



UNITED NATIONS

PAPUA NEW GUINEA

COMMON COUNTRY ASSESSMENT

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**The United Nations Country Team
Port Moresby
Papua New Guinea**

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Foreword

In 1997, the United Nations Secretary-General, Mr. Kofi Annan, launched a Programme of Reform aiming at preparing the United Nations for the challenges of the 21st century. While recognizing major contributions that the UN has made to international development, Mr. Annan proposed measures to improve the organization's capacity and to focus on results. At the country level, the UN reform requires that the United Nations System programmes of assistance be developed and presented as part of a single United Nations Development Assistance Framework (UNDAF) with common objectives and timeframe.

In order to set realistic goals and objectives, an assessment of the development situation must be undertaken. The Common Country Assessment, or CCA, is a country-based process for reviewing and analyzing the national development situation, and identifying key issues and challenges. The CCA is neither designed to outline all the existing policies, strategies and programmes, nor to give a comprehensive analysis of all aspects of development. Based on the common experience of United Nations organizations and agencies, the objective is to give an overall assessment of problems so that the country team will be able to respond better in working with the government and development partners in addressing the challenges.

For the first time, the UN organizations and agencies in Papua New Guinea, together with non-resident organizations and agencies, have combined their experience and knowledge in this Common Country Assessment. The process is less than one year old and it is still a work in progress, an interim product of an evolving team effort led by the United Nations Country Team (UNCT). A major problem facing the team in preparing the CCA has been the paucity of reliable data on the country as a basis for assessment and analysis. This inevitably resulted in some unevenness of the assessment and analysis. A major effort for the future will be to support the government in strengthening the country's database.

The document mainly focuses on areas where the UN System in PNG has experience and where we believe that we can contribute most effectively in the future. Key challenges identified in the CCA will then be constructively addressed in the UNDAF, the next step in the UNCT's effort to plan how we can jointly best address the development needs of PNG.

The CCA is a UN working document. It has been prepared in consultation with the Government of Papua New Guinea and other stakeholders, including other donors, civil society organizations and research institutions. The CCA identifies a number of major areas where it is believed that the UN System can make a significant contribution to the future development of PNG. The aim of the United Nations Country Team in PNG is to provide as much assistance and expertise as possible, in conjunction with other development partners, to help PNG realize its development goals. The CCA should be regarded as a continuous process that ensures flexibility in adjusting to the changing circumstances, and the UNCT's hope is that the CCA will enrich the ongoing debate on national development. We would greatly appreciate constructive critique and feedback on the report to help us improve our national development situation analysis in future.

The UNDAF, a strategic planning and policy framework for UN development assistance at the country level over the coming five-year period, will build on the findings and recommendations of the CCA. The UNDAF will constitute a framework under which the UN organizations and agencies will support the country's long-term development according to their comparative advantages and areas of expertise. By developing and implementing the UNDAF, the UN System hopes to strengthen inter-agency collaboration and provide effective assistance to the Government for improving the well-being of all the people of Papua New Guinea. The goals and objectives for the next five years from 2003-2007 will find a full reflection in the UNDAF which will succeed the Country Strategy Note for PNG (1997-2001).

The UN Country Team in Papua New Guinea would like to express its sincere appreciation to all those who contributed to the CCA process, especially in discussions in the Working Groups which were established for the exercise as well as to others who participated substantively in the development of various components of this document. It is hoped that the CCA and UNDAF will provide a basis for further deepening cooperation and partnership in the coming years as we work to meet the country's development challenges and opportunities ahead.

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List of Acronyms

AsDB	Asian Development Bank
ARTEP	ILO Asian Regional Team for Employment Promotion
BCL	Bougainville Copper Ltd.
BRA	Bougainville Revolutionary Army
CBO	Community-based Organisation
CCA	Common Country Assessment
CEDAW	Convention on the Elimination of Discrimination Against Women
CIMC	Consultative Implementation and Monitoring Council
CITES	Convention on the Illegal Trade in Endangered Species
CPR	Contraceptive Prevalence Rate
CRC	Convention on the Rights of the Child
CSN	Country Strategy Note
CSO	Civil Society Organisation
DHS	Demographic and Health Survey
DOTS	Directly Observed Treatment, Short-Course
EC	European Commission
ECD	Early Childhood Development
EFA	Education for All
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organisation of the United Nations
FWCW	Fourth World Conference on Women
GDI	Gender-related Development Index
GDP	Gross Domestic Product
GEM	Gender Empowerment Measure
GNP	Gross National Product
HABITAT II	Second United Nations Conference on Human Settlements
HDI	Human Development Index
HDR	Human Development Report
HSIP	Health Sector Improvement Programme
HPI	Human Poverty Index
HSIP	Health Sector Improvement Programme
ICPD	International Conference on Population and Development
ICT	Information and Communications Technology
IEC	Information, Education and Communication
IFAD	International Fund for Agricultural Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMR	Infant Mortality Rate
ITB (WG)	Information Technology Board (Working Group)
ITU	International Telecommunication Union
LAN	Local Area Network
LBW	Low Birth Weight
LIFDC	Low Income Food Deficit Country
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
MTDS	Medium Term Development Strategy (1997-2002)
MTP	Medium Term Plan (on HIV/AIDS)
NAC	National AIDS Council
NACS	National AIDS Council Secretariat
NCD	National Capital District
NDC	National Disaster Committee
NDHS	National Demographic and Health Survey
NDMO	National Disaster Management Office
NDOE	National Department of Education
NEC	National Executive Council

NGO	Non-Governmental Organisation
NHP	National Health Plan
NPP	National Population Policy
OEC	Office of Environment and Conservation
OSH	Occupational Safety and Health
PAC	Provincial AIDS Committee
PNG	Papua New Guinea
PPP	Purchasing Power Parity
PSRMU	Public Sector Reform Management Unit
RH	Reproductive Health
SRP	Structural Reform Programme
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
TFR	Total Fertility Rate
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCHS/Habitat	United Nations Centre for Human Settlements
UNCPCTO	Ninth UN Congress on the Prevention of Crime and Treatment of Offenders
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDCP	United Nations Drug Control Programme
UN-DMT	United Nations Disaster Management Team
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNOCHA	United Nations Office of the Coordination of Humanitarian Affairs
UNOPS	United Nations Office for Project Services
UNPOB	United Nations Political Office in Bougainville
UNSECOORD	United Nations Security Coordinator
UNV	United Nations Volunteers
UPE	Universal Primary Education
UPNG	University of Papua New Guinea
WB	World Bank
WCEFA	World Conference on Education for All
WCHR	World Conference on Human Rights
WFP	World Food Programme
WFS	World Food Summit
WHO	World Health Organization
WMA	Wildlife Management Area
WSC	World Summit for Children
WSSD	World Summit for Social Development
WToO	World Tourism Organization
WTO	World Trade Organization

Executive Summary

The Common Country Assessment (CCA) is a country-based process for reviewing and analysing the national development situation and identifying key development challenges as a basis for advocacy, policy dialogue and preparation of the United Nations Development Assistance Framework (UNDAF). This participatory process has been undertaken by the United Nations System in Papua New Guinea with key partners, in particular, the Government.

In the first decade after independence in 1975, Papua New Guinea experienced a slow but steady pace of development. Social indicators improved steadily from a very low base at independence. Life expectancy increased by 14 years (from 40 to 54) from the early 1970s to the mid-1990s as a result of improved health and survivability. The macroeconomic context was generally stable with a sound currency underpinned by responsible fiscal and monetary policy. PNG's Constitution and its legal and regulatory framework were heralded as amongst the best in the world with the news media relatively free. It was also recognised as the first Pacific country formally to acknowledge women's role and contribution to national development.

By the early 1990s, however, progress in human development had slowed. Progress in a number of key development indicators, notably infant and child mortality and overall life expectancy, slowed significantly. PNG's development indicators compare unfavourably with its Pacific and Southeast Asian neighbours, and its most recent (2001) Human Development Index ranks PNG 122nd in the world and near the low end of the range.

The slow-down in PNG's pace of development in the 1990s was unexpected and appears paradoxical in the light of a number of features of the country. It is rich in natural resources: copper, gold, oil, gas, land, forests, agricultural land, and a large and well-stocked marine environment. The establishment of a series of mines from the 1970s to the early 1990s provided a steady revenue stream to the national government as well as creating jobs and spin-off industries. It has continued to receive substantial amounts of foreign aid and technical assistance, largely from Australia.

The development slowdown has complex causes. One cause relates to the security situation. Law and order problems first became

evident in nascent towns, and particularly in Port Moresby, but later emerged in rural areas as well to the point that crime is no longer an exclusively urban phenomenon. The law and order crisis put a brake on development. The costs of starting new businesses or maintaining existing ones escalated because of the need to pay for a range of security services. Small businesses are unable to provide sufficient security to justify their operations. Coffee plantations have contracted as a result of law and order problems.

Another causal factor has been the civil strife on the island of Bougainville in North Solomons province in 1989. The closure of the Panguna copper mine by a group of landowners and workers supported by the Bougainville Revolutionary Army, reduced the revenue available to the national government. It also increased the costs to government of maintaining a police and military campaign to re-establish central government control. A Peace Agreement signed in August 2001 resulted in a phased assumption of political autonomy which may evolve into independence.

A third major factor was the macro-economic crisis of 1994-95. Serious fiscal imbalance resulted in effective loss of foreign reserves and devaluations of the Kina and its eventual float. The country was hit with two additional shocks - a widespread drought throughout the country in 1997 that closed mines, reduced agricultural production and real GDP by almost 2 percent; and a financial crisis in Asia which reduced demand and prices for a wide range of PNG's export commodities. A Tsunami, and a volcanic eruption that destroyed the town of Rabaul, added to PNG's problems. The monetary and fiscal crisis essentially continues up to the present with a range of measures being adopted (from public sector reform to deregulation and the privatization of state-owned enterprises) to stabilize the macroeconomic situation, restore both domestic and international confidence, and promote economic growth.

The policy responses of successive governments to these crises as well as other developments have led observers to suggest that poor governance remains a major impediment to development. While PNG is a parliamentary democracy with generally free and fair elections, members of parliament are being elected by decreasing proportions of the

electorate, in some cases as low as 10 percent of voters.

Institutions of state responsible for monitoring and reporting the use of funds and compliance with such laws as the Financial Management Act, have become weakened by inadequate allocations of operational funds. The key institutions of Auditor-General, Attorney-General, and Ombudsman Commission remain effective instruments.

Provincial governments were created shortly after independence to satisfy demands for self-determination among some cultural groups and were formed by separate elections, legislatures, and ministers of state. The new organic law on local and provincial government of 1995 created a new system of provincial representation combining national-level and local-level representatives into one legislative chamber. This system is, however, yet to succeed in its fundamental purpose, to improve the delivery of public goods and services to the public at large.

