵¹ Speculators and traffickers are persons who transport the product from the farms to the markets including for export.

In all cases, those affected by the negative impacts were able to cope. Banana farmers diversified their crops including the practice of agroforestry. This was mainly in response to the Fair Trade marketing system that says that farms should be managed responsibly. The Fair Trade system also provided money for each box of bananas sold to improve the farmers' capacity and standards of living. This allowed many to remain in the banana industry. Some were also able to access micro loans from the Farmers' Support Company to expand/improve their agribusinesses. Other coping strategies included depending on the secondary and tertiary sources of income while they recovered.

No one had insurance on his/her equipment. All but one believed insurance companies were untrustworthy, and, as such, insurance presented very high risk to them and their livelihoods. The example of CLICO was repeated by 90 percent of the respondents. One person had NIS as a mandatory part of his job, while the same household had NIS, life and house insurance.

Table 27.1 below shows the barriers constraining forest-based livelihoods in Diamond Village.

Table 27.1: Table showing the barriers to forest-based livelihoods in Diamond Village

Barrier type	Description of barrier	% of respondents identifying barrier type	Intervention taken by individual, fishing association, civil society organizations, government or private sector to address barrier (if any)
Natural	<ul style="list-style-type: none"> Land space to expand farm 	10	<ul style="list-style-type: none"> No action taken
Social	<ul style="list-style-type: none"> Lack of cooperation 	10	<ul style="list-style-type: none"> Civil society and some governmental organizations supporting the strengthening of CSOs
Financial/economic	<ul style="list-style-type: none"> Access to markets (dependent on traffickers to get their goods to markets) No insurance 	60	<ul style="list-style-type: none"> Government established a processing plant in Lauders to receive primary products, but it was reportedly not functioning
Institutional/management	<ul style="list-style-type: none"> Government policy (all respondents believed that there should be some governmental price control and that the prices for produce should not be set by the 'traffickers'.) 	50	<ul style="list-style-type: none"> No action taken
Physical	<ul style="list-style-type: none"> None 	0	

• Use of social protection programmes

Sixty percent of respondents said that they had benefitted from social protection programmes. These included training to improve their capacity from government, private sector and civil society; and, pensions, NIS and medical benefits from government. Only 20 percent of the respondents' household members benefitted from social protection programmes (e.g. NIS, free primary school and school feeding).

Table 27.2: Types of social protection programmes used by respondents in Diamond Village

Type of social protection programme	Programme offered by	Description
Protective	<ul style="list-style-type: none"> Government 	<ul style="list-style-type: none"> Public assistance
Preventive	<ul style="list-style-type: none"> Government Private companies (insurance companies, credit unions) CSOs Communities 	<ul style="list-style-type: none"> NIS Insurance for health, home and life Death benefits from credit unions, friendly societies such as the Marriagua United Friendly Society [BUNPAN]) Development of alternative livelihood strategies as an income diversification strategy (e.g. ecotourism) Providing labour when needed
Promotive	<ul style="list-style-type: none"> Government CSOs Private companies Communities 	<ul style="list-style-type: none"> Access to free primary education that some in the households accessed. Training programmes (e.g. use of chemicals on farms, phytosanitary measures, business skills) Grants from regional organizations (e.g. Diamond Village Community Heritage Organization received a grant to develop the Bubby Stone Trail as an alternate livelihoods) Micro-finance from government and private institutions
Transformative	<ul style="list-style-type: none"> Government CSOs Communities 	<ul style="list-style-type: none"> Advocating and supporting the development and strengthening of community organizations.

Discussion

The overall study identified vulnerabilities to livelihoods in fisheries-dependent communities in St. Vincent and the Grenadines, including impacts of climate change on fish stocks and human health, natural disasters, economic downturn and rising food prices. The field research in Calliaqua identified risks that mirrored those in the desk study, such as limited use of formal social protection measures e.g. insurances.

Social protection programmes are available to fisherfolk and their households to cope with shocks. They are offered by a wide range of stakeholders including government, private sector, communities and civil society organizations. These include protective measures (e.g. Public Assistance Programme that is open to Vincentians without a source of income and offered by the government to the elderly, chronically poor, etc.), preventive measures (e.g. duty-free concessions on some fishing equipment and engines that is offered by the government), promotive measures (e.g. micro-financing opportunities, livelihood grants, etc. that are offered by the private sector and some civil society organizations) and, transformative measures (e.g. CSOs and governments supporting and advocating for the development of fisherfolk cooperatives and associations so that they can have a voice in decision-making in the fishing industry).

The study in Calliaqua showed that fisherfolk tended not to actively seek to participate in many of the formal social protection measures available to the general public such as those offered by the government (e.g. the Public Assistance Programme), because of mistrust of the formal systems and limited awareness of benefits of programmes, other than those which are specific to the industry (e.g. duty-free concessions on engines and equipment perceived as being more important to their livelihoods). Informal social protection measures were important coping strategies when they are unable to earn an income from fishing (e.g. providing labour or cash to each other when unable to earn income).

CRFM's Diagnostic Study to Determine Poverty Levels in CARICOM Fishing Communities (2012) showed that 10.81 percent of fisherfolk in St. Vincent and the Grenadines were vulnerable and 5.41 percent poor, however, it indicated that Calliaqua had no vulnerable and no poor fisherfolk⁴⁸. This suggested that Calliaqua fisherfolk fared better than the country. This may account for Calliaqua's fisherfolk lack of participation in many of the formal social protection schemes that are available to the general public.

The study was not able to draw any conclusions for women in the fishing industry, but it was able to show that women in fisherfolk households were benefitting from social protection programmes including formal ones (e.g. employment and training programmes).

