People on the Move
Managing Migration in Today's Commonwealth

The Second Report of the Ramphal Commission on
Migration and Development

Prepared by
Professor Elizabeth Thomas-Hope

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Executive Summary

The Commonwealth represents a migration arena of major significance. This is evident in the high volume of intra-Commonwealth movement that occurred throughout the twentieth century and that still occurs at the present time. The tendency for migrants to move within the Commonwealth framework is not surprising given shared aspects of Anglophone culture, reflected especially in the use of the English language, and the strong similarities in the educational, legal and judicial systems. As important as the Commonwealth countries are as source and destination of migrants, other, non-Commonwealth countries are also of major significance, the main destination country of all is the United States of America. All Commonwealth countries are directly affected by migration, whether as source, destination, transit or any combination of these. It is therefore in the interest of all Commonwealth countries to participate in re-connecting to maximize the collective benefit of migration.

This is the second of three reports of the Ramphal Commission on Migration and Development. The Terms of Reference for the overall study are listed in Appendix 1. The specific Terms of Reference (TOR) that guide this report are: TOR 5 - The Commission will pay particular attention to problems arising from environmentally-induced migration, both for environmentally-fragile states and their neighbours, and advise the Commonwealth how these may be mitigated, and the threatened communities assisted” and TOR 8 - “The Commission will make specific recommendations to assist small states and less developed countries (LDCs) which have suffered excessive out-migration of expensively trained persons, and have yet to benefit significantly from return migration or diasporic investment”.

There are four overarching recommendations that relate to both the first and second reports and within these are different specific foci. In this report, the foci are matters of environmentally-induced migration and the outmigration of skilled persons at rates disproportionate to the returns from them. The recommendations are to:

1) **Build migration management capacity** in Commonwealth member states and institutions, by improving knowledge systems through international training programmes and research agendas and improving forecasting and early-warning capabilities;

2) **Streamline migration in development policies** by creating enabling environments in developing countries that are losing large proportions of educated and skilled persons from the labour force, and by integrating migration into environmental management policies;

3) **Help migrants to share their successes** with their origin and destination communities by the source countries engaging their Diasporas and increasing the return on investment and the development of markets; and

4) **Enhance international cooperation over migration** by cooperation between potential source and destination countries, sensitive and transparent recruitment policies and the establishment of mechanisms for the recognition and protection of environmentally-induced migrants.
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<tr>
<td>CARICOM</td>
<td>The Caribbean: The Caribbean Common Market</td>
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<td>EAC</td>
<td>the East African Community</td>
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<td>ECOWAS</td>
<td>the Economic Community of West African States</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GCIM</td>
<td>Global Commission on International Migration</td>
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<td>IDP</td>
<td>Internally Displaced Person</td>
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<td>IHDP</td>
<td>International Human Dimensions Programme on Global Environmental Change</td>
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<td>IOM</td>
<td>International Organization for Migration</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>JMDI</td>
<td>Joint Migration and Development Initiative</td>
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<td>MIRAB</td>
<td>Migration, Remittances Aid and Bureaucracy</td>
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<td>OAU</td>
<td>Organization of African Unity</td>
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<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>SADC</td>
<td>Southern Africa Development Community</td>
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<td>TPS</td>
<td>Temporary Protected Status</td>
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<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<td>UNDP</td>
<td>United National Development Programme</td>
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<td>United Nations Framework Convention on Climate Change</td>
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<td>UNHCR</td>
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INTRODUCTION

The Commonwealth represents a migration arena of major significance. This is evident in the high volume of intra-Commonwealth movement that has occurred throughout the twentieth century and that has continued down to the present time. There is currently some 52% of Commonwealth emigrant stock to be found in other parts of the Commonwealth, and 49% of immigrant stock in Commonwealth countries that have come from elsewhere in the Commonwealth.\(^1\) The tendency for migrants to move within the Commonwealth framework is not surprising given shared aspects of Anglophone culture, reflected especially in the use of English (at least at the official, or formal level), and the strong similarities in the educational, legal and judicial systems. However important Commonwealth countries might be as source and destination of migrants, other, non-Commonwealth countries are also of major significance, with the main migration destination country being the United States of America. Further, the international migrations that occur as a consequence either of disasters or long-term environmental degradation, usually involve countries neighbouring Commonwealth states or in close proximity to them.

This paper is the second of three reports that will review issues of migration and development with special reference to the Commonwealth. The topics dealt with in this report (Terms of Reference 5 and 8 of the total work: See Appendix 1), are: environmentally-induced migrations with emphasis on recommendations for management of the problems for fragile states and neighbouring states that might be affected; and the migration of tertiary educated and highly skilled persons from less developed Commonwealth states, and the nature and impact of compensatory flows. Based on the characteristics and trends that are observed, recommendations are made which, in combination with those of the other two reports, will provide the basis for a plan of action to be proposed to the Commonwealth Heads of Government in October 2011.

1. PROBLEMS ARISING FROM ENVIRONMENTALLY-INDUCED MIGRATION, BOTH FOR ENVIRONMENTALLY-FRAGILE STATES AND THEIR NEIGHBOURS

1.1 The Scale of the Problem

Environmentally-induced population movements are not a new phenomenon, but at the international level, there is now increased awareness of this issue and the problems associated with the population displacement that currently occurs, and is likely to occur in the future.

It was only in the 1970s that the linkages between environmental changes and migration were mentioned in the academic literature, and eventually became the subject of a report by the UN Environment Programme (UNEP) in 1985 (El-Hinnawi, 1985). In the World Disasters Report 2001 published by the International Federation of Red Cross and Red Crescent Societies, it was stated that approximately 25 million people could currently be classified as environmentally-displaced persons, a figure higher than refugees caused by war. It is estimated that the situation could worsen significantly in future years because of
the impact of global warming, with the total figure reaching some 250 million by the mid-
21st Century (Christian Aid, 2007). Reports of the Intergovernmental Panel on Climate
Change (IPCC 1990: 20), suggest that the greatest single consequence of climate change
could be migration, “with millions of people displaced by shoreline erosion, coastal flooding
and severe drought” (Warner & Laczko, 2008: 235, Myers 1997). Both Mohamed Nasheed,
President of the Maldives, and Anote Tong, President of Kiribati, have made it clear that the
entire population of their countries might be forced to relocate en masse because of the
threat of inundation by seawater.²

Despite the best efforts that have been made to estimate flows of “environmental
migrants”, the numbers are highly controversial, as there is a scarcity of reliable empirical
research on the relationship between environment and international migration. Ambiguities
in the distinction between what constitutes forced and voluntary environmental migration,
as well as temporary and permanent, and the linkages between internal and international
moves, make reliable calculations impossible (Brown, O. 2008; Gemenne, 2009).³

Additionally, estimates vary, in part because of differences in the definition of
“environmental migrants”. Whatever the actual numbers may be, there is no doubt that
they are considerable, and the International Organization for Migration (IOM) expects the
scale of global migration to rise as a result of accelerated climate change. It therefore
recommends policymakers around the world to take a proactive stance on the matter.

I.2 Conceptualizing and Defining Environmental Migrants

Many definitions have been proposed, but none has yet been able to reach a scientific or
political consensus. An important difficulty has been in distinguishing between
environmental migrants, whose movement is voluntary and proactive (and in which the
environment is only one direct or indirect conditioning factor), and environmental
displacees, whose movement is forced and reactive. The degree to which any given
environmental factor is meaningful at the societal level - let alone to any specific aspect of
human activity, such as migration - is entirely conditional on socio-economic and political
contingencies. In other words, it is impossible to isolate a single environmental factor as an
independent variable from which to deduce its impact on a particular form of social
outcome in any way that will be generally useful; the relationship will be different
depending on circumstance. Further, there is no consensus among researchers on where
precisely to place so-called environmental migration in both the internal-international
migration continuum and the voluntary-forced migration discourse. As Oucho (2009) points
out, internal displacement can later lead to international migration and, when
environmental conditions have deteriorated beyond the point of controlling or reversing
them, there is only a fine line between voluntary and forced migration.

A definition proposed by the International Organisation for Migration is that:

Environmental migrants are persons or groups of persons who, for reasons of
sudden or progressive changes in the environment that adversely affect their lives or
living conditions, are obliged to have to leave their habitual homes, or choose to do
so, either temporarily or permanently, and who move either within their territory or
abroad (IOM 2007:1).
This definition encompasses people who are displaced by sudden natural disasters, as well as those who choose to move because of long-term deteriorating environmental conditions and, therefore, reduced security of livelihood and basic needs (such as freshwater and food security). It also acknowledges that environmentally-induced movement or displacement can be internal as well as international, short-term or long-term. Yet, even though this is often cited, there is no agreed definition resulting from the debates.

A UNEP report (2007) referred to “environmental refugees” as:

Those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardizes their existence and/or seriously affected the quality of their life (El-Hinnawi, 2007).

The term “environmental refugees” is particularly controversial. Although much earlier (1993) a United Nations High Commissioner for Refugees (UNHCR) identified four root causes of refugees, of which one was environmental degradation, more recently, the UNHCR has stressed that the term “environmental refugees” has no legal standing in international refugee law, and that use of the term could undermine efforts to help and protect either politically-induced or environmentally-induced migrants, and efforts to address the root causes of displacement. One consideration is that while political refugees cannot turn to their own government for assistance, environmental migrants often can. Additionally, the term is restricted to that agreed by the UN Convention of 1951 and the OAU (Organization of African Unity) Convention of 1969 (Adepoju, 2006). Given the controversy, a more acceptable term could be "environmentally-induced migrants".

I.3 Types of Environmental Conditions Associated with Migration

Environmental conditions can either occur abruptly, necessitating emergency evacuations or “distress migration”, or they can bring about gradual change that, together with other migration-motivating factors, influence the decisions to re-locate internally or internationally as part of their “life-course migration” (also referred to as “lifestyle migration”). The environmental conditions that pose the risks that can result in migration of populations are tectonic events and meteorological change. (For a summary, see Appendix 2).

1.3.1 Tectonic Hazards

Dramatic environmental events are usually associated with tectonic activity manifest as: Volcanic eruptions; Earthquakes; and Tsunamis (generated where an earthquake occurs under the ocean).