In the meantime, development problems are accumulating. Of particular concern is the slow improvement in the nation's social indicators in comparison to most Pacific and Asian states. Infant and child mortality rates remain high relative to the per capita GDP of the country, and are particularly high in some of the more remote and least-developed provinces. Maternal mortality is high with about 680 women dying each year for pregnancy-related reasons. A major cause of this high mortality is the high fertility rate, with women having 4 to 5 children. Too many children, too close together, and lack of adequate reproductive health services are issues of strategic concern. Only 20 percent of eligible couples practise modern methods of contraception

The general cause of poor health is the continued prevalence of infectious disease. In some poorer provinces, it accounts for well over half of all deaths. The main infectious diseases are malaria, tuberculosis, pneumonia, diarrhoea, measles, and tetanus. Factors that contribute directly to the prevalence of these diseases include malnutrition (especially amongst children and pregnant women), lack of clean water and sanitation, and low immunisation coverage. Indirect factors include illiteracy or low education level of mothers, poverty, and lack of access to primary health services. The high unmet need for family planning, which results in short birth-spacing,

and giving birth too old or too young, contributes to infant and maternal mortality.

Of special urgency at the present juncture are the three infectious diseases of malaria, tuberculosis, and HIV/AIDS. Malaria deaths are increasing and tuberculosis is making a comeback. More than 1,000 TB cases are reported annually. HIV seropositive cases are increasing rapidly, with the majority of reported cases in the National Capital District. A potential threat exists of a major HIV/AIDS epidemic.

Education and literacy levels remain low, especially among rural women. Universal Primary Education has been a goal since the 1970s, but still appears to be far from being achieved. Schooling is not compulsory.

Education data suggest that primary enrolment at the national level, although far from universal, is quite high at 81 percent but some provinces have primary enrolment rates below 60 percent. The recent education reforms have extended primary education to grade 8 and added a preparatory grade for six-year olds. These reforms should expand the number of places available in grades 7 and 8 and advance the pace toward the goal of Universal Primary Education.

No official poverty line has been established. However, a poverty study in 1996 estimated that 37 percent of the population could be considered "poor". Based on food consumption, the number of "poor" drops to about 16 percent. In other words, 84 percent of the population has consumption sufficient to meet the basic caloric requirements for adequate nutrition. This finding confirms the belief in various walks of life that the vast majority of the population is not poor in the sense of having not enough food to eat.

Although men and women have equal rights under the constitution and PNG is a signatory of the Convention on the Elimination of Discrimination against Women (CEDAW), gender inequality remains a severe impediment to development and one of the most visible violations of human rights. Its Gender-related Development Index (GDI) rank in 2001 is 110th out of 146 countries for which data are available. Gender disparities are lower in the Southern coast and Islands regions and greater in the Highlands and North Coast regions. In no province is female achievement equal to male in areas such as schooling, employment or access to resources and services. Adult women

experience similar mortality risks to those of men, as evidenced by similar life expectancy levels. Only 2 out of 109 members of Parliament are women, and female representation in provincial assemblies ranges from 3 to 9 percent. About 18 percent of wage jobs are held by women.

PNG ranks among the most important countries in the world for its degree of biodiversity, the number of endemic species it contains, and the large scale of its tropical forests. Its coral reefs are among the richest remaining in the world. At the same time, it has one of the lowest proportions of land or sea area under some form of environmental protection, and a large number of mammal species are classified as endangered. The principal threat to PNG's biodiversity is large-scale logging. Conversion of forest to subsistence or plantation agriculture is also a threat. Coral reefs are endangered by over-exploitation of marine species and the use of dynamite and poison for fishing. Population growth is increasing the pressure on land in areas of high population density. Improved protection of the environment is constrained by weak legislation and poor enforcement capacity.

Results of the 2000 census show that the population had reached 5.1 million. Estimated annual population growth during the past decade was 2.7 percent, a dramatic increase from the 2.3 percent recorded in the previous decade. At the provincial level, annual growth rates range from 5.6 percent in Southern Highlands to 1.7 percent in East New Britain. The accuracy of these rates remains in question until the census figures are finalised and verified. Previous census data indicate that PNG has a young population with 42 percent under the age of 15. The labour force is currently growing by 53,000 persons per year and this is projected to increase to 66,000 by 2020.

Children and youth remain vulnerable groups, although for different reasons. Infant and child death rates remain high, particularly in some provinces. Low immunisation rates, malnutrition, unsafe water, restricted access to health care, poor education and health of mothers, are contributing factors. Short birth spacing and mothers too old or young, or malnourished, contribute to underweight births and eventual sickness or death. Child abuse is increasingly reported, especially in urban areas where families are under greater stress. PNG is a signatory to the Convention on the Rights

of the Child, but protection of children is compromised by the absence of clear definitions of children in laws and acts.

Youth, as normally defined (15-24), comprise about 20 percent of the population. Preliminary 2000 census results showed about one million youth. Prior to the recent education reforms, 85 percent of youth were already outside the school system seeking to make a living, mostly in villages. In rural areas, formal unemployment is low while urban youth, lacking education or access to land, are more vulnerable to unemployment and its related problems. About 20 percent of economically active youth were recorded as unemployed in 1990, and only 14 percent had wage jobs. In urban areas youth unemployment is 37 percent, but 55 percent of urban youth had a wage job compared to only 8 percent of rural youth. The probability of getting a job in towns is clearly high relative to rural areas and helps to explain rural-urban migration. Urban youth are particularly vulnerable to the growing problems of HIV/AIDS (and other STDs), crime, and substance abuse.

Papua New Guinea remains a predominantly rural country with about 80 percent of the population living in rural villages and cultivating land. About 38 percent of the rural labour force in 1990 were engaged in subsistence production only and a further 44 percent also produced cash crops. Less than one percent of the rural labour force were self-employed, and only 8 percent were wage workers. The urban situation is quite different with 60 percent of the labour force having wage work while 28 percent were unemployed. The main labour problem is the absorption of new labour force entrants. Opportunities in the formal labour market are limited so that most growth is presently occurring in the rural sector. Although the quality of human resources has been increasing, equipping a new generation of workers with appropriate occupational skills remains a major challenge.

Recent governments have undertaken a series of initiatives aimed at improving the quality of governance and accelerating the pace of economic growth and human development. A range of public sector reforms is in the process of being implemented. A privatisation programme has been established and a "Political Parties Integrity Bill" has been passed.

Within the framework of the evolving Medium Term Development Strategy of the

Government, and as a partner in contributing to addressing PNG's major development challenges, the UN System organizations and agencies will be focusing on a cluster of inter-related areas in planning and implementing its co-operation activities, as will be delineated in the United Nations Development Assistance Framework (UNDAF).

Based on the CCA process to date, and subject to consultation to be intensified with the Government and a community of partners in the months ahead, it is anticipated such priority areas would encompass, inter alia, improving the quality of governance and human security; reducing poverty and providing for sustainable livelihoods while protecting and conserving the environment; tackling major health threats to the population including from malaria and tuberculosis along with childhood measles, pneumonia and diarrhoea, with high priority given to HIV/AIDS; strengthening the management and reproductive health outreach capacity of health workers, and increasing access to quality comprehensive reproductive health services; rectifying imbalances in girls' education and mainstreaming gender concerns throughout UN System programmes; child protection and the rights of children through support to the revitalization of birth registration, the reform of the juvenile justice system and the elimination of child abuse; supporting reconstruction and development of Bougainville through expanded support in the fields of governance (institution building, human rights and gender included), children, agriculture, health, vocational training, and education; natural disaster and hazards management systems; and gaining maximum benefit from global advances in Information and Communication Technology (ICT).

1. INTRODUCTION

1.1 Purpose and Methodology of the Common Country Assessment

The Common Country Assessment (CCA) is an assessment of the overall development situation of the country that is undertaken by the United Nations Country Team (UNCT) in collaboration with the government and other development partners. As well as providing an overall description of the state of development in the country, the CCA identifies key development issues and challenges facing the country that the UN system, along with other agencies and the government, need to address in their policies and programmes of assistance. One of the central aims of the CCA is to identify the poorest and most vulnerable groups and to forge a consensus within the UNCT on the best strategies for addressing their needs. The CCA also includes an assessment of the extent to which the country has implemented UN conventions and declarations and what follow-up to UN conferences has taken place.

The CCA has several specific purposes. First, it provides the analytical basis for the United Nations Development Assistance Framework (UNDAF). In so far as the CCA document reflects a consensus on key development issues among UN System organizations and agencies and other development partners, the result will be greater collaboration among agencies and greater coherence in the overall programmes of assistance. In this respect, the CCA is expected to be of sufficient quality to replace the situational analysis previously carried out by individual agencies as part of their preparations for a new country programme. The CCA also contributes to the identification of issues that are best addressed by development agencies outside the UN system. Second, the CCA is expected to produce a common information base. Agreement on the appropriate data to be used both for the standard set of CCA indicators and the country-specific indicators of the development status of the country will facilitate more fruitful policy discussion and analysis. Third, the CCA provides the basis for an on-going dialogue on development issues, especially those on which it is difficult to achieve a broad consensus. By creating a network of groups, the CCA process contributes to the resolution of any policy differences between the UN system and the government.

The CCA report is one outcome of the CCA process which is considered important in itself. The CCA process is to be "...participatory, dynamic and continuous; it ensures learning from prior experience, brings in the UN system organizations' combined knowledge, know-how, and new ideas, advocates new approaches, reaches new or revised consensus, and updates the CCA document accordingly".

The substantive content of the CCA is expected to reflect the consensus on development priorities and strategies that is emerging from a range of recent international conventions and declarations. "Peace, security, human rights and development are now recognised as interdependent conditions for human progress". The CCA should be "people-centred" and take full account of such cross-cutting issues as human rights, food security, environmental sustainability, population, gender, poverty, governance, HIV/AIDS, and the promotion and protection of children's rights. Furthermore, the CCA should ensure that the circumstances of the poorest and most vulnerable groups are adequately described. Data are expected to be disaggregated by sex and also reflect sub-national variations (e.g., the geographical distribution of poverty).

The CCA/UNDAF process in PNG commenced in June 2000 when the Government through the central coordinating agency Department of National Planning and Monitoring (DNPM) hosted a pilot orientation exercise which brought together the UNCT agencies, the World Bank, and the International Monetary Fund (IMF). After a period of follow-up consultation with the Government on their preferred approach to the CCA/UNDAF process, the UNCT organised, in March 2001, a 3-day full-scale team-building and training for the CCA/UNDAF in PNG with over fifty participants from the Government, UN system organizations, bilateral donors, national and international NGOs, and civil society organizations. The exercise was opened by Secretary, DNPM, whose representatives provided a key input. This inclusive and participatory launching exercise and its immediate follow-up consultation by the UNCT with the Government resulted in the agreed terms of reference for the CCA (annexed); the consensus on broadly defined, strategic development arenas for analysis through the CCA; and the consensus on the modus operandi to advance the CCA process collegially including through the formation of working groups which would report to the steering group comprising the heads of UNCT agencies. All the secretaries of the concerned departments (health, social development, education,

agricultural and livestock, environment and conservation, and foreign affairs) were apprised of the outcome of the 3-day session through a formal communication as well as individually where feasible.

