U.N.C.T.A.D.

Island Developing Countries

Challenges and Opportunities for Sustainable Economic Development

Kim Titcombe

Prepared for the Landlocked, Least Development and Small Islands Division of United Nations Conference on Trade and Development, Geneva. Research carried out in the capacity of staff consultant, Geneva 1995

ISLAND DEVELOPING COUNTRIES: CHALLENGES AND OPPORTUNITIES FOR SUSTAINABLE ECONOMIC DEVELOPMENT

Glossary

Introduction

Chapter 1 Features of Island Developing Countries

1.1 Definitions
- 1.1.1 Population
- 1.1.2 Land Size
- 1.1.3 Income Measures

1.2 Distinguishing Characteristics of SIDS
- 1.2.1 Introduction (to include box of SIDS)
- 1.2.2 Locations in tropical unstable climatic zones
- 1.2.3 Island Configuration
- 1.2.4 Volcanic Geological Formations and Atolls
- 1.2.5 Coastline to land mass ratio

1.3 Economic Structures of Island Developing Countries

1.4 Economic Disadvantages and opportunities facing SIDS

Chapter 2 Intrinsic Disadvantages of Island Developing Countries

2.1 Islandness
- 2.1.1 Archipelagic features
- 2.1.2 Natural disasters
- 2.1.3 Pests and diseases
- 2.1.4 Other man-made threats

2.2 Remoteness
- 2.2.1 Ttransport and communications
- 2.2.2 Security threats
- 2.2.3 Distance from continents and economic hubs

2.3 Smallness
- 2.3.1 Scarcity of natural resources
- 2.3.2 Scarcity of human resources
- 2.3.3 External dependence and economic concentration
- 2.3.4 Lack of economies of scale
- 2.3.5 Limited bargaining power in international fora
- 2.3.6 Impact of external influences

Chapter 3 Development Opportunities related to Export of Goods

3.1 Agriculture
- 3.1.1 The need for diversification
- 3.1.2 Green products
  - 3.1.2.1 Non-timber forest products
  - 3.1.2.2 Natural and organic foodstuffs
  - 3.1.2.3 Naural resources processing by-products
  - 3.1.2.4 Marketing of green products: Certification and Labelling

and
- 3.1.3 Hydroponics and speciality crops

3.2 Marine products
- 3.2.1 Exclusive Economic Zones
- 3.2.2 Other Marine Resources and Acquaculture
- 3.2.3 Marine products processing

3.3 Manufacturing
- 3.3.1 Flexible specialisation in manufacturing
- 3.3.2 Export processing zones

Chapter 4 Development Opportunities related to Export of Services

4.1 Entrepot trade and regional distribution centres

4.2 Tourism
- 4.2.1 Introduction
- 4.2.2 Eco-tourism
- 4.2.3 Cultural tourism
- 4.2.4 Training in tourism services and marketing

4.3 Repair and maintenance of shipping

4.4 Offshore financial services (including company formation and ship reg)

4.5 Electronic dataprocessing and IT

4.6 Training and education services (specialist offshore schools)

4.7 Labour export in specific skills

Chapter 5 Transportation

5.1 Inter-island linkages

5.2 Port storage facilities

5.3 Modern shipping technology (containerization)

5.4 Shipping costs: FOB/CIF as a percentage of total import/export cost

5.5 Air transportation: international networks, cargo.

5.6 Transport driven exports (rather than trade generated links)

Chapter 6 Technology

6.1 SIDS adapted technology
- 6.1.1 small scale
- 6.1.2 low cost
- 6.1.3 renewable energy resources

6.2 Information Technology (IT)
- 6.2.1 SIDS applications
  - 7.2.1.1 public sector management (primary/secondary)
  - 7.2.1.2 debt management
- 6.2.2 SIDNET information network
  - 7.2.2.1 application
  - 7.2.2.2 usage in trade development (market regulations)

6.3 Communications Technology
- 6.3.1 Weather monitoring
- 6.3.2 Disaster warning/management
- 6.3.3 International commercial links
- 6.3.4 Long distance learning

6.4 Technology and the environment
- 6.4.1 waste management
- 6.4.2 water treatment
- 6.4.3 resource monitoring and management
- 6.4.4 emission controls

Chapter 7 Human Resource Development and Migration

7.1 Population growth in excess of GDP growth

7.2 High cost per capita of providing basic educational services in SIDS with dispersed islands and scattered population

7.3 Low level of vocational and specialist training (economies of scale)

7.4 Dependence on public sector for employment

7.5 Urban migration and abandonment of traditional land based activities

7.6 Emigration of skilled workforce

7.7 Economic dependence on remittances from emigrant nationals

Chapter 8 Institutional Capacity in relation to Sustainable Development

8.1 Import Management
8.2 EIA
8.3 FDI
.....

Chapter 9 Development of the Private Sector

9.1 Introduction
9.2 Regional initiatives
- 9.2.1 Caricom/OECS
- 9.2.2 Pacific Forum
- 9.2.3 International Finance Corporation/SPFF and Caribbean
- 9.2.4 PIIDS (NZ)
- 9.2.5 Chambers of Commerce (national and regional)
- 9.2.6 Multilateral agencies

Chapter 10 Regional Cooperation

10.1 Regional bodies representing SIDS interests and their activities
- 10.1.1 Economic/political
- 10.1.2 Marketing and Promotion
- 10.1.3 Tourism
- 10.1.4 Training

10.2 Regional Coordination of Donor Programmes
- 10.2.1 The need for coordination
- 10.2.2 SIDS/TAPS (UNDP directory of t/a)

10.3 Selected Programmes of Regional Cooperation
- 11.3.1 Fisheries monitoring (FFA)
- 11.3.2 Trade Information (CARTIS)
- 11.3.3 Quarantine procedures
  - 11.3.3.1 standardisation of guidelines of pesticides
  - 11.3.3.2 documentation standardisation
- 11.3.4 Geographic information systems (GIS) and disaster warning
- 11.3.5 UNEP Global Resource Information Database

Chapter 11 International Cooperation in Trade Development

11.1 UNCTAD/ITC Programmes

.....

11.2 Development of Legal Framework Models for island application

11.31 environmental protection:

(i) standardisation of EIS for new investment proposals

(ii)monitoring of commercial operations

11.3.2 offshore financial centres

11.3.3 protection of land exploitation for commercial use and custom land

Chapter 12 International Agreements and their Implications for IDCs

12.1 Convention on Law of the Sea (EEZs)

12.2 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

12.3 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters

12.4 International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)

12.5 International World Heritage Convention

12.6 Convention on Climate Change

13.6.1 monitoring sea level changes

13.6.2 climatic disturbances

12.7 CITES & Convention on Biological Diversity

12.8 Convention for the Protection of Natural Resources and Environment of the South Pacific Region

12.9 UN Conference on Straddling Fish Stocks and Highly Migratory Fish

12.10 Trade agreements

12.10.1 GATT/Uruguay round

12.10.2 NAFTA

12.10.3 ASEAN/APEC

12.10.4 EU/ACP

12.11 Montreal Protocol on Substances that Deplete the Ozone

Chapter 13 Finance

14.1 Dependence on remittances from emigrant nationals

14.2 Aid dependence...artificial and unsustained economic performance

14.3 Disqualification from concessional funding due to high per capita GDP relative to other developing countries

14.4 Stabilization schemes/disaster relief funds/trust funds

14.5 High risk factors characterizing SIDS

14.5.1 high insurance premiums

14.5.2 disincentive for investment

Chapter 14 Measuring Development Sustainability
(includes indicators such as Vulnerability Index)

CHAPTER 1

FEATURES OF ISLAND DEVELOPING COUNTRIES

1.1 Definitions

Introduction

In exploring the issues relating to SIDS it is firstly an imperative to examine the various definitions and criteria used to identify SIDS and their characteristics. Whilst the term "island" is indisputably a land mass surrounded by water, what constitutes a "small island state" as an entity is a matter of contention. The other part of the description of SIDS, small island developing states, namely "developing" is equally as arbitrary as the interpretation of "small" and both these notions require further examination.

"Smallness" in SIDS relates generally to its geographic size and or population, as well as in broader definitions, refers also to economic smallness. The term "developing" is clearly the term to delineate the level of economic activity of islands along the generally adopted GNP per capita criterion.

Using the United Nations/UNCTAD classification of least developed countries, ten small island developing states fall indisputably into this category; namely: Cape Verde, Comoros, Haiti, Maldives, Samoa, Sao Tome and Principe, Solomon Islands, Vanuatu, Kiribati and Tuvalu. (GA/A/49/227).

As recently as two decades ago almost all small island developing states, including the least developed above, were colonies or dependencies of metropolitan powers, and some are still not fully independent states.

1.1.1 Population

To consider firstly the definition of "smallness" according to population size, UN documents use the cut-of point of a population of 1 million. Developing countries with a population of less than 1 million are accordingly classified as "small". Using this measure, 59 island developing countries that are also islands, can be classified as "small" (see Table 1 of G/A as above) based on 1991 figures.

CHAPTER 1

FEATURES OF ISLAND DEVELOPING COUNTRIES

1.1 Definitions

Introduction

In exploring the issues relating to SIDS it is firstly an imperative to examine the various definitions and criteria used to identify SIDS and their characteristics. Whilst the term "island" is indisputably a land mass surrounded by water, what constitutes a "small island state" as an entity is a matter of contention. The other part of the description of SIDS, small island developing states, namely "developing" is equally as arbitrary as the interpretation of "small" and both these notions require further examination.

"Smallness" in SIDS relates generally to its geographic size and or population, as well as in broader definitions, refers also to economic smallness. The term "developing" is clearly the term to delineate the level of economic activity of islands along the generally adopted GNP per capita criterion.

Using the United Nations/UNCTAD classification of least developed countries, ten small island developing states fall indisputably into this category; namely: Cape Verde, Comoros, Haiti, Maldives, Samoa, Sao Tome and Principe, Solomon Islands, Vanuatu, Kiribati and Tuvalu. (GA/A/49/227).

As recently as two decades ago almost all small island developing states, including the least developed above, were colonies or dependencies of metropolitan powers, and some are still not fully independent states.

1.1.1 Population

To consider firstly the definition of "smallness" according to population size, UN documents use the cut-of point of a population of 1 million. Developing countries with a population of less than 1 million are accordingly classified as "small". Using this measure, 59 island developing countries that are also islands, can be classified as "small" (see Table 1 of G/A as above) based on 1991 figures.

Any cut-off point however is arbitrary and may exclude countries that all but meet SIDS criteria and characteristics in other respects. An island state may have a population exceeding the 1 million population cut-off point and yet display similar characteristics to neighbouring SIDS. One such case in point, is Trinidad and Tobago (with a population of 1.2 million) which is part of a geographic grouping of other island states sharing similar features and problems. Trinidad and Tobago shares common political and economic interests with neighbouring SIDS through its membership of Caricom. Clearly, as one such example, to exclude Trinidad and Tobago from the Caribbean SIDS grouping on the basis of its population size alone, is unrealistic.