Respondents in Calliaqua also indicated that youth were particularly encouraged to participate in fishing industry there. They are taught fishing methods by the older generation. Traditional coping strategies are also shared/passed on (e.g. fishing other species when preferred targeted species are scarce).

48 Vulnerable meant having one unsatisfied basic need while poor meant having more than one unsatisfied basic need. (CRFM 2012)

Recommendations

Several recommendations can be made to improve the resilience of forest users and their households in St. Vincent and the Grenadines. These are shared below.

RECOMMENDATIONS FOR FOREST USERS

- Organisations such as cooperatives and associations offer opportunities for inclusion in decision-making by having a united voice (i.e. empowerment). They can also help individuals when their sources of income are vulnerable (e.g. when ill), provide assistance to market products. When forest-users do not participate actively in their organizations, they become weak and ineffective. *Forest-users should seek to become active participants in their organizations.* Regular audits and meetings can improve transparency and accountability that may allow forest users to feel included in the cooperatives or organisations. Having regular meetings with the membership and sharing information with all members can improve the organizations. Conducting needs assessments and revitalising forest-based groups and other community-based organizations can also assist.
- *Conduct market research for forest products and services.* Some forest-based enterprises have failed in the past because of lack of markets for the products and services. Some of these enterprises have started without conducting proper research or real planning for the enterprises. These are important steps that should not be left out.

RECOMMENDATIONS FOR GOVERNMENT

- *Creating and enabling environment for sustainable forestry sector development, including improving livelihoods and social protection by creating the enabling environment (e.g. developing an ecosystem based forest policy, legislation, plan).* This can help to improve the management of the forestry resources as well as to improve the livelihoods of the stakeholders.
- *Strengthen the capacity of the Forestry Department and related public sector agencies to execute the forestry policy and plan.*
- Climate change will have an impact on the forest resource, on human health and therefore ability to work and on infrastructure. *Include climate change adaptation and disaster risk management in forestry policies and action plans to build resilience.*
- Promote the development of public/private sector partnerships to provide credible insurance options for forest users.
- *Create stronger linkages between sustainable use of natural resources and poverty reduction.* Programmes should be developed and sustained that promote the wise use of natural resources as viable sources of income and poverty reduction for the populace.

RECOMMENDATIONS FOR PRIVATE SECTOR AND CIVIL SOCIETY ORGANIZATIONS

- *Create awareness about the benefits of insurance and provide credible insurance options for forest users.*
Support the development of forest enterprises and their organizations.

Conclusion

The findings of this study reveal that there are several opportunities for improving social protection policies, legislation, plans and programmes in order to improve on their impacts on the livelihoods of small scale fishers and forest users in St. Vincent and the Grenadines and Trinidad and Tobago. It also highlights the need for a more holistic approach to the management of fisheries and forestry resources in both islands. Though some of the aforementioned recommendations may be specific to each country, some key considerations for policy makers and resource managers in the region include:

- Bring together a responsible fisheries/forestry and social development approach to the management of fisheries and forestry resources in the Caribbean. Fisheries and forestry policies and plans should incorporate social security, climate change adaptation and disaster risk management, and utilise a more participatory approach for policy development and implementation.
- Tailor social insurance systems to meet the varying needs and capacities of self-employed persons. The study highlighted deficiencies in the social insurance systems of both countries that prevented or limited the participation of small-scale fishers and forest users, thus increasing the economic vulnerability of these groups and their households to illness and death of key income earners
- Invest, through the allocation of resources and capacity building, in the strengthening of fisherfolk and forest user organisations and community groups as these groups can play a critical role in reducing risks and vulnerability associated with the livelihoods of small scale fisherfolk and forest-users.

Given the exploratory nature of this study, the sample sizes were small. It is recommended that future studies of this nature be expanded to include more communities and larger survey samples so as to be more statistically representative and gain a fuller appreciation of the impacts of social protection on poverty reduction at national levels. Future studies should also take into consideration the physical spread of the islands in the Caribbean and the remote locations of fishing and forestry communities and ensure that adequate resources are provided.

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Appendix 1



LIVELIHOOD AND SOCIAL PROTECTION ANALYSIS SEMI-STRUCTURED QUESTIONNAIRE

Caribbean Natural Resources Institute
Community assessment survey for small-scale fisherfolk

This semi-structured survey is being used to collect information on the vulnerability of the livelihoods and households of small-scale fishers and forest users in rural communities in Trinidad and Saint Vincent and the coping strategies used by these groups and their households to deal with these vulnerabilities, with a focus on the impacts of social protection programmes and initiatives.

The information being collected is part of a United Nations Food and Agriculture Organization (FAO) funded research study being conducted by the Caribbean Natural Resources Institute (CANARI) to generate diagnostic and actionable knowledge on the linkages between social protection, natural resource management, women and overall people's empowerment and poverty alleviation in fisheries and forestry communities in the two Caribbean countries.

The information collected in this survey is confidential and as such any personal identifying information (e.g. names, addresses) that can link the information provided, especially that of a sensitive nature, to respondents, will not be included in the technical report for which this information will be used. The respondent has the option of providing his/her name and contact information to the interviewer, however this will only be used in cases where clarification of information provided is necessary after the interview has been completed.

Respondent information

- Gender ☐ Male ☐ Female
- Age: _____ years
- Marital status: ☐ Single ☐ Married ☐ Widowed ☐ Divorced ☐ Common-law
- Including yourself, how many people live in your household? _____
- How many years have you been fishing? _____

Financial capital

- What are your sources of earned income (this may be regular or seasonal)?