In order to underpin the time-bound, multi-stakeholder, and admittedly complex interdisciplinary team exercise, the steering group through a consensus decision mobilized the UNFPA Country Support Team based in Suva, Fiji, to provide expert advisory support through Mr Geoffrey Hayes to the working groups each working under a designated moderator/team leader. The working groups were mainly responsible for searching for and reviewing published data and other source materials in respective domains of analysis and assessment for the purpose of establishing a CCA Common Indicators Database with the values and data pertaining to PNG.

The working groups, meeting individually and through a plenary over a period of some five months, consolidated the results of their collective work in the form of successive drafts that together streamed into the evolving draft CCA report. Time constraint and other factors made it prudent to limit analysis to those data that were in the public domain. No attempt was made to generate original data for the express purpose of using them for the CCA report. As the CCA process unfolded, the Office of the Resident Coordinator of the UN, on behalf of the UNCT, sought active participation and material inputs from selected off-shore UN system partners and others all associated with PNG. Chief amongst them were: the Department of Political Affairs (DPA)/United Nations Political Office in Bougainville (UNPOB); the Economic and Social Commission for Asia and the Pacific (ESCAP); the Food and Agricultural Organization (FAO); the International Fund for Agricultural Development (IFAD); the International Labour Organization (ILO); the United Nations AIDS (UNAIDS); the United Nations Center for Human Settlements (UNCHS); the United Nations Drug Control Programme (UNDCP); the United Nations Population Fund's Country Support Team in Suva; the United Nations Development Fund for Women (UNIFEM); the United Nations Office for Project Services (UNOPS); the United Nations Office for Humanitarian Affairs (UNOCHA); and the United Nations Volunteers (UNV). Throughout the year-long process, the UN Development Group (UNDG) in New York has provided the UNCT with valuable feedback and comments aside from facilitating the timely implementation of the team-building and training in March 2001.

As a result, the present CCA report draws substantively on valuable contributions received from the UNCT's overseas partners. In particular, the report draws substantively on the work carried out on the cross-cutting issues by the UNAIDS in Bangkok; the UNDP Asian and Pacific Development Information Programme (APDIP) in Kuala Lumpur; the UNDP Pacific Governance Programme (GOLD) headquartered in Fiji; and UNOCHA in Suva. An important contribution was provided on Bougainville by UNOPS, DPA/UNPOB, UNIFEM, and the UNDP GOLD Programme. A series of agency-specific missions hosted by the UNCT's constituent agencies provided significant feedback and contributions to the CCA process throughout the year.

The last quarter of the year 2001 saw the start of a strengthened UN system partnership, centrally facilitated by the Government through its Department of National Monitoring and Planning, with the Asian Development Bank (AsDB) in the context of the Government's preparation of its National Poverty Reduction Strategy, which is due for finalization by mid-2002. Periodic contact was maintained with The World Bank and the IMF. The CCA unfolded while benefiting in a major way from a series of in-depth reviews conducted by various development partners on a spectrum of development challenges faced by PNG. Preparation of the final CCA report was facilitated by an international consultant engaged by the UNCT – Mr. Tony Patten. In this regard, and as will be evident, stylistically, the present CCA report retains composite nature of its contents contributed by different colleagues and groups, which accounts for variation across different sections in chapters 2 through 4. As globally designed under the UN Reform, the next step lying immediately ahead will be the finalization of the United Nations Development Assistance Framework (UNDAF) for 2001-2007, due for approval in the first quarter of 2002.

The UNCT wishes to register its sincere appreciation of the tremendous cooperation it has received from a large number of colleagues and institutions at various stages of the CCA exercise. It is not feasible to thank all of them individually by name. We nonetheless attach, as a concrete indication of the inclusive and participatory nature of the CCA process, a list of the participants/invitees to the team-building and training exercise held in March 2001 and a list of the members of the working groups as initially established. Partnerships, freshly formed or strengthened with the institutions and individuals,

will be a foundation upon which the UNCT will forge ahead with its work in PNG in an expanding alliance of development partners in support of national development.

1.2 Country Background

Papua New Guinea lies within an area bounded by the equator in the north, the Indonesian border at 141 degrees east longitude to the west, an irregular border with Australia across the Torres Straits to the south, and the boundary with the Solomon Islands to the east at 160 degrees east longitude. The land area of Papua New Guinea includes the eastern half of the island of New Guinea mainland; the Bismarck archipelago (consisting of the island groups of Manus, New Britain and New Ireland); the islands of Bougainville and Buka; the Louisiade archipelago at the south eastern extremity of the country, and several hundred smaller islands or island groupings. The total land area of the country is 462,840 square kilometres, 30 percent of which is considered to be arable.

The main geographical feature of the New Guinea mainland is a massive central cordillera that stretches across the entire island dividing it along an east to west axis. This mountainous core, one of the world's greatest mountain systems, is comprised of a complex series of ranges interspersed with wide highland valleys. The central cordillera, which rises in parts to a height of 5,050 metres, creates a drainage divide between several large rivers that flow to the north and south. The four largest rivers drain into very large, swampy estuaries along the coasts. The larger islands of New Britain, New Ireland, and Bougainville are also characterised by a central chain of mountains, and most smaller islands are essentially undersea mountains of volcanic origin. Some smaller islands to the north-east, mainly inhabited by people of Polynesian origin, are coral atolls. Coral reefs are extensive along the south coast and in the eastern islands and comprise one of the world's richest areas of marine life.

PNG is rich in a variety of natural resources. About 60 percent of the land area is covered with dense rain forest containing a wide diversity of flora and fauna, including 650 species of birds and 100 species of mammals. It has one of the largest remaining tropical forest areas in the world, and is classified as one of 18 biodiversity "megasites" in the world. The forests are, therefore, of global climatic and environmental significance. The coastal and offshore waters of its Exclusive Economic Zone cover an area of 2.4 million square kilometres and contain a large number of commercially valuable species with an estimated maximum sustainable yield of 680,000 tonnes per year. PNG also has substantial reserves of natural gas, oil, gold, copper and nickel. The area potentially available for commercial agriculture is large, as only one percent of the total area is permanently cropped.

PNG has been occupied by human beings for 30,000-50,000 years. Indonesia is the most likely origin of the indigenous population, but movement occurred in stages over a long period of time. While almost all of Papua New Guinea is classified as "Melanesian", there is considerable racial and cultural diversity. Physical types vary widely. The small size of most settlements, their scattered distribution across a vast landscape, and their extreme isolation from each other, has resulted in there now being over 800 local languages. The distribution of languages is complex, but those of the south coast and some islands generally belong to the Austronesian (Malayo-Polynesian) family. Highlands languages are older and classified as "Papuan". Official languages are English, Tok Pisin (pidgin) and Motu, the main language of the south coast region.

The population of PNG was 5.1 million at the time of the 2000 census, an increase of 1.4 million since the previous census in 1990. The implied growth rate was 3.1 percent per annum but it is likely that this has been inflated by an undercount in the 1990 census and the true growth rate may be closer to 2.7 percent. The distribution of the population is uneven with 38 percent of the total in the interior highlands region, 28 percent in the north coast region of the New Guinea mainland, 20 percent in the south coast region, and 14 percent in the Islands region.

PNG became independent from Australian administration in September 1975. The country is a parliamentary democracy modelled upon the Westminster system of Great Britain. The Queen of the United Kingdom is the head of state and is represented by a Governor-General. Administratively the country is divided into 19 provinces plus the National Capital District, which is treated as a province for most purposes. The national parliament has 109 members elected every five years in a general election. There is no upper house or senate. There are 89 "open" electorates and an additional "regional" member is elected from each province. Under a reformed system of provincial government introduced in 1995, the regional member normally serves as the Provincial Governor. The provincial legislature consists of

the presidents of the local-level governments as well as appointed representatives of women's groups and other components of civil society. The ward (usually comprising one village or a cluster of villages) is the lowest political unit and is represented in the local-level government by a councillor.

While the political system of PNG is structurally similar to the Westminster system, the actual conduct of politics is quite different. Political parties contest each election but they are based upon loose and temporary alliances rather than coherent organizations based upon broad-based public membership expressing a distinctive political ideology. Political parties form and re-form as opportunities to participate in government present themselves. The large number of candidates running for election, combined with a first-past-the-post electoral system, results in members being elected with as few as 10 percent of the vote. Typically, at least half of all elected members lose their seats at each election.

PNG has been described as a country with a generous endowment of natural resources but a low level of economic and social development. Its economy is characterised by a marked form of economic dualism. A large proportion of the labour force is engaged within the village economy producing their own subsistence on customary land along with a range of cash crops, including coffee, tea, copra, cocoa, and palm oil. Almost 30 percent of the rural labour force in 1990 produced only their own subsistence. But the agriculture, forestry and fishing sector generated only 24 percent of gross domestic product (GDP) in 1998, suggesting extremely low rural incomes. The mining and petroleum sector, on the other hand, employs a small labour force while generating 26 percent of GDP. It contributed 79 percent to PNG's export earnings by value in 2000 compared with only 20 percent from the agriculture, fisheries, and forestry sectors. The main economic challenge for the country is how to increase earnings from agriculture and fishing and to construct a more balanced economic structure.

Per capita GDP in 1998 was an estimated US\$1,085 (Purchasing Power Parity US\$2,359)¹, which placed PNG near the bottom of the "middle-income" group of countries. The decline in the value of the Kina against the US dollar from 1:1 in 1990 to 1:0.36 in 2000 had a dramatic impact upon GDP expressed in US dollars. But not all of the decline can be attributed to the exchange rate, and in fact the decline in the exchange rate was a reflection of a series of major shocks to the PNG economy over the previous five years. Rural incomes are substantially lower than total per capita GDP, with some estimates suggesting average incomes of US\$300-350 per person. Notwithstanding this estimate, many rural families have little or no cash income or are supported by urban relatives. The 1996 poverty study conducted under the auspices of the World Bank² concluded that 37.5 percent of the total population, 41 percent of the rural population and 16 percent of the urban population fell below the poverty line.

As is evident from the following table, PNG's social indicators are poor relative to its Pacific and Asian neighbours.

Table 1.1: PNG's Social Indicators in Comparative Perspective

Source: Pacific Human Development Report, 1999 and Human Development Report 1998/99

Country	Adult literacy rate (%)	Primary school enrolment rate (%)	Expectation of life at birth (years)	Infant mortality rate per 1,000	HDI Rank in 1998
Papua New Guinea	63.2	81	54	77	164
Vanuatu	33.5	72	65.8	45	140
Solomon Islands	30.3	39	64.7	38	147
Fiji	92.9	90	66.5	16	101
Indonesia*	85	99.2	65.1	45	96
Laos*	58.6	73	53.2	99	136

*1999 Human Development Report, except for HDI Rank (1998 HDR)

Adult literacy rates recorded in 1990 were particularly low at 45 percent as a result of low educational levels in rural areas and among women, and because of the large proportion of the adult population that had had no formal education. The rate has improved dramatically in the past decade to

¹ Human Development Report 2000, UNDP

² Papua New Guinea: Poverty and Access to Public Services, October 28, 1999, The World Bank

63.2 percent with recent educational reforms raising the primary enrolment rate to 81 percent in 1999 with male and female rates approximately equal.

