AN IDENTIFICATION OF SELECTED ENVIRONMENTALLY BASED LIVELIHOOD ISSUES WITHIN THE CARIBBEAN

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Abstract: Developing and maintaining a pattern of sustainable livelihood (SL) is dependent upon the use to which we put our resources, particularly, our natural resources. SL is dependent upon five principal components; namely the vulnerability context, livelihood assets, transforming structures and processes, livelihood strategies and livelihood outcomes. DFID (1999), DFID, FAO, IFAD, UNDP, WFP (2001) livelihood assets also have many components one of which is natural assets/capital. Once the environment is shocked the natural assets are directly affected and all other types of assets and principal components become inoperable. The livelihood outcomes of the Caribbean people, poor and otherwise, are therefore linked to these natural assets. The objective of this study is to possibly shape and create ways of developing and maintaining patterns that can lead to SLs. It should focus on the available natural resources, access to and optimal use of, which can transit into the best livelihood outcomes specifically for the poor. Basically, the outcome should be a body of knowledge that can contribute to SLs within the Caribbean. This is done with the use of two case studies of Caribbean islands, namely St. Vincent and the Grenadines (SVG) and Grenada. This paper is divided into four sections. Section one provides the background for the paper and briefly introduces the concept of SL. Section two outlines the SL approach. Section three provides an application of the SL approach in SVG and Grenada from two varying standpoints. Section four makes concluding remarks on the types and the sustainability of the livelihood strategies and outcomes.

Keywords: *sustainable livelihoods; Caribbean context.*

INTRODUCTION

Sustainable livelihood (SL), introduced by the Brundtland Commission on Environment and Development in the 1980s, began as 'an approach to maintain or

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enhance resource productivity, secure ownership of and access to assets, resources and income-earning activities as well as to ensure adequate stocks and flows of food and cash to meet basic needs. It was a reflection of the growing recognition that food security was not merely a problem of agricultural productivity but was a problem of poverty in all its multi faceted dimensions'1. The 1992 UNCED2 initiated the first expansion in the context of Agenda 21. It stated that 'SL could serve as an integrating factor that allows policies to address development, sustainable resource management and poverty eradication simultaneously'3.

As such, many authors have contributed to the definition(s) which has evolved today.

The most basic, well known and widely accepted definition of a livelihood and as such SL upon which some form of consensus has been made was developed by Chambers and Conway (1992)[4].

A livelihood in its simplest sense is a means of gaining a living. A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide SL opportunities for the next generation and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term.

Modified versions of this definition have been generally adopted, with few variations from authors and organizations. Carney's 1998[5] definition is much the same as Chambers and Conway 1992 with the exception that the emphasis is on the intergenerational component. Scoones, 1998[6], focuses on not undermining the natural resource base. Farrington et al, 1999[7] focus is on both of these issues. Soussan et al 2003 continued the discussion of livelihood similarly to Scoones 1998: focusing on resources and more so natural resources. The link made was poverty to natural resources usage. Ellis 2000[8] emphasizes access to assets and the activities that are impacted by social relations and institutions. Wallman 1984[9], considered a livelihood as an umbrella concept, which suggests that social life is layered and that these layers overlap. Singh and Titi (1994)[10] saw it incorporating the idea of change and uncertainty and is located analytically in the concept of a socio-ecological system.[11] Messer and Townsley 2003 stated it is basically the means that a household uses to achieve that well-being and sustain it. Krantz 2001 believed it is an attempt to go beyond the traditional definitions and approaches to poverty eradication to include vulnerability and social exclusion.

Carswell et al. (1997)[12] thought that the definitions being put forward were sometimes unclear inconsistent and narrow, only adding to the model but not really defining it. Scoones (1998) resultantly retracted to that outlined by Chambers and Conway (1992) stating that SL could be disaggregated into different subcomponents namely, creation of working days, poverty reduction, well-being and

capabilities, livelihood adaptation, vulnerability and resilience, natural resource base sustainability.

The term livelihood and thus SL is, therefore, derived from a set of wider issues. It includes much of the broader debate about the relationships between poverty and environment[13]. The concept of livelihood and as such SL is a combination of many ideas and interests. It draws on many elements of development and in its achievement tradeoffs between productivity, equity and sustainability are critical. The important thing to recognise about the term is that it is always subject to negotiation; to allow contradictions and tradeoffs between different elements of the composite definition to be recognised.