All of these require urgent evacuation where the event is severe and life-threatening. While such disasters usually bring about internal population displacements, there are also situations in which international re-locations are necessary, as in the case of small islands. Further readjustments in people’s responses to the initial hazard often follow at a later time.
1.3.1 Climate-related Hazards

Climate change is a global phenomenon involving changes in temperatures and precipitation regimes. These changes have been attributed to increased carbon emissions from fossil fuel burning and other greenhouse gas emissions. If the rates of emissions are not dramatically reduced, as proposed by the IPCC, global warming is likely to intensify (IPCC, 2007; Raleigh, Jordan and Salehyan, 2008). The climate change that is currently occurring is characterized by gradual changes in weather patterns, as well as a volatility of weather and the generation of extreme meteorological events.

Although climate change is a gradual process, in combination with the effects of the El Niño /La Niña Southern Oscillation the areas within, or bordering, the Pacific Ocean experience excessive rain and cyclonic weather, accompanied by storm surge causing temporary inundation of increasing amounts of coastal areas and fluvial plains. In the Atlantic, high surface water temperatures result in the generation of cyclonic weather, producing tropical storms and hurricanes that move westwards from the coast of Africa towards the Caribbean and those parts of Central America and the USA bordering the Gulf of Mexico.

Damage to the marine and coastal environment, especially to coral reefs and mangrove forests, greatly increase the vulnerability of the area to future cyclones and storm surge, having a cumulative and worsening effect over time. In low-lying small islands, for example coral atolls, the entire land mass can become threatened by saltwater intrusion and inundation of the sea, necessitating complete evacuation. Devastation from these events is singly or cumulatively extremely damaging to production in agriculture and mariculture, as well as to coastal tourism, infrastructure, settlements and people’s lives. For example, in 1995, half of Bhola Island in Bangladesh became permanently flooded, leaving 500,000 people homeless. In 2007, hundreds of thousands of persons sought refuge in Dhaka (Chowdhury, 2009), and there are millions still at risk of becoming victims of future disaster. Pakistan has also been recently affected by excessive rainfall during the Monsoon. The floods in Pakistan from late July to September 2010, directly affected 20 million persons chiefly through destruction of property; there was a death toll of 2,000, and a total financial impact of some 43 billion US$. In Australia in December 2010 and January 2011, the worst flooding in 37 years affected 3 million persons and resulted in three quarters of the state of Queensland being declared a disaster zone.

(ii) Drought

Vast areas of sub-Saharan Africa have been severely affected by years of drought. Interpreting data from CRED (2002), Reuveny (2007) estimated that Africa had the largest number of droughts (254) in the period 1975-2001. Sub-Saharan Africa is already the region with half the world’s traditional refugees and at least a similar proportion of environmentally-induced migrants. Despite some advances in soil conservation (Kenya, Ethiopia), small-scale agriculture (Nigeria, Zimbabwe), reforestation (Tanzania, Malawi), anti-desertification (South Africa), and population resettlement (Kenya, Zimbabwe, Botswana), the outlook has been described as “unpromising” (Hammer, 2004).

Droughts are associated with a consequent decline in agricultural output each year leading to the displacement of people, some internally to the cities and some across international
In the Caribbean, there are predictions of prolonged drought and it is expected that water shortages will reach the point where they become insufficient to meet demand, at least periodically (IPCC, 2007).

(iii) Saltwater intrusion and sea level rise
Coral and karst limestone islands and atolls are particularly vulnerable to intrusion of saltwater from below, and this is exacerbated by the overexploitation of underground water resources. Additionally, inundation of coastlines by the sea is threatening the habitats and livelihoods of many small-island communities in the Pacific and Indian Oceans, as well as in the Caribbean and other locations. This is frequently attributed to sea level rise due to thermal expansion and melting of ice associated with global warming. Projections are that global warming will cause sea levels to rise by as much as 5mm per year over the next 100 years.10

The extent to which sea level rise is the major contributory factor to the inundation of small islands, is the subject of controversy in the scientific community.11 Other factors, such as storm damage due to degraded coral reefs and denuded mangrove forests and wetlands, together with other land-based causes of coastal erosion, are seen as being of equal importance. Some small islands have already been seriously affected by loss of land and been virtually abandoned as a consequence. The inhabitants of the Carteret Island in Papua New Guinea recently migrated and were re-settled in another part of the country. Other inhabitants of low lying islands and Island states such as Tuvalu, Kiribati and the Maldives, are also at risk, being especially susceptible to saltwater intrusion and storm surges and changing levels of water-to-land. There is growing concern about the options for migration and re-settlement of these island populations which, given the small size of the islands, would necessarily require re-location to other countries. In the Caribbean, the Turks and Caicos Islands and some of the atolls of the Bahamas are among islands which, together with other limestone and coral islands in the archipelago, are at risk from saltwater intrusion (CARIBSAVE, 2009).

1.4 The Environment-Migration Connection

Much of the popular discourse on “environmental migration” assumes the nexus of environment and migration to be self-evident and straightforward. However, the focus of discussion has changed considerably over recent years, including a change in the IPCC’s initial position on the likely patterns of migration in response to the negative effects of climate change. Although there is general agreement that increased disasters and chronic environmental degradation will be followed by population movements, the nature of the movement, as well as of the relationship between the environmental factors and such movement, is complex and varies from one situation to another, so cannot be readily predicted. Further, much speculation about the social consequences of climate change has been linked to “worst case” scenarios. This has involved broad generalizations about countries and regions where linkages between the physical processes and social consequences are assumed rather than based on empirical research (Raleigh, Jordan and Salehyan, 2008).
**Vulnerability**

An important aspect of the shift in the discussion on the environment and migration nexus is based on evidence that the risk of exposure to a hazard and its impact is conditioned by socio-economic and political contingencies. The role of human agency either in causing disasters, or in causing populations to be more vulnerable to the risk of disaster must be stressed (Hewitt, 1983; McGregor, 1994). Vulnerability is based on livelihoods and marginal social status which may contribute to poor land management practices, resource pressures and increasing reliance on degraded resources. The problems associated with chronic resource degradation are compounded by episodic events such as flooding or droughts. The distribution and costs involved in these issues are not random. It is the poor and otherwise marginalized members of society who are disproportionately affected by all disasters (Bailey and Bryant, 2003).

Although a number of models of vulnerability have been advanced in disaster literature, there are no universally accepted indicators or methods of measurement. Besides, vulnerability is a relative construction, since not all poor people are more vulnerable than the affluent in the face of the risk of exposure to some adverse environmental conditions. Nevertheless, it provides a comparative indication of the intensity of the climate change problem as it relates to the impact on people.

**Environmentally-induced migration and conflict**

Environmentally-induced migration can be the result of conflict, for example over water or land resources, which influences the decision to migrate as an adaptive strategy. Conflict may also occur at the destination through competition for resources, ethnic tension and distrust. When migration flows are small and take place over a prolonged period of time, migrants can be absorbed more easily at their destinations, lessening the likelihood of conflict. In contrast, migration can be large-scale and sudden, and it is more likely to lead to conflict. Governments may reduce the risk of conflict occurring in relation to environment-induced migration by taking the necessary initiatives early on; planning for such eventualities needs to take place when migration is considered as part of the adaptation to environmental degradation.

1.5 **Intervention in Managing Environmentally-induced Migration**

The less developed countries (LDCs) are less likely than developed countries to have the technical capacity or access to technological approaches for the mitigation of risk and adaptation to change because of the cost of such measures. As a consequence, the LDCs are more likely to engage in migration as a means of adapting to hazards associated with the environment. The potential for conflict at the destinations of mass migrations must be taken into account, as well as the high economic and social cost borne by the migrants themselves (Wisner et al., 2004). Intervention in managing environmentally-induced migration in an orderly fashion can therefore be an option in order to prevent mass migration flows, especially under crisis conditions. However, the most effective ways of avoiding the need for mass migrations are by the *in situ* mitigation of the risk and adaptation to the changing environmental conditions.
1.5.1  **In situ intervention**

a) *Mitigation* of environmental risks requires proactive planning for a systematic reduction in the extent and exposure to hazards. In the context of climate change-related hazards, mitigation includes the management of ecosystems with measures that reduce degradation of natural resources, in particular, land, soil and freshwater. Mitigation also includes the implementation of early warning systems and preparedness for extreme climatic events, such as cyclones. To mitigate the worst effects of earthquakes there is a need to implement strict laws and codes of practice in the site selection and construction (and retro-fitting) of buildings in urban centres (especially critical services such as hospitals and emergency services). In the case of volcanoes, early warning systems provide the means whereby early responses can be used to mitigate the worst impacts of the hazard.

b) *Adaptation* to environmental change is most relevant under conditions of gradual climate change. Changes in weather patterns are first felt in agricultural production and fisheries, as these are based on a narrow range of temperature and precipitation conditions on an annual cycle. Depending on the speed of the change, production practices need also to change by identifying and changing alternative crops that will tolerate the new weather conditions associated with climate change. There is also a need to cultivate with less water. If the appropriate adaptation does not take place and agricultural production declines, the rural economic base of entire countries becomes negatively affected, with livelihoods and food security threatened. In coastal areas, adaptation to climate change may require planning for the relocation of settlements and industrial installations to less hazardous areas. Tourism is an industry that is typically coastal in tropical countries, especially small islands. This industry is highly vulnerable to changes in previously predictable weather patterns for which adaptive planning is required.

I.6  **Commonwealth Cases**

The following three cases are intended to demonstrate different types of challenges with which countries are confronted within the context of environmental hazards. In the case of Montserrat, in the Caribbean, volcanic activity presents a challenge; in Bangladesh, the recurrence of extreme weather events associated with climate change is a major problem for the country; and in Tuvalu, a small Pacific island state, gradual environmental change threatens its viability. These cases highlight some of the circumstances associated with the particular vulnerabilities of small islands and migration responses, as well as those of large developing countries faced with the prospect of massive environmentally-induced internal and international population displacements.