The health status of the population is generally poor. Infant and child mortality has remained persistently high throughout the past decade with only a slight improvement. Life expectancy at birth has risen very slowly over the past two decades, but still remains well below other middle-income countries and is the lowest in the Pacific Islands region. The Maternal Mortality Ratio of 370 per 100,000 live births is also relatively high with the highest rates being recorded in the interior highlands region. PNG's high mortality rates are a reflection of the slow progress being made against infectious diseases. Immunisation against common childhood diseases is well below the required level. Malaria remains endemic in coastal areas and outbreaks are appearing at higher altitudes as well. Pneumonia and tuberculosis are major causes of death and HIV/AIDS is well established in the country and becoming a significant cause of death in urban hospitals.

1.3 PNG's Recent Development Path and Record

Inflation-adjusted economic growth (as measured by total GDP) has increased at an average rate of 3.3 percent per year over the period 1985-2001. This is a slow rate by comparison with most neighbouring countries, particularly the newly-industrialising countries of southeast and east Asia. The growth trend has fluctuated widely on an annual basis. As a result of the closure of the Panguna copper mine in 1989, GDP contracted by 3 percent. New resource extraction projects coming into operation in 1991-93 accelerated GDP growth, but contraction again followed the fiscal and monetary crisis of 1994. A severe drought in 1997 which affected both export agriculture and the mining industry again saw a decline in real GDP. Economic growth has recovered during the past three years but remains below the long-term average and well below the rates experienced in the early 1990s.

Economic growth has not only been comparatively slow, it has also been highly concentrated in the minerals and petroleum sectors. The contribution of mining and petroleum to GDP has increased from 12 percent in 1989 (after the closure of the Panguna copper mine) to 30 percent in 1999. The petroleum sector has grown from zero in 1991 to 10 percent of GDP in 1998. By contrast, the entire non-minerals sector has experienced slow growth and its contribution to the economy has remained virtually unchanged in the past decade.

The slow pace of economic growth is particularly evident when expressed in per capita terms. Given a population growth rate of around 2.4 percent, rising to around 2.7 percent over the past two decades, per capita income growth has averaged less than one percent per year, in spite of the rapid growth of the petroleum industry. When mining and petroleum are deducted from GDP, per capita economic growth in the balance of the economy averaged under 0.5 percent per year over the past decade and a half. Insofar as the vast majority of rural village dwellers are concerned, any improvement in living conditions that might have occurred in recent decades would be barely noticeable. Rapid rural appraisals conducted for the PNG Human Development Report suggest that many villagers believe that their living standards have decreased in recent years.

The reasons for the country's poor economic performance are many and complex. The role played by internal and external shocks must be acknowledged. The outbreak of civil insurrection on Bougainville Island resulting in the closure of the copper mine at Panguna followed by an expensive military campaign to re-establish central government control, had a profound impact on the country which is still being felt. The Asian economic crisis in the late 1990s had a major impact on log exports in particular and commodity prices in general. A widespread drought in 1997 reduced mineral exports by dropping river levels to the point where exports from the Ok Tedi and Porgera mines ceased for several months. The drought also had a major impact on the agriculture sector and emergency food supplies were required in many rural areas. Two major cyclones during the 1990s caused severe damage in coastal areas, and a major volcanic eruption destroyed the town of Rabaul. A political crisis in 1997 was precipitated when the military commander forced the resignation of the Prime Minister resulting in a loss of investor confidence and disruptions in negotiations with the IMF and the World Bank over the economic reform programme.

Successive governments have endeavoured to cope with these internal and external events. Loss of fiscal discipline caused the budget deficit to expand to 11 percent of GDP in 1994. A macro-

economic crisis ensued, including the complete loss of foreign reserves and the float of the national currency (Kina). In subsequent years, governments failed to obtain offshore finance to cover budget deficits, causing a drain on domestic finance and raising interest rates above 20 percent. A contraction of local investment inevitably followed. In the meantime, government debt has risen and debt service costs reached 31 percent of total government expenditure in 1999.

Aside from these short-run events, economic and social development in PNG is constrained by a number of historical and structural conditions. The development of human capital in PNG has proceeded at a slow pace since independence. A decade ago, 60 percent of the population aged 10 and above had received no formal education, and this proportion rose to 66 percent in the rural sector and 67 percent for women. Only 2 percent of the population had received any form of education or training beyond high school and less than 5 percent had completed any high school grade. The low level of skills implied in these figures constrains employment as a large proportion of the labour force possesses few skills of value to an employer.

The rugged topography comprising large and complex mountain chains, swamps and rivers and remote islands presents a daunting challenge to economic development. There are currently no roads linking the capital with the north coast or highlands where the majority of people live. Internal transport is by air and sea; this makes the movement of goods and people expensive and constrains the development of internal markets. Furthermore, much of the existing infrastructure is deteriorating as a result of poor or non-existent maintenance. The main highway from the northern port of Lae into the populous highlands region is frequently impassable. The costs of poor road maintenance are borne by truck operators in high operating costs and insurance rates. Consumers eventually pay these costs in higher prices for goods.

Total public investment has remained stagnant at 6 percent of GDP. This is a low rate by comparison with South-East Asian economies. PNG has invested a very small proportion of its windfall revenues from mining and petroleum in creating new infrastructure or rehabilitating old. The ratio of capital to recurrent spending is among the lowest in the region. PNG also inherited a high internal cost structure at independence and this continued for the subsequent two decades through a policy of maintaining the Kina at a high value. The World Bank has noted that, compared to Indonesia, PNG's electricity prices are three times higher, labour costs four times higher, and urban rents 10 times higher.

The slow rate of economic growth outside the mineral and petroleum sector has left a legacy of unbalanced development. At the provincial level, those provinces that were relatively well-developed at independence remain more developed, and the least developed provinces remain so. Policies of decentralisation aimed to spread development broadly have not achieved their goal. Inequality, uneven development, and poor urban planning have contributed to the law and order problem. The high crime rate has had a pervasively negative impact on development. The costs of starting new businesses or maintaining existing ones have escalated because of the need to pay for a range of security services, the costs of which must be recovered from consumers. Business surveys show that law and order is the main constraint to new investment. Rural as well as urban business is now affected.

It has been argued that the land tenure system is an impediment to rural development because land is owned by clans and can neither be alienated nor used as collateral for business loans. The mobilisation of blocks of land for rural development is constrained by the fragmentation of ownership, the difficulties of identifying the "true" owners where there are disputes, and excessive "compensation" demands. However, proposals to "register" the land to facilitate development have faced vehement public opposition. At the village level, the lack of investment opportunities is a more serious constraint. Poor infrastructure, remoteness from markets, the collapse of government extension services, and the high cost or lack of credit, impede the creation of business enterprise.

In recent years a series of government initiatives, as outlined below, have been undertaken in order to accelerate the pace of economic growth and development by overcoming some of the constraints mentioned above. These initiatives have generally been supported by the international community, including the major aid donors, and provide the institutional context for all development efforts in the short-term.

The Medium-Term Development Strategy 1997-2002 in effect functions as a national development plan and a development philosophy. The five key elements of the MTDS are: (1)

adherence to the Structural Reform Programme; (2) a review of the role of government in the development process and the link between expenditures and their expected outcomes; (3) redefining the respective roles of the private sector, NGOs, government and the churches; (4) setting standards for the delivery of public goods and services, including unit costs, quality and access; (5) maintenance of physical infrastructure, including roads, schools, and health facilities. Essentially the MTDS aims to limit government activity to those areas on which the government must focus to create an environment in which the private sector (including the informal and village sectors) can flourish.

The National Charter on Reconstruction and Development is an agreement struck in late 1999 between the national and provincial governments on priority development programmes and directions. The agreement is based on the general principles of the MTDS, and specifies five core programmes for the period 2001-2002. The "Basic Services Improvement Package", aims to improve the quality of primary health care and basic education by building primary schools and teacher housing. The "Support for Less-Developed Districts" programme aims to improve education, health, and administrative infrastructure in less-developed districts. The "District Road and Bridges Improvement Package", is intended to rehabilitate existing roads and bridges, including urgent maintenance of the Highlands Highway. The "Income Generating Activities" programme aims to promote the downstream processing of PNG's natural resources, thereby creating employment. The "National and Decentralized Planning System" programme aims to create a uniform national planning system, to develop minimum standards, and to prepare a National Planning Act. Taken as a whole, these programmes are expected to contribute to poverty alleviation.

Established in 1998, the Consultative Implementation and Monitoring Council (CIMC) facilitates communication and consultation between government, the private sector, NGOs, churches, and academic and research institutions. The Council is chaired by the Minister for Planning and Implementation and the Secretariat is the Institute for National Affairs, a private sector research institute. One function of the CIMC is to conduct national and regional development forums and to communicate the recommendations to government. The CIMC also maintains a number of sectoral committees and working groups and conducts research on topical issues. The Council functions largely as an advocacy group as it has no implementation powers or responsibilities.

PNG has been undertaking a Structural Reform Programme (SRP) with the financial support of the IMF and World Bank since 1995. The most recent SRP was announced with, and reflected in, the 2000 budget. Its elements include: strengthening of state institutions to promote "good governance" including greater transparency and accountability; a revised Banks and Financial Services Bill to prevent "fast money" schemes from operating; a new act to regulate the insurance and superannuation industry; measures to enhance the efficiency of the taxation system; and preparation of a new competitions policy that will establish the regulatory framework within which state-owned enterprises will operate.

A Public Sector Reform Management Unit (PSRMU) has been established in the Office of the Prime Minister and National Executive Council to oversee the reform process. Functional and financial reviews of a number of government departments have been conducted. The retrenchment of about 1,400 public servants was carried out in 2000. The overall public sector reform programme is coordinated by a Central Agencies Coordination Committee.

Privatisation is seen by recent governments, donor agencies and foreign governments as the only option available to restore financial integrity to state-owned enterprises. The state has already divested itself of ownership in a number of commercial enterprises such as plantations and mines, and is now looking at larger institutions that play a major role in the economy. The main state commercial operations to be privatised include Air Niugini, the PNG Banking Corporation and associated companies, the telephone company, electricity commission, the harbours board, and so forth. A Privatisation Commission was established in 1999 to facilitate the sale of these government assets, while also ensuring that the community service obligations of these enterprises are assured once transferred to private ownership. The Commission is also tasked to ensure that PNG citizens receive a significant share of the privatised assets. The privatisation programme has aroused substantial public reactions and no major state-owned enterprise has been privatised to date.

The shifting alliances of members of parliament has been the main cause of political instability and this has contributed to policy instability and the loss of investor confidence. MPs regularly switch support from one party to another in exchange for ministries and other rewards. No government since

independence has survived its full five-year term and more governments are changed by votes of no confidence in the Prime Minister than by general election. The “Integrity of Political Parties and Candidates Bill” seeks to limit the ability of MPs to switch allegiance during the life of a parliament and to strengthen party discipline.