Similarly, Mauritius, with a population of 1.083 million, would also be excluded from any analysis of Indian Ocean SIDS if the population criteria is strictly applied.

Clearly therefore, there is a need for some flexibility in applying the population factor as the sole measure of "smallness". Population size should only be one of several factors in qualifying a country for SIDS status. Moreover, with rapid population growth in developing countries the 1991 cut-off level of 1 million, whilst a tidy figure, no doubt needs to be reviewed in order to reflect a true SIDS grouping.

1.1.2 Land Size

Equally relevant to the notion of "smallness" is the land surface area of an island state. Clearly there are a different set of factors facing a developing island state of the size of say Sri Lanka (65, 610 km2) which could be classified as "medium" size rather than "small", compared with another Indian Ocean developing island state of Comoros, truly a small island developing state with a land surface area of only 2235km2. However, all is relative. Even Sri Lanka becomes a "small" island developing state when compared with say Madagascar (truly an island as well as a developing country. Madagascar's population may be smaller than that of Sri Lanka (12 million versus 17 million) but its land surface area is more than 10 times that of Sri Lanka.

Unlike the generally adopted notion of 1 million population as a cut-off point for "smallness", there is no internationally recognised guideline regarding size of land mass for categorising developing countries as small or large. Clearly the problem is compounded by fragmentation of land mass into myriads of small islands in one nation

state compared with a comparable land surface area that may be compacted into one main or single island (such as Sri Lanka or Madagascar).

Attempts have been made through various academic studies to classify developing island countries according to their geographic features of "smallness". One such study (see Doumenge) of island features delineates a land surface area of less than 20, 000 km2 combined with a population of less than 1.2 million as the measure of smallness. As with any yardstick, the cut-off point is too limiting as an island state such as the Solomon Islands (with a land surface area of 28,000 km2) would be immediately disqualified despite its obvious SIDS characteristics and inclusion in the Least Developed Countries category.

Furthermore, as mentioned above, this approach of delineating size according to land surface area, does not take into account differences in *aggregated* land mass of fragmented island states and *total* land surface area of single island states. Barbados in the Caribbean, as a single island state may have a comparable land surface area to some of the small, but multiple island, micro states of the Pacific, however, the features of and issues facing the former would be distinctly different from the former. Problems of smallness (such as infrastructure development) are even more acute when the smallness is fragmented and dispersed.

In measuring land surface size of an island state, the area covering exclusive economic zones should also be considered, as the ocean provides an equally rich source of production for SIDS as does land, and in some cases more so. To omit this measure from analyses of size would underestimate the economic potential of an island developing state and overemphasise their smallness. Including the EEZ in such a measure of "smallness", would for example, in the case of the Solomon Islands, add more than a million square kilometres, to its actual land surface area of 28, 896 km2.

The same theorist as above claims that where a land surface area is in excess of 50,000 km2 the land mass itself will generate its own climatic reactions and is not subject to the influence of oceanic climatic forces alone. By this definition the theorist defines a "continental island" as one with a land mass in excess of 50,000 km2.

By such definitions, developing island states such as Papua New Guinea (462, 000 km2) and Cuba (110,000 km2) would be included in the category of "continental island states". Clearly the size of PNG ,an island state, with its distinct topography determines it own climatic conditions and generates its own climatic influences, which may not be the case in smaller neighbouring Pacific SIDS.

In the absence of a scientifically developed model, it would seem more appropriate to approach the problem from another angle. This is, namely, rather than delineating "X" square kilometres as the cut-off point for total aggregated land mass in order to qualify as a small island state, regional island groupings of SIDS should be examined for their common features and relativity. Proceeding with this approach it should then be determined at which pint on average do island states cease to share the same characteristics and problems as their neighbours.

Applying this principle to Pacific islands as an example, it can be seen that Papua New Guinea displays distinctly different geographic, economic and population characteristics from its Pacific neighbours even though some of the country's development problems may e similar.

Applying this principle to other regions and island clusters, there emerges a level of around 30,000 km2 of total land mass, where commonality with neighbouring island states ceases to be strong.

This classification would exclude Sri Lanka and Madagascar from the "smallness" category in the Indian Ocean and Cuba and the Dominican Republic in the Caribbean.

1.1.3 Income Measures

GNP and GNP per capita are the standard measures used by the United Nations and adopted by other international bodies for classifying countries as advanced, developing or LDC. It can therefore be applied as a tool in distinguishing island developing countries from other island states which may be economically more advanced.

It is not a matter of chance but rather a reflection of inherent disabilities of SIDS that many of the small island states of the world are also developing countries. As stated

earlier, there are 10 small island developing states included among the UN's list of 48 Least Developed Countries.

Table # (UNCTAD's Handbook of International Trade and Development Statistics 1992/Table 3 of G/A A/49/227) shows island developing countries economic indicators. Of the countries listed here GNP per capita ranges from US$210 for Madagascar (1991) to US$12 890 for Singapore.

Many of the small island dependencies, particularly in the Caribbean, enjoy high per capita incomes (such as Bermuda at US$24,370) by virtue of their roles as offshore financial centres. High GNP levels however, disguise uneven distribution of wealth and mask the many problems common to other SIDS in terms of environment, infrastructure, health and so on.

This factor underlines the need for a multi-variable composite to denote SIDS rather than relying on any one single classifier such as population or national wealth alone. The UN's LDC parameter is one such composite measure of poverty, not based on GNP alone (generally countries of GNP per capita below US$1000) but a number of factors contributing to wealth or lack thereof.

The World Bank classifies countries according to low income group (GNP per capita at $US380 or less), lower middle income ($1490 or less), upper middle ($4320) and high ($23, 150).

UNCTAD however, in its Handbook of International Trade and Development Statistics (1993) categorises countries into only 3 income groups, namely:

- high income GDP per capita (1990) US$3,500 and above
- middle income $700 to $3,500
- low income, below $700.

In addition to GNP per capita as a comparative measure of wealth both the World Bank and the UN use a conversion of GNP to a purchasing power parity (PPP). PPP is defined as the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as one dollar would buy in the United States of America.

Appendix # drawn from the UNCTAD Handbook of International Trade and Development Statistics, although not a definitive listing of SIDS, tables island developing countries according to their statistical classification by GNP per capita.

1.2 Distinguishing Characteristics of SIDS

1.2.1 Introduction

Box- SIDS List

Unlike the UN classification of LDCs, the 48 least developed countries of the world, there is no unanimous definitive category of countries that are internationally recognised as SIDS. If one extracts the word "developing" from SIDS then the GNP per capita categorisation referred to in 1.1.3 can be applied with little ambiguity or contention.

The difficulty arises however, as discussed in the last section, because of the very arbitrary nature of the notion of "smallness" and which parameters should be applied to define smallness. Even the definition of "island" is contestable as is the definition of "state" in the term used to describe SIDS of small island developing states. Should a definitive listing of SIDS include, protectorates and overseas territories (many of them small islands) as well as independent countries to reflect the notion of "state"?

Many official documents of the U.N and other international agencies circumvent this dilemma of categorising SIDS definitively by treating "island developing countries" or IDCs as a whole, regardless of size (see for example, G/A 49/227).

UN documents such as the above, according to the more general IDC classification list 51 countries, of which 35 are U.N. members (see Appendix #). Several of these countries however are large island states or groupings of numerous islands with substantial aggregate land mass such as the Philippines and Indonesia. It may therefore be questioned whether the features that distinguish SIDS apply equally to such large island states. If not (as will be further explored) such IDCs should clearly not be included ultimately in a definitive SIDS classification.

The UN Statistical Yearbook (39th edition) provides data on 79 island developing countries in total (they are not specifically identified as such). If one excludes those

islands that are politically part of a mainland state (for example, la Réunion which is a "département" of France) then this figure reduces to 73 countries. (See Appendix # for list)

The World Bank (see World Bank Atlas) also includes dependent territories in its statistical analyses and overview. This includes the French DOMTOM. By this listing one can extract 50 states which can be described as developing and islands irrespective of the size criteria.

There is the political question in such debates as to whether island states which are dependencies (of other continental or former metropolitan powers) should be incorporated in SIDS categorisation.

Appendix # provides a list of non-self governing territories attached to metropolitan powers of USA, UK, New Zealand and France (see G/A/49/384 of 14/9/94).

The political ties between a small island dependency with its metropolitan power is clearly a significant factor in determining the economic issues facing a SIDS. Dependent or associated states, whilst they may fall into the category of developing countries, clearly may enjoy a greater degree of economic security than another small island state of comparable size and similar geographic attributes and disabilities (if such comparisons can in fact be made).

To what extent such overseas territories and dependencies are drawn into international fora addressing SIDS issues is an indication of the relevance of including such states in a definitive SIDS listing. In this respect it is appropriate to look at the participation in the Barbados Global Conference on Sustainable Development of 1994 (hereafter referred to as the GCSD). Participants (listed in Appendix #) included not only small but large islands, and not only developing countries but developed and in particular donors. As this conference marked a turning point in international affairs, the identification of 40 states as "small islands" should be used as the definitive listing of SIDS as a starting point (see "Small Island Developing States and Territories: Basic Indicators" published by the United Nations Department of Public Information DPI/1466 March 1994 for the Conference).

This list summarised below in Table # groups the island states according to population size for UN members (30 listed although now 31 with the admission of Palau in December 1994 to the UN), non-members (4) and "others" which are overseas territories. By this classification, 8 UN member countries have populations of over 1 million. As this list shows, large and populous island states of Indonesia and Philippines (whilst participants) are excluded from this designation of "small islands". The largest in this category identified for the GCSD in population terms is Cuba with nearly 11 million people. Singapore with a GDP per capita of US$14, 598 is one of the richest island states to be included, although surpassed in statistical terms, by Nauru with a GDP per capita of US$15 420 (based on 1991 figures). Clearly Nauru's population of only 10,000 persons compared with Singapore's 2.8 million, is a clear distortion of the true level of wealth of the country.

For the purpose of this report and references to SIDS the focus will be on issues of relevance to those countries identified as SIDS by the Conference. As discussed earlier in this chapter, SIDS classification cannot be made on any one set of criteria or any one parameter. The basic indicators, apart from population, used to designate SIDS as such in the Conference paper are land surface area as well as EEZ, per capita GDP, imports as a percentage of GDP, per capita ODA and debt servicing expressed as a percentage of exports. As a follow on to the preliminary work initiated by the GCSD as well as prior specialist studies, there remains an imperative to create an internationally recognised set of criteria by which countries are classified not only as islands or developing countries but specifically and exclusively SIDS.

This report examines in a later section the feasibility of an idea that has been mooted of establishing a "vulnerability index" or some other measure not only to identify SIDS but to "rank" SIDS according to their *degree* of vulnerability. This notion in addition to alternative indicators of measuring factors such as assistance needs, sustainability and so on will be developed further in this document.

It is posited however as a starting point that the criteria used in further developing a classification guideline for the SIDS category (notwithstanding the list of countries already designated by the GCSD) should be the three basic criteria of: population, land surface area, GNP per capita.