THE SUSTAINABLE LIVELIHOOD APPROACH (SLA)

The SLA is a way of thinking about the objectives, scope and priorities for development. It is a discretely a defined way of working that is distinct from and contrasts with other approaches. It is evolutionary rather than revolutionary, meaning that it is sometimes difficult to ascribe benefits—or difficulties—specifically to the use of SLA, rather than to good development practice. The SLA or in some cases the livelihood approach has been developed and used by many development agencies namely UNDP, CARE, DFID, OXFAM, IFAD, PGIEP and LAL[14]. It can be used primarily as an analytical framework (or tool) for programme planning and assessment or as a programme in itself. There are three basic features common to most approaches:

1. The focus is on the livelihoods of the poor.

2. The approach rejects the standard procedure of conventional approaches of taking a specific sector as an entry point (agriculture, water or health).

3. The approach places great emphasis on involving people in both the identification and the implementation of activities where appropriate.

For the purpose of this paper, two approaches, DFID (the conventional) and IFAD (considering improvements in DFID) will be outlined.

DFID

DFID SLA is based on a framework—a way of understanding how households derive their livelihoods by drawing on capabilities and assets to develop livelihood strategies composed of a range of activities. It defines and categorises the different types of assets and entitlements, which households have access to and examines the different factors in the local and wider environment that influence household livelihood security. It looks at the connections between the local or micro situation and actors, institutions and processes at work in the wider world.

The DFID framework does not provide any explicit definition of what exactly constitutes poverty. It is premised from the viewpoint that poverty is context-specific and requires case-by-case investigation. It is an analytical structure which aims to empower stakeholders to engage in well

thought-out, logical, systematic and rational debate on the factors affecting livelihoods, livelihood opportunities, their importance and methods of interaction, where it concerns poverty reduction. The framework, therefore, aids the identification of appropriate entry points for support of livelihoods. In particular, the framework performs the following:

- provides a checklist of important issues and sketches out the way these link to each other
- draws attention to core influences and processes and
- emphasises the multiple interactions between the various factors which affect livelihoods[15].

The framework, however, does not provide an exhaustive list of the issues to be considered, does not work in a linear manner and is not intended to be an exact model of reality. It can be used as a planning and assessment tool, i.e., it can be used in both planning new development activities and assessing the contribution to livelihood sustainability made by existing activities. It should be adapted to meet the needs of any given circumstance. The framework is depicted in Figure 1.

IFAD

IFAD SLA is geared towards the enhancement of the methodology that development practitioners use to impact positively the livelihoods of the poor. It results from changes that would have been applied to the DFID framework. It is less 'sequential' than the DFID framework and proposes to rearrange the framework placing more emphasis on the linkages which will immediately bring them to the forefront of the framework.

With the rearrangement, the poor are placed at the centre of the framework and the other elements in the framework which have an impact are placed around them. The key 'processes' are highlighted as it was thought that the framework was rather 'impersonal'. The set of fundamental social processes that impact the poor are shown, e.g., gender, age, class (or caste), ethnic group and sometimes spirituality. 'Personal' assets are included as they bring forward people's internal motivations.

IFAD has unpacked the Policies, Institutions and Processes (PIP) box outlined in DFID framework using the 'hub model'[16] of institutional analysis. It represents the two levels of institution with which the poor and agencies interact—'service delivery' and 'enabling' agencies. The hub model focuses on the institutions and their roles and then mixes this with their relationship to the poor. IFAD's framework unpacks the key aspects and gives them greater salience, incorporates policies into the analysis of the agencies and institutions that produce them and identifies other elements that have strong influences, particularly, on the ways in which the poor interact with institutions.

Markets, politics (derived from policies), rules and norms are highlighted as they influence relations with these

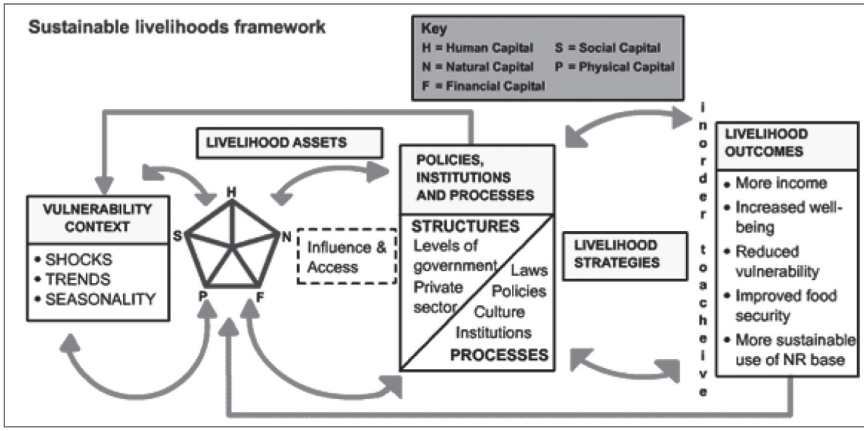

Figure 1 DFID sustainable livelihood framework
Source: DFID 1999

institutions and can themselves be changed or influenced by positive action of enabling institutions or service providers. The new framework highlights the linkages within the vulnerability context. It makes the relationship between the 'vulnerability' context and the other elements in the framework more prominent (Figure 2).