Source of income	Self-Employed (SE)/ Employed(E)	Regular /Seasonal	How did you acquire the training or skills for this?	Does your job/occupation provide insurance/benefits for employment injury/ death, sickness, retirement, other (list all)?
Primary:				
Secondary:				
Tertiary:				

- Do other members of your household contribute (money or labour) to the household income? __Yes __No

7a. If yes, how do the household members contribute to the household income?

	Age (years)	Relationship to respondent	Contribution (dollar amount) Contributions may also be non-monetary such as labour e.g. housewives	Occupation	Regular/ Seasonal
*HHM 1					
HHM 2					
HHM 3					
HHM 4					
HHM 5					
HHM 6					

*HHM – Household Member

- Do any members of your family not living in the household (perhaps working outside of the country) contribute to the household income? __Yes __No
-

8a. If yes, how much do they contribute to the household income?

- Other than earned income, what are some other regular inflows of money of your household? _____ __No other inflows of money
- What is the average total monthly income of your household?

- Do you save money? __Yes __No

11a. If yes, how? __Bank deposits __Sou-sou __Cash __Jewellery __ Other

11b. If no, why not?

- Do other members of your household save money? __Yes __No __I don't know

12a. If yes, how? __Bank deposits __Sou-sou __Cash __Jewellery __Other

- What household expenses do you spend the most amount of money on?

__ Food __ Utility bills (e.g. phone, lights, water) __ Household repairs/maintenance
__ Rent __ Medical bills __ Other _____

Livelihood related assets

- How did/do you acquire the capital to purchase the equipment/materials for your livelihood?

Equipment	Savings	Bank loan	Loan from friends/family	Government subsidy	Private sector cash/equipment transfer	Money lender	Other
Boat							
Nets							
Fish pots							
Engine							
Other:							

- As a fisher how much do you earn on a monthly/weekly/fortnightly basis?

- What is the estimated costs of some of your regular expenses related to your livelihood?

Expense	Cost/ day/week/month/year
Ice	
Fuel	
Maintenance of boat	
Other:	

- Is your annual income as a fisher fairly consistent? __Yes __No

17a. If no, in the last 5 years has your annual income: __Been declining __Been increasing __Fluctuated

- Are you and members of your family satisfied with your earnings as a fisher?
__Yes __No

18a. If no, how do you think your income could be improved?

Human capital – Education, training and health

- What is the highest level of education attained by the members of your household?

Age (years)	Relationship to respondent	Educational level

20. What is the last type of school you attended?

☐ Primary ☐ Secondary ☐ Post-Secondary ☐ Technical or Trade Institute
☐ University ☐ I have never received formal education

20a. [If stopped at primary or did not receive formal education] What was the reason for your not receiving formal education/ terminating your formal education at the primary level?

20b. What types of training have you received and how (respond only to those that apply)?

Type of training	How/where did you receive this training?	Did you pay for this training or was it free of charge?
Engine maintenance and repair		
Net mending		
Navigation		
Safety training		
Fish handling		
Quality control		
Sustainable fishing practices		
Entrepreneurship/small and microenterprise development		
Other:		

- Would you encourage any of your household members, not yet of an employable age to establish their livelihood as a fisher? ☐ Yes ☐ No

Please explain:

Social capital

- Are you a licensed fisher? __Yes __No

22a. If no, why not?

- Does your community have a community group/association/cooperative for small scale fisherfolk? __Yes __No

23a. If yes, are you or any members of your household a member of this group?
__Yes __No

23b. If no, why not?

23c. If yes, how have you (or members of your family) benefited from being a member of this group?

- Does your community/ community group pool funds to assist members in times of need? __Yes __No

24a. If yes, please explain:

24b. If no, why not?

- Does your community/ community group provide in-kind services to members in times of need? __Yes __No

25a. If yes, please explain:

25b. If no, why not?

Vulnerability context (seasonality, trends, shocks and stresses)

- Which of the following have impacted your household income in the last 12 months (check all that apply):

Impact	Effect of impact on household income	Was your household able to cope or recover from this impact?	How did you cope or recover from this impact?
Illness (e.g. Chronic diseases: diabetes, heart disease, arthritis. Acute diseases: dengue, chikungunya, cholera)			
Death (e.g. key/primary household income contributor)			
Conflict among other resource users			
Community conflict			
Crime (e.g. theft/vandalism of equipment such as boat engines, poaching, piracy)			
Rising food prices			
Crop or livestock diseases			
Fish diseases or die-off			

Coral reef diseases or bleaching			
Climate change/natural disasters (e.g. storms, hurricanes, earthquakes)			
Political/Management decisions			
Decreased fish stocks			
Bad fishing season			
Other			

- During this time did you/your family receive assistance from any:

Government agencies		
Civil Society Groups (NGOs, CBOs)		
Private Sector agencies		
Community Groups		
Others (e.g. middlemen)		

- Has your livelihood/household/community ever been affected by the following risks/hazards? Please state when and how.

Risk/Hazard	Yes/No	How often are you affected by this risk/hazard?	Briefly describe the impacts experienced
Intense storms and hurricanes			
Sea-level rise			
Warmer coastal waters			
Reduced fish stocks			
Illegal/indiscriminate land clearing/ deforestation			
Poaching			
Flooding and landslides			
Destruction of mangroves			
Unsustainable fishing practices e.g. trawling, dynamite fishing			
Fish pests/disease outbreaks			
Drought/reduced rainfall			
Man-made disasters (e.g oil spills)			
Other (1):			
Other (2):			

Coping and resilience

- Has your household recovered from this/these shocks?
- How long did/does it take your household to recover (return to normal) after this/these shocks?
- What strategies do/did you/your household use to overcome these shocks and/or stresses?
- Do you have insurance coverage on your: __Boat __Engine __Other fishing equipment e.g. nets

32a. If no to any of the above why not?