The first two of these criteria determine the "smallness" of SIDS and the third criteria, a simple indicator of level of development. Adopting the definitions of "smallness" introduced in sections 1.1.1 and 1.1.2 the level at which "smallness" dissipates is around 1.2 million for population and a land surface area of over 30,000 km2. These levels are identified as the approximate cut-off point for island states where they cease to share a strong degree of commonality of features with neighbouring island states.

Taking the third criteria of GNP, as noted in 1.1.3 there are a range of categorisations used by the UN and other international bodies for denoting countries according to level of income group. However it can be observed from the data that a GNP per capita of around $US6500 emerges as the characteristic turning point of island states that can truly be classified as "developing". (By such classification, island states such as Singapore, Bahamas and Nauru would be excluded).

This is the third dimension of SIDS determining factors. As an island state may not score on three out of three of these criteria, it is proposed that if a country falls within at least two out of three of the criteria it is sufficient for that island state to be included in the SIDS category. This allows for a less generous definition of SIDS however focuses more sharply on issues specific to countries sharing common problems and solutions . Table # below provides an alternative SIDS listing based on the above simple classification (i.e alternative to the GCSD list).

Where countries meet at least two out of three of the criteria they have been designated as SIDS. This brings about the exclusion of island states such as Singapore (only rating on the population criteria), Cuba and Dominican Republic as well as Papua New Guinea (meet only GNP per capita criteria) as well as Indonesia, Philippines, Madagascar and Sri Lanka, included in earlier UN documents on island developing countries. It still allows for the inclusion of Haiti (based on GNP plus surface area criteria) and Jamaica which are borderline cases.

This, however, is not a substitute for actual ranking of island states' vulnerabilities or needs and further work needs to be carried out in this area as proposed later in this report.

1.2.2 Locations in Tropical Unstable Climatic Zones

The majority of IDCs and in particular SIDS are located in tropical climatic zones. Of the SIDS listed in table (BOX list) only Malta and Cyprus can be described as temperate zone SIDS and therefore not prone to the same set of climatic threats and therefore enjoy a greater degree of climatic stability than that faced by SIDS in tropical zones. This is an important consideration in the issue of disaster preparedness of SIDS and an important factor in reducing SIDS vulnerability and instability.

Among the major SIDS grouping located in tropical zones further climatic variations can be identified according to ocean streams, continental proximity, prevailing wind currents and so on, as well as according to the island's own land mass configuration and topography which determine its resilience in buffering against climatic variation.

The important consideration here is not the fact per se that SIDS are located in tropical climatic zones as many large land masses and continental states are also found in tropical zones (Africa, South East Asia, Central America) and therefore subject to the same climatic disturbances affecting many small islands.

The particular relevance for SIDS however is the greater degree of devastation caused by tropical climatically induced natural disasters. The disruption to economic activity is much greater than comparable occurrences in continental or large island states and the SIDS lack of resilience makes restoration of normal services and activity more difficult and usually slower in the aftermath.

1.2.3 Island Dispersion

Dispersion and fragmentation are common characteristics of SIDS. The degree to which a country's total land mass is fragmented into myriads of small islands is an important determining factor for development priorities in terms of transportation, communication, health and education services. The national budget of a SIDS may be severely over stretched if infrastructure has to be multiplied many times over between outlying and main islands.

Conversely, a situation of hegemony, may result in outer islands receiving an unequal share in the distribution of services provided by the government giving rise to a range of economic and political problems. One such frequent tendency is the centralising of services such as airport and health services.

The greater the number of *inhabited* islands in a SIDS territory the more greater the pressure on the national budget for services without necessarily a greater contribution to the overall economy. The Solomon Islands for example (an LDC) is made up of over 700 islands with a surface land mass approximately the same as Haiti (not a true island state). Clearly the development problems facing a single island state are very different from a country such as the Solomon Islands made up of hundreds of dispersed islands, even though the total land surface area may be similar.

Isolation and dispersion furthermore give rise to specific security concerns which will be discussed in Section 2.2.2.

1.2.4 Volcanic geological formations and atolls

The geological formation of islands are of relevance to the economic development of SIDS insofar as it determines an island's endowments as well as its intrinsic weaknesses.

The geological origin of an island determines its structure and basically the island's economic viability and sustainability. Geographers identify three major systems that determine island formations:

i) oceanic system: this includes single volcanic islands and atolls or raised coral reefs.

Ii) trench arc systems: chain of active volcanic islands. May be submerged and may be juxtaposed to flat islands covered in calcareous sediment (e.g. Dominica next to Barbados). Plates under the islands surface may give rise to earthquakes (e.g. western rim of the Pacific).

Iii) continental plate system: more varied land bases than the above offering greater potential for agriculture and mineral resources (e.g. New Caledonia)

Many of the least developed small islands, being atolls, fall into the first category of geological formation typified by poor soil and limited fresh water. Atolls are made up for the most part of a series of small islets composed of coral, sand and rock and are devoid of any topsoil. Soil is subject t to erosion and absorbs rainfall readily with no natural surface storage capacity being devoid of fresh water ponds, lakes or streams. Such atolls hence do not provide a viable base for agriculture and provide a limited range of

indigenous species of flora and fauna. Such atoll-SIDS tend to be highly aid dependent (e.g. Marshall Islands, Kiribati). Exceptions can be found where SIDS composed of such atolls also have a range of topographical features such as volcanic islands or rainforest (e.g. Tonga - main island a flat coral atoll Tongatapu with rich volcanic Vav'au as another principle island in its grouping) which offer wider possibilities for survival.

Whilst atolls provide poor land resources they can be a rich resource with characteristic lagoons offering harvesting and acquaculture potential. One successful example is the development of pearl oyster farming in the Tuamotu archipelago of French Polynesia. More recently, the development of prawn farming in a number of Melanesian South Pacific SIDS is another example of turning an intrinsic disability into a comparative advantage.

1.2.5 Coastline to land mass ratio

As discussed earlier in Section 1.2.1 there have been attempts to define "SIDS". Small is a subjective description and hence any yardstick for size to include or exclude an island state will inevitably be arbitrary.

There have in this field of debate been attempts to distinguish a true "small island State" in terms of a coastline to land surface ratio; typically islands do have high coastline to land mass ratios. The measure is only useful as an indicator of the degree of exposure faced by an island state to external forces.

The greater the coastline to land mass ratio the greater the need for protection from a range of threats, including environmental degradation, illicit trading activities, security threats and depletion of marine resources. Whilst SIDS with high coastline to land mass ratios tend to have fragile ecosystems they are also richly endowed with marine resources, so a high ratio should not be perceived necessarily as an inherent *disadvantage*.

The major resource of an island, the coastline, can also however be its major handicap. Proponents of using this ratio as an indicator of vulnerability or insularity (see Doumenge) identify a ratio of 1:10 i.e. 1 km of coastline for 10km2 of land surface as the point at which an island becomes truly "insular".

A ratio of greater than 1:100 according to the theory brings a country into the "continental island" category. This measure is of course meaningless in differentiating between total land mass of multiple island states and a single or main island states and the theory therefore has little practical application in addressing development issues.

1.3 Economic Structures of Island Developing Countries

1.4 Economic Disadvantages and opportunities facing SIDS**********

CHAPTER 2

INTRINSIC DISADVANTAGES OF ISLAND DEVELOPING COUNTRIES

2.1 Islandness

2.1.1 Archipelagic Features

Many island nations are archipelagic either small or large, with their territories strung out over hundreds of kilometres. An archipelago presents special features and problems compared with other island states that are closely clustered or consist of single islands. There are specific problems for security and transportation in particular that arcehipelagic island nations face to a greater extent than other IDCs.

The Pacific Islands in general display a greater degree of fragmentation and archipelagic dispersion than those of the Caribbean. In the Indian Ocean the Maldives archipelago with a total land mass of less than 300 square kilometres is spread over a distance of 800 km in length. Fiji, in the Pacific, as another example suffers less from the archipelago's disadvantages as only 100 o its 300 islands in the group are inhabited and the two main islands of the group contain 90% of the population as well as land area.

The tiny country of Kiribati with a population of only 75,000 stretches over a distance equivalent to that of the distance between the Pacific and Atlantic coasts of the USA but with a total land surface area of only 726 square kilometres. Even large IDCs such as the Philippines can suffer from some of the same intrinsic disadvantages as small due to their dispersion.

2.1.2 Natural Disasters

As explained in 1.3.1 many SIDS are located in tropical zones and therefore subject to a greater degree of climatic instability than continental countries. Moreover, as pointed out in that section, their very "smallness" of the land surface area in most cases does not provide a topography that dictates its own climatic influences but rather for the most part, are victim to climatic forces of the ocean and prevailing wind currents.

These natural forces cause destruction through cyclones or hurricanes, tidal waves, floods and droughts.(Appendix # summarises the major natural disasters that have occurred in recent years in SIDS in all regions - see reference Davy"The Incidence of Natural Disasters in Island Developing Countries and Territories"). Studies have shown that there is a clearly identifiable pattern in their occurrence. Other non-climatically

determined natural disasters include geologically determined disasters from earthquakes and volcanoes.

Geologically determined natural disasters (such as earthquakes or volcanic eruptions) tend to be less frequent than other natural disasters in SIDS. Some SIDS have the misfortune of being prone to both cyclones as well as seismic activity (e.g. northern Caribbean islands). Moreover, the path of destruction of volcanic activity when such a phenomena occurs, may be more predictable and contained to a greater extent than that of say cyclones. In the case of earthquakes whilst readings are regularly observed, major occurrences and damage are less frequent (on the scale of Jamaica 1957 or Cuba 1992). (Cape Verde volcano 1995).

Cyclones or hurricanes, however, not only show a pattern of greater frequency but also have a greater degree of impact as they sweep through heavily populated and economically active areas. The total devastation of crops and infrastructure of a SIDS economy once hit has been demonstrated all too often (Montserrat 1989, St Lucia 1980, Jamaica 1988). Moreover some hurricanes swathe a path of destruction cutting across several island countries before they expire.

The vulnerability component of natural disasters is twofold. First SIDS are vulnerable to the unpredictable nature of the occurrence of such phenomena and secondly they are vulnerable to a large degree of devastation when such phenomena occur.

Lacking physical and economic *resilience* makes the impact of such phenomena so significant. SIDS may lose a whole crop for a commodity for not only the current production year but for a number of years to follow until production is fully restored. Having a narrow economic base, the elimination of one or more major crops can erode any existing economic stability and deprives the economy of export income. The same can apply to other productive resources of the economy from destruction of property and infrastructure; a collapse in public utilities tends to result in the closure of other sectors of the economy. Moreover, rehabilitation causes a diversion of priorities from scarce financial resources

Apart from floods, at the other extreme, drought is a natural (as well as to a certain extent induced) disaster, affecting albeit a smaller number of SIDS (notably in the Atlantic). Persistent water shortages for cultivation and drinking purposes have led to

voluntary and enforced relocation of settlements even to other countries (e.g. relocation of peoples of Kiribati to Western Solomon Islands province, a neighbouring country). Such experiments have met with limited success and are clearly not a viable solution to most SIDS' problems.