I.6.1  **Montserrat: Volcanic Eruption and Forced Migration**

After hundreds of years with no significant volcanic activity, in August 1995 the Montserrat’s volcano (Souffriere) began an eruptive period of ash and larva explosions. In 1996 and 1997, the disaster quickly forced the evacuation of the capital town, Plymouth, and the surrounding residential areas, and finally from the entire southern two-thirds of the island progressively over a period lasting two years. During the eruption, much of the
population left under emergency conditions. The volcano still remains active with the continuing risk that the northern wall of the crater will collapse at some time in the future.

Montserrat has a land area of 101 square kilometers and a pre-1995 population of 10,400, of which some 7,500 left the island (Montserrat, Physical Planning Unit, 1999). As people moved to the safe zone, so more people emigrated from that zone. Notwithstanding the very small numbers of persons affected by comparison with other disaster-related displacements worldwide, the case of Montserrat’s environmentally forced migration was a major event relative to its size. Furthermore, the case is significant in illustrating the issues that arise when an environmental hazard becomes a sudden crisis, inducing mass evacuations and the need for long-term recovery plans. Montserrat exemplified the pattern that tends to occur in all such sudden, severe events, whereby there is initial evacuation and displacement to other safer parts of the same country or island, followed by permanent settlement abroad.

Montserrat’s status as a British dependency made it obvious that the UK would assist in the evacuation and facilitate the administrative arrangements for relocation. The first emergency transit stop from the island was also obvious, since Antigua and Barbuda is the nearest state and there are well-established family connections with those islands. Many Montserratians remained there and others moved to the UK, the USA or to other Caribbean states, and some later moved back to Montserrat.

There have been a number of social issues associated with the settlement of Montserratians in the UK and USA. For example, Shotte (2006) suggested Montserratian children evacuated to London faced the difficult social situation of adjustment. Those Montserratians who opted to go to the USA were granted Temporary Protected Status (TPS) allowing them to legally remain during the emergency. However, the TPS was withdrawn in June of 2004, even though many of the migrants’ homes no longer existed. Despite this dilemma, these 292 persons were required to either repatriate back to some other area in Montserrat or relocate elsewhere (Rozdilsky and Schultink, 2008).

This example shows that environmentally-forced migration causes considerable hardship to those affected, and with no ready solution. There was no reason for the residents of Montserrat to anticipate the level of environmental crisis that was to occur. It points to the fact that volcanic early warning facilities are required in all volcanic areas and that, evacuation strategies and settlement plans are essential for small-island states with limited land space. IOM supported the development of a Manual for Trinidad and Tobago in the event of a mass population influx following a disaster in a neighbouring state (IOM, 2008). This could serve as a model but must be taken further to ensure that the system and infrastructure that such a plan recommends are actually put in place.

The resettlement of Montserratians was greatly facilitated by the country’s status as a British Dependency. The legal arrangements for migration transfers on the long term may not be so smooth for independent Caribbean states, or small-island states in other parts of the Commonwealth, such as for the Maldives or the Pacific Island states. It is important, therefore, that the Caribbean Community (CARICOM), and other island groups such as the Pacific Community are assisted, as appropriate, to develop strategies and contingency plans
for any other mass flows of persons that could occur under crisis conditions and with the need for long term re-location arrangements and contingent rights.

1.6.2 **Bangladesh: Climate change and migration as an adaptive strategy**

Since 2000, Bangladesh has experienced more than 70 major natural disasters (CRED database, 2009). One fifth of the country is flooded every year and in some years, up to two-thirds of the landmass has become inundated. The country has also experienced severe droughts in some years, and there are annual water shortages in the dry winter months of November to May. Of the 54 rivers that flow through Bangladesh, the sources of all are in India, raising issues of trans-boundary water management.

Bangladesh has been identified as the world’s third most vulnerable country to sea-level rise in terms of the number of people, and in the top ten in terms of percentage of population living in low-lying coastal zones.\(^\text{13}\) One consequence of rising sea level is a reduction in the gradient of rivers resulting in slower runoff to the sea and increased flooding of the delta area, especially at high tide. Secondly, the storm surge associated with cyclonic weather makes deeper inroads into the country where the sea-to-land level has already increased.\(^\text{14}\) As pointed out by Pender (2002), surges in future may surpass 10 metres in height, penetrating far inland, where two-thirds of the land area is already lower than five metres above sea level. Additionally, sea-level rise will increase salinity in coastal areas, with adverse effects on agriculture and availability of potable water.

Bangladesh is within the cyclone belt and, as elsewhere in tropical latitudes, cyclones have become more frequent and intense as a result of global warming. For example, when cyclone Aila hit southern Bangladesh on 25th May 2009, the ensuing tidal surge flooded land and damaged embankments, affecting 3.9 million people. Following the cyclone, 1,742 kilometres of embankments were breached and large areas were flooded.\(^\text{15}\) Flooding of the deltaic lands also causes erosion and breakaway of the river banks. River bank erosion in Bangladesh has led to large migrations in the past (Mahmood, 1995). Additionally, the melting of the Himalayan glacier results in excessive melt-water entering the Ganges-Brahmaputra-Meghna river basins. In combination, it is evident that the devastating floods of recent years will recur in the future.

Between 2000 and 2030, the total population of Bangladesh is expected to grow from 129 to 206 million (calculation made by Herrmann and Svarin, 2009 based on FAO statistics). Currently, almost 40 million people live in the coastal areas of Bangladesh. Over 60% of the country is six meters below sea level, facilitating the flooding of large areas (Mirza 2002). Predictions made by the IPCC (2001: 569), are that a 45 cm sea-level rise could cause a 10.9% loss of land and a one meter sea-level rise, could potentially cause a 20.7% loss. The UNDP (2007) predicts that 11% of the population would be directly threatened by a one meter sea-level rise (Herrmann and Svarin). Although people have successfully adapted to this situation in some areas, damage to agriculture, ecosystems, fresh water availability and salinization of soil have occurred (Black et al.2008). If inundation occurs at the predicted rates, it would cause the displacement of 15-20 million people by 2050.

Rural-rural movements are significant in Bangladesh with some two-thirds of Bangladesh's rural out-migration is directed towards urban centres, in particular the squatter settlements
of two largest cities, Dhaka and Chittagong. Dhaka currently has about 13 million inhabitants, and each year about 500,000 more are being added (UN-Habitat 2008). In this regard, climate change has an indirect but significant impact on urbanization. International migration has also been part of the re-location process. Exact figures of migration from Bangladesh to India (since the partition in 1947) are difficult to ascertain but are known to be several millions (Lee, 2001).

Action relating to the floodplain of Bangladesh already includes sophisticated mitigation and risk reduction measures, including early warning systems of cyclones and forthcoming onset of other extreme weather. Adaptation concerning land management is more complex but nonetheless essential as part of an enduring solution. In particular, reducing deforestation and increasing afforestation is widely recognized as one of the most cost-effective abatement measures, since it prevents the spreading of storm surge flooding and helps to stabilize the land against erosion. Bangladesh still has a high dependence on agriculture, so that adaptation to the effects of climate change requires careful water management and changes in some agricultural practices as well as fishing cultures.

Building resilience is a priority as relocation, especially mass international migration, is clearly not a desirable option. Nevertheless, it is likely that it will be part of the adaptive strategy in light of predicted continuing sea level rise and the flooding and river bank and coastal erosion that will continue to occur and threaten to worsen in the future.

I.6.3 TUVALU: Small Island Sustainability and the Challenge of Climate Change

Tuvalu is made up of nine islands comprised of coral reefs and atolls (ring-shaped coral islands enclosing lagoons) spread across 560 kilometres of the Pacific Ocean (between Hawaii and Australia). The main island is 400 metres across at its widest point and the highest ground is just 4.5 metres above mean tide level. The entire population, of about 11,500, lives less than 3 metres above sea level.

Current discourses have characterized Tuvalu as being a likely place from which “forced migration” of entire island populations may become necessary as a consequence of inundation by the sea. There have been several estimates of average long-term change in sea level relative to the land at Funafuti, the capital, ranging from 0.8mm to 1.9 mm per year, which is viewed by Hunter (2002), for example, as being “undesirably large”.

Tuvalu is located near the cyclone belt and is frequently affected by cyclones with accompanying flooding and tidal intrusion resulting in coastal erosion. Furthermore, the coral that forms Tuvalu’s reefs and atolls, and that provides natural breakwaters shielding shorelines from waves and storm surges, has become progressively degraded. Coral does not tolerate changes in water temperatures or pollutants. Land-based pollution as a consequence of massive population growth in Funafuti, and increasing challenges of waste management, has resulted in the pollution of underground freshwater as well as off-shore sea water, causing further damage to corals.

In the absence of any rivers or lakes, the only source of freshwater exists in the “lens”. The lens are shallow layers of underground freshwater that lie above the heavier, deeper
saltwater. Rainwater is collected in tanks for all domestic and agricultural uses. In trying to grow crops, freshwater scarcity is compounded by recurrent saltwater intrusion during periods of King Tides (high tides that come directly from beneath the ground, and penetrate it from below). Naturally driven by a combination of short- and long-term tidal cycles, they are now becoming more extreme. Water management is critical for food production and food security. These factors point to the need for very sensitive environmental management to conserve resources and avoid ecosystem degradation and ultimate collapse. Moreover, the coral, that is the basis of Tuvalu atolls, produces negligible amounts of soil. Recurrent droughts have added to the water scarcity, and the predicted effects of the El Niño Southern Oscillation (ENSO) is expected to become more frequent and persistent, causing increased drought conditions for Tuvalu in coming years.

The evidence shows that there is significant environmental degradation of the islands and, at the same time, economic decline. As a small-island state, Tuvalu is particularly vulnerable to global economic trends, with the only local production being fish and taro and the country is heavily dependent on foreign aid. There is, therefore, the need for the relevant stakeholders of government and civil society to decide whether Tuvalu can be viable and sustainable, and the part that migration should play in providing part of the adaptive strategy. An evaluation is needed of its resource potential to strengthen environmental management and promote viability. The alternative would be to assess whether environmental degradation, and the risk of inundation, have now gone too far to be reversed. If there is consensus that the battle for environmental survival has been lost, then plans for evacuation need to be pursued and supported by the international community.