- What types of insurance coverage do you and members of your household have?

Insurance type	Respondent	HHM 1	HHM 2	HHM 3	HHM 4	HHM 5
Health						
Life						
House						
General						
National Insurance (social insurance)						
Other						

Physical capital

- How would you describe the ownership status of the following assets?

Home: __Own __Mortgage __Rent from government __Rent from private holder
 __Lease from government __Lease from private holder __Informal housing (squatting)
 __Other: _____

Land: __Own __Mortgage __Rent from government __Rent from private holder
 __Lease from government __Lease from private holder __Informal housing
 (squatting) __Other: _____

Barriers

- What are some of the important barriers that are prevent/ing you from maintaining/improving your livelihood earnings as a fisher?

Natural Barriers

__Depleting/depleted fish stocks
 __Habitat destruction

Social Barriers

__Loss of prime fishing grounds
 __Unsustainable fishing practices
 __Overfishing
 __Competition with other resource users
 __Lack of the necessary skills (please specify)

Financial Barriers

__High cost of fuel
 __High cost of equipment
 __No insurance coverage for equipment
 __Insufficient access to markets
 __Other _____

Institutional/Management Barriers

__Government policy/management decisions
 __Ban (or no ban) on certain fishing gears
 __Ban (or no ban) on certain fishing techniques
 __Implementation of closed seasons
 __Other _____

Physical Barriers

__Inadequate fishing facilities/landing sites
 __Other(s): _____
 __There are no barriers

- What steps have you taken to address these challenges? Have they been effective?

Barrier	Personal intervention	Effectiveness

- What steps have your community group taken to address these challenges? In your opinion have they been effective?

Barrier	Community group intervention	Effectiveness

- What actions have the government taken to address these barriers/challenges? In your opinion have they been effective?

Barrier	Government intervention	Effectiveness

- What actions have civil society organizations taken to address these barriers? In your opinion have they been effective?

Barrier	Civil society intervention	Effectiveness

Participation in social protection programmes

39. Have you ever benefitted from any social programmes/initiatives? __Yes __No

39a. If no, why not?

39b. If yes, what types of programmes/initiatives have you benefitted from?

Type of programme/ initiative	Government	Civil Society	Private Sector	Community	Other
Training programmes					
Grants					
Cash-transfers					
In-kind transfers e.g. equipment					
Public Employment programmes					
Pension					
Social Insurance					
Subsidies					
Other					

- Have any of your household members (list them all) benefitted from any government-led social programmes/initiatives that provide __Yes __No

39a. If yes, please state the types of programmes/initiatives that your household members have benefitted from.

Type of programme/ initiative	Government	Civil Society	Private Sector	Community	Other
Training programmes					
Grants					
Cash-transfers					
In-kind transfers e.g. equipment					
Social Employment Programmes					
Social Pension					
Social Insurance					
Subsidies					
Compensation pack- age					
Other:					

[END]

Appendix 1A



LIVELIHOOD AND SOCIAL PROTECTION ANALYSIS SEMI-STRUCTURED QUESTIONNAIRE

Caribbean Natural Resources Institute
Community assessment survey for small-scale **forest-users**

This semi-structured survey is being used to collect information on the vulnerability of the livelihoods and households of small-scale fishers and forest users in rural communities in Trinidad and Saint Vincent and the coping strategies used by these groups and their households to deal with these vulnerabilities, with a focus on the impacts of social protection programmes and initiatives.

The information being collected is part of a United Nations Food and Agriculture Organization (FAO) funded research study being conducted by the Caribbean Natural Resources Institute (CANARI) to generate diagnostic and actionable knowledge on the linkages between social protection, natural resource management, women and overall people's empowerment and poverty alleviation in fisheries and forestry communities in the two Caribbean countries.

The information collected in this survey is confidential and as such any personal identifying information (e.g names, addresses) that can link the information provided, especially that of a sensitive nature, to respondents, will not be included in the technical report for which this information will be used. The respondent has the option of providing his/her name and contact information to the interviewer, however this will only be used in cases where clarification of information provided is necessary after the interview has been completed.

Respondent information

- Gender __Male __Female
- Age: _____ years
- Marital status: __Single __Married __Widowed __Divorced __Common-law
- Including yourself, how many people live in your household? _____
- In what way (s) do you use the forest for your livelihood?

5a. How many years have you been doing this? _____

Financial capital

- What are your sources of earned income (this may be regular or seasonal)?

Source of income	Self-Employed (SE)/ Employed(E)	Regular /Seasonal	How did you acquire the training or skills for this?	Does your job/occupation provide insurance/ benefits for employment injury/death, sickness, retirement, other (list all)?
Primary:				
Secondary:				
Tertiary:				

- Do other members of your household contribute (money or labour) to the household income? __Yes __No

7a. If yes, how do the household members contribute to the household income?

	Age (years)	Relationship to respondent	Contribution (dollar amount) Contributions may also be non-monetary such as labour e.g. housewives	Occupation	Regular/ Seasonal
*HHM 1					
HHM 2					
HHM 3					
HHM 4					
HHM 5					
HHM 6					

*HHM – Household Member

- Do any members of your family not living in the household (perhaps working outside of the country) contribute to the household income? __Yes __No

8a. If yes, how much do they contribute to the household income?

- Other than earned income, what are some other regular inflows of money of your household? _____ __No other inflows of money
- What is the average total monthly income of your household?