The organic Law on Provincial and Local-Level Government, 1995, was aimed at the reform of the previous system of provincial government and at the decentralisation of government personnel and functions to provinces and districts. The overall aim was to correct the pattern of uneven development across provinces and districts, and to entrust the delivery of basic social services such as elementary education and primary health to institutions close to the community level. The Law also encompassed a system of “bottom up” development planning that placed the responsibility for establishing public sector spending priorities on “village development committees” in the first instance, working up from there to the creation of a district development plan. A wide range of impediments has prevented the law from achieving its goals to date and it has undergone several amendments. The enabling legislation required to put the Law into effect has not been prepared or enacted. The decentralisation of functions has been impeded by the lack of trained personnel and infrastructure at the district level. A number of key elements of the planning system (such as District Planning and Budgeting Committees) are yet to function due to a lack of understanding and other constraints.

2. ASSESSMENT AND ANALYSIS OF SECTOR-SPECIFIC ISSUES

2.1 Introduction

This chapter assesses the state of human development in PNG from a sectoral perspective. Each sector analysis is divided into three parts: (1) A description of the key features pertaining to that sector and an assessment of the underlying causes and conditions; (2) a review of the key challenges facing the government and development partners in addressing these conditions; (3) a summary and conclusion. Cross-cutting issues such as gender, HIV/AIDS, information technology, and natural hazards, are covered in some detail in the following chapter, but some reference to these issues will be found in this chapter as well. Each sector analysis refers to the key indicators that pertain to the sector, but statistical tables are generally not presented. Key CCA Indicators and data sources may be found in Appendix B. At the outset, it is to be noted that many of the key indicators are based on statistics that are between five and twenty years old. There is no question that bringing PNG’s development statistics up to date is an important priority for the coming years. It is also to be acknowledged that stylistic variation in the style of presentation exists across the various sections for assessment and analysis; this is considered inevitable reflecting as it does the inherently composite nature of the multi-stakeholder participatory exercise on which this CCA report is anchored.

2.2 Governance and Human Security

2.2.1 Assessment and analysis

Democratic governance involves three distinct arms - legislative, executive and judicial. Underlying the success of this system is a strong and active civil society that can hold government and private sector accountable and that can participate actively in decision-making that affects them, and a strong private sector that can generate the resources required. Principles of good governance include: transparency, accountability, participation, consensus, equity, efficiency, the rule of law, responsiveness and strategic vision.

PNG's constitutional and legal framework provides a sound basis for democratic governance to function. Democratic elections are held every five years and the constitution guarantees the existence of institutions of integrity to ensure that elected leaders and those in positions of power are held accountable for their actions. Civil society (individuals, churches, community groups etc.) is relatively strong and the media are independent and active. The Constitution protects people’s rights to assemble and express themselves and to move freely throughout the country, and the judicial system is working adequately to protect these rights. Papua New Guinea has ratified important international conventions including ILO Conventions recognising freedom of association and the right to collective bargaining which are cornerstones for effective democracy.

Despite these developments and some positive indications of the existence of good governance, there are clearly challenges ahead. While progress has been made in terms of human development indicators, PNG still ranks relatively low compared to similar countries. Law and order is a major problem. The good governance tenets of participation, rule of law and consensus generally appear to be working in PNG. Basic accountability and transparency, efficiency and efficacy, responsiveness and strategic vision are often lacking. Human security issues are evident in places such as Port Moresby, with its crime problems. Lack of efficiency and efficacy is often evident in inefficient delivery of goods and services on the part of the government. The country lacks a development planning system framework within which it can form a strategic vision towards which to work. Strategies and plans are sectorally based and, whilst providing direction for sectors, fail to capture the development of the country as a whole.

Accountability and transparency issues range from basic capacities to administer and account for public funds, to the political level, including the operations of the parliamentary system. The parliamentary system is a democratic one. Members of Parliament are elected every five years through democratic elections. The primary roles of Parliament are: (1) to make and pass legislation; (2) to represent the interests of constituencies; and, (3) to decide on and monitor the utilisation and allocation of public resources.

According to a report by the Electoral Commissioner on the 1997 elections "*.....while the element of popular participation is usually not in doubt in Papua New Guinea's national elections, the concept of effective representation via elections appears to be diminishing progressively with every election*". This problem of representation can be applied to the other two roles of Parliament, namely, that the concept of parliamentarians making and passing laws and deciding on and monitoring the allocation and utilisation of public resources is also diminishing.

Increasing numbers of candidates standing for elections make it easier to win with a smaller percentage of the votes, and candidates can win with smaller margins. Increasing numbers of independent candidates make it difficult for voters to understand what their representatives are standing for. Voters tend to vote first on kinship or patronage lines and the electoral system does not allow voters to place a second preference for someone whom they believe may be a better leader than their kin. There is a lack of awareness on the part of leaders and voters regarding the roles and responsibilities of good leaders, and voters are sometimes coerced into voting for certain candidates, increasing election-related violence before, during and after polling. In Parliament, the executive tends to have a dominant influence and the party system is weak and fragmented. Members of Parliament are very mobile, not only between parties but also between opposition and government. There tends to be a lack of basic accountability of MPs to their constituencies.

Issues of efficiency and efficacy can be seen in public sector performance. The public sector is large relative to the private sector and productivity is low. The reasons for poor public sector performance include: inadequate capacity to undertake the work; lack of motivation and staff morale; shortage of qualified personnel to undertake work; inadequate resources to do work; and poor management due to insufficient managerial capacity. In addition, lack of clarity on roles and responsibilities, lack of accountability for performance, ineffective information flows, lack of incentives and inadequacies in the functioning of financial management systems, all contribute to poor performance.

In a bid to address issues of poor performance of the public sector and to respond to concerns that progress in rural areas in particular is too slow, the Organic Law on Provincial and Local Level Governments was passed in 1995. This law devolved substantial powers - political, administrative and accountability - to local level governments. Whilst the political and legal aspects of this law have been implemented, the administrative, institutional and systematic aspects required for it to operate are yet to be fully implemented. In particular, capacities at local levels to plan, implement and administer, and account for public resources are low. This is compounded by the fact that there is a severe lack of physical infrastructure to accommodate these new structures of government.

Civil society is relatively strong, with freedom of movement and speech constitutionally guaranteed and free and strong media. The challenges in its nascent evolution make it difficult for civil society to flourish and mobilise itself into a driving development force, setting the development agenda

and monitoring development progress. With 37 percent of the adult population illiterate and 85 percent of the population being based in rural traditional societies with limited access to modern communication systems, it can be difficult to mobilise society meaningfully. These constraints are exacerbated by a fragmented society where people are not only divided by over 800 languages, and hence a high number of cultures, but also by geographical and topographical barriers such as mountainous terrain, lack of roads and isolated islands. These are all factors that undermine the development of social capital upon which civil society can flourish. Where civil society is organised, for instance, in employers' and workers' organisations, these groups endeavour to strengthen and build capacity so that they can effectively influence policy decisions and press for a government dialogue with them on key social and economic issues.

Despite the general functioning of the judicial system and the rule of law, human security remains a paramount concern. This is particularly so in the major urban centres which experience relatively high law and order problems. Unemployment alone could not explain the high levels of crime because, compared to similar areas in the region, and globally, with perhaps worse unemployment and poverty, the crime rates in PNG are high. Another major concern is family violence, including violence against women and children. Constitutional institutions of integrity that provide the monitoring role to leaders and people in positions of public responsibility exist and operate but need to be strengthened. They need to be provided with the resources to perform their duties. The private sector has a vital role to play in generating economic growth and employment provided it is adequately consulted on key economic and social issues while shouldering the responsibility for conducting principled business and protecting the environment.

2.2.2 Key challenges

The governance problems faced by PNG would require resolute political and societal will to undertake concerted initiatives to change the way its governance institutions function and the way these functions are carried out.

Role of the state

The State, as it is increasingly described, is not a creator of wealth, but a facilitator and catalyst of development. The private sector is the engine of development and an essential function of the State is to provide an enabling environment in which investment can take place, wealth can be created, and individuals can prosper and grow. Civil society can then form and express itself, involving individuals in decisions affecting their own lives. Good governance and sustainable development are indivisible. Leaders at all levels need to understand good governance, a basis from which sustainable and equitable development can be maximised, predicated on the will of the people forming the basis of governmental authority and policy-making.

Public service

The management of national affairs and the delivery of public services need to be addressed urgently. On-going public sector reform initiatives deserve full support to professionalize the public service, to orient it into a merit-based civil service, to strengthen management capability, performance appraisal mechanisms and consequences for non-performance. Ownership and participation of people in the formulation and design of policies and development projects affecting them is a corollary prerequisite. Power and authority of central governments need to be devolved to lower levels of government. This is the rationale behind the decentralisation exercise that has been initiated by the government. Only through this process will government be brought closer to the people, and the people's access to decision-making and efficiency and effectiveness in the delivery of public services increase. Decentralisation, or de-concentration of powers, is also an excellent form of investing in people, as many of the local people will be encouraged to learn about the rudiments of prudent management and the need to maintain stability through peace and social cohesion. Giving villagers, town folk and groups of people the responsibility to take full charge of their own destiny is an empowering process in itself; it would engender a culture of increased accountability and transparency and a government sensitive and responsive to peoples' grievances.

Parliament

Accountability and transparency are central to good governance. They can be addressed by focusing first of all on the legislature, where accountability practices all begin and from which accountability and transparency requirements of public sector officials and institutions are exerted and enforced. Parliament has committed itself, through the Pacific Islands Speakers Forum, to implementing the Guiding Principles of Best Practices for Forum Island Countries' Legislatures. It would be a significant achievement - in the eyes of other Pacific countries, the international community and investors - if this commitment were realised in terms of practical initiatives to improve the constitutional role of Parliament. The challenges ahead would include: the committee systems being made functional to help Parliament perform its oversight function meaningfully and effectively; constitutional offices (Auditor-General, Ombudsman, etc.), which report directly to Parliament in support of its oversight role being strengthened in capacity and adequately resourced; and MPs being regularly informed, by way of induction and other training, of their roles as representatives of the people and ways to perform their roles effectively.

Judiciary

It is widely acknowledged that the judiciary has stood the test of time, having being unperturbed by political turmoil, military insurgency and civil unrest - incidences in the not-too-distant past that have rocked the very foundations of democracy and good governance in PNG. It would be important that capacity building in the judicial service continues throughout PNG and at the different court levels. The empowering process for judges, magistrates and court officers will contribute to speedy and effective administration of justice, a process that will further strengthen the integrity of the courts and people's confidence in the judicial system. The increasing cost of accessing justice, well beyond the reach of lower income groups, poses a serious concern concerning human security and the upholding and protection of the rights of the poor. There is, unfortunately, little that the judiciary can do to lower the cost of accessing justice by everyone, as this is externally driven by supply and demand for legal aid in the private sector. It is, however, a situation that gives strong justification for the introduction of alternative conflict/dispute resolution mechanisms and for the use of the court as the last resort. The judiciary has recently mooted this concept at judicial fora.

The government may be committed to improving the law and order situation. The judiciary is also interested in the area of law enforcement and in the vital contribution of effective law enforcement to economic development. The fear of insecurity and being robbed has grossly restricted internal trade between provinces and opening hours of productive sectors during the night. PNG needs to solve its law-and-order problem immediately if it is to maximise trade within the country and optimise capital values in factory production.