Tuvalu has a long tradition of migration and the regular movement of seamen. Additionally, around a quarter of the Tuvalu population is currently living in New Zealand. The Tuvaluan Government has been seeking migration opportunities for its nationals in Australia, Fiji and New Zealand for several years. One result is New Zealand’s Pacific Access Category programme, which accepts 75 Tuvaluans each year (who are educated and have already secured employment). Family ties and social networks have played an important role in migration thus far. Many persons want to obtain New Zealand citizenship, with the ultimate hope of being able to move to Australia. However, the Australian Government has not considered immigration from Tuvalu on the basis of environmental factors.

2. SMALL OR LESS DEVELOPED STATES WHICH HAVE SUFFERED EXCESSIVE OUT-MIGRATION OF TRAINED PERSONS AND RECEIVED LIMITED BENEFITS

2.1. Skilled Migration from Commonwealth Countries

Of the world’s top 27 countries in terms of tertiary educated emigrants in OECD states, 24 of these are Commonwealth countries. There is high representation among small-island states, especially those with longstanding migration traditions. There are also some large countries in the group, like the Gambia, Sierra Leone, Kenya, Ghana, Mozambique and Liberia, all of which have low income levels and low Human Development Index ratings (See Appendix 3).
2.1.2 The Destination Countries

South-South migration is as high as South-North migration in the case of overall migration flows. But for the tertiary trained and highly skilled, South-North movements are by far the greater, with most skilled persons going from developing countries to OECD states. In some cases, more than half of the emigrants from the top-listed Commonwealth countries had migrated to other Commonwealth countries. From the Commonwealth countries of Africa, the Indian subcontinent and the Pacific, the movement has been chiefly to Britain, Australia, New Zealand and Canada, as well as to the United States of America (USA) and the Middle East, and from the Caribbean to Canada, Britain and the USA. The single most important non-Commonwealth country as a destination for both Commonwealth and other migrants is the USA, with a recorded immigrant stock of 42.8 million in 2010 (World Bank, 2011).

Small states and island dependencies are also among the countries to which skilled migrants have gone. In some very small island states, as for example, Singapore (Yeoh, 2007), the Bahamas, and the British dependencies of the Cayman Islands and the Turks and Caicos Islands (Thomas-Hope, 2007), skilled migrants from neighbouring countries constitute an important sector of the overall populations.

2.2 The Context of Current South-North Skilled Migration Trends

The context within which the current international migration trends have developed involve a number of structural and historically-derived circumstances that have conditioned the economic basis and psychological orientations of entire societies. Migration is always contingent upon a complex variety of factors which defy easy categorization, and make analysis of the rationale for migration and policy formation difficult.

Persistent and increasing inter-regional and intra-regional inequalities determine the competitive advantage of some regions and countries over the others, and highly trained persons even in the poorest countries are able to compete in the international labour market. Poor economies easily slip into a vicious cycle whereby they cannot effectively absorb and provide social mobility for their labour force. This produces a situation of circumstantially-induced or “pseudo-surplus” labour. As most highly trained migrants have jobs before migrating, their departure creates apparent labour shortages and actual shortages of human capacity for development. The more specialized the skills, the more difficult it is to be effectively absorbed by weak economies which offer few career opportunities, undesirable working conditions, limited technology and rigid bureaucracies.

The propensity to migrate is strong where the tradition of migration has become well established and the image, or “dream”, the psychological orientation of an entire society and the sense of the reality of freedom and of opportunity, are dependent on leaving the home country for a while. Migration in most developing countries within the Commonwealth has become embedded in, and reinforced, a culture of dependency.

The distribution of kinship networks and social capital also play a major part in determining the perpetuation of migration and the destinations selected. People select countries where they have relatives and social capital through linkages with their Diaspora communities, which directly and indirectly facilitate the entry and settlement of successive waves of
migrants. However, these networks would not in themselves account for movement at the scale occurring in recent decades. The large scale and rapid rate of South-North movement of the highly trained is due to the proactive and selective immigration policies of OECD countries. Increasingly “quality-selective” immigration policies are being implemented in OECD countries in order to increase their high level human capacity. For example:

- **Australia**, where, since 1984, immigration policy favoured skilled workers, with the candidates selected according to their prospective contribution to the Australian economy (Phillips, 2006).
- **Canada**, where immigration policy similarly facilitates the entry of persons with academic and other professional qualifications.\(^{17}\)
- **The USA**, which since the Immigration Act of 1990\(^{18}\) - followed by the American Competitiveness and Work Force Improvement Act of 1998 - emphasises the selection of highly skilled workers through a system of quotas favouring candidates with high level education and professional skills.
- **The EU countries**, where, in the UK, for example, teachers and persons in the medical professions have been among those whose entry is facilitated; in Germany, plans were announced in May 2000 to recruit 10,000 additional information technology specialists; in France, the Weil Report on Immigration (1997) explicitly recommended favouring the immigration of highly educated workers (Lowell, 2000).

The structural framework of skilled migration, therefore, is now predominantly characterized by a “demand” on the side of the receiving countries determined by their domestic needs and labour-market requirements. This leads to high migration rates among the tertiary educated and considerable international transfers of human capital from developing to developed countries. The trend is that human capital moves to locations where it is already abundant (Easterly and Levine, 2001) possibly undermining human capacity for development in the countries of migrant departure.

### 2.3 Benefits and Costs of Skilled Emigration from Developing Countries

There have been no systematic empirical assessments made of the impact specifically of skilled migration from developing countries, though there are national studies on the impact of migration generally (See, for example, Institute of Public Policy Research (IPPR), Development on the Move project).\(^{19}\) With respect to developing countries, there are many benefits of skilled migration for the migrants themselves, their families and, by extension, the wider community. For the individual, there is personal benefit derived from the freedom to exercise choice in determining where they wish to live and work, as the freedom to choose one’s life options is an essential aspect of human development (UNDP 2010). Migration also expands the environments of opportunity for populations of small states, reducing frustration of limited career and livelihood opportunities. The migration of educated persons usually leads to their acquisition of further education or training as well as to wider professional or technical experience. This is of benefit to the individual as well as to the wider community should the migrant later return to the source country.
The major cost of skilled migration to the country of origin is the depletion of the human capacity on which growth in the economy and the provision of social services depend. Small countries and poor countries are severely affected by skilled emigration occurring at levels that are disproportionately high in comparison with the total stock of skilled human resources. The paucity and further reduction in human resources undermines the capacity of specific essential economic and social welfare sectors to perform satisfactorily. For example, the migration of health professionals and teachers is having a major adverse impact on the health and education sectors in all the developing countries of the Commonwealth. The poorer the countries are economically, the worse the situation, and the worse the impact on human capacity for development.

For example, in sub-Saharan Africa, since the year 2000, nearly 16,000 African nurses have registered to work in the UK alone. In Zambia, only 50 out of 600 doctors trained since independence are still practising in the country; for Malawi the situation is similar (Global Commission on International Migration (GCIM), 2005: 24), as also for Zimbabwe, which has experienced the emigration of more than 80% of the doctors, nurses and therapists who graduated from the University of Zimbabwe medical school since independence in 1980 (Andrew Meldrum, ‘Mugabe says we are being stolen, all we want is better pay’: The Brain Drain has badly hit Zimbabwe’s fragile health service’.20 There is also a danger that the exodus of professionals can undermine the replacement capacity of the country and reduce these countries’ capacities to train a new generation of professionals. If that does occur and the replacement capacity is eroded, then clearly a negative process has been set in train.

Similar levels of loss are experienced in the education sector. For example, in the CARICOM state of Guyana, it was reported that 300 teachers are trained each year and the same number emigrates annually.21 It was further stated by Guyana’s Minister of Education (2007) that the country was losing 15% of its teachers annually and was challenged to train enough teachers to address the shortfall. Guyana had to train three times the number of teachers needed in order to staff schools, and in 2007 there were still only 58% of the total number of teachers that was required.

“Brain Drain”

It has been argued that “brain drain” is an explanation for income differences between source and destination countries and the lack of development in the countries of origin. However, the empirical evidence is that the countries with high levels of skilled and professional out-migration were in a weak competitive position in the first place, and the weaker they were is the greater the impact of the loss and the less likely that the outflow will cease.

A less negative view of skilled migration has also been forthcoming in cases where there is a significant element of circulation of the highly educated and skilled migrants (Thomas-Hope, 1988, 2002a; Skeldon 2005; Dawson, 2007). The circulation of tertiary trained and highly skilled persons outward and back again, brings about the exchange of ideas and builds international social capital. Migrants at their destinations also facilitate commercial activities between destination and origin countries, increasing opportunities for trade in goods and services as well as for investment in both countries. For example, the emergence of Information Technology centres in cities such as Bangalore and Bombay has been cited as primarily facilitated by expatriate scientists in the US Silicon Valley (Saxenian, 2002).
However, this economically self-sustaining potential of skilled migration has not occurred in countries with low levels of economic performance.

**Social aspects of high levels of skilled emigration**

Recruitment of relatively large numbers of migrants from select sectors over a short period of time creates “shocks” to the capacity of those sectors which are directly and indirectly affected, often undermining previous achievements in service provision and staffing. It also contributes significantly to the erosion of confidence, and this has a number of implications for encouraging further migration, discouraging return and reducing trust in the system as a safe place for financial investment.

Women account for a large proportion of the tertiary-educated because of their over-representation in the nursing and teaching professions, two of the main groups involved in skilled emigration. Women are remitting considerable amounts to provide for their children and those persons left to be responsible for them, but in many cases their children are left for many years, to be cared for by other persons and often with a negative effect on them and the family.

**The Diaspora**

Members of the Diaspora can be encouraged to invest in their home country, but they will only do so if there is a buoyant economy and secure financial instruments into which they can risk putting savings. Trust in the system at home and the existence of an enabling environment for investors are essential prerequisites for investment from nationals living abroad. Once there is such an enabling environment, migrants do and can be further encouraged to contribute to their home country in various ways. Many persons in the Diaspora already give willingly through voluntary organizations to sponsor hospitals and schools and peripatetic medical services on visits home, providing a kind of volunteer working vacation. Other options include the trade in services, including the promotion of “nostalgia tourism”, or “health tourism” that can help to bring about sustainable growth and a balanced migration profile – with people going and coming - as well as directly and indirectly stimulating economic growth through saving and investment.