- Do you save money? __Yes __No

11a. If yes, how? __Bank deposits __Sou-sou __Cash __Jewellery
__Other _____

11b. If no, why not?

- Do other members of your household save money? __Yes __No __I don't know

12a. If yes, how? __Bank deposits __Sou-sou __Cash __Jewellery

__Other _____

- What household expenses do you spend the most amount of money on?

__Food __Utility bills (e.g. phone, lights, water) __Household repairs/maintenance
__Rent __Medical bills __Other _____

Livelihood related assets

- How did/do you acquire the capital to purchase the equipment/materials for your livelihood? **(Note to the interviewer: You may first have to ask what equipment and materials the interviewee uses and then input it into the Equipment/Material column in the table below)**

Equipment/ Material	Savings	Bank loan	Loan from friends/ family	Government subsidy	Private sector cash/ equipment transfer	Money lender	Other

- As a forest-user how much do you earn on a monthly/weekly/fortnightly basis?

- What is the estimated costs of some of your regular expenses related to your livelihood?

Expense	Cost/ day/week/month/year

- Is your annual income as a forest-user fairly consistent? __Yes __No

17a. If no, in the last 5 years has your annual income: __Been declining

__Been increasing __Fluctuated

- Are you and members of your family satisfied with your earnings as a forest-user? __Yes __No

18a. If no, how do you think your income could be improved?

Human capital – Education, training and health

- What is the highest level of education attained by the members of your household?

Age (years)	Relationship to respondent	Educational level

20. What is the last type of school you attended?

☐Primary ☐Secondary ☐Post-Secondary ☐Technical or Trade Institute
☐University ☐I have never received formal education

20a. [If stopped at primary or did not receive formal education] What was the reason for your not receiving formal education/ terminating your formal education at the primary level?

- What types of training have you received and how (respond only to those that apply)?

Type of training	How/where did you receive this training?	Did you pay for this training or was it free of charge?
Entrepreneurship/small and microenterprise development		

- Would you encourage any of your household members, not yet of an employable age to establish their livelihood as a forest-user? ☐Yes ☐No

Please explain:

Social capital

- Does your community have a community group/association/cooperative for small scale forest-users? ☐Yes ☐No

23a. If yes, are you or any members of your household a member of this group?
☐Yes ☐No

23b. If no, why not?

23c. If yes, how have you (or members of your family) benefited from being a member of this group?

- Does your community/ community group pool funds to assist members in times of need?
☐Yes ☐No

24a. If yes, please explain:

24b. If no, why not?

- Does your community/ community group provide in-kind services to members in times of need? __Yes __No

25a. If yes, please explain:

25b. If no, why not?

Vulnerability context (seasonality, trends, shocks and stresses)

- Which of the following have impacted your household income in the last 12 months (check all that apply):?

Impact	Effect of impact on household income	Was your household able to cope or recover from this impact?	How did you cope or recover from this impact?
Illness (e.g. Chronic diseases: diabetes, heart disease, arthritis. Acute diseases: dengue, chikungunya, cholera)			
Death (e.g. key/primary household income contributor)			
Conflict among other resource users			
Community conflict			
Crime (e.g theft/vandalism of equipment, illegal hunting)			
Rising food prices			
Crop or livestock diseases			
Reduction in plant yield (seeds, flowers, fruits etc.)			
Climate change/natural disasters (e.g. storms, hurricanes, earthquakes)			
Forest fires			
Political/Management decisions			
Die-out/reduction of key species e.g. birds, bees, plants			
Other			

- During this time did you/your family receive assistance from any:

Government agencies		
Civil Society Groups (NGOs, CBOs)		
Private Sector agencies		
Community Groups		
Others (e.g. middlemen)		

- Has your livelihood/household/community ever been affected by the following

risks/hazards? Please state when and how.

Risk/Hazard	Yes/No	How often are you affected by this risk/hazard?	Briefly describe the impacts experienced
Intense storms and hurricanes			
Forest fires			
Reduced yield in plants e.g. seeds, flowers, fruits			
Illegal/indiscriminate land clearing/ deforestation			
Poaching			
Flooding and landslides			
Destruction of mangroves			
Plant pests/disease outbreaks			
Drought/reduced rainfall			
Man-made disasters			
Other (1):			
Other (2):			

Coping and resilience

- Has your household recovered from this/these shocks?
- How long did/does it take your household to recover (return to normal) after this/these shocks?

What strategies do/did you/your household use to overcome these shocks and/or stresses?

- Do you have insurance coverage on your equipment (refer to equipment in Question 14)? __Yes __No

32a. If no, why not?

- What types of insurance coverage do you and members of your household have?

Insurance type	Respondent	HHM 1	HHM 2	HHM 3	HHM 4	HHM 5
Health						
Life						
House						
General						
National Insurance (social insurance)						
Other						

Physical capital

- How would you describe the ownership status of the following assets?

Home:

- ☐ Own
- ☐ Mortgage
- ☐ Rent from government
- ☐ Rent from private holder
- ☐ Lease from government
- ☐ Lease from private holder
- ☐ Informal housing (squatting)
- ☐ Other: _____

Land:

- ☐ Own
- ☐ Mortgage
- ☐ Rent from government
- ☐ Rent from private holder
- ☐ Lease from government
- ☐ Lease from private holder
- ☐ Informal housing (squatting)
- ☐ Other: _____

Barriers

- What are some of the important barriers that are prevent/ing you from maintaining/improving your livelihood earnings as a forest-user?