Attempts have been made to measure the likelihood of disasters occurring as well as the devastation caused by them. The UNDRO carried out a study (see Barbados Declaration p.13 + study) has shown that at least 13 of the 25 most disaster prone countries of the world happen also to be small island developing states. This study developed a disaster prone index as a measure of damage caused by the disaster (read "natural" disaster) expressed in monetary terms as a percentage of the country's total GNP for that year. A threshold of 1% was selected as the level at which a natural disaster's impact becomes significant. The index was calculated for each disaster in a given time period of 20 years for each country. 133 countries were selected of which 33 were identified as developing countries.

In addition to the climatically induced natural disasters mentioned above the disasters included in the analysis covered volcanic eruptions and earthquakes as well as landslides, famine, accidents, power shortages and civil strife.

As with any index, the reliability and usefulness of such a measure depends on the quality and objectivity of data collected. As just one shortcoming, the index is only able to account for *immediate* damage from a disaster as opposed to longer term prolonged effects which may be more insidious. As the index is only able to measure through monetary value it has limited practical implication apart from assessing insurance risks and disaster relief funding.

2.1.3 Pests and diseases

Disasters under this category caused by man-introduced pests and diseases can also be linked with the occurrence of natural disasters. Threats that are anthropogenically derived are diseases and epidemics affecting humans and well as livestock and flora and pests that principally affect crops.

Both forms of disaster are caused principally by the movement of man and goods inter and intra-regionally. The devastation caused is often detected too late, but success in containing diseases and pests by man introduced measures highlights the need for preventing damage from this threat as with other natural disasters.

SIDS are particularly vulnerable to such disasters as they are typically economies that engage in a high degree of trade in produce both inter and intra SIDS. Many of the pests that are most damaging to crops are carried in cargo. In the case of island trade, as many shipping routes involve multiple stops for loading/unloading this allows for greater opportunity for pest spreading (witness the coconut tree disease affecting all Polynesia).

The very use of pesticides to combat these threats or actual pest invasions may itself trigger off further problems as discussed below.

2.1.4 Other Man-Made Threats

The ecology of small islands is fragile and with a high coast to land ratio, prone to coastal damage. Low lying islands have low resilience to such threats, and with poor soils they are particularly prone to pollution from fertilisers.

Ecosystems in small islands are much closer inter-linked than on large land areas and continents i.e. the interplay between elements of ocean, wind and rain with flora and fauna is strong. Moreover endemic species are readily endangered when ecological damage does occur quite simply because of lack of alternative habitats.

Other causes of ecological damage of particular concern to SIDS are shipping spillage and deliberate dumping of waste including toxic waste as well as damage caused by tourism development and other investment. Nuclear testing (French Polynesia) is of

major concern to powerless overseas territories with the inherent destruction of reefs and marine life for inestimable periods.

Industrial waste is no more of a risk to SIDS than in other developing countries unable to control investors' malpractice but where incorrect and inappropriate waste disposal occurs damage is likely to be more far reaching.

Other man-induced threats to the environment include global influences such as rising sea levels through global warming.

2.2 Remoteness

2.2.1 Transport and Communications

****

2.2.2 Security Threats

Isolation of islands can be both an advantage and a handicap. The isolation factor plus a high coastline to land mass ratio typifing SIDS create the particular difficulty SIDS face in mounting an effective defence protection of their coastlines. Moreover, the amount of resources that SIDS can devote to self-defence forces and maritime patrol is generally inadequate for the vast distances of coastline and surrounding waters that have to be covered. Inevitably a situation of dependency on a former colonial power or on a third country arises, with its inherent links and obligations.

Geo-political influences are as a serious threat to SIDS' stability particularly in the Caribbean, as the region falls squarely in the sphere of influence of major super-powers. such as shown by the Grenada example. (see Mannhertz)

Many SIDS in the Caribbean have the security risk of being used as way stations for illicit drugs and arms trading by virtue of the combination of their secluded bays and at the same time their proximity to mainland markets and supply sources.

The same does not apply in Pacific and Indian Ocean SIDS to the same extent as the combination of factors found in the Caribbean. Risk to political and military stability is more frequently from internal pressures than external (e.g. Seychelles, Vanuatu, Fiji

which have all experienced severe destabilisation from within). Often international response to such disturbances are slow, due to the islands very isolation. Other security risks can arise from the islands' collecting "rents" for military use as bases or as communication satellite bases (e.g.Tonga) with its inherent allegiance obligations.

2.2.3 Distance from Continents and Economic Hubs

A feature of SIDS is their isolation. They are isolated not only from continents by vast distances but also from neighbouring islands countries. In the Pacific in particular, vast distances separate outer islands from the main island of the country and its capital.

In the case of the Solomon Islands for example, its outer island provinces are closer to the neighbouring country of Papua New Guinea than to their capital Honiara. This feature of isolation that characterises many SIDS has a range of implications for trade, infrastructure development and so on (discussed in detail in later sections).

The isolation that typifies SIDS has also worked in a positive direction in preserving and perpetrating indigenous culture and in creating cohesive societies that are typical of remote Pacific island states.

It is immediately apparent in comparing case studies of Pacific Island SIDS with Caribbean SIDS that the closer an island country is located to a continent, the greater the influence exerted by that dominant culture and a "continental pull" takes place. This affects the country at all levels, in social structure and values, culture as well as business practices and links.

Even in the case of SIDS which lie relatively close to a continent such as in the Caribbean, the isolation factor is still significant. Frequently ties are closer with the USA than inter-island ties with neighbouring SIDS. This is the case with Jamaica for example, finding itself isolated geographically from other English-speaking SIDS of the Caribbean (and specifically of the Caricom grouping), business and cultural links have tended to develop more closely with the USA than with other Caricom members or neighbouring Hispanic SIDS.

Isolation of SIDS by virtue of distance however has again given island states a more peaceful history than much of the developing world (exceptions can be found such as Grenada, Cuba which both suffered invasions) particularly in recent times. Surrounded y

water, border disputes (notwithstanding disputes over territorial claims) are not the frequent occurrence that threaten the stability and drain the resources of many developing countries of Africa and Asia.

2.3 Smallness

2.3.1 Scarcity of Natural Resources/ 2.3.2Scarcity of Human Resources 2.3.3External Dependence / 2.3.4Lack of Economies of Scale

SIDS are typically described as having a small and fragile economic base as a result of the factors of limited natural resources, small populations (and or a narrow range of locally available skills) as well as isolation from markets and inability to take advantage of economies of scale. Moreover, a small domestic market size makes the economy highly export dependent for commodities even though trade balance is generally strongly negative.

Such economies are frequently dependent on only a few commodities for a major part of export earnings and hence are subject to the vagaries of the weather, world market demand and prices, factors over which they have little control. An inability to affect the terms of trade implies economic weakness.

The "smallness" factor is often blamed as a SIDS' intrinsic disability to take advantage of economies of scale which mitigates against the development of viable secondary industry sector as well as the development of support infrastructure. There are however *comparative advantages* that SIDS enjoy by virtue of their very smallness (such as flexible specialisation in manufacturing and specialist service industries, which will be explored in a later chapter). The success of some small island states (most notable Singapore) in building up a strong and diversified economic base with limited endowments of natural resources, demonstrates that smallness, whilst a characteristic of SIDS, need not necessarily be an obstacle to their economic development.

By virtue of the climatic and geographic situation, many SIDS are in fact rich in economically productive natural endowments, however the range of commodities any one country alone produces tends to be narrow. There tends to be a high degree of concentration in one or a few commodities in both domestic production and export earnings. Smallness however, is not synonymous with high commodity concentration as this is a tendency in many large non-island developing countries also.

Whilst high dependency on a narrow range of commodities does reduce an economy's resilience to external threats this should not be heralded as a feature unique to SIDS but rather a general problem symptomatic of most island and non-island developing countries.

2.3.5 Limited Bargaining Power in International Fora

Isolation of SIDS is more than just a physical factor of remoteness with its range of implications for transportation, security and so on. Isolation is also a notion of exclusion from collective consciousness in world affairs. Regrettably it has to be acknowledged that SIDS have little impact in international fora and until the hallmark Barbados Global Conference on Sustainable Development in 1994, there was no collective voice on SIDS concerns.

The isolation of SIDS from international fora has mitigated against the islands in the very moves designed to protect them. Many international conventions (such as the Law of the Sea) affect SIDS to a greater extent than the superpowers instrumental in their drafting. Such conventions are frequently negotiated with minimum participation from SIDS and the implications of such international agreements are often not well understood by the very SIDS they affect. Similarly, in the trade arena, measures that affect market entry and trade rules (e.g. GATT) are frequently concluded with little consideration for the impact they may have on SIDS.

2.3.6 Impact of External Influences

External threats to SIDS stability do not only manifest themselves in the form of aggression and security concerns. There are also destabilising external influences in the form of business interests, cultural invasion and social disruption by outside influences.

Commercial threats include the rapid depletion of natural resources through unscrupulous practices by vested interests, poor management and monitoring and lack of knowledge and awareness. This has occurred in logging (particularly in Melanesian SIDS) and mining interests (Nauru - depletion of phosphate and marine resources) as well as in resort developments.

Other commercial threats come in the form of foreign investment with little consideration for the environment (short term gain for long run costs) as well as unsustainable

commercial ventures and the buying up of real estate by foreigners in prime locations for unproductive purposes as investments.

Moreover, because of heavy reliance by SIDS on foreign investment to support the economy and the coercion from the political powers backing that private investment, SIDS lose a degree of independence in determining their own political, economic and labour market policies. The national integrity of a SIDS is often jeopardised therfore due to foreign interference in the country's administration thus weakening its control over business interests in the country (particularly in tourism and financial services in the Caribbean).

In the area of commercial fishing activities, whilst EEZs have generally provide economic gain to IDCs, they have also had their costs. Such treaties concluded between SIDS and distant water fishing nations have provided in some case the vehicle for legitimisation of over exploitive practices by foreign fishing powers (Unauthorised marine harvesting also frequently goes unmonitored.

Due to smallness SIDS are also subject to external cultural influences which are frequently negative in their impact. By virtue of location and size the Caribbean SIDS in particular are under constant invasion of foreign cultural influences and social values are being constantly undermined. This also applies to other SIDS, vulnerable to such influences because of their very smallness, however in the Pacific, social cohesion and traditions are much stronger to be able to withstand external cultural threats.

CHAPTER 3
DEVELOPMENT OPPORTUNITIES RELATED TO EXPORT OF GOODS

3.1 Agriculture

3.1.1 The Need for Diversification

The need for diversification of agriculture is particularly acute for SIDS, arising from the factors of: over-reliance on single commodities for export earnings, declining world market prices for traditional commodities, devastation by natural disasters of whole crops, policy of food import replacement and the need to balance land-use for environmental sustainability.