**2.4 Remittances**

Remittances are popularly regarded to be the main compensation to developing countries for the loss of skills through emigration. Although remittances to developing countries are substantial, in the words of the Ghanaian intellectual Kwesi Andam\(^\text{22}\), “...nations are built with brains, not with absentee dollar remittance”.\(^\text{23}\)

One issue concerns the level of net financial gains of remittances to the emigration source countries, and a second issue is the extent to which remittances contribute to development. These factors are important in assessing the real returns from excessive skilled migration. In those Commonwealth countries from which the emigration of tertiary educated and skilled persons is highest, the pattern of remittance receipts is variable. The countries that rank among the world top countries of tertiary-level emigration, remittances per capita are above $500 per annum (2010) in only three. These are Tonga ($961), Jamaica ($811) and Barbados ($658). The amounts are well below $500 in all the other countries, ranging from
$365 in Guyana to $5 each in Ghana and Mozambique. As a percentage of GDP, Tonga ranks high with remittances amounting to 35% of GDP, and Guyana amounting to 24.1%. By contrast, in Samoa, remittances amount to 1.4%, and Ghana to a mere 0.8% of GDP (Appendix 2).

2.4.1 Benefits and Costs of Remittances

Remittances are a major benefit of migration that accrues primarily to the families in receipt of them. They constitute an important source of revenue, allowing families to meet their basic needs or to overcome periods of economic crisis. Remittances are typically used by families to finance education and medical expenditures, and to ease credit constraints on small businesses. For the wider community, increased consumption resulting from remittance receipts by households can give a boost to the local economy. The remittance transfer agencies gain significantly from the transfer costs that are charged for the service. Although remittances have been observed to play a significant role in the alleviation of poverty in developing countries, they have generally failed to be adequately used in the transformation of economies through savings and investment and, therefore, in the use of remittances capital for sustained national economic growth, together with long-term and widespread reduction in poverty.

The benefits of remittances could be enhanced through the reduction in money transfer costs and an increase in micro-credit opportunities. The benefits of transfer charges to the financial agencies represent the financial losses to the recipients themselves. There are a number of projects currently attempting to study and produce practical mechanisms for the reduction in transfer costs, and these need to be further developed so that their implementation and ensuing “best practices” can be disseminated where appropriate.24

A negative aspect of remittances is its effect of increasing inequalities between families receiving remittances and those which are not. Inflation can be another effect of a large inflow of remittances into a country, with the greatest burden felt by the poorest in the society. Remittances also create financial dependency on migrants, some families neglecting productive activities at home and their members withdrawing from the labour-force. The gross remittances do not equal net funds gained. There is a counterfactual aspect in that the migrants, and especially skilled migrants, would have been earning had they not migrated.25

The absence of large numbers of skilled persons means losses in revenue through taxation, especially income tax. For the highly skilled and professionals, remittances are likely to be significantly less than the taxes she/he would have paid had she/he not migrated. Outward remittance flows are not easily calculated but are known to be considerable. Professional families send money to children abroad and immigrants in the country also send money back to their families left at home. For example, Guyana, one of the world’s top remittance receiving countries per capita, was also among the top remittance sending countries in 2009 (World Bank, 2011).

In summary, the argument has been advanced that the focus on the positive effect of remittances on development is misplaced. Dawson (2007) notes the skepticism expressed by Kuznetsov and Sabel (2006) that remittances and other financial transfers can ever have a significant development impact. First, there are negative externalities such as losses in
domestic productive capacity and public subsidies for migrants' education. Even though funds may be returned to the home country through remittances, such transfers do not go back to government treasuries for equitable redistribution, but to the family of the remitter and only a small percentage returns to the state through taxes. Remittances can also exacerbate income inequalities within source countries between those who do and those who do not receive remittances.

If the intention is to use remittances to give an initial capital impetus for economic development, then saving and investment are essential, and the greatest focus should be put on attracting entrepreneurs back to the home market. But since entrepreneurs are highly sensitive to margins of profit and risk, domestic reforms may be necessary to induce migrant entrepreneurs to return (Solimano, 2006, cited in Lawson, 2007). Remittances reflect the mobilization of fresh capital accumulated by the emigrants abroad. Such a potentially positive relationship between migration and development, as noted by Winters (2002), is consistent with liberal economic theory, that the free movement of goods and labour should increase total global capital formation. However, where economies are both small and depressed, migration fails to play this catalyst role.

2.5 Commonwealth Cases

Ghana, Samoa and Guyana are selected to exemplify some of the circumstances surrounding the excessive migration of tertiary educated nationals. They demonstrate the similarities that occur across different regions of the world – Africa, the Pacific and the Caribbean - and in countries that are both large and small. All three countries are characterized by low income (under $5,000 per annum) and share the challenges of breaking the existing cycle whereby the migration–development connection is currently not being maximized.

2.5.1 Ghana: The Challenge to Development of High Levels of Skilled Emigration

Since the 1990s, skilled migration from Ghana, especially to developed countries in the North, has been accelerating. Ghana has the highest emigration rates for the highly skilled (46%) in Western Africa (OECD, 2005; Docquier and Marfouk, 2004). Furthermore, it has been estimated that about 90% of all Ghanaian graduates have attempted at some time to travel overseas. The overall skill level of Ghanaian emigrants is relatively high. According to some estimates, 33.8% of emigrants from Ghana living in OECD countries possessed medium skills, while 27.6% had high skills (EU, 2006). Only 3% of Ghanaian emigrants had no skills.

The medical professions are particularly affected by emigration, and it is estimated that more than 56% of doctors and 24% of nurses trained in Ghana are now working abroad (IOM, 2009). The estimated average annual rate of emigration of doctors from Ghana for the 1985-1994 period (excluding 1988) was 13.8%. The cumulative average annual emigration amounts to a 50% loss in 4.5 years and a 75% loss in 9.5 years (Dovlo and Nyonator, no date). These doctors were all trained in government-funded university medical schools, thus representing a loss in public-funded services. The migration of nurses is also
high, with an estimated 24% of nurses trained in Ghana working abroad (Clemens and Pettersson, 2006; Dovlo, 2007).

While many Ghanaians leave the country, many of them also return either temporarily or permanently. The proportion of Ghanaians among persons who arrived in Ghana from 2000 to 2007 steadily increased from 18.6% to 34.6%. Of the 1,090,972 Ghanaians who left Ghana from 2000 to 2007, only 153,632 did not return within that period. The problem is that most return migrants had migrated within West Africa, while those who went to OECD countries were selectively from specific professions, mostly health care workers, teachers and engineers. As a consequence, Ghana has been facing an acute shortage of trained health workers, severely constraining the government’s efforts to expand access to quality health services through the establishment of a National Health Insurance Scheme. Official reports also indicate that the country is experiencing a shortage of civil engineers and the shortage of teachers is believed to be on the rise. Manuh et al. (2005) observed that about 40% of faculty positions in public universities and over 60% of positions in polytechnics were vacant, causing deterioration in the student-academic staff ratios established by the National Council for Tertiary Education (NCTE). The proportion of trained teachers at kindergarten, primary and junior high schools has also been deteriorating from their 2003/04 levels. This situation poses a serious challenge to efforts to improve the quality of education in the country.

The economy of Ghana grew steadily throughout the decade of the 2000s, from an annual average rate of 4.5% in the period 1990-2000, to an annual average of 5.7% for 2001-2007 (IOM, 2009). However, with the population growing at an average rate of about 2.4% over the same period, real GDP growth in per capita terms, at US$713 per capita in 2008 (UNDP, 2010), was still too low to propel the country towards middle-income status. It has been evaluated that the level of growth necessary to take the country to middle-income status in the next decade cannot be achieved with the current levels of savings and investments within the domestic economy. It was earlier estimated that to achieve the desired level of growth, savings would have to increase by more than 15% per annum and investment at around 27% per annum (Quartey, 2004). This reinforces the point that if remittances are to be used to stimulate economic growth, attractive instruments are required so that capital would be invested in Ghana. Such investment will not occur spontaneously and direct investment incentive schemes are required. It should also be noted that Investment of remittances would not alone be sufficient to stimulate growth and would have to be accompanied by other development strategies and partnerships between public and private sectors.

2.5.2 Samoa: Migration in Extending the “Real Space” of Small Islands and the Impact of Skilled Migration

Migration with respect to Samoa, as for many other Pacific Islands, has been a longstanding tradition and part of the societal dynamic of sustaining the community. Transnational linkages have meant that overseas migrants have been seen as simply one element of a “transnational corporation of kin”. Such a structure of transnational communal networks, as seen elsewhere, maximizes the environment within which economic viability through extended household incomes is based. There is no reason to believe that skilled migrants
are any less part of such networks than unskilled migrants. The migration of skilled persons remains part of wider family decisions and community networks, indicating that there is a very strong social component in decisions concerning migration. In a very real sense, therefore, international migration has long had a critical and virtually uncontested role in island societies and economies. The migration of skilled workers thus needs to be seen in this broad context of continuity (WHO Report, 2004). As a consequence of such heavy reliance on migration Samoa has become a high remittance-dependent society.

The main reason cited by migrants for leaving is to provide for their children’s future. Furthermore, as part of a communal culture, it is not perceived that money should be saved, as this is taken as a sign of greed. Children are regarded as an investment, and the view is that by ensuring their secure future remitters are doing what is socially the most acceptable and viable investment, maintaining the strength of the family. There is a steady circulation and return of migrants to Samoa. Migration is also popularly seen to allow for a cycle of job vacancies. As skilled Samoans migrate, positions are vacated and filled by new graduates and/or other available skilled professionals. Meanwhile, the skilled migrants send remittances that support or supplement the income of individual households. The return cycle is also beneficial in that the influx of returning nationals brings new ideas, skills, and knowledge that help the national government further develop. Among those who return, most start businesses which represent a loss of skills from the professions in which they were initially trained (Connell, 2009).