Natural Barriers

- ☐ Habitat destruction

Social Barriers

- ☐ Loss of traditionally used areas
- ☐ Unsustainable resource-use practices
- ☐ Competition with other resource users
- ☐ Lack of the necessary skills (please specify)
- _____

Financial Barriers

- ☐ High cost of equipment
- ☐ No insurance coverage for equipment
- ☐ Insufficient access to markets
- ☐ Other _____

Institutional/Management Barriers

- ☐ Government policy/management decisions
- ☐ Implementation of closed seasons
- ☐ Other _____

Physical Barriers

- ☐ Inadequate community infrastructure _____
- ☐ Other(s): _____
- ☐ There are no barriers

- What steps have you taken to address these challenges? Have they been effective?

Barrier	Personal intervention	Effectiveness

- What steps have your community group taken to address these challenges? In your opinion have they been effective?

Barrier	Community group intervention	Effectiveness

- What actions have the government taken to address these barriers/challenges? In your opinion have they been effective?

Barrier	Government intervention	Effectiveness

- What actions have civil society organizations taken to address these barriers? In your opinion have they been effective?

Barrier	Civil society intervention	Effectiveness

Participation in social protection programmes

39. Have you ever benefitted from any social programmes/initiatives? __Yes __No

39a. If no, why not?

39b. If yes, what types of programmes/initiatives have you benefitted from?

Type of programme/initiative	Government	Civil Society	Private Sector	Community	Other
Training programmes					
Grants					
Cash-transfers					
In-kind transfers e.g. equipment					
Public Employment programmes					
Pension					
Social Insurance					
Subsidies					
Other					

- Have any of your household members (list them all) benefitted from any government-led social programmes/initiatives that provide __Yes __No

39a. If yes, please state the types of programmes/initiatives that your household members have benefitted from.

Type of programme/initiative	Government	Civil Society	Private Sector	Community	Other
Training programmes					
Grants					
Cash-transfers					
In-kind transfers e.g. equipment					
Social Employment Programmes					
Social Pension					
Social Insurance					
Subsidies					
Compensation packages					
Other:					

[END]

Appendix 2

Caribbean regional policies, strategies, plans and programmes relevant to social protection to foster sustainable management of natural resources and reduce poverty in fisheries and forestry-dependent communities in Trinidad and Tobago and St. Vincent and the Grenadines

Title of policy/ instrument/ strategy/plan/ programme	Goal/Objective	Potential impacts of policy on forestry/fisheries dependent individuals/households/communities. (Please state briefly the specific impacts for each category selected).	
		Protective	Preventive
Caribbean Development Bank (CDB)			
Basic Needs Trust Fund (BNTF)	To reduce poverty by providing access to social and economic infrastructure and skills training, with a focus on gender equality; ensuring the same rights, resources and opportunities to men and women.		<i>Reduced vulnerability to illness/death through the provision of clean water and improved health care.</i>
Community Disaster Risk Reduction Fund (CDRRF)	To finance community-based disaster risk reduction (DRR) and climate change adaptation (CCA) initiatives at the local level across eligible borrowing member countries of the CDB.		<i>Reduced vulnerability to extreme weather events, natural hazards and climate change</i>
Disaster Management Strategy and Operational Guidelines 2009	To contribute to sustainable development and poverty reduction in the Borrowing Member Countries (BMCs) by reducing the burdens caused by disasters due to natural hazards and climate change through effective DRM.		<i>Reduced vulnerability to natural disasters and climate change</i>
Climate Resilience Strategy 2012-2017			
Country Poverty Assessment Programme	To provide information on the status of poverty in the BMCs by assessing social and economic conditions		
Education Training Policy and Strategy	The revised policy/strategy focuses CDB's efforts on education and training issues in both the formal and informal delivery systems		
Housing Sector Policy and Strategy	Currently being revised to better assist its Borrowing Member Countries (BMC) in the provision of appropriate housing solutions, particularly for low and lower middle-income segments of the population.		<i>Provision of appropriate housing solutions for low and lower middle-income segments of the population.</i>

Caribbean Community (CARICOM)			
Regional framework for achieving development resilient to climate change	The Framework defines CARICOM's strategic approach for coping with climate change and is guided by five strategic elements and some twenty goals designed to significantly increase the resilience of the CARICOM Member States' social, economic and environmental systems .		<i>Reduced vulnerability of natural resources and thus natural-resource dependent livelihoods to climate change through the promotion of sound conservation practices in coastal and marine ecosystems.</i>
Liliendaal Declaration on Climate Change Development	Affirms the commitments of the UNFCCC and Kyoto Protocol and declares CARICOM's position in adapting to and mitigating against climate change		<i>Reduced vulnerability to natural disasters by providing more effective preparedness for response to natural disasters through the development of better risk assessment and material coordination along with the streamlining of risk reduction initiatives.</i>
Caribbean Disaster Emergency Management Agency (CDEMA) Strategy	The realization of safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management		<i>Reduced vulnerability to natural disasters at the community level for vulnerable groups by building/strengthening the capacity of Community-Based-Disaster Management .</i>
Revised Treaty of Chaguaramas	Treaty establishing the Caribbean Community (CARICOM) including the CARICOM Single Market Economy (CSME)		
Declaration on Health for the Caribbean Community (1982)	Health for All in the Caribbean Community by the Year 2000.		<ul style="list-style-type: none"> • <i>Improve housing and health conditions in human settlements and promote the health and psycho-social aspects of town and country planning</i> • <i>Promote national and regional programmes for disaster prevention, preparedness and</i>
Agreement on Social Security	Harmonisation of the social security legislation of the Member States of the Caribbean Community to promote functional cooperation and regional unity	Protection of CARICOM Nationals' entitlement to benefits and provision of equality of treatment when moving from one country to another.	