Another impetus for diversification in agriculture comes from changes in consumer tastes in developed country markets, in particular for "niche" products as trends move away from mass consumerism. One significant feature of such trends is the move towards "green consumerism".

3.1.2 Green Products

A number of papers and fora have addressed the very issue of green consumerism and its implications for developing countries. The changes in market requirements arising out of green consumerism are creating both opportunities and obstacles for developing countries' trade and many problems center around the use of eco-labelling in the developed markets (See UNCTAD Discussion Paper No.70 October 1993 "Ecolabelling and International Trade"; Trade and Development Board Ad Hoc Working Group on Trade, Environment and Development, 28 November 1994 "Report on Workshop on Eco-Labelling and International Trade"; UNCTAD Trade and Development Board Ad Hoc Working Group on Expansion of Trading Opportunities for developing Countries, 4 October 1993 "Market Opportunities").

Here we will not attempt to focus on the broad range of issues surrounding green consumerism and its effect on island developing nations as it is the subject of specialist

papers (see above), but will highlight the major opportunities for island developing countries in particular where a clear competitive advantage can be identified.

3.1.2.1 *Non-timber forest products*

In exploring ways to exploit the natural resources of the forest without depleting non-renewable timber resources, a number of SIDS have identified viable products for export. Most of the work in developing green non-timber forest products however are still at the experimental stage rather than commercial.

Products already produced or with the potential for commercial production in SIDS that are identifiable in this category include the following: medicinal plants, nuts, honey, tropical flowers and plants, butterflies. Medicinal plants have been the base of traditional medicine in many island countries before the advent of western medicine. In light of the move in the West towards natural therapies, countries with a tradition of plant medicine have an opportunity for developing market niches for their products. The challenges in overcoming obstacles to market entry in such "new" products" are however not insignificant (i.e. with regard to health regulations, consumer acceptance and so on).

Other forest products include rainforest cultivated foodstuffs such as honey (already successfully developed in the Solomon Islands for example and exported), indigenous edible nuts (found wild but that can be cultivated on a commercial scale), exotic and rare flowers and genetic stocks of exotic plants for commercial propogation. Breeding of butterflies in natural habitats for commercial export is another forest activity under exploration (commercial trials carried out by PNG).

See UNCTAD Ref TD/B/CN.1/25 for further examples

3.1.2.2 *Natural and organic foodstuffs*

An important part of the green consumer movement is the consumption of healthier foodstuffs on the one hand and on the other, foodstuffs that use packaging that has minimum impact on the environment (i.e. recycled, degradable). Bio and organic foodstuffs fall into the first category, although as SIDS producing countries become more advanced they may also be concerned with the second category (see 3.1.2.4).

Bio and organic foodstuffs are basically fresh fruit and vegetables as well as pulses, grains and tea and coffee that are grown free of chemical fertilisers or pesticides. They

are perceived to be healthier and tastier than chemically affected produce. They may be products from a commercial or from the wild but cultivated in a natural environment, but their superior qualities also may stem from the fact that they are grown on smaller plots in an environment closer to "home grown" than the comparable standard product. Apart from their superior flavour, their marketing advantage comes from their minimum impact on the environment in their cultivation.

Such food products include not only unprocessed raw fruit and vegetables, but also semi or lightly processed foodstuffs such as coffee, coconut food products and fruit jams for example. Organic coffee may be exported in the form of "organically grown beans" or in the form of organic coffee ground and roasted ,for example as grown and exported by PNG in the Pacific (the world's largest exporter of organic coffee) and Dominica in the Caribbean.

Many food products already cultivated in SIDS, either on a subsistence or commercial scale, are organically produced without their marketing potential realised as such. One such example here is spices where a number of SIDS blessed with the right climatic and soil conditions are able to successfully cultivate spices without the use of costly pesticides or chemical fertilisers (e.g. nutmeg in Grenada, vanilla in Tonga, chilliies in Fiji). Individual island countries will need to individually assess their abilities in this regard with an innovative approach for identifying opportunities.

3.1.2.3 *Natural resources processing by-products*

The focus of the "green consumerism" of developed markets has been typically not as much on food products organically produced, but on domestically manufactured products involving a production process and packaging for retailing that is considered "environmentally friendly". The main products of interest in the developed markets in this regard have been paper, detergents, paints and more recently clothing.

Many of the products of this focus of concern for green consumers will not be of immediate relevance to SIDS but opportunities exist for product development and marketing of SIDS products perceived to be green by consumers in the export markets. Such products include lightly processed materials with low (machine) energy consumption for their manufacture (such as handicrafts) and/or with low chemical and other man made additives. Examples here are sisal products, jute and jute products

(bags, carpets), and by-products of raw material processing. More recently to join the perception of green products is clothing grown from naturally grown cotton unbleached or dyed with natural indigo dyes. Linked with this concept is also the notion of "ethical production" (e.g. providing employment for small scale producers or cooperatives) that can enhance the appeal to the niche "green" market and hence enjoy competitiveness on factors other than price.

An example is by-products from raw materials processing such as in the various usages of the coconut. Beyond copra production, "green products" of coconut processing can include coconut oil for cooking and cosmetic purposes, coconut based soap, coconut shells used for crafts such as jewellery and bowls, coconut husk for coir matting, baskets and so on. Whilst SIDS have long faced competition in such products from producer countries enjoying economies of scale (e.g. Thailand for canned coconut milk, Philippines and China for woven baskets) small producers can enjoy a competitive edge by virtue of niche marketing. Such products do not compete on price alone and green marketing allows for premium pricing for product differentiation.

Few SIDS have developed an understanding of the opportunities offered by green consumerism and scope for greater vertical integration of green production exists, such as in the example given above for coconut products. A pilot project was conducted in Bangladesh for the development and marketing of sisal products as "green products" for export markets, similar opportunities need to be identified for SIDS.

3.1.2.4 *Marketing of green products: Certification and Labelling*

The certification and labelling of green products or exports as "green" needs to be examined on two levels. Firstly, which is of greatest interst to the majority of island developing countries, is the certification of food products as organically grown (as discussed in 3.1.2.2. Secondly, is the certification and labelling of processed and manufactured products as being environmentally friendly according to certain pre-established criteria. It is the latter category which is the subject of "eco-labelling".

With regard to the first category, for the export of fresh or semi-processed foodstuffs, as green products are able to capture niche markets at premium prices there is clearly a temptation for exporters to label all their produce "green". Hence the need for a

certification system for export (if not the domestic market as well) to provide the importer in the developed market a guarantee of the genuineness of the claim (i.e that it has been produced free of organic chemicals). Whilst it is impossible to check every consignment of fruit or vegetables for residue levels through rigorous testing, a general certification system can guarantee a protection of standards in the self interest of the industry.

In the Pacific, a number of SIDS have adopted or are in the process of adapting to local conditions the Australian NASA Certification system (National Association for Sustainable Agriculture), whereby domestic growers of fresh produce undergo a process of testing (with diminishing frequency) until their products consistently meet required standards. After this they are conferred with the right to label their products "NASA Certified" and are tested periodically thereafter. The important factor in any certification system is its credibility with consumers.

Eco-labelling: Beyond the product itself producers of green products must be aware of labelling requirements that allow them to make claim to "greenness" in developed markets. In developed markets there is generally a "cradle to grave" approach where products must be environmentally sound at source from extraction of original raw materials, processing methods, waste disposal in manufacture and finally the packaging of the finished product. Certification standards differ between markets and are therefore difficult to comply with for most developing countries. SIDS need also to be aware of the implications for packaging for recylcing purposes and even where not compelled by law to use recycled packaging or information thereon. Singapore as a small island state is a good example of how an eco-labelling system can be developed domestically, adapted from a blend of other countries systems, and used to improve production standards in its domestic products.

See UNCTAD Discussion papers and Working Group Report (TD/WG. 6/5) for further expansion of this topic if required.

3.1.3 Hydroponics and speciality crops

Whilst lack of economies of scale are the most oft cited impediment besetting SIDS development and competitiveness in manufacturing, the very smallness of scale can be a comparative *advantage* when it comes to agriculture.

Most small scale commercial agricultural ventures in SIDS start with the goal of supplyng the domestic market and feeding the local population, often with assistance of government incentives as a policy of import substitution. Successful cultivation of crops for domestiic markets has led to excess supply which, through marketing initiatives by SIDS, have found their way into export markets. Examples are the highly lucrative squash exports from Tonga exported in entiriety to Japan, pepper and citrus fruits to Japan and US from the FSM and so on. (CASE STUDY)

Apart from quality and superior taste of the fruit and vegetables, small islands have been able to compete against larger producer nations (such as Australia in the Asian markets) due to the flexibility of production. As the whole export crop is often geared to one market alone (and often one buyer) as is the case in the Tonga example, the growers are able to respond relatively quickly to requests for changes in packaging and grading or even as far as changes in genetic varieties in a crop as quickly as from one season to the next .

Hydroponics is an area of agriculture largely still at the experimentation stage as regards SIDS but has already met with overwhelming consumer acceptance in developed markets. Hydroponics (the cultivation of crops without soil) has advantages for SIDS in that many SIDS have optimal climatic condiions for cultivation (although too hot is not good) without costly artificially created conditions required in inclement climates. SIDS also have the advantage of perceived "green" environments, free of pesticides and chemical fertilisers and genetic plant stock free of diseases.

Even the smallest of SIDS with limited fertile land, such as Nauru have shown initial trials of hydroponics to be viable. Whilst still at the experimental stage barely meeting demand for the local market, Nauru has been able to produce vegetables such as beans, cabbage, okra, cucumber and tomatoes.

3.2 Marine Products

3.2.1. Exclusive Economic Zones

The creation of exclusive economic zones by the Convention of the Law of the Sea is seen as a major opportunity for small island developing countries to diversify their

economies, expand their foreign exchange earnings, to reduce their dependence on foreign aid and in a wider political sense to gain greater international standing.

The Convention of the Law of the Sea (discussed further in Chapter 13.1) covers a number of provisions under which countries are able to make territorial claims for surrounding waters and the resources contained in those waters. The Exclusive Economic Zone and the Exclusive Fishing Zones are the most important provisions of the Convention and have or have the potential for enormous impact on the economic livilihood of island states.

In simple terms the EEZ covers a zone up to 200 nautical miles from the defined baselines from which the territorial sea is measured. Whilst the definition of baseline for measurement of territiory and clarification of claims is a long-drawn out exercise, even the most approximate of estimates indicates substantial gains to be made from many of the smallest island nations.

It is the island nations of the Pacific and Indian Oceans that stand to gain the most from establishing claims to EEZs, in particular, archipelagos. The scattered small island nations of the Atlantic and the clusters of the Caribbean stand to gain substantially less if anything at all. In the Pacific, the tiny island of Kiribati for example, by virtue of its territorial claim over the Line Islands and the Phoenix Group, has an EEZ estimated at a minimum of 3.5 million square kilometres (see Doleman, p.17). Fiji, the Cook Islands and the Solomon Islands are able to claim EEZs in excess of 1 million square kilometres, while it is predicted that the EEZs of Tonga, Vanuatu and Tuvalu will be in excess of 500,000 square kilometres each. In the Pacific only West Samoa is likely to be denied the opportunity of resources offered by the creation of EEZs due to the territorial claims by the US over neighbouring American Samoa.