Civil society

The role of civil society in the management of national and provincial affairs has long been recognised to be critical to sustainable and equitable development. People need to be involved in the formulation of policies and laws and in the shaping of governance processes and procedures affecting them because they know best the constraints they face in their own localities, hence the importance of the role of civil society organisations (CSOs). Many individuals at the grassroots level are weak, illiterate, have little confidence in their ability and are hardly in a position to represent themselves effectively. CSOs' role in this regard is critical for they should, on behalf of the grassroots people, hold government to account for its actions, elicit consensus at the grassroots level for effective representation, and defend the rights of the poor and vulnerable to access public services and other factors of production. The challenge in the coming years is to make CSOs effective in organising themselves to secure fundamental human, political and economic rights and to hold government, Parliament and others in positions of authority to account for their actions. Independent media, that are an integral part of civil society, have an important role to play in protecting people's rights and holding those in power accountable. The media can be the voice of the people and the agent of civil society protecting the rights and freedoms of everyone as well as demanding effective delivery of public goods and services. The challenge is making information freely accessible to the media and the public.

2.2.3 Conclusions

Improving the quality of governance to improve human security means that governance constraints in the country have to be looked at in totality and be addressed at all levels, whether they be institution-building or improving processes, procedures and/or regulatory frameworks. Good governance must be built from the ground up, and the involvement of the people through their CSOs in policy formulation, law-making processes, and in undertaking real life assessment of government actions, would result in a government that truly reflects the will of the people.

The constitutional role of Parliament must be a priority area to be improved, as it will complement efforts by the government to improve the enabling business climate in the country. Improvement to law enforcement and the law-and-order situation would also augur well for government efforts to improve investors' confidence in the economy. Support to improving the efficiency level of the public service and the effective delivery of public services to the dispersed population of PNG is an integral component of the government's drive to meet the needs of the people, play an effective facilitating role for private sector development, and provide a level playing-field for all operators in the private sector.

There is strong commitment on the part of the government to promote good governance. This is a challenge to the present and future governments, for good governance cannot be created overnight. It is an accomplishment and the fruit of true dedication, selfless leadership, and the politics of integrity. PNG needs good governance to realise its development potential. It is leaders alone who can bring about changes to its governance. UN System and donor support can have an impact on the ground in support of leaders bringing about necessary changes in government and civil society.

2.3 Health and Nutrition

2.3.1 Assessment and Analysis

The health status of Papua New Guineans is poor compared to their regional neighbours. In 2000, PNG ranked 150th out of the 191 member states of WHO on overall health attainment. This measure includes the three goals of health systems namely, the level of health of the population, responsiveness of the health systems, and fairness in financing health care. Average life expectancy at birth was estimated at 54.1 years in 1996, with wide provincial variations. Women in PNG lack the longevity advantages found in most countries and face mortality risks similar to or greater than men.

Health service delivery is particularly challenging because of the remoteness of many villages and the rough terrain. Many villages can only be reached on foot through the mountains or by small boats on the open sea. Air travel is limited and expensive. For these reasons, delivering health care is particularly costly and difficult.

The national health system is based on the primary health care approach with a network of aid posts, sub-health centres, health centres, rural, national and provincial hospitals and urban clinics. The aid posts, sub-health centres, health centres and rural hospitals form the core of the district health services. Under the current structural reform process initiated by the government, strengthening the district health services is a priority. Provincial hospitals are referral centres for district health centres.

A combination of government, churches and private organizations provide health services in PNG. About 60 percent of health facilities are provided by churches. Private practitioners also provide primary and specialist health services, but these are limited to the larger urban areas. Besides the formal health services, village health volunteers, traditional birth attendants and traditional healers also provide health services, especially in remote rural communities.

Department of Health figures for 1998 indicate that there were 1,506 rural aid posts throughout the country. Of these, 18 percent remained closed due to lack of trained health workers, essential drugs and medical supplies, deteriorating infrastructure, or law and order problems. Lack of water supply or electricity were other reasons for their closure.

The proportion of the population lacking ready access to primary health care services varies between provinces and districts. For example, in Enga and Western highlands province 5 to 35 percent of aid posts were closed (depending on the district) whereas in the Goilala district of Central province 61 percent of aid posts were closed in 1998.

Public hospitals are governed separately from primary health services under the Public Hospitals Act. There are four levels of public hospitals, depending on the extent of services they provide and the skills of doctors and nursing staff. The Port Moresby General Hospital is the only national tertiary referral hospital. Lack of trained staff and shortage of funding prevents many hospitals from being fully operational.

Although the health sector has achieved some significant milestones in polio and leprosy elimination, health indicators show that the health status of Papua New Guineans is among the lowest in the Pacific. With a gradual improvement before the 1980s, the infant mortality rate has remained at around 77 per 1,000 live births during the last decade. There are significant urban and rural differences in infant mortality rates (IMR) with figures ranging from 33 to 86 per 1,000 live births respectively (NSO 1997). The provinces of West Sepik and Enga had the highest infant mortality rates in 1996 at 110 and 109 per 1,000 live births, respectively. The lowest rates were recorded in Manus province and NCD with 37 and 38 deaths per 1,000 live births, respectively.

The under-5 mortality rate was 100 per 1,000 live births in 1996, a decline of 78 percent since 1971, but only a 15 percent drop since 1980. The maternal mortality rate was estimated at 370 per 100,000 live births in 1996. Access to contraceptives remains low with a contraceptive prevalence rate (CPR) of 20 percent in 1996. There are wide provincial variations in these rates. In 1999 only 27 percent of the rural population had access to safe water supply and only 25 percent of the total population had access to basic sanitation.

Although the Department of Health has a Health Monitoring and Research Branch that collects data from health facilities to the level of health centres, disaggregated data on age, gender and community level health facilities are still lacking. Data from private and non-governmental health providers are also not included in the national health information system.

The slow improvement in health status and the deteriorating quality of health service delivery since the 1980s has been attributed partly to the decentralisation of health services to provinces and districts without sufficient provision for capacity-building and allocation of resources. Funds allocated to health by the national government are frequently delayed, and some provinces divert funds allocated for health to other purposes. Thus, many rural health facilities are unable to deliver the basic minimum standards of services, including such essential health services as immunisation and obstetric care.

The government is now taking major steps to revive the ailing health system. The health and education sectors have been declared priority areas for development and the 2000 budget allocations for health and education have increased. A ten-year National Health Plan (2001-2010) has been developed with wide consultation with provinces, districts and partner agencies. The objective of the plan is to set the direction and to establish standards for addressing priority health problems. Health promotion, disease prevention and strengthening district health services have been given the highest priority in the plan.

The health sector receives major inputs from donor partners. The government is now establishing a Health Sector Improvement Programme (HSIP), PNG's version of a "Sector Wide Approach" (SWAp) to donor coordination. The HSIP will shift donor assistance from individual projects to a system where donor inputs are pooled and used to support the government's National Health Plan. This is expected to reduce duplication and make more effective use of the financial contribution of the donor partners.

Efforts have also been directed towards providing adequate resources for rural health services by earmarking specific funds in the provincial budgets for rural health services and by arranging to have church health services funded directly by the central government. There are also proposals being actively pursued to streamline and vertically reintegrate the health services.

2.3.2 Key Challenges

Preventable diseases such as pneumonia, diarrhoea, meningitis, and malaria constitute the main burden of ill health among children under-five. Malnutrition is believed to be a contributing factor in more than half of all child deaths, but the last National Nutrition Survey was conducted in 1982/83. At that time, 38 percent of children were found to be underweight, with wide variations among the provinces. Severe malnutrition was found among 6 percent of the children surveyed. Lack of adequate food intake is not the only reason for malnutrition. Cultural factors and associated chronic infectious diseases such as malaria, tuberculosis, and parasitic infections are contributing factors.

There are many reasons for the high rates of infant and child mortality. These include the preventable diseases mentioned above, the lack of immunisation (only 33 percent of one year-olds are fully immunised against tuberculosis and 59 percent against measles), the lack of safe water supply, unsupervised village births, short birth spacing, low education levels and poverty. The lack of essential maternal and child health services to manage the complications in pregnancy and childbirth is a contributing factor, especially in remote areas. The implementation and sustainability of cost-effective strategies such as immunization, integrated management of childhood illness (IMCI) and the promotion of nutrition and antenatal care remain major challenges to improving child health.

The Maternal mortality rate of 370 per 100,000 births is the second highest in the Western Pacific region. Medical conditions contributing to this high MMR include post-partum haemorrhage, puerperal sepsis, ante-partum haemorrhage, eclampsia and anaemia, which is also associated with malaria and malnutrition. Other contributing health system causes are inadequate family planning and counselling services, difficulty in accessing basic primary health services, and the unavailability of emergency obstetric care.

Difficult terrain combined with poor infrastructure development and lack of transport and communication facilities between aid posts and health centres or health centres and hospitals, means that considerable delays are experienced in the referral system thus aggravating the condition of the patient. While access and health system-based causes do contribute, underlying contextual factors include the low levels of education, particularly amongst women, culturally-based gender-discriminatory beliefs and practices which restrict diets of mothers during pregnancy, and the heavy workload borne by women even during pregnancy.

The government has renewed its commitments to safe motherhood and reproductive health through a number of strategies outlined in the National Health Plan 2001–2010, and reinforced in the National Population Policy, 2000–2010. These policies and strategies aim to reduce maternal deaths over 10 years from 370 to 260 per thousand, by increasing antenatal coverage and supervised deliveries and by increasing tetanus toxoid vaccination coverage amongst pregnant women from 70 percent to 85 percent.

Reproductive health standards in Papua New Guinea are generally low with surveys showing consistently high prevalence of Sexually Transmitted Infections (STI's). One survey in the Highlands region found 15 percent of the sample had gonorrhoea, 26 percent chlamydia, 4 percent syphilis and 45-50 percent trichomoniasis. The rates for gonorrhoea, chlamydia and syphilis were substantially higher among female sex workers.

There are limited data on the accuracy or extent of public knowledge of STIs and how to protect against them, but some evidence suggests that the young and uneducated know the least and are therefore the most vulnerable. Data from the 1996 Demographic Health Survey (National Statistical Office 1997) indicate that only 40 percent of women aged 15-19 who had some knowledge about HIV/AIDS were also aware of gonorrhoea compared with 50 percent of women 30-39. Only 36 percent of uneducated women in the sample were aware of both HIV/AIDS and gonorrhoea and knowledge of other STDs was low. Knowledge of how to prevent STIs is also closely related to education levels. Only 8 percent of uneducated women sampled in the DHS knew that the use of condoms was one way to avoid contracting STIs, while 38 percent of women educated beyond grade 6 were aware of this.

Emerging concerns needing urgent special attention in the area of reproductive health include the growing numbers of cervical and breast cancer cases. Cancer screening and treatment facilities, including Pap smear testing, are very few and often limited to those who can afford the service. The

three leading cancers, hepatic, cervical and oral, are all due to preventable causes, but programmes and services to address these problems are lacking.