Regional Guidelines for Early Childhood Development Services	The Guidelines seek to align and standardise Early Childhood Development Services throughout the Community. They are intended to support the establishment of protective mechanisms and benchmarks at national levels and provide a common methodology and set of principles which can be used by member countries in developing early childhood policy, regulatory and standards regimes.		
Declaration of Labour and Industrial Relations Principles	The Declaration sets out the general Labour Policy to which the Region aspires, consistent with international standards and other international instruments. It provides the basis for the development of national labour policies, and inform the enactment of labour legislation.		
CARICOM Regional Food and Nutrition Security Policy (RFNSP) Adopts a human rights approach to food security	Policy provides a coherent, convergent and comprehensive framework within which national governments, civil society and private sector actors can join forces with regional organizations and development partners in cross-national, multi-sector and synergistic partnerships to identify, finance, implement and monitor an integrated set of concrete actions to achieve the four objectives of a) food availability; b) food access; c) proper food utilisation for good health, nutrition and wellbeing; and d) stable and sustainable food supplies at all times.	<ul style="list-style-type: none"> • <i>Ability to mobilise appropriate social welfare support and productive safety nets for vulnerable populations with domestic funding (supplemented by external resources), based on constantly updated information generated by efficient and effective systems for poverty and vulnerability mapping and analysis in the framework of an Information System for Food and Nutrition Security (ISFNS)</i> • <i>Promotes mapping and identification of vulnerable groups to identify ways to provide assistance.</i> 	<ul style="list-style-type: none"> • <i>Promotes the provision of incentives for agricultural entrepreneurs</i>
CARDI Medium- Term Plan 2013-2016	The Centre of Excellence in the Caribbean conducting research for development that creates wealth and competitiveness in the Region's agriculture. [No social aspects within the MTP]		
Jagdeo Initiative	Relevant goals are More private and public investment in agriculture and increased employment in the sector		

Regional Transformation Programme for Agriculture (1996)			
Community Agricultural Policy (Articles 56-61 of the Revised Treaty- agriculture, natural resources management, fisheries and forestry)	Goal b: Improved income and employment opportunities, food and nutrition security, and poverty alleviation in the Community		
Liliendaal Declaration on Agriculture and Food Security (2009)	Affirms CARICOM's commitment to the principles and objectives of the Caribbean Community as embodied in the Revised Treaty of Chaguaramas establishing the Caribbean Community including the CARICOM Single Market and Economy	• <i>Recognises vulnerable groups such as rural communities, women, youth, indigenous and tribal peoples</i>	
Strategic Plan for the Caribbean Community 2015-2019	Strategic Plan to <i>inter alia</i> systematically reduce poverty, unemployment and social exclusion and their impacts; promote optimum sustainable use of the Region's natural resources on land and in the marine environment, and protect and preserve the health and integrity of the environment;	<i>Working towards the development of a regional health insurance system</i>	<i>To reduce vulnerability to disaster risk and the effects of climate change and ensure effective management of the natural resources across Member States</i>
Caribbean Community Energy Policy	Fundamental transformation of the energy sectors of the Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimizes energy waste in all sectors, to ensure that all CARICOM citizens have access to modern, clean and reliable energy supplies at affordable and stable prices, and to facilitate the growth of internationally competitive Regional industries towards achieving sustainable development of the Community		<i>Improved access to affordable energy by the poor and vulnerable</i>
Plan of Action of Petion Ville	Identifies projects and activities to address regional issues in five main thematic areas: sustainable tourism; trade development and external economic relations; transport; disaster risk reduction; and education, culture, science and technology.		<ul style="list-style-type: none"> • <i>Plan to reduce vulnerability to disasters.</i> • <i>Prevention of Marine Pollution</i>

CRFM Strategic Plan (2013-2021)	<p>To establish, within the context of the Revised Treaty of Chaguaramas, appropriate measures for: the conservation, management, sustainable utilisation and development of fisheries resources and related ecosystems; the building of capacity amongst fishers and the optimisation of the social and economic returns from their fisheries; and the promotion of competitive trade and stable market conditions.</p>		<ul style="list-style-type: none"> • <i>The establishment of fisheries and aquaculture insurance schemes is promoted and technically supported by CRFM as part of Strategic Objective F: Adaptation to climate change and disaster risk management in fisheries</i>
Castries (St. Lucia) Declaration on Illegal, Unreported And Unregulated Fishing			<ul style="list-style-type: none"> • <i>The participating countries resolved to identify, reduce and ultimately eliminate the economic incentives derived from IUU fishing at the national, regional and global levels [these may include subsidies that allow fishers to go further offshore to hunt]</i>
Agreement establishing the Caribbean Community Common Fisheries Policy	<p>The vision of the Caribbean Community Common Fisheries Policy is effective cooperation and collaboration among Participating Parties in the conservation, management and sustainable utilisation of the fisheries resources and related ecosystems in the Caribbean region in order to secure the maximum benefits from those resources for the Caribbean peoples and for the Caribbean region as a whole.</p> <p>Relevant principles:</p> <p>(d) the participatory approach, including consideration of the particular rights and special needs of traditional, subsistence, artisanal and small scale fishers [transformative for social equity] (e) principles of good governance, accountability and transparency, including the equitable allocation of rights, obligations, responsibilities and benefits [transformative for social equity]</p>		