In the Indian Ocean the claims that the archipelegic island states of Maldives and Seychelles stand to gain are equally significant, each having made claims to over 1 million square kilometres of ocean space.

In the Caribbean, only the Bahamas stands be a major beneficiary from the creation of EEZs, claiming 760,000 square kilometres which gives it rights over the rich fishing grounds inhabited by the highly prized spiny lobster (see Doleman p.9). The Leeward and Windward Islands of the Eastern Caribbean, however, stand to lose out to the larger

coastal states of Venezuela and Colombia. Few of the island states in this region will gain EEZs of more than 30,000 square kilometres. Moreover, the limited area of territorial water that eastern Caribbean states can lay claim to, is not necessarily rich in marine resources and may not materialise in sustantial economic opportunities for these SIDS.

By contrast, the economic gains from the opportunities offered by the EEZs are substantial. Not only by virtue of size of the territorial claims, but of the richness of the resources they contain. The Pacific contains 70% of the world's tuna, the most highly sought after species for commercial exploitation by Distant Water Fishing Nations (mainly Japan, Korea, Taiwan and the USA). The West Pacific, particularly the Melanesian island states of Solomon Islands, PNG and Vanuatu are particularly rich in blue fin tuna. The 22 countries of the South Pacific region (encompasses Melanesia, Polynesia and south Micronesia) cover an estimated ocean area of 31 million square kilometres of EEZs for a land surface area of only 551 000 square kilometres. (Source:The Courrier No.104, July 1987).

The economic gains from the resources of the EEZs are being realised in the form of annual licence fees paid for exclusive fishing rights by Distant Water Fishing Nations (DWFNs), lump sum payment for fishing licence duration, catch related percentage payments and or a combination of these. Alternatively, they may also earn revenue from the licensing of fishing vessels, license fees per trip in lieu of catch related revenues.

Whichever, revenue raising method the SIDS opt for, the benefit they derive from "selling" their resources will depend firstly on their bargaining power and secondly, on their ability to monitor adherence to the agreements. Clearly both present formidable challenges for SIDS.

For individual states the gains can be substantial, such as Kiribati and Tuvalu, where the value of the fish caught exceeds the total GNP. However the ability of such tiny nations to monitor activities over several million square kilometres of territorial waters, clearly leaves the resource owning nations vulnerable to over-exploitation and under realization of the economic opportunities of their resource.

In the FSM its 1.3 million square mile EEZ generates annually around US$6 million in fees from commercial U.S. and Asian commercial fishing operations, about a quarter of its GDP. In the Marshall Islands revenue from fishery fees and licences has already

caught up with its tourism revenues at about US$2 million annually. (Source: PIMS August 1994). Clearly the temptation is to neglect the development of other sectors of the economy that require substantial investment in infrastructure, such as tourism, when such "easy" gains can be made from selling an unprocessed resource.

In 1983 the Forum Fisheries Agency in the Pacific, estimated revenues earnt for its 13 member countries from licence fees and fishing agreements amounted to US$6 million.As shown above with the FSM example, this figure has been met by the FSM alone. With a landed catch value estimated at $300 million, this represents around only 2% of revenue realised by the resource holding SIDS themselves. Taking the value of downstream processing of the fish resource, mainly tuna, the return to SIDS barely reaches 1% of the value of tuna caught in their EEZ waters. At most the return as been around 5% of landed value of catch, which is even lower than the estimated 10% return a Central American banana grower can expect.

Clearly, the opportunities realised from the enormous resources potential of the EEZs, have fallen far short of expectations for economic salvation for SIDS. The obstacles of negotiating and monitoring power cited above, have been well documented (see Doleman, p.36), and basically get back to weaknesses stemming from the smallness of a SIDS. It has become an urgent imperative to have a greater participation from SIDS, not only in negotiating the "sale" of their resources, but also in their management and fulfilling the international obligations for sustainable exploitation that befalls them. In a commercial sense there is clearly opportunity for greater participation and control of the downstream processing of their resources, a subject to be explored in further sections.

3.2.2 Other Marine Resources and Acquaculture

With the focus on the EEZs and the potential the deep ocean waters surrounding SIDS contain, the potential of inshore fisheries are often overlooked. For SIDS inshore fisheries implies resources of the coral reefs and lagoons. It is estimated that coral reefs could potentially sustain a yield of up to 6 million tons of fish annually, whilst current exploitation levels from commercial and subsistence fishing is only 5% of estimated potential yield.

Another living, renewable marine resources available to SIDS in significant quanitiies but generally under-realised, is algae. Algae's use is varied as unprocessed fertiilizer for land

use as well as (certain varieties) for edible use. In processed form it is a versatile raw material for industrial use, finding its way into a range of products from foodstuffs such as ice cream to cosmetics as well as medical products. Most SIDS have neither the expertise or facilities for commercial exploition of algae and require assistance from either traditional users (such as Chile) or potential markets (such as Japan) for development of commercial opportunities.

Other commercial opportunities from the sea consist of renewable energy resources as well as non-renewable. Of the latter hydrocarbons (oil and gas) deposits offer the most hope for a number of SIDS, particularly in the Caribbean (notably sourrounding shelves of Antigua Trinidad and Tobago, the Grenadines and the Bahamas) who have limited potential for the most part in exploiting their EEZs. Renewable energy resources identified for SIDS in all regons, include tidal power, wave energy, salinity gradient energy conversion as well as biomass (natural gas) from algae. For the most part however, exploitation of these resources have not as yet gone beyond the scientific stage.

Other non-living marine resources contained in SIDS waters are mineral resources, although of the 20 marine resources that are currently exploited commercially world wide, SIDS are insignficant producers (the Bahamas is the main producer). Moreover the environmental implications for SIDS, already in fragile environments in unexploited state, of exploiting a non-renewable resource, need to be weighed up against the "opportunities" offered by this resource.

Acquaculture has already been successfully developed by SIDS as commercial exploitation of a renewable marine resource. The first large scale commercial operation of acquaculture in SIDS was the pearl harvesting in French Polynesia's Tuomotu islands, already several decades ago. Other countries have followed the example in pearl or other shell cultivation with varying degrees of success (such as the cultivation of clam shell in the Solomons).

Other opportunities in acquaculture for SIDS are found in cultivation of livebait for the tuna fishing industries in surrounding EEZ waters. Western Samoa, Nauru and the Seychelles for example, whilst having tuna and other deep water fish as potential resources for exploitation do not have sufficient stocks in coastal waters of livebait, requred in vast quantities for a large scale fishing industry.

More recent developments in acquaculture have been in edible products, most notably prawns. In the Pacific both Vanuatu and the Solomon Islands have established small scale commercial acquaculture operations for prawn farming. Whilst initial establishment of operations have proven to be fraught with problems (over-salination, irrigation inadequacies, breeding stock perishing etc), the fact that the production levels in both countries have reached a level of capacity where exports are now possible, indicates the potential for other SIDS.

The survival and economic viability of developing commercial opportunites through acquaculture will very much depend on the development of export markets as local markets are too small to absorb production. The very smallness (relatively) of scale of production of SIDS acquaculture operations is also their *advantage* inasmuch as they are able to breed species according to market demand gourmet trends in consumer markets outside the domestic market. Traditional ocean harvesting methods of prawns for example, are not only capital intensive (which excludes many SIDS entrepeneurs) but also non-discriminatory in species catch.

Such acquaculture activities however require greater infrastructural support from SIDS' governments, particularly in the provision of storage and refrigeration facilities at ports and airports to facilitate exports.

3.2.3 Marine Products Processing

Tuna, the main commercial resource actively exploited on a large scale in SIDS's EEZs, is also the focus of the infant marine products processing industry for SIDS. Processing of tuna and putting it into cans increases the value of the landed catch by an estimated 250% (see Doleman p. 35). Nonetheless, few SIDS have actually invested in downstream processing of their resources with only the Solomon Islands, Fiji and Palau in the Pacific and Mauritius in the Indian Ocean having nationally owned or joint venture owned canning operations. It is estimated that a minimum size for a cannery to be economically viable is around 5,000 tonnes, although 15,000 approaches viability for economies of scale.

Whilst tuna itself does not undergo an elaborate processing before finding its way into cans, the estabishment of a cannery requires substantial capital investment in equipment

CHAPTER 4

DEVELOPMENT OPPORTUNITIES RELATED TO EXPORT OF SERVICES

4.2 Tourism

4.2.1 Introduction

Tourism has grown so rapidly in many SIDS that it has come to replace traditional activities of agriculture and fisheries as the mainstay of the economy. In the Caribbean the traditional sectors of the economy in general account for less than 10% of GDP whilst tourism now accounts for an average between 30% and 50% of GDP.

With the decline of traditional export commodities (such as bananas, copraand sugarcane) tourism has become for many SIDS their only salvation in the medium term for foreign exchange earnings and generation of employment. In some Caribbean islands tourism has grown to such an extent to the neglect of other sectors of the economy that it accounts for as much as 85% of export earnings (Antigua and Barbuda and 63% for St Kitts-Nevis). Leakage from tourism expenditure however remains high in the Caribbean with an estimated only 42% of earnings retained. (See Gayle, Caribbean Affairs 1990 Vol.3 No.4).

The magic combination that many SIDS offer of "sun, sea and sand" has also been the downfall in the development of tourism in making the islands even more, rather than less, vulnerable to adverse exogenous effects. SIDS, with high dependence on tourism for foreign exchange earnings, have become vulnerable to the vagaries of international demand dictated by economic conditions in demand countries of Europe and North America as well as vulnerable to trends in consumer tastes and victim to climatic destruction.

Following the dictates of tourism development patterns SIDS have become victims of the lagged negative effects of mass tourism which are now becoming all too apparent. The hidden costs identified include pollution, destruction of coastal and marine environments, damage to agriculture, erosion of local culture and disintegration of cohesive societies. These negative externalities, some of which are irreversible, have become apparent all too late.The case study of Cyprus at the Global Conference provides a example of the devastation mass tourism can cause on the envinroment and social fabric of a small island.

and technology for cannery operation as well as technical skills. Such levels of initial investment and technical and management skills are beyond the scope of most SIDS. Inevitably the operation, such as that in the Solomon Islands, is set up by the DWFN with the strongest vested interest (in this case Japan) who employs almost exclusively expatriate staff for all technical and management positions in the cannery. The national interests have little control or the ability to control the operation at any level be it production, financial or product marketiing and frequently have limited knowledge of real levels of profit or repatriatriation of profits to the parent joint venture country.