Finally, the aspirations of the poor and opportunities available for pursuing those places emphasis on their hopes and their capacity to use these opportunities. The term 'actions' replaces 'strategies' to emphasis that the actions of the poor may or may not represent choices. These actions may or may not have positive or intended outcomes. As a result, strategies and livelihood outcomes become more 'integrated' into the framework as a whole. This emphasises the importance of the 'feedback' between the following:

strategies adopted by the poor

the livelihood outcomes they achieve

and the assets, institutions and influences that affect their livelihood options.

Case studies[17]: SVG

Byrea is a hilly community on the northern/ windward side of SVG. It is a farming community where banana farming is a tradition since the 1960s. The land is owned, rented or leased based on the land distribution policies the government.

For most farmers, banana cultivation is the main source of livelihood. The farmers are comfortable with the bananas because they know the returns that would be obtained. Other crops could be planted but it takes much longer to obtain the returns and forecasting returns is difficult due to price instability.

With bananas there is no subsistence, all produce is sold. Plantain is grown as a second crop but there is no structured

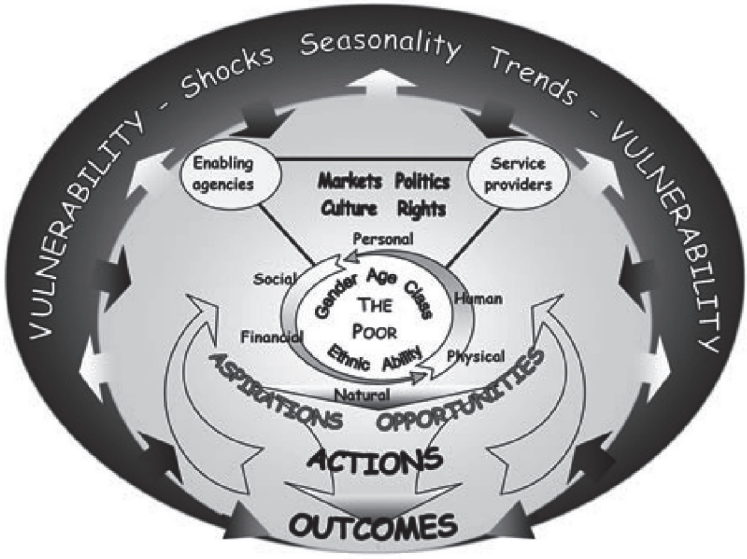

Figure 2 An alternative SL framework
Source: Hamilton-Peach Julian and Townsley Philip, 2004

market as with the banana. Coconuts and oranges are sometimes planted, but sale from this is limited.

About 40 to 60 boxes of bananas are yielded fortnightly from a 4½ areas of land. The estimated income from this is approximately $800: 1,600 per month. The bananas can be sold to two main markets; namely, the fair trade market and the regional market. The fair trade bananas get $18 per box and the regional bananas are sold for $13 per box. Bananas are rejected when they are older than 2 weeks.

The inputs into the process include labour, fertilizer, transport for manure, twine, boxes and packaging. Seasonal workers are usually employed one day—harvest day. Legislation outlines a minimum of $27EC. However, workers can be paid $40/50 EC per day. Fertilizer/chemical was priced at $120 per bag. Transport of manure $5 per bag and 12–16 bags are normally used. Twine boxes and packaging material were not charged.

The industry has declined severely from 8000 to 1200 banana farmers. Production has also declined not only because of this but also because of the changes in soil quality and the inability to apply frequent applications of fertilizer. Production is based on manure and the amount that can be afforded. Bananas were more profitable to cultivate when there were less regulations (GAP and fair trade policies) to mitigate environmental impact.

The farmers believe that to keep the industry sustainable, the cost of inputs must be reduced and the price of the finished product must be increased.