The number of people with alcohol-related health problems, traumatic injuries, and mental illness seem to be increasing, probably resulting from the economic and social pressures people are living with in this rapidly changing society.

A re-emerging problem is the increasing number of tuberculosis cases. Currently more than 10,000 cases of the disease are reported annually. HIV/AIDS poses an additional threat to TB. Although national data are not available, in one hospital where patients were tested for HIV, about one-third of the HIV-positive patients were also diagnosed with active TB. The government has adopted the WHO-recommended Directly Observed Treatment, Short-Course (DOTS) strategy. Implementation of this strategy is taking place and full coverage should be reached within 5 years.

Malaria is the leading cause of outpatient mortality and the second leading cause of hospital admissions and death in PNG. Malaria is endemic in every province, including the highlands provinces, which were once malaria-free. Malaria in PNG is resistant to commonly used drugs such as chloroquine and for this reason a new multi-drug treatment protocol has recently been adopted. The government's malaria control plan includes insecticide treated bed-nets in coastal regions; residual indoor house spraying in areas of the highlands with epidemic potential; and strengthening and expanding the laboratory diagnosis of malaria.

Only 30 percent of the rural population has access to safe water and sanitation. Many rural dwellers do not understand the relationship between water quality, environmental sanitation and health. There has been little community participation in environmental health activities.

In order to encourage people to make their environment health-promoting and to adopt healthy behaviour, the government has adopted a "Healthy Islands" approach to health development. This community development strategy involves helping people take responsibility for their own health by giving them the information they need to make healthy choices about their lifestyles and by encouraging and supporting people to make the settings in which they live and work more health-promoting. Considerable progress is being made in establishing "health-promoting" schools, villages, and marketplaces.

Human resources for health in the country are unevenly distributed. The total health work force in 1998 was 12,607, including doctors, nurses, health extension officers, dentists, pharmacists and other paramedical staff. Government doctors are found in national, provincial hospitals. Health centres and aid posts are staffed by health extension officers and nurses. Many health workers prefer to work in urban areas where there are better facilities and living conditions, contributing to the urban-rural imbalance of health workers. There is also a gender imbalance. Women hold very few senior management positions in the Health Department and therefore play little part in health policy decision-making. Lack of housing, low salaries, and personal security considerations contribute to the rural-urban maldistribution of the workforce.

2.3.3 Conclusions

The health status of Papua New Guineans is poor compared to their regional neighbours. The overall cause of low life expectancy and poor health is the continued prevalence of preventable infectious diseases. Diseases of childhood such as pneumonia, malaria, measles, and diarrhoea are responsible for the high under-five mortality. Malnutrition is also a major contributing factor to high child mortality. Maternal mortality is high with wide provincial and geographical variations.

The growing prevalence of HIV/AIDS and other STIs highlights the urgent need to address the reproductive health needs of youth and adolescents. New initiatives are needed in the context of the overall RH programme to cater for the specific needs of adolescents and youth with the particular aim of reducing STI prevalence among young people. Because the HIV epidemic is likely to spread throughout the country rather than remain concentrated in high risk groups, innovative programmes targeting the majority rural youth should be developed and pilot-tested.

Accessibility to primary health care services especially in rural areas is limited due to the high cost of providing services; the lack of trained staff and essential medicines; the lack of adequate water and sanitation; and personal security problems. Many peripheral health posts remain closed due to lack of resources. The National Health Plan 2001-2010 prioritises health promotion, disease prevention and the strengthening of district health systems. Mechanisms for a better system for funding of rural health services and for streamlining and reintegrating the health system have been proposed. When implemented, these proposals may significantly improve health service delivery in PNG.

2.4 Population and Development

2.4.1 Assessment and Analysis

Population and demographic situation

The 2000 census recorded a provisional total population of 5.1 million, an increase of 1.4 million since the 1990 census. Based on census figures, the annual population growth rate averaged 3.1 percent per year during the 1990-2000 period compared with 2.3 percent during the previous inter-censal period (1980-90). It is possible, however, that this growth rate is a function of coverage errors in both the 1990 and 2000 censuses and does not reflect actual demographic reality.

Significant population increases were recorded in some regions and in particular provinces. In the Highlands region, the Southern Highlands province accounts for almost half the regional population increase since 1990 and registered an annual growth rate of 5.4 percent. In the Southern region, the National Capital District fell well below the projected population based on previous patterns of in-migration and natural increase.

Survivability and health

In the early 1970s, the average Papua New Guinean could expect to live for only 40 years from birth; by the mid-1990s life expectancy had improved to 54 years. While a 14-year improvement in life expectancy is an impressive achievement, the rate of improvement has been slow by international standards with the low life expectancy reflecting continuing high infant and child mortality rates. At present, PNG's life expectancy is the lowest in the Pacific Islands and lags almost 20 years behind Fiji. At the national level, 22 percent of the population is not expected to survive to age 40, and this proportion rises to over 30 percent in some of PNG's least developed provinces where infant mortality rates are particularly high.

The health of children in Papua New Guinea is particularly poor compared to its regional neighbours and globally. The infant mortality rate (IMR) has remained high and little improvement is evident over the last decade. The 1996 National Demographic and Health Survey estimated the IMR at 77 per 1,000 live births for the 10 years prior to the survey. There is a wide variation between urban and rural areas and between provinces. The under five child mortality rate is also high at a national average of 100 per 1,000 live births. There are significant urban and rural differences at 46 and 111 per 1,000 live births, respectively. In general, infant and child mortality rates are highest in the Highlands region and lowest in the South coast area (including the NCD). Slow progress in the fight against infectious diseases, including malaria, tuberculosis, pneumonia and diarrhoea account for the persistence of high mortality among infants and children.

The 1996 DHS estimated the Maternal Mortality Ratio (MMR) at 370 per 100,000 live births at the national level, with the reference date being 1984. Using a different method, Hill *et al* estimated MMR as 390 per 100,000 (Hill *et al* 2001). The MMR was significantly higher in the Highlands region (625) than elsewhere in the country (273). Based upon a presumed population of 5.1 million, approximately 680 women per year die of childbirth or pregnancy-related causes in PNG each year, and about 60 percent of these deaths occur in the Highlands region.

Depending on the data source, between 45 and 51 percent of births are supervised by trained health personnel. Difficult terrain combined with the lack of transport and communication facilities between aid posts and health centres or health centres and hospitals, means that considerable delays may be experienced in the referral system. The situation is further aggravated by lack of medical staff and/or basic equipment and knowledge, further compounded by lack of administrative support.

Fertility patterns and trends

The total fertility rate (TFR) dropped from 5.4 to 4.8 births per woman between 1980 and 1996 - a decline of 11 percent in a decade and a half. While this is a positive trend, it is extremely slow by comparison with recent fertility transitions in Southeast Asian countries. The largest decline in total fertility (24 percent) was among women educated to grade 7 and over whose TFR went from 5.1 to 3.9 over the period. Similarly, total fertility for urban women dropped by 22 percent from 5.1 to 4.0. Fertility has dropped in rural areas over the past two decades but only by about 7 percent. The median age of first birth is 21 years, but about 20 percent of women give birth at less than 18 years of age and 35 percent before the age of 20. Teenage pregnancy is more common in urban than rural areas.

Contraceptive prevalence and family planning

Only 20 percent of currently married women are using modern methods of contraception while another six percent use “traditional” methods. The use of contraception is highest among women aged 40-44 (28 percent) and of these the majority had been sterilised. The use of hormonal methods is very low across all age groups with only 4 percent and 7 percent of currently married women using oral contraceptives or Depo Provera, respectively.

About 72 percent of women surveyed in the 1996 DHS had “heard about” a modern method of contraception, and 68 percent were aware of a source where contraception could be obtained. Awareness was a function of education and residence with urban and educated women most aware (93 percent with grade 7 or over) and uneducated women least. Knowledge was lowest among the youngest group (15-19 years), only 57 percent of whom had heard of any method of family planning. This highlights the risk of unplanned pregnancy among teenagers.

The proportion of currently married women who do not want any more children but are not practising any form of contraception was estimated at 29 percent in the 1996 DHS for all women but was especially high (47 percent) among women aged 40-44. The total number of women estimated to have an unmet need for contraception at the time of the 1996 DHS was approximately 200,000. Lack of knowledge and fear of side-effects are the main reasons why women are reluctant to use contraception in PNG.

Urbanisation and migration

The urban sector is small, not only in terms of the proportion of the population living in urban areas (15.4 percent), but also in terms of the small size of most towns. While the rate of urban growth has decreased since the 1970s, the absolute number of new urban dwellers is rising. Given the unplanned nature of most cities and towns, rapid urban growth has contributed to the emergence of serious urban social problems, including crime, unemployment, and burgeoning informal settlements characterized by inadequate housing, water, sanitation and power.

It is arguable that urban “primacy” rather than urbanisation as such is the principal urban issue. The proportion of the total urban population living in smaller towns has been decreasing steadily in recent decades while the proportion in the NCD and Lae has been increasing. For this reason the National Population Policy 2000-2010 proposes measures to encourage the flow of rural-urban migrants away from the two largest cities and towards provincial capitals and other smaller towns. It is anticipated that the implementation of the 1995 Organic Law on Provincial and Local-Level Government will facilitate this process by devolving functions and responsibilities to provincial governments. Improved economic options for people in small towns will, however, also be needed.

Age composition

While the proportion of the population that is below 15 years of age has been declining gradually since the 1960s, it was still 42 percent of the total in the 1990 census, thus indicating a relatively young population. The adolescent population (10-19 years) was 23 percent of the 1990 total and, assuming that this proportion has not changed significantly, there would have been approximately 1.1 million adolescents in PNG in 2000. The breakdown of the 2000 census results in this regard is not yet available. The youth population (15-24 years) has been increasing steadily as a proportion of the total and reached 20 percent of the population in 1990. These trends can be expected to have continued

throughout the 1990s and into the present decade resulting in ever-larger cohorts entering the labour market as well as the age of marriage and childbearing.

The absorption of youth into useful work is obviously one of the main challenges faced by any society with a growing youth population. In Papua New Guinea this challenge is exacerbated by the slow rate of growth in the formal labour market. At present rates of growth, only a small proportion of the population leaving school can expect to obtain formal sector jobs. The balance must be absorbed into the rural village sector or the urban informal sector. Socializing youth into accepting lower status employment is difficult and occasionally fails leading to alienation and anti-social behaviour, including crime. The expected rapid growth in the youth population has implications for the provision of social services, especially health and education. Providing reproductive health services to a growing population of adolescents and youth will present a major challenge to the public health care system (including services provided by the churches) over the next two decades.

Population and gender

As shown by PNG's *Gender-related Development Index* (GDI) of 0.530 in the 2001 UNDP Human Development Report, placing PNG 110th out of 146 countries rated, female life expectancy, educational achievement, and earned income are well below male achievement. Females have lower life expectancy at birth, lower educational attainment, and fewer opportunities to earn income or participate in political decision-making. The female adult literacy rate was 40 percent in 1990 compared with 50 percent for males. However, the combined gross enrolment ratios for elementary, primary and secondary schools is 46 percent for females and 49 percent for males, indicating that girls are beginning to attain nearly equal access to education in the early grades, but there is room for progress at the secondary level. Comparison of HDI and GDI values in Papua New Guinea shows that the country is doing less well in gender development than in overall human development.