It would seem that the ongoing movement of people, ideas and remittances maintain a healthy system of reciprocal flows, enabling the sustainability of a very small island state with limited resources. However, the recent practice of health professionals being recruited to work abroad has significantly altered the social and economic balance. First, it has created major gaps in the staffing of the health sector. Secondly, the migration of health professionals has led to new trends in consumption patterns and generally rising levels of “modern” consumerism. The increased demand for developed country-style consumer goods and the related demands of the new Western lifestyles, can usually only be met through further migration, unless economic growth can be stimulated in the home country to effectively absorb the skills of educated persons. Additionally, skilled migrants stress social and international lifestyle goals rather than the more basic economic and educational goals of poorer and less skilled migrants. Professional migrants move not just to support their children and sustain the livelihoods of their families, but also in order to access better training and career opportunities and more desirable working conditions for themselves. Where they seek to improve the life chances of their children, this is now seen in terms of access to education, which tends to involve residence in a large country and not in one’s small home island with limited opportunities.

Currently, skilled migration is chiefly to New Zealand, the United States, American Samoa and Australia. Samoa is described as a MIRAB state, that is, one whose economy is centred on migration, remittances, aid, and bureaucracy (Connell & Brown 2004; Connell, 2009). The migration of the highly trained has altered the earlier system of migration that extended limited island opportunities for work and by which the society was sustained, largely through support of the family and their perceived needs at that time. The relatively large migration of professionals has altered not only the material basis of popular lifestyles,
but along with that, attitudes have changed, thereby orienting the entire society towards the lifestyles and values of developed countries in new ways that could threaten, rather than support, the sustainability of this small island state.

2.5.3 Guyana: High Tertiary Educated Emigration and Remittances in Poverty Alleviation

Current estimates put Guyana as the country with the highest number of tertiary educated nationals abroad (Docquier and Marfouk 2004; Carrington and Detragiache 1998, 1999). These figures include those Guyanese-born persons who acquired at least some of their professional training after migrating. Estimates made on the basis of studies conducted in Guyana were more conservative (Bristol, 2009; Bynoe and Bristol, 2009). Nevertheless, the situation is a major cause for concern given the need of human capacity for development.

The popular view is that this loss in human capacity, or human capacity foregone, is offset by the high levels of remittances that migrants send back to the country. In 2007, the IDB reported that Guyana received US $424 million in remittances, representing 43% of GDP and placing Guyana remittances as having the highest percentage of GDP among Latin American and Caribbean countries (IDB, 2006). Despite the global economic crisis, and a temporary reduction in remittances received in 2009, there was again an upturn in 2010.

Remittances to Guyana increased as a percentage of GDP from 3.7 % at the end of 2000 to 24.6 % at the end on 2006. As a share of foreign direct investment (FDI), remittances amounted to 37.4% at the end of 2002 and 205% at the end of 2006. Measured as a share of exports, remittances rose from 5.0 % at the end of 2000 to 36.3% at the end of 2006. In per capita terms, the share of exports rose from $US33.7 in 2000 to $US286.9 at the end of 2006 (Bank of Guyana Report, 2010). Therefore, it is very clear that remittances are a key source of foreign exchange in Guyana.

The experience of Guyana, as elsewhere in the Caribbean, is that most of the remitted money does not go towards the stimulation of saving or investment so that its benefits are not maximized in terms of national economic investment and growth (Thomas-Hope et.al 2009; Thomas-Hope and McIntosh, 2010). Nevertheless, the funds that are remitted currently go towards the reduction in poverty and the provision of social welfare, and remittances are also critical for the education of many Guyanese. Based on the response of a survey, 15% of remittance receipts were used to finance education (Roberts, 2006), including the financing of university-level education. Therefore, paradoxically, remittances play an important role in facilitating further migration. Migrant remittances do contribute significantly to social welfare and, through money spent on education they contribute to social development as well. The evidence is that such funds increase household income and, therefore, human capacity, by maintaining living standards and providing a welfare system (for example, by contributing to the private costs of education and healthcare, to food security and provision of general unemployment benefits).

Although remittances do not augment national revenue and, therefore, potentially development, nevertheless they have important national implications. The main benefit of remittances is in the alleviation of poverty through small amounts of income received by large numbers of households. A study of 74 low-income and middle-income countries
conducted by Adams and Page, found that a 10% increase in the share of remittances to GDP would lead to a 1.2% reduction in the number of persons living below the poverty line (Adams and Page, 2003). The Guyana Bureau of Statistics reported that in 1971, 38% of the population was living below the poverty line, with the majority of the poor living in the rural areas. By the end of 1988, the level of poverty in the country had increased to 65%. At the end of 1992 when migration was at its peak and significant sums of remittances were being transmitted through informal channels, the percentage of the population living below the poverty line had fallen to 43%. The last census conducted by the Bureau of Statistics in 2002, reported that 35% of Guyana’s population were living below the poverty line. The current level of poverty cannot be accurately reported due to the paucity of data, but given the increase in the level of remittances and the segment of the population that receive these funds, it is likely that the level of poverty has decreased further (Guyana, Bureau of Standards data).

The impact of remittances on poverty in Guyana is also indicated by the characteristics of the recipients and the amounts and frequency of the funds sent. Most of the poor in Guyana live in rural areas, and survive on basic agricultural activities. Some 40% of the recipients of remittances in Guyana are believed to live in the rural areas, and Bureau of Statistics data indicate that remittances are alleviating poverty levels in rural communities, especially among females who comprise approximately 70% of the total number of recipients (Roberts, 2006). This is significant since female-headed households are among the poorest.

The Guyana case shows that although it is one of the largest recipients of migrant remittances per capita and in terms of its contribution to GDP, nevertheless, remittances are not available for investment in development projects. It is important to take into account that remittances are the private funds of individuals and are not public funds. It is also widely agreed that poverty alleviation and improved social welfare of remittance recipients are critical. However, the long term reduction in poverty will be determined by structural changes and sustained economic growth. Without such growth, Guyana’s absorptive capacity of tertiary educated and highly skilled persons will not increase significantly, and the current excessively high level of emigration among the highly trained, along with a very low rate of circulation and return, will continue. While it is clear that remittances alone could not jump-start economic growth, its benefits should be maximized in order to contribute to achieving such a goal.

3. **A PLAN OF ACTION**

This section advances policy recommendations with respect to Terms of Reference (TOR) 5 and 8 of the Commission (Appendix 1). As in the first Report of the Commission, the four generic themes under which the recommendations fall are to: 1) build migration capacity; 2) streamline migration policies; 3) help migrants to share their successes; and 4) enhance international cooperation over migration. There are different priorities in different countries, between source and destination, between LDCs and other developing states, and between large states and small island states. Therefore, the following recommendations will not apply to all countries to the same extent or in the same way.
**Recommendation 1: Build Migration Management Capacity**

Effective migration management intended to promote orderly and equitable movement, requires sound knowledge of the factors that are likely to result in mass or excessive migration. This is the case whether the movement is environmentally-induced, or involving the excessive migration of the highly skilled. Commonwealth countries could facilitate each other in building capacities for improving data and analysis, accessing the relevant technology, and training personnel in the techniques of hazards early warning systems, especially in the most vulnerable countries.

3.1.1 Improve Knowledge Systems through International Training Programmes and Research Agendas

Availability of reliable data is essential so that governments can plan strategically but there is a general lack of data and robust analysis of environmentally-induced migration, as well as on the migration behaviour of the cohort of highly skilled and professional migrants.

The Commonwealth Scholarship programmes currently offered and administered by the Commonwealth Scholarship Commission (linked to the Association of Commonwealth Universities) could prioritize training in the relevant skills needed to deal with the issues included in these recommendations. These could be in the form of short courses or workshops delivered by appropriate organizations, such as the Commonwealth Geographical Bureau which has considerable expertise in this field, or longer-term programmes that are already being delivered in tertiary institutions.

Research agendas of grant-making foundations and development banks should prioritize those aspects of migration and parts of the world that have been under-researched. The major grant donors and Foundations within the OECD countries could target the issues contributing to environmentally-induced migration and the excessive migration of highly skilled persons, in order to achieve this goal.

The improvement in knowledge systems would prioritize a) the quality of migration data collection and analysis, b) the factors

3.1.2 Build Capacities in Hazard Early-Warning Systems

There is a need to improve forecasting and rapid comprehensive dissemination of warnings of forthcoming extreme events (tectonic and meteorological) as well as of gradual long-term changes, so as to facilitate smooth evacuations and other emergency responses. Technical capabilities for early warning of volcanic and weather events exist in the Commonwealth and programmes need to be devised for the sharing of such technology and training to increase the expertise of those countries without such capabilities.

**3.2 Recommendation 2: Streamline Migration and Development Policies**

The objective of integrating migration into national mainstream development and regional policies would enhance the contribution of migration to development goals by efforts to maximize the benefits and mitigate the costs of migration. This relates to the
individual, community and wider national systems in both sending and destination countries, but most urgently, in sending countries that are LDCs. Although it is acknowledged that many types of migration are beneficial to individuals, as well as to sending and receiving countries, there are no obvious advantages of mass migrations. The costs of such movement are high for both the individual and the countries involved. With regard to the international migration of the highly skilled, destination countries of the OECD group have effectively integrated the encouragement and selectivity of such movement into their development policies. However, this has not been the case for the countries which are the source of the flows, so that attention needs to be paid to policies in those countries.

3.2.1 Create Enabling Environments in LDCs Losing Large Proportions of Educated and Skilled Persons from the Labour Force

Source countries experiencing disproportionately high levels of skilled emigration that are losing large proportions of expensively trained persons of which very few return or invest in their countries of origin, must **incorporate migration into all development economic and social policies and strategic plans**. Emphasis should be placed on the importance of augmenting human resource development capabilities (as opposed to relying on remittances) in countries that are likely to suffer most from the loss of skills. The way forward should be based on partnerships internally, between public, private, civil society and NGO sectors, and externally, with international organizations, in an effort to mitigate the impacts of brain drain and increase brain circulation and brain gain in LDCs.

Some of the measures that would improve domestic conditions to make the prospect of return migration and or return investment more attractive to nationals abroad are to **build economic resilience** in the sending countries. The stimulation of economic growth is critical and will have the effect of creating a more attractive environment for Diaspora investment. There is also a need to improve **opportunities for human resource development** and management practices in national institutions. The lack of transparent employment practices, inadequate working conditions and poor opportunities for career advancement are the main factors that have been cited by health and education professionals regarding migration decisions.