With the occurrence of natural disasters—storms, hurricanes and heavy

rains—farmers experience a 'crops spoil' as some are blown off the trees and what remains ripen prematurely. With hurricanes, there is also a 'wind crop'. However, farmers can access insurance to help them get financing to replant what was lost. The insurance can go towards getting inputs at a discount or free. It is funded by a deduction by the Banana Growers Association. However, to access it 20% or more of the crops had to be damaged. The insurance is paid based on production. If someone had planted a small amount and all of it was damaged/ lost then there is no compensation.

Issues

With the Caribbean having two main seasons, seasonality cannot be overemphasised within the vulnerability context. For half of the year, the weather conditions can vary from heavy rains to hurricanes, creating uncertainty and affecting livelihoods.

There is little control over natural assets. Framers have access to their recently regularised portion of land.

The farmers of SVG have little input into the major policies that affect them. GAP and fair trade policies filter down and are then combined with Windward Islands Farmers Association (WINFA) and the Banana Growers Association (BGA) policies. At the latter two institutions farmers may have inputs. These policies affect the markets and prices for these products.

The strategies utilised are constant. The farmers are mainly mature female head of households who choose agriculture and depend on it solely for their livelihood. They try to reduce cost by helping each other at harvest time and reaping for each other in the event of sickness. The banana is the crop of choice, other crops are rarely harvested.

ANALYSIS

The livelihoods of the farmers are dependent upon the natural assets: the land, the water, the manure, etc. They are improved by the drive to achieve environmental sustainability. However, sustainability is based on four dimensions—economic, institutional, social and environmental. To achieve economic sustainability some farmers have migrated away from traditional agriculture into illegal products[18] resulting in misuse of the natural assets. Institutional and social sustainability is based on their membership in local institutions.

Additionally, the climatic conditions can easily place farmers in precarious situations distorting the strategies and the outcomes. Incomes can be affected due to these changes.

GRENADA

Soubise is a coastal community located mid-way along the eastern coast of Grenada in the parish of St. Andrew. This community is well-known as a village of fishermen.

Soubise was impacted by Hurricane Ivan and Emily in 2004 and 2005, respectively. The livelihoods of the

fishermen were adversely affected. Their boats and engines were destroyed and this resulted in a loss of income for them. Furthermore, fishermen were unable to catch fish or even command prices or incomes similar to the pre-Ivan and Emily period because there was an overall decline in the demand for fish in the post-disaster period. Currently residents on the coastline (including many fishermen) are experiencing flooding in their homes and backyards whenever there is heavy precipitation. This is as a result of the close proximity of their homes to the sea. In some instances, this distance could be as little as three metres away from the water on the shore line. Generally, all the houses of the interviewees were damaged by Hurricane Ivan and Emily.

Mental health impacts on children and other family members included shock, worrying, stress, fear of rainfall, fear of the sea and fear of separation from their family members. The Impact of Hurricane Ivan on Household Income Hurricane Ivan damaged the boats and engines of six of the seven fishermen in the sample population. Fishermen were unable to return to the sea immediately after this hurricane because of poor weather conditions and damage to their boats. As a result, they lost income.

Among the fishermen, some did not restart their trade until between 2 to 18 months in some instances. In one instance, a fisherman did not resume his operations until 1 month after Hurricane Emily in 2005. The female vendor interviewed from the sample population indicated that she was unemployed for 1 month. In addition, the unemployed mother stated that her daughter was unemployed for 6 months as a result of the impact of Hurricane Ivan. The incomes of two individuals were not negatively affected by the passage of Hurricane Ivan and Emily. These included a nurse and a shop co-owner. In the latter instance, sales and income increased in the post-disaster period.

Issues

The impact of inclement weather during the rainy season and its potential to develop into tropical storms and hurricanes can severely affect livelihoods. It directly impacts on the ability of the fishermen and on the safety of their tools and equipment to undertake productive work. Their activities can be hampered by as little as rough seas bulletins to hurricanes.

The natural asset for fishermen is the sea—the Caribbean Sea and the Atlantic Ocean. Fishing is an extractive livelihood. Catchment is affected by many factors including climatic changes, over which there is limited predictability.

The fishermen of Grenada need to have greater input into the policies that affect them, particularly those concerning disaster management. Their input may be able to lesson down time when disasters occur.

ANALYSIS

The extractive livelihoods of the fishermen make them vulnerable. They are improvised by environmental conditions

—natural disasters which is becoming more frequent due to factors such as climate change. Their ability to effectively and efficiently execute a livelihood strategy and their ability to create positive livelihood outcomes, creating or increasing incomes, is affected.