Nonetheless the example of the establishment of viable cannery operations on location in producer countries, has not only generated immediate employment opportunities in the cannery operation itself for SIDS natonals, but has also provided a marketing opportunity for foreign exchange earnings and savings. In the Pacific the production of Fijian and Solomon Islands canned tuna has not only displaced imports of canned tuna from Thailand and Taiwan principally, but has also generated regional exports to neighbouring markets. The canned tuna from the Pacific producers also frequently benefits from preferential market access over other competiing and lower cost suppliers (such as Thailand) such in Australia (SPARTECA) and even in neighbouring developing country markets such as PNG (under reciprocal rights of the Melanesian Spearhead Group Trade Agreement).

SIDS with small populations frequently attempt to sustain tourist populatons many times greater than their own. Of sixty SIDS with populations of less than 1 million in 1987 over half had a tourist per capita ratio greater than one. It is not the tourism to indigenous population ratio per se that sets a measure for sustainable tourism however, as a given ratio may be sustainable if the tourism is properly managed. For example a distribution of visitor arrivals throughout the year is more sustainable than the same number of arrivals concentrated into one season, tourist activities distributed distributed between land based and marine based activities may lessen the impact of concentrated tourist activities. Hence the need for not only determing a tourist to permanent population ratio that is sustainable but also how that tourism should be distributed and managed.

Hence the imperative for *sustainable* tourism and alternatives to destructive mass tourism. SIDS with small populations and fragile ecologies and societies recognize the need for management of sustainable tourism, not necessarily in reducing the ratio of visitors to the local population in absolute terms, but distributing visitor arrivals more evenly throughout the year, channelling activities to minimize impact on the environment, managing resources more effectively, integrating tourism with other sectors of the economy and so on.

One, but not the only, option in reassessing tourism for sustainable development is *eco-tourism*. Whilst other forms of tourism may still be sustainable in the short run for some SIDS, eco-tourism is emerging as the most viable option in the longer run for small island economies.

4.2.2 Eco-Tourism

Eco-tourism can be defined as tourism activities that are directly based on the value of the environment without entailing environmental degradation. It is ecologically based tourism through small-scale operatons of tours to natural areas with emphasis on environmentally sensitive development and visitor use.

The emergence of the interest in eco-tourism can in fact be perceived as part of a broader move away from mass tourism into special interest tourism that encompasses a range of interests from ecology to culture to sports. Special interest tourism, which may be culturally based or natural resources based, is growing worldwide at a rate of around

24% per annum (1993) (see Islands Business Pacific 6/94) compared with an average for international tourism of 4.5%.

Special interest tourism covers educational interests (cultural as well as environmentally related), sporting and adventure and health pursuits as broad categories. Within this broad category of special interest tourism falls eco-tourism which may be adventure acivities based on natural resources (low environmental impact) or educational, directly related to the study of the environment (such as as ornithology, marine biology etc).

The niche tourism that demand from special interest tourism is generating is displacing the "old" tourism known as "mass standardized and rigidly packaged" (MSRP) (see Poon: Caribbean Affairs 1989 Vol.2). The "new" approach to tourism is based on market segmentation and flexibility as well as cross-sector integration. Demand for the "new" type of tourism is being generated from wider pattern of changing consumer consumption in developed markets of the world. Consumers are becoming more discerning in their consumption patterns and taking a more "intelligent" approach to purchasing and consumption decisions. Consideration for environmental impact has become a major factor in consumer purchase decisions (see Chapter 3.1) accordingly mirrored in consumption patterns for recreation including international tourism.

Eco-tourism implies a greater consumption of an *experience* than of a packaged product of food, lodgings and sightseeing. It implies a greater consumption of a *"public good"* (i.e. nature) and a lesser consumption of the private good (i.e. that offered by a hotel or tour operator). In simplistic terms it therefore has a greater potential for generating benefit to a wider part of the economy than packaged tourism where profits are concentrated in the hands of a few private operators (often foreign owned).

Greater consumption of a "public good" however demands improved management of natural resources as well as of infrastructure if the tourism is to be sustainable. Many SIDS blessed with natural resources conducive to eco-tourism face the challenge of not only strengthening their capacity for natural resource management in this regard, but also the need for strengthening infrastructure in services such as water supply and waste disposal to minimise environmental impact.

Furthermore, eco-tourism (and other forms of specialized tourism) is perceived to generate greater indigenous employment opportunities than mass tourism. Eco-tourism focuses on the existing features of a country rather than trying to create attractions to an international standard that is all too often set by expatriate operators. Specialized tourism requires less *private* investment it provides opportunities for local entrepeneurs who may be have been denied participation in standard tourism development due to lack of access to capital.

There is a criticism however, that eco-tourism, being synonymous with "up-market" tourism, creates a higher leakage of foreign exchange earnings than traditional tourism, thus deflating the multiplier effect benefits trickled down through the rest of the economy. This argument is based on the notion that the "eco-tourist" being prepared to pay more than the mass tourist for a unique experience is more demanding and therefore requires a higher standard of goods (such as food and hotel furnishings) to a standard that many developing countries are unable to provide.

This argument, however, fails to make the distinction between the 5 star hotel "up-market" tourist and the tourist who is prepared to pay a premium for a unique experience. Whilst in market value terms the budget of the two types of tourist may be comparable the market segment and consumer profile of the two are distinct. This highlights the urgent need for training and institutional strengthening in SIDS in tourism not only for developing the appropriate "product" in eco-tourism but also in understanding the correct marketing approach.

Examples of successful eco-tourism have already demonstrated the opportunity for integration of other sectors of the economy, not only through direct employment, but through incorporating local crafts in furnishings as well as traditional foods. (This is a problem in many Caribbean SIDS where high leakage occurs not only in response to perceived consumer tastes but also due to the gradual weaking of local industry that has been displaced by tourism itself).

The potential of eco-tourism has already been recognised in SIDS such as Dominica in the Caribbean, where by virtue of its very *lack* of typical attractions for resort development (flat land, white sandy beaches) it has fortuitously been spared the onslaught of mass tourism and has been able to progress directly into the niche and eco-

tourism market. Other SIDS in the Caribbean such as Jamaica, St Kitts and Grenada have made a start in realising their potential in this area.

In the Pacific, Fiji has set the example for niche tourism in successfully developing eco-tourism as well as cultural tourism (based on activities such as mountain hiking staying in villages) whilst mass tourism continues to cater for the traditional packaged market alongside in the same country. A number of SIDS of the Pacific however, are too small to sustain anything but the lowest level of tourism even in the form of eco-tourism. This is particularly the case for SIDS with water shortages and acutely fragile environments (eg Tuvalu) who require a special approach to any development.

4.2.3 Cultural Tourism

Eco-tourism cannot be discussed without paying some attention to cultural tourism. As defined by the World Tourism Organization (see WTO "Sustainable Tourism Development:Guide for Planners, 1993), ecotourists have a primary interest in the environment but are also typically attracted to remote areas where traditional cultures are strong. Such tourists will typically seek local and indigenous attractions and accommodation and foods and will be receptive to local cultural sensitivities. SIDS, particularly those in Pacific with strong cultures in their Melanesian and Polynesian roots, have a compartive advantage in exploiting opportunities offered by this type of tourism.

The tourist interested in cultural attractions would be interested in arts and crafts, local dance and music, ceremonies, customs of the culture of a particular area as well as manifestations distinguishing a culture such as dress and architectural styles. The attractions of "sun sea and sand" of mass tourism if an attraction at all in cultural tourism, are of secondary interest.

This cultural heritage, rich in many SIDS, offers attractions for tourists and can be selectively conserved by the contributions from discreet tourism or can lead to degradation and erosion of social values if not properly managed. The *carrying capacity* of a particular region for tourism is as important in the socio-cultural context as it is in the ecological when talking about *sustainable tourism. Carrying capacity* refers to the maximum use of any site without causing negative effects on the resurces, this includes the impact on the society, economy, ecology and culture of an area.

Cultural tourism can bring positive benefits to a society apart from just income and creation of employment. It can bring about a revival in interest and pride in in a traditional culture in the process of gradual disintegration, it can arrest the urban drift for youth employment and it can provide the necessary funds for essential facilities in a village.

As part of cultural tourism "village tourism" is identified as tourism where the visitor stays in a village in facilities provided and operated by the village. It can also encompass the interests of the ecotourist using the village as base of exploring their enviironmental as well as cultural interests.

4.2.4 Training in Tourism Services and Marketing

Clearly the new approach to tourism will require new skills. The focus of the new tourism concentrating on special interests such as the ecotourist and cultural tourist discussed above, will be on the management of existing resources for sustainability rather than the packaging of "new products" as has been the case of mass tourism.

Specialised tourism calls for institutional strengthening, for improved management of the very resources that make the SIDS a tourist attraction. One such area will be national park management. Strengthening of skills for national park designation, management and appropriate promotion will be essential for many SIDS opting to pursue eco-tourism opportunities. This includes national park creation of marine reserves as well asf interior forest areas. The tenureship of custom land as well as the onslaught of coastal development by commercial concerns have not favoured national parks to date as a option for sustainable tourism.

Specialised tourism also calls for a revision of training needs where the ability of the individual is an important determinant of how the tourism is managed. This can be in the scientific area (such as an understanding of marine biology or botany) or can be in basic skills at the village level of the principles of financial management, as well as hygiene and food preparation. The focus in such tourism will shift away from training for management of large hotels and food and beverage training standardised for application in the luxury resort end of the market. Regional training centres, such as the Bahamas Hotel and Catering School could play an important role in developing such training courses for local adaptation.

Marketing of specialised tourism also calls for a new approach. Traditionally market segmentation for mass tourism has been based on consumer profiles according to uni-dimensional demographics (i.e. nationality, income, age, sex). The new approach will call for clustering of different market segments according to primary and secondary interests. For example, the ecotourist may have nature walking tours as a primary interest, but as a secondary interest may pursue cultural interests such as village activities. Another ecotourist could display the same or different demographics but have as primary interest adventure sports, followed by a secondary interest of educational pursuits in marine biology.

The complexities of the new marketing approach will call for not only a better understanding of the "product" but how it should be portrayed and marketed to the outside world. Regional tourism organisations, such as the Tourism Council of the South Pacific and the Caribbean Tourism Organisation, will continue to play a key role here in strengthening and coordinating marketing efforts. Successes in the new approach to date have largely been at the national level, such as Dominica marketed as an eco-tourist destination and in the Pacific, Western Samoa with its emphasis on cultural heritage and Fiji with a combination of eco and village tourism.