3.2.2 Integrate Migration into Policies for Natural Resource Sustainability

The effects of climate change and the prospects for major population displacements should be addressed by governments and regional groupings. Attention should be given to the possibility of rethinking the settlement system in some countries. The re-location of settlement, infrastructure and industrial installations must be taken into account in planning as in the formulation of the years “2030” and “2050” Vision Statements of some developing countries. Simulations of future scenarios must be taken seriously, so as to exercise the precautionary principle in situations where the final outcome is not completely predictable. There is particular need for careful management of land, forests, and freshwater resources to tackle root causes of some environmentally-induced migration. Degraded land and insufficient freshwater will become increasingly scarce and major contributory factors in mass population movements in the future.
3.2.3 *Reduce Migration through Adaptation to Climate Change and Mitigation of Environmental Risks*

Although migration is part of the adaptive strategies of many Commonwealth countries suffering from deteriorating environmental conditions because of recurrent droughts and floods, such displacements carry heavy costs at the personal and national levels. **It is, therefore, important to implement intervention *in situ* to reduce vulnerability and increase resilience to risk.** This includes the establishment of monitoring and early-warning systems at the national or regional levels, along with the establishment of appropriate response systems so as to reduce the impact of predictable hazards.

Every effort should be made to reduce the necessity for mass migrations through policies for cutting greenhouse gas emissions and implementing measures for adapting agriculture, tourism and other livelihood strategies to accommodate the current predicted future levels of climate change. Although Government policy is important in taking the lead in reducing vulnerability and building resilience to risk of environmental change and hazard, building community-led adaptation is also essential. To his end, countries need to raise public awareness about the risk as well as the recommended mitigation and adaptation strategies.

### 3.3 Recommendation 3: Help Migrants to Share their Successes

The proportions of highly trained migrants in the overall migration flows are not known, but it is believed that considerable numbers of these persons acquired much, or even all of their qualifications in OECD countries, not in their country of birth. However, nationals in the Diaspora should certainly be encouraged to contribute to their countries of birth but **it is important to reinforce the fact that they cannot be mandated nor should they be in any way pressured into doing so, as the freedom inherent in voluntary migration must be protected throughout.**

Two areas in which migrants can share their success is through the improvement of the benefits of remittances to the source countries and improve in linkages to Diaspora networks and markets. The recommended measures are to engage Diasporas so as to a) enhance both the economic and social benefits that can be derived directly and indirect from migrants, and b) expand networks and markets in the migration destinations.

#### 3.3.1 Enhance the Economic and Social Benefits of Remittances

**Specific instruments should be developed by governments to help channel remittances into local development.** Research conducted on remittances to developing countries estimated that remittances held as deposit money in banks have an estimated multiplier effect of two to three times; the introduction of foreign currency denominated bonds, and foreign currency accounts, with no constraints placed on repatriation of funds, could also be efficient tools to stimulate remittances. Countries such as India, Pakistan and Bangladesh experimented with this policy initiative and achieved much success. Information on the good practices in some migrant-sending countries should be shared through knowledge dissemination as discussed above. The promotion of an electronic platform would be a useful mechanism for achieving an interactive process of information sharing.
In the effort to improve the return on investment from the respective Diasporas, consideration should be given by individual countries to the **reduction in transaction costs** of money sent through the formal channels, programmes to promote money **transfers through financial institutions**, and the **creation of incentives to saving and investment** in the home country as the investment of remittances is unlikely to occur spontaneously. Incentives for investment and entrepreneurial enterprises can make an important impact. **Micro-credit facilities** with low-interest rates assist returning migrants and other people to be entrepreneurial, and these directly and indirectly bring a number of economic benefits to individuals and communities as well as the generation of gross domestic product (GDP). Incentives could include **matching funds** for remittance-backed projects such as investment in agriculture and the adaptation to climate change of agriculture and other critical industries at the national level.

**Social remittances** are often overlooked or underestimated in terms of their potential contribution to development in migration sending states. Volunteerism in a variety of forms should be encouraged as an important form of return from tertiary-trained and professional migrants, who are either still abroad or who have returned to the countries of origin. The work undertaken by hometown associations and other voluntary groups can increase through information sharing and public relations. In addition to the practical value of such activities, it is also a means of countries engaging their Diasporas and transferring social capital from individuals to communities. In general, the contributions of returnees need to be better valued and appreciated than currently pertains, or their benefits will not be fully realized.

3.3.2 **Expand Networks and Markets in the Migration Destinations**

Migrant communities provide a valuable platform for developing markets in goods and services from the perspective of both source and destination countries. This includes tourism, banking and legal services, property agents, food and other commodity trade based on the cultural characteristics of the respective countries, as well as markets in music and entertainment. Highly educated and skilled migrants are among those persons with the expertise and financial resources for the establishment of a wide range of entrepreneurial activities linking demand and supply in migration source and destination countries. Efforts should be made to assist those countries least equipped in this regard to maximize the potential benefits.

3.4 **Recommendation 4: Enhance International Cooperation over Migration**

The establishment of a Commonwealth Monitoring Facility, with representation from predominantly immigration and predominantly emigration countries, should be considered as a mechanism to maintain the connections that would help mobilize discussion and implementation of agreed programmes relating to cooperation over migration.

3.4.1 **Cooperation between Potential Source and Destination Countries**

The successful implementation of recommendations indicated in this report, in relation to training and sharing expertise and technologies, will depend upon **partnerships between**
countries, especially source and destination countries, in skills training/upgrading with a commitment to ensuring that there is an equitable sharing of skilled personnel. This would include dialogue between countries on the complementary and conflicting issues in migration policies. Additionally, cooperation between relevant countries should be established to tackle problems of environmental management of trans-boundary natural resources, for example, rivers and underground water sources, and be made a priority issue by regional economic communities.  

3.4.2 Sensitive and transparent recruitment policies

Cooperation and partnerships should be established/reinforced for managing mixed migration flows, whether they are sudden and forced, or planned and voluntary; short-term re-location and transit, or long-term settlement; legal rights and responsibilities of the migrants and social integration.

3.4.3 Mechanism for recognition of environmentally-induced migrants

The Commonwealth should commence discussions towards the establishment of a mechanism for the incorporation of environmentally-induced migrants, especially environmental evacuees, into existing migration regimes.

4. CONCLUSION

The costs and benefits of migration are not usually the same to individuals and families as to communities and nation states, nor do the direct and indirect impacts of migration in the short run and long run have the same effects. The objective of policies aimed to streamline migration into development must, therefore, be able to achieve the best balance. The nature of the balance will vary between regions and countries, but there will also be important similarities within the Commonwealth that can help inform policy and strategic intervention.

Persons should have “the right to move”, but they should also have “the right not to move” if their choice is to remain in their home locale. The rights of both should be protected. Environmentally-induced migrants, especially environmental evacuees in the face of imminent danger, have usually not been the architects of the degradation or extreme environmental events that demand their re-location. It is recommended that the Commonwealth, as a major migration arena, should collectively examine the issue of the loss of freedom not to move, and work towards the protection of such persons. The protection will be effected firstly, through the creation and implementation of mechanisms to reduce vulnerability and build resilience in the populations most at risk of environmental hazards; and secondly, to establish the mechanisms for protecting the rights of those who ultimately lose the freedom not to move.

The freedom of people to choose to migrate, for personal and family reasons, must also be protected. To this end, the burden of a country’s development must not be transferred to its migrants - whether highly skilled or unskilled. Nevertheless, not only is it desirable that
migrants, who have had the opportunities of personal benefits from migration, should share their success, but also the gains they previously derived from social and material investment in their country should be compensated in some way.

The trends in the international migration of the highly skilled reflect the wide disparities in the competitive advantage of the OECD countries over the developing countries, and in particular the LDCs. While efforts and policies need to be put in place to maximize the benefits of migration and minimize its costs at both source and destination, from the perspective of the developing countries, and especially the LDCs among them, migration should not be seen as a panacea for development. One could also further argue that it will not even be the means of achieving development, as migration opportunities and the personal and community benefits that it brings can distract attention and resources away from tackling the structural conditions of underdevelopment. At the same time, effectively managed migration, as well as understanding and tackling its root causes and impacts, can contribute significantly to development. There would be great advantage to both migration sending and receiving countries if the recommendations contained in this report could be collectively pursued by the member countries of the Commonwealth.

Appendix 1. Terms of Reference of the Ramphal Commission
The Terms of Reference of the Ramphal Commission on Migration and Development are listed below. Terms of Reference covered by this report are boldfaced.

1. The Commission will examine the human dimensions of migration, and make appropriate recommendations to improve the development advantage, and diminish any disadvantage.

2. In particular the Commission will consider brain drain, brain waste and brain circulation and, having regard to the need for pro-poor development, will consider the situation of unskilled migrants, gender issues, and the scope for improving training in destination countries.

3. The Commission will consider the potential for a set of principles governing migration policy within the Commonwealth, recognising that migration policy is a matter for states and that citizens have a right to migrate; such principles may be designed to protect the rights of migrants, and to promote ethical recruitment.

4. Building on the recent “Respect and Understanding” report by the Commonwealth, the Commission will recommend ways in which governments may challenge xenophobia in their countries, promote understanding of the causes and benefits of migration, and act to prevent perceptions of unfairness in poor host communities. It will seek “win-win” solutions.

5. The Commission will pay particular attention to problems arising from environmentally-induced migration, both for environmentally-fragile states and their neighbours, and advise the Commonwealth how these may be mitigated, and the threatened communities assisted.

6. The Commission will recommend how diasporas, and traditional connections between Commonwealth states, may provide greater benefit for the development of member states.

7. In particular the Commission will consider how transaction costs in remittance flows between families may be reduced, how community-based and sector-specific organisations may be encouraged, and how a positive relationship between migration, development and the trade in goods and services may be stimulated by governments and the private sector.

8. The Commission will make specific recommendations to assist small states and less developed countries (LDCs) which have suffered excessive out-migration of expensively trained persons, and have yet to benefit significantly from return migration or diasporic investment.

9. The Commission will, where appropriate, recommend particular Commonwealth strategies or programmes of either a multilateral or bilateral kind – for instance protocols or codes of the kind devised for school teachers and health workers, or programmes of targeted managed migration such as are current between some Caribbean countries and the US and Canada, and between South Pacific islands and Australia and New Zealand.