For farmers to maintain their strategy, additional costing must be incurred to secure and store equipment through extreme conditions. Funding for such must be given or costing subsidized.

CONCLUSION

The achievement of SLs focuses on three main issues: development, poverty reduction and sustainable resource management simultaneously. Within any Caribbean island the achievement of this will present a challenge. However, this is a challenge that can be undertaken.

Caribbean economies are extractive, agrarian and in some exceptional cases industrial. Regardless of which is dominant, natural resources are at the centre. If there is any shock to the natural environment the notion of building a SL is threatened. Protection, management and optimal use of are imperative to striving for development and poverty reduction.

The two cases have presented an illustration of the Caribbean reality. It requires thought into the plan of action that can be taken to help the Caribbean people when their main source of livelihoods have been disrupted. It is specific as it gives greater depth to the help that is required by persons whose livelihoods are dependent upon natural resources and where there is little control. This is of great concern as these micro impacts have the potential to impact on the wider economy.

The question that results is how to create SLs within the Caribbean. Will the two models outlined help to achieve this? General guidelines include the following:

- Understanding how the culture of these countries can be helpful in policy development and implementation.
- Understanding of the livelihood strategies and the outcomes expected by the people who undertake them.
- Understanding of the institutions and the way institution and the policies created by them affect livelihoods.

Caribbean economies are small and as such can be used as a pilot to undertake a SL analysis on a nationwide scale. This will facilitate the exploration of the SL concepts and help to adapt livelihoods to become more sustainable.

BIOGRAPHY

Ms. Corinne Gregoire is a researcher in the field of development and environmental economics. She was the recipient of Eric Williams Memorial Scholarship 2010 (declined), The University of the West Indies Development & Endowment Fund Bursary for the 2002/2003 and 2003/2004 academic years and a Board of Governors Scholarship from Cipriani College of Labour and Co-operative Studies

1999. She has served as a consultant with the SEDU team to Environment and Sustainable Development Unit of the OECS which produced the "Identification and Analysis of the Linkages between Poverty and the Environment in the OECS Case studies of Grenada, St. Vincent and the Grenadines, St. Lucia and Dominica" and has assisted Dr. Roy D. Thomas in the compilation of statistics for his latest publication The Labour Market and Human Resource Development Growth and Development Strategy for the Caribbean. Ms. Gregoire currently serves as a Lecturer in the Department of Labour Studies at the Cipriani College of Labour and Cooperative Studies and as an E-tutor to University of the West Indies Development Open Campus. Ms. Gregoire holds an Associate of Arts degree in Labour Studies from Cipriani College of Labour and Co-operative Studies, a BSc. (Hons) and an MSc. from the University of the West Indies, and is pursuing an Mphill within the department of Economics.

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[2] United Nations Conference on Environment and Development.

[3] Naresh, S and Gilman, J (2000, 2002).

[4] University of Professional Educators, 2006 and Cahn M, 2003.

[5] Cited in Soussan et al., 2003.

[6] Quoted in Cahn, 2003.

[7] Quoted in Cahn, 2003.

[8] Cited in University of Professional Educators, 2006

[9] Cited in University of Professional Educators, 2006

[10] Cited in Naresh C., 1996.

[11] A socio-ecological system is the space in which political, cultural, religious, social, economic, biological and geo-physical factors of an environment simultaneously interact with and in combination with each other to produce a variety of functions, processes and products, which shape the way a community makes its living in a given ecozone.

[12] Cited in Scoones, 1998.

[13] Scoones, 1998.

[14] UNDP: United Nations Development Programme, CARE: Cooperative for Assistance and Relief, DFID: United Kingdom Department for International Development, OXFAM: Oxford Committee for Famine Relief, IFAD: International Fund for Agricultural Development, PGIEP: Policy Guidelines for Integrating Environmental Planning and LAL: Learning about Livelihoods.

[15] DFID, 1999.

[16] The hub model focuses on the

institutions and their roles and then mixes this with their relationship to the poor.

[17] The SLA can be applied in the review of existing projects/programmes, even if the original intent and design of these were not focused on SLA. This paper would be drawing on the livelihood analysis done as part of SEDU 2008 and provides the basis for the SVG and Grenada case studies. The main objective of the case studies were to conduct a micro-economic analysis on the impact of Hurricane Ivan and Emily on the livelihoods of fishermen and individuals in Grenada and on the impact of GAP and Fair Trade Policies on the livelihoods of farmers in SVG to validate the macro–micro poverty environment relationship and more specifically to highlight the relationship between poverty and natural disaster vulnerability and poverty and natural disaster dependence.

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