- BIBLIOGRAPHY -

Specialized Topics

Tourism

Auliana POON, Tourism, Technology and Competitive Strategies
1993 CAB International

Pani SENEVIRANTE, "Economics of Tourist Pollution", in Marga Quarterly Journal, Vol 10. No.4 1989

Auliana POON, Competitive Strategies for Caribbean Tourism:The New Versus the Old in Caribbean Affairs, 1989, Vol.2

Dennis GAYLE, Managing Commonwealth Caribbean Tourism for Development, in Caribbean Affairs, 1990, Vol 3, No.4

Susan YE and Hiroshi SHIBUYA , Tourism in East Caribbean Countries: Are there still Opportunities for Growth? in Caribbean Affairs, 1989, Vol 2, No. 3

Kathleen CAREY, Tourism Development in LDCs: Hotel Capacity Expansion with Reference to Barbados, in World Development, Vol 17, No1,

"Le Charme des îles: Le Tourism dans les ACP du Pacifiique", in Le Courier, No. 135 September 1992

"Sustained Attack: Tourism's a hope for many: in Barbados it became a target" in Islands Business Pacific, June 1994

"Hospitality is Big Business - Jamaica's Tourist Sector" in The Courier No. 138, March 1993

St Kitts Nevis National Environmental Action Plan, April 1994,Government of St Kitts Nevis

World Tourism Orgnanization, Sutainable Tourism Development Guide for Local Planners
A Tourism and the Environment Publication, 1993

"Tourism Environment and Sustainable Development", Richard Butler in Environmental Conservation, Vol. 18, No.3, 1991.

Green Consumerism

UNCTAD, Trade and Development Board, Standing Committee on Commodities
3rd Session, 31 October 1994, Identification of Means by Which the Competitiveness of Natural Products with Environmental Advantages could be Improved, Ref: TD/B/CN.1/25 25 August 1994

UNCTAD Trade and Development Board Ad Hoc Working Gfoup on Trade Environment and Development, First Session, 28 November 1994, Report on the Workshop on Eco-Labelling and International Trade 21 November 1994 (restricted)

UNCTAD, Trade and Development Board, Ad Hoc Working Group on Trade Environment and Development, Second Sesion, 6 June 1995 (Item 4 of provisional agenda), Trade, Environment and Development Aspects of Establishing and Operating Eco-Labelling Programmes Ref: TD/B/WG.6/5 28 March 1995

UNCTAD, Trade and Development Board Ad Hoc Working Group on Expansion of Trading Opportunities for Developing Countries, Second Session 4 October 1993, Market Opportunities, Ref: TD/B/WG.4/6, 23 August 1993

UNCTAD Discussion Paper No. 70, October 1993, Ecolabellling and International Trade, Veena Jha et al.

UNCTAD, Trade and Environment Section, International Trade Division Ecolabelling Iniatives as Potential Barriers to Trade, Veena Jha and Simonetta Zarilli. (date unknown)

Export Processing Zones & Flexible Specialisation in Manufacturing

"The Mauritian Export Processing Zone: Which Way Now?, K. Appadu in Scandinavian Joural of Development Alternatives, Vol. XI, No. 3 & 4 September 1992

"The Export Performance of Firms in the Mauritian Export Processing Zone", K. Appadu, in Scandinavian Joural of Development Alternatives, Vol XII No.4 December 1993

"Mauritius: Going for Gold Again" in The Courier No. 1235 September 1992

"Export Processing Zones in the Dominican Republic", R. Kaplinsky in World Development Vol 21, No.11 1993

"Flexible Manufacturing and U.S. Trade Performance", Bo Carlsson in Review of World Economics, Journal of the Kiel Institute of World Economics, Band 127 1991

"La Re-Specialisation des Economies des Caraibes dans la Perspective du Grand Marche Nord Americain", G. Hillcoat and C. Quenan in Problemes d'Amerique Latine, N0.4888_ Date?

"The Impact of New Technology on Scale in Manufacturing Industries" by L. Alcorta in World Development, Vol.22 No.5, 1994

"Flexible Specialisation and Small Size", A. Poon in World Development, Vol. 18, No.1, 1990

Technology

UNCTAD Discussion Paper No. 89, September 1994, Are Environmentally Sound Technologies the Emperor's New Clothes?, Veena Jha and Ana Teixeira

"Caricom Countries and Appropriate Technology", Winston Griffith in World Development Vol 18, Nol6 1990

"Overcoming Technological Dependency: The Case of Electric Arc Jamaica: A small Firm in a Small Developing Country", Norman Girvan in World Development, Vol 18, No.1 1990

Transportation

"Les Servitudes de la Distance: Les transports dans le Pacifique Sud" in Le Courier September 1992

"The Continuing Search for a Ship to Tokelau" in IBF January 1994.

Country Profiles

Mauritius
"Economic Success - Why Mauritius?" in The Courier No.139 May 1993

Antigua and Barbuda
The Courier No. 124 December 1990

Dominica
The Courier, No. 140 July 1993

Jamaica
The Courier, No. 138 March 1993

Seychelles
The Courier No. 112, December 1988

St Vincent
The Courier No. 148 November 1994

St Lucia
The Courier, No. 148, november 1994

CONSULTANTS REPORTS

1. 1994 "Challenges and Prospects for Small Island Countries"
Margaret HERATY

2. 1992 "Study on Caribbean Island Developing Countries"
Data Resource Systems International (Jamaica) H.G.MANHERTZ

3. 1992 "Preliminary Study on the Construction of an Index for Ranking Countries According to their Economic Vulnerability"
Lino BRIGUGLIO (Foundation for International Studies - Malta)

4. 1990 " Problems of Inter-Island Transport"
A.D. COUPER

5. 1990 "Improving Public Sector Performance in Island Developing Countries through Modern Information Technology"
M.D. ROMER

6. 1990 "Intrinsic Disabilities of Island Developing Countries"
Lloyd SEARWAR
7. 1986 "Small Island Developing Countries - the Development Potential of Exclusive Economic ZONES" Antony DOLEMAN (UNCTAD)
8. 1983 "Viability of Small Island States" Francois DOUMENGE

9 "Technology and Development of Small Countries"
Thomas de GREGORI (date unknown)
10. "Vulnerabilities of Small Island Developing Countries and Territories" Dr S.H.TJOA (date unknown)

11. 1983 "The Incidence of Natural Disasters in Island Developing Countries" UNCTAD/Edwin DAVY TD/B/961

12. 1982 "The Benefits of the Integrated Programme for Commodities for Island Developing Countries" F.V. Sevele TD/B/891

UNCTAD DOCUMENTS

13. 1994 "Proposed UNCTAD Activities in Support of the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (SIDS) 25 April 1994

14. 1993 UNCTAD's Contribution, Within its Mandate, to Sustainable Development: Trade and Environment: Trends in the field of trade and environment in the framework of international cooperation (6/8/93) TD/B/40 (1)/6

15. 1992 "Specific Problems of Island Developing Countries", Working Paper prepared by the UNCTAD Secretariat for the Group of Experts on Island Developing countries, UNCTAD/LDC/Misc.2, 26 June 1992.Restricted.

16. 1990 "Problems of Island Developing Countries and Proposals for Concrete Action: Issues for Consideration"
UNCTAD, Trade & Development Board, Meeting of Governmental Experts of Island Developing Countries and Donor Countries and Organizations, New York 1990

17. 1988 "Specific Problems of Island Developing Countries: Report of the Meeting of the Group of Experts on Island Developing Countries" held in Malta 24-25 May 1988
UNCTAD/ST/LDC/9, 5 July 1988

18. 1992 "TRAINFORTRADE: Training in the field of Foreign Trade and Trade Related Services" - Regional Project Proposal for ACP Countries of the Pacific Region, November 1992, UNCTAD

19. 1978 "Report of the Group of Experts on Feeder Inter-Island Services by Air or Sea for Developing Countries", Geneva October 1977, TD/B/687

UNITED NATIONS GENERAL ASSEMBLY

20. 1994 49th session "Sustainable Development and International Economic Cooperation : Trade and Development: A development strategy for island developing countries: new challenges, prospects and opportunities for cooperative action", Report of the Secretary General A/49/227, 18 July 1994

21. 1994, 48th session "Questions of American Samoa, Anguilla, Bermuda, the British Virgin Islands, the Cayman Islands, Guam, Montserrat, Tokelau, the Turks and Caicos Islands and the Unites States Virgin Islands" A/RES/48/51, 30 March 1994

22 .1994, 48th session "Activities of foreign economic and other interests which impede the implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples in Territories under colonial domination" A/RES/48/46, 22 March 1994

23. 1993 Second Committee "Implementation of Decisions and Recommendations of the United Nations Conference on Environment and Development:Global Conference on the Sustainable Development of Small Island Developing States", A/C.2/48/L.78, 9 December 1993

24. 1992 47th session "Development and International Economic Cooperation:Trade and Development: Specific problems and needs of island developing countries" Report of the Secretary General, A/47/414, 30 September 1992

25. as above A/47/414/Add.1

26. 1990 Trade and Development Board Meeting of Governmental Experts of Island Developing Countries and Donor Countries and Organisations, New York 25 June 1990 "Report of the Meeting of Governmental Expert of Island Developing Countries and Donor Countries and Organizations, TD/B/AC.46/4, 8 August 1990

27. 45th session "Development and International Economic Cooperation: Trade and Development: Progress in the implementation of specific action related to the particular needs and problems of island developing countries", Report of the Secretary General A/45/453, 11 September 1990 + Annex

28. 1990 Trade and Development Board, Meeting of Governmental Experts of Island Developing Countries and Donor Countries and Organizations, New York 25 June 1990 "Problems of Island Developing Countries and Proposals for Concrete Action: Issues for Consideration", Note by the UNCTAD Secretariat, TD/B/AC.46/2, 25 April 1990

CONFERENCE REPORTS

29. 1994 "Global Conference on Sustainable Development of SIDS", UNCTAD Mission Report, Barbados April 1994

30. UNCTAD's Statement at the Conference as above

31. 1993 "Meeting Report of the Regional Technical Meeting for Indian and Pacific Oceans" Input to the Global Conference on the Sustainable Development of Small Island Developing States", Port Vila 31 May 1993

32. 1993 "Report of the Regional Technical Meeting for the Atlantic/Caribbean Mediterranean"
Preparatory to the Global Conference on Sustainable Development of Small Island Developing States, Port of Spain, Trinidad and Tobago, 12 July 1993

33. 1994 "The Commonwealth's Contribution to Sustainable Development in Small Island other small Developing States", Prepared for the Global Conference on SDSIDS, Barbados April 1994

34. 1994 "Natural Disasters and Sustainable Development of Small Developing Islands" prepared for the Global Conference on SDSIDS by Professor F: Obasi, World Meteorological Organisation, Case Study no.3 A/CONF.167/CRP.4 14 April 1994

35. 1994 UNIDO - address by the Head of the UNIDO delegation , G. Latortue, Country Strategy and Programme Development Division, UNIDO prepared for the GCSDSIDS.

36. 1990 Second United Nations Conference on the Least Developed Countries, Preparatory Process for the Conference " UNDRO Disaster mitigation activities in or for the benefit of the least developed countries" A/CONF.147/PC/3/Add.14, 26 March 1990

37. 1994 UNCTAD/TRAINFORTRADE Interregional Training Seminar - Trade and the environment in small island developing states" Barbados 19 April 1994, Seminar Report

38. 1992 Small States Financial Forum "Round Table on Development and Finance of Export Trade", 20 September 1992, Washington D.C. Summary of Proceedings. Crown Agents Financial Services (U.K.)

39. 1994 "Programme of Action for the Sustainable Development of Small Island Developing States" (U.N.Conference on Sustainable Development of SIDS)