10. The Commission will present a vision statement for migration policy within the Commonwealth for the next decade, which may influence policy at the global level also.
# Appendix 2. Types of Environmental Conditions Associated with Migration

<table>
<thead>
<tr>
<th>TYPE OF HAZARD</th>
<th>TIMEFRAME</th>
<th>IMMEDIATE RESPONSE</th>
<th>MEDIUM-TERM RESPONSE REQUIRED</th>
<th>LONG-TERM ADAPTATION/MITIGATION OF THE HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TECTONIC-RELATED HAZARDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volcanic eruptions</td>
<td>Sudden and catastrophic events</td>
<td>Urgent evacuation where event is life-threatening</td>
<td>Further migration where hazard situation continues</td>
<td>Re-location of settlement &amp; infrastructure. Environmental refugee status determined. Migration</td>
</tr>
<tr>
<td>Earthquakes</td>
<td>&quot;</td>
<td>Displacement as disaster response</td>
<td>Recovery</td>
<td>Implement strict building codes &amp; Insurance. Refugee status agreed</td>
</tr>
<tr>
<td>Tsunamis</td>
<td>&quot;</td>
<td>Displacement as disaster response</td>
<td>Recovery</td>
<td>Early warning systems Internal displacement International Migration</td>
</tr>
<tr>
<td><strong>CLIMATE-RELATED HAZARDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in weather patterns</td>
<td>Gradual changes in temp &amp; precipitation</td>
<td>Threatened productivity/food security</td>
<td>Diversification of livelihood strategies</td>
<td>Reduce carbon emissions Change agriculture &amp; mariculture practices</td>
</tr>
<tr>
<td>Excessive rainfall, cyclones and storm surge</td>
<td>Recurrent floods and landslides</td>
<td>Economic viability threatened. Temporary or circular migration</td>
<td>Proactive management of environment: Remedial &amp; recovery activity</td>
<td>Reduce carbon emissions Re-location of settlement &amp; infrastructure</td>
</tr>
<tr>
<td>Prolonged drought</td>
<td>Variable timeframe: Drought and floods</td>
<td>Circular and in some instances irregular migration</td>
<td>Intense management’ of environment: -freshwater, land, soil, coral, wetlands</td>
<td>Reduce carbon emissions Maintain strict environmental management &amp; develop clear strategies &amp; enforcement of regulations. Re-location.</td>
</tr>
<tr>
<td>Sea –land level changes</td>
<td>Loss or gain of land</td>
<td>Displacement</td>
<td>Intense coastal &amp; water management Plan for relocation of vulnerable coastal settlements &amp; industrial installations</td>
<td>Water and land management Migration</td>
</tr>
</tbody>
</table>
## APPENDIX 3. World Top Emigration Countries of Tertiary Educated:

Emigration as Percentage of Tertiary Trained, Gross National Income per capita, Remittances

| No. of emigrants (thousands)
| HD (2010)
| GNI per cap (PPP) 2008 $
| Remittances % of GDP
| Remittances per cap $ |
|---|---|---|---|---|
| *Guyana | 89.0 | Med (104) | 3,302 | 24.1 | 365 |
| *Grenada | 85.1 | High | 7,998 | 4.3 | 263 |
| *Jamaica | 85.1 | High (80) | 7,207 | 14.0 | 811 |
| *St. Vincent & Grenadines | 84.5 | Med | 8,535 | 1.8 | 101 |
| Haiti | 83.6 | Low (145) | 949 | 19.6 | 143 |
| *Trinidad & Tobago | 79.3 | High (59) | 24,233 | 0.5 | 82 |
| *St. Kitts & Nevis | 78.5* | High | 14,196 | 0.8 | 91 |
| *Samoa | 76.4 | Med | 4,126 | -- | -- |
| *Tonga | 75.2 | High (85) | 4,038 | 35.8 | 961 |
| *St. Lucia | 71.1 | High | 8,853 | 0.3 | 16 |
| Cape Verde | 67.5 | Med (118) | 3,306 | -- | -- |
| *Antigua & Barbuda | 66.8 | High | 17,924 | -- | -- |
| *Belize | 65.5 | High (78) | 5,693 | 5.8 | 243 |
| *Dominica | 64.2 | High | 8,549 | -- | -- |
| *Barbados | 63.8 | V. High (42) | 21,673 | 4.6 | 658 |
| *The Gambia | 63.3 | Low (151) | 2,358 | 8.2 | 40 |
| *Fiji | 62.2 | Med (86) | 4,315 | 3.4 | 143 |
| *The Bahamas | 61.3 | High (43) | 25,201 | -- | -- |
| *Malta | 57.6 | V. High (33) | 21,004 | 0.6 | 121 |
| *Mauritius | 56.2 | High (72) | 13,344 | 2.3 | 179 |
| *Seychelles | 55.9 | High | 19,128 | -- | -- |
| *Sierra Leone | 52.5 | Low (158) | 809 | 7.7 | 27 |
| Suriname | 47.9 | Med (94) | 7,093 | -- | -- |
| *Ghana | 46.9 | Low (130) | 1,385 | 0.8 | 5 |
| *Mozambique | 45.1 | Low (165) | 864 | 1.2 | 5 |
| Liberia | 45.0 | Low (162) | 320 | 6.9 | 15 |
| Marshall Islands | 39.4 | --- | -- | -- | -- |
| Lebanon | 38.6 | --- | 13,475 | -- | -- |
| *Kenya | 38.4 | Low (128) | 1,628 | 5.6 | 44 |

| No data available | Commonwealth country |

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**Sources:**

1. World Bank, Migration and Remittances Factbook 2011 (data from the 2000 OECD Population Censuses)
2. UNDP, Human Development Report 2010b (Human Development Index World Ranking)
3. UNDP, Human Development Report 2010b
4. World Bank, Migration and Remittances Factbook 2011
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Intergovernmental Panel on Climate Change (IPCC) Report, 1990.


**ENDNOTES**


2. Mohamed Nasheed, reported in CNN World “Sinking island’s nationals seek new home” 11 November 2008; Anote Tong Beretitenti, speech to the 60th Session of the UN General Assembly, September 20, 2005.

3. A recent research project funded by the European Commission, EACH-FOR (‘Environmental Changes and Forced Migration Scenarios’), aimed to fill this gap by studying the linkages between environmental changes and forced migration from an empirical and comparative perspective, through 24 case-studies throughout the world.


5. For “life-course migration”, see Boyle, Halfacree an Robinson (1998) and discussed by Gamlen (2010).

6. El Niño /La Niña is a quasi-periodic climate pattern that occurs across the Pacific Ocean with on average 5-year intervals. The two variations are coupled “the warm oceanic phase, El Nino accompanies high air surface pressure in the western Pacific, while the cold phase, La nana accompanies low air surface pressure in the western Pacific. El Nino/La Nina Southern Oscillation (ENSO) causes extreme weather such as floods, droughts and other weather disturbances in many regions of the world. Developing countries dependent upon agriculture and fishing particularly those bordering the Pacific Ocean are the most affected. The expression of ENSO could be potentially subject to dramatic changes as a result of global warming (EN.wikipedia.org/wiki/ELL_Nino).

7. Singapore Red Cross, 15 September 2001, “Pakistan Floods and the Deluge” and figures as of 15 September 2010.


9. Some 20 countries with a projected population of 440 million are expected to experience up to 25% shortfall in food supplies, and a further eight countries with a projected 75 million people face more severe deficits. The food deficit could well rise to as high as 30 million tonnes. Because of its exceptional poverty the region will be increasingly unable to compete in the global grain market. Food aid worldwide in 1995 was only 7.5 million tonnes, enough to make up the diets of only 10 million semi-starving people. (Myers and Kent, 1995; Myers, N. and J. Kent. 2001).

10. World Wildlife Fund: wwf.panda.org/about_our_earth/aboutour/problems/rising_temperatures/sea_levels/

11. The Swedish scientist, Morner (2007) and other scientists have maintained that, Funafuti where there has been a tide gauge record and a variograph record from 1978, shows no trend of sea level rise.

12. This reflects the approach of “political ecology”, which takes a non-Malthusian view of the relationship between the environment-people relationship. It is based on the thesis that environmental problems are created by individuals, societies and groups of action, and thus by actions or political decisions in a wider sense, or by non-decisions, non-actions and omissions (See for example, Blaikie, 1999; Bryant 1999).


15. IOM displacement Tracking Matrix and Situation Reports (February and March 2010), IOM People’s Priority Report (March 2010) ECHO partner Assessment Report (October 2009), IFRC Assessment (October 2009); Government of Bangladesh Disaster management Information Center, Summary Table (June 2009).

16. Taro is a perennial tropical plant primarily grown as a root and leaf vegetable.
Canada has a comparatively open immigration policy, designed to attract a group of diverse educated professionals. Canada has granted permanent resident status to more than 200,000 immigrants and refugees in each year between 1996 and 2006 (Elisabeth Smick, Canada’s Immigration Policy”, Council on Foreign Relations, 6 Jul, 2006).

18 www.uscis.gov/portal/site/uscis/menuitem.5af9bb95919fe


20 The Observer (London), August 10, 2003).

21 Georgetown, Guyana. Presentation by the Minister of Education at the 34th UNESCO General Conference, 2007.

22 Kwesi Andam was a renowned engineer and Vice Chancellor of the Kwame Nkrumah University of Science and Technology (2002-20 07), Kumasi, Ghana.

23 Adomako, Appiah Kusi, 2006 Ghanaweb Feature, 29 August.

24 For example, the World Bank has engaged with relevant stakeholders to examine likely instruments for reduced cost of remittances transfer

25 Study on the counterfactual aspect.....


27 For example, a web-based platform for interactive discussion by civil society groups on issues pertaining to challenges and best practice regarding migration, is an approach used by the joint migration and development initiative (JMDI) of the United Nations Development Programme (UNDP) and the European Union (2009).

28 The relevant Regional Economic Communities would include: the East African Community (EAC); the Economic Community of West African States (ECOWAS); the Southern Africa Development Community (SADC); the Pacific Islands Forum and the Pacific Community; The Caribbean Common Market (CARICOM).