Organization of Eastern Caribbean States (OECS)			
Revised OECS Regional Plan of Action for Agriculture 2012-2022	To transform the agricultural sector of the OECS Member States while reducing poverty and promoting food and nutrition security	<ul style="list-style-type: none"> • <i>Establishment of a food insecurity and poverty monitoring mechanism</i> • <i>Under Priority Programme 1 the policy promotes social safety nets for vulnerable population groups</i> 	<ul style="list-style-type: none"> • <i>Priority 2: Alleviate Poverty and Food Insecurity- Alleviate poverty and reduce food insecurity through policy and incentives regimes that encourage transition of rural populations out of poverty and vulnerability to poverty.</i> • <i>Under Priority Programme 1 the policy promotes social insurance</i>
St. George's Declaration Principles of Environmental Sustainability	Provides courses of action as well as a commitment to manage how human conduct affects the environment		<ul style="list-style-type: none"> • <i>Guideline 1: Better quality of life for all-improve health and welfare</i>
OECS Policy on Protected Areas System	Member States cooperating and collaborating in the conservation, management, and sustainable use of marine and land based protected areas, with the overall aim of fostering equitable and sustainable improvement in the quality of life in the OECS region.		
OECS Environmental Management Strategy (2002)	Assumptions and objectives: Governments are seeking mechanisms to reduce poverty and improve quality of life within the context of sustainable and high levels of environmental quality.	<ul style="list-style-type: none"> • <i>Principle 9 desired result: Reduced vulnerability to natural and man-made disasters in order to diminish loss and social dislocation thereby directing funding to environmental, social and economic improvements rather than to reconstruction and rehabilitation. [This may be preventive]</i> 	<ul style="list-style-type: none"> • <i>Principle 1 desired result: Improved environmental management to enhance the quality of life for all members of society, and based on the sustainable use of resources</i>
Association of Caribbean States (ACS)			
Agreement between Member States and Associate Members of the Association of Caribbean States for Regional Cooperation on Natural Disasters	Agreement among ACS member states for regional cooperation on natural disasters		

Voluntary Guidelines			
Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) [does not explain how it will be implemented]	Objective (b): to contribute to the equitable development of small-scale fishing communities and poverty eradication and to improve the socio-economic situation of fishers and fish workers within the context of sustainable fisheries management	<ul style="list-style-type: none"> • 6.3 speaks of promoting social security protection 6.13 promotes the elimination of forced labour 	<ul style="list-style-type: none"> • 5: Governance and tenure- protecting the rights of fishers • 6.4- promotes the development and implementation of insurance schemes 9: Disaster risks and climate change- noted the potential impact of climate change on food security in SIDS (includes T&T and SVG)
Code of Conduct for Responsible Fisheries (Voluntary) [besides promoting participatory policy development, there are no real social protection measures advocated in the code]	Purpose is to help countries and groups of countries, develop or improve their fisheries and aquaculture, in order to reach their maximum sustainable yields.		

Appendix 3

HOUSEHOLD POVERTY LINE CALCULATION FOR TRINIDAD

The annual poverty line for Trinidad and Tobago is estimated at TT\$11,479 per annum (or \$957 per month) (Survey of Living Conditions (SLC) 2014)

ADULT EQUIVALENCE SCALES

The equivalence scale used is shown below; this scale is the one which was applied in 2005 with the exception of the gender disaggregation. To remove the differences in gender included in the 2005 survey from the gender-neutral scale used in 2014, the adult equivalence for males and females of 2005 was averaged for each age group. This ensured that consistency in the use of the scale of 2005 was maintained while removing the gender disaggregation used in 2005.

Adult Equivalence	Age Group
0.27	Under 1 year
0.45	1 to 3 years
0.58	4 to 6 years
0.66	7 to 9 years
0.76	10 to 14 years
0.83	15 to 18 years
0.87	19 to 29 years
0.85	30 to 60 years
0.70	61 years and over

Example of household poverty line calculation

Poverty line per adult **TT\$957**

Family Household 1	Adult Equivalence
Female 60 years	0.85
Female 25 years	0.87
Male 66 years	0.70
Male 34 years	0.85
Male 29 years	0.87
Family Adult Equivalence	4.14

Family Household poverty line $(\text{TT\$957} \times 4.14) = \text{TT\$3,961.98}$

Social protection to foster sustainable management of natural resources and reduce poverty in fisheries-dependent communities

Report of the FAO Technical Workshop
17–18 November 2015, Rome

Fisheries-dependent communities and in particular small-scale fishers are exposed to different social, political and economic risks and vulnerabilities. They face social and political marginalization, poverty is widespread and coupled with poor working conditions. The livelihoods of coastal and inland fishing communities are further endangered by the depletion of fish stocks caused by overfishing. Other vulnerabilities include degradation of aquatic environments coupled with natural disasters and climate change.

Although social protection policies have the potential to stabilize incomes, create a safety net for fishers and have the potential of increasing resilience of fishers against diverse types of vulnerabilities, small-scale fishers have an unmet need for social protection policies and few social protection programmes are designed to meet the specific needs of fishers and fisheries-related workers.

Since 2014–2015, as part of a wider strategy to promote rural development within the framework of poverty reduction, FAO started analyzing the linkages between social protection and sustainable use of natural resources, through country-specific case studies in Myanmar, Trinidad and Tobago, as well as Saint Vincent and the Grenadines.

The technical workshop “Social protection to foster sustainable management of natural resources and reduce poverty in fisheries dependent communities” gathered 29 participants to discuss available evidence and make recommendations for the work programme of the Fisheries and Aquaculture Department in relation to social protection and poverty reduction in fisheries dependent communities. Among the outcomes, the workshop suggested strengthening the conceptual framework for poverty and natural resources management in fisheries-dependent communities in order to reconcile socio-economic development and natural resources conservation. The workshop also suggested carrying out further country case studies and deepening the understanding of the link between social protection and sustainable use of natural resources, exploring how coherence between social protection and fisheries policies can be promoted at country level.