The Convention on the Elimination of all forms of Discrimination against Women (CEDAW) was ratified by the Government of PNG in the lead-up to the fourth World Conference on Women (Beijing, 1995). However, Papua New Guinea is yet to submit its first country report to the United Nations. Violence against women is common in PNG, including domestic violence, rape (including pack-rape), and indecent assault. The incidence of such offences is undoubtedly under-reported, especially where offenders belong to the same family or clan. The reported rate of rape and sexual offences in the National Capital (480 per 100,000) is over four times the national average, and 20 times the rate of the province with the lowest rate (24 per 100,000). It is highly likely, however, that rape and other sexual offenses are vastly under-reported in rural areas.

The need to raise the awareness and sensitivity of men to gender issues cannot be over-emphasised. As elsewhere, men hold most of the positions of power in PNG. Until these men are convinced that empowering women does not threaten them, it will be difficult for women alone to achieve equality.

Gender issues are amenable to action by NGOs. While government support is always necessary, the NGO movement has much potential to advocate and execute actions leading to gender equality and equity. It is therefore important that the managerial and organizational capacity of women's NGOs be strengthened.

Population policy

The current *National Population Policy 2000-2010* (NPP) is a comprehensive one and is in broad compliance with the International Conference on Population and Development 1994 (ICPD) Plan of Action. The policy highlights the wide regional variations in PNG's demographic and economic situation, and the consequent need for the policy to be implemented at the provincial level. The policy lays out a large number of specific objectives to be achieved during the period 2000-2010 (and in some cases beyond 2010) and identifies the strategies by which these are to be achieved.

The NPP acknowledges that a long-term approach to urbanization is necessary. To this end it is proposed to form an urbanization policy task force within the Department of National Planning and Monitoring to facilitate the preparation of an urbanization policy after detailed study of the role of urbanization in development. Similarly, the Policy calls for detailed study of the overall spatial

distribution of the population, including its relevance for the delivery of goods and services and economic development.

2.4.2 Key Challenges

Implementing existing policies and plans

Within the past two years, Papua New Guinea has completed a National Population Policy 2000-2010 (NPP), and a National Health Plan 2001-2010 (NHP). Other important national initiatives include the Health Sector Improvement Programme - a sector-wide approach (SWAp) to the coordination of donor assistance in the health sector - and the Medium Term HIV/AIDS Strategy 1998-2002. These policies and programmes provide the context for future strategic actions aimed at addressing population issues in PNG.

There is an on-going need to raise awareness of the goals and strategies of the NPP, the NHP and the HIV/AIDS Mid-Term Strategy in order to ensure that resources are mobilized and the policies are implemented. Given that provincial governments are responsible for the implementation of many aspects of the NPP, on-going support to assist provincial governments to formulate provincial implementation plans will be needed.

Enhanced reproductive health services

The NPP and NHP document a range of activities aimed at improving the quality of Reproductive Health (RH) services in the country. Measures aimed at increasing the proportion of pregnant women receiving high quality ante-natal checks, and the proportion giving birth under qualified medical supervision are given high priority. The early identification of high-risk mothers is one of the ways to reduce maternal morbidity and mortality, but emergencies can also arise among mothers who do not fall into the standard risk categories on ante-natal inspection. In these cases emergency obstetric care is essential. An integrated approach to RH services needs to be emphasized in view of the increasing prevalence of STIs. Consideration also needs to be given to how services can be improved in remote areas, especially in the Highlands where the maternal mortality ratio is double the rate of other areas. Provinces with especially high infant and child mortality rates also need special attention. Research is needed on the factors contributing to high infant and child mortality in order to focus interventions more precisely.

Reducing the “unmet need” for family planning services, and fulfilling the need for appropriate information on the part of illiterate or poorly-educated rural women are important priorities. More needs to be known about the basis and sources of women’s (and men’s) concerns about the safety of modern contraception in order to base information, education and communication (IEC) programmes on a secure scientific foundation.

Integrated population-development planning and population databases

The integration of population into development plans, particularly at provincial and district levels, is an important goal of the NPP and will require on-going technical support. Simplified methods of integration that can be applied by provincial and sectoral planners lacking technical training in demography are needed. Improved population databases are also needed, especially at provincial and district level. A review of service statistics, including those compiled by the Health Information System, is necessary to ensure adequate coverage of reproductive health statistics (ante-natal checks, supervised deliveries, contraceptive use, etc.). Training needs, to ensure the full analysis of the 2000 census, including measures of census accuracy, should be assessed.

Development of population education curricula for schools

Population education in schools remains one of the best means of improving awareness of population issues in general. In view of PNG’s impending HIV/AIDS epidemic, school programmes that highlight the risks of early sexual initiation and unprotected sex are urgently needed. Training programmes in teachers colleges are needed to improve the quality of teaching in this area. Peer education programmes at the secondary and tertiary levels should be developed or strengthened where they currently exist.

Enhancing research and analytical capacity

Research capacities in key national institutions (National Research Institute, Institute of Medical Research, University of Papua New Guinea, National Statistical Office, and National Agricultural Research Institute) need to be reviewed and measures taken to strengthen them. Training to support a gender-based analysis of the 2000 census would be useful. Research is also needed on the impact of population pressure on agricultural systems and the implications of this for the workload and health of women. The environmental impact of population growth is in need of selective studies and assessments, especially in ecologically sensitive areas. Specific training on methods of studying the psycho-cultural aspects of family planning and contraception may be required in order to facilitate more research on the low up-take of family planning.

2.4.3 Conclusions

Papua New Guinea's current standing on key population indicators generally falls well below the ICPD and ICPD+5 benchmark indicators. Although much of the data used to compile indicators are out of date, the pace of improvement in recent years appears to have been slow, and meeting the benchmark goals by 2005 will be a major challenge for the country. Improvements in social indicators will require a concerted effort to reduce poverty levels, especially in rural areas.

Of special concern are the low contraceptive prevalence rate and low life expectancy, particularly for women. PNG also has high infant and child mortality rates and a high maternal mortality ratio. The rate of improvement in these indicators has been slow, particularly in the 1990s. Contributing factors include the poor state of health infrastructure and services, especially in rural areas, the on-going prevalence of malaria, tuberculosis, pneumonia and other infectious diseases, the low educational and literacy rates of women, and the poor nutrition of women and children.

According to the provisional results of the 2000 census, Papua New Guinea's population reached 5.1 million in July 2000. It is possible that the rate of population growth is closer to 2.7 percent over the past decade rather than the 3.1 percent shown by the census, but further technical analysis is needed to verify the 2000 count and growth rate, particularly in provinces experiencing unexpected population increases.

The general characteristics of the population include a fairly youthful age structure with 42 percent under 15 years of age and 20 percent in the youth age range of 15-24. Fertility has been declining in recent decades but at a slow pace. A gap between urban and rural fertility is now apparent, suggesting that a fertility transition may be underway, led by urban and educated women. Nevertheless, at least 200,000 women have an unmet need for contraception, and the rate of unmet need is particularly high among women aged 40-44. Infant and child mortality rates remain high, especially in the less developed provinces. Standards of Reproductive Health are low with several STIs recently becoming more prevalent and threatening the health of young people, especially young women.

Improving PNG's population and human development situation over the next decade presents a formidable challenge for the Government and its development partners. Fortunately, a number of policy initiatives have been taken in recent years, including a population policy and a national health plan, that provide both a general framework as well as detailed, specific policy interventions. If these and related policy documents are implemented effectively, the pace of human development, including its population dimensions, will accelerate. The main danger is that implementation will fall behind schedule, either because of shortage of finance, or human resources constraints. Continued advocacy in support of the policy goals contained in the above-mentioned policies and plans will be needed to ensure that the necessary resources to achieve them are mobilized and applied.

2.5 Education

2.5.1 Assessment and Analysis

Access

The *National Population Policy 2000-2010* (NPP) includes a wide range of social objectives relating to education and literacy. The achievement of universal basic education (up to grade 8) is scheduled to be achieved by 2008 and basic education is to become “free and compulsory” by 2005. An adult literacy rate of 70 percent is targeted for 2010, and equal enrolment for males and females up to grade 11 is to be achieved by 2005.

Primary Education

The three steps required to achieve Universal Primary Education (UPE) are (1) all children: should enter Grade 1 at the age of seven years; (2) all pupils should complete the primary cycle of education; (3) by the end of the primary cycle of education, all children should achieve a satisfactory standard of literacy and numeracy. Prior to the recently-introduced education reforms, the primary cycle of education was Grades 1 to 6. This is changing as the new structure offering nine years of basic education - from the Preparatory Grade to Grade 8 - is progressively introduced throughout the country.

At the national level, the Gross Primary Enrolment Rate was 81 percent in 1999. Provincial rates range from a high of over 100 percent in Simbu to a low of 59 percent in Enga. Male and female enrolment rates are similar at the national level. For many years a very large number of children have entered into the system at Grade 1. These numbers were rising at an annual rate of about 4.2 percent during the 1980s - a rate above the growth rate of the population. There were also years when the number in Grade 1 was greater than the number of seven year-olds in the country. Seven was the recommended age of entry into Grade 1. These figures suggest that the country has had enough school places to satisfy the first requirement for UPE. However, the major problem has been that many 8, 9 and even 10 year-old children are enrolling in Grade 1.

There are two main reasons for this. First, in the remote parts of the country, many small schools have an intake only every two or three years. In fact, only about 40 percent of primary schools in the country have an annual intake with a new Grade 1 class entering each year. The reason for this is that, in many villages, there are insufficient numbers of children to make up a whole class. Second, in urban areas, there is not enough space in the schools for all the children eligible to enter Grade 1. This has resulted, again, in many “over-age” children being enrolled. The problem in urban areas is that there are not enough schools, and class sizes in existing schools have risen to an unacceptable level. The large number of rural schools without annual intakes and lack of space in urban areas means that UPE is difficult to achieve. It must also be acknowledged that there are still areas in the country where children do not have an opportunity to attend school at all.

Several suggestions have been made to improve access at the primary education level. In rural areas, one solution is to have *multi-grade* classes that would allow for annual intakes at all schools. These types of classes were common in the 1960s when they were used as a strategy for increasing access. They were phased-out in the mid 1970s mainly because no incentives were provided to multi-grade teachers. The *Last in Line: Teacher Work Value Study* (1999) recommended the introduction of a multi-grade teaching allowance equivalent to 10 percent of gross salary. This would go a long way toward the institutionalisation of multi-grade teaching.

In the increasingly densely populated urban areas, *shift teaching* is a way of improving access, but the concept has not been well accepted. There are compelling reasons for encouraging the introduction of shift teaching. The major reason is that it allows greater opportunities for children to attend school. The second reason is that it ensures that expensive specialist facilities are used for as many hours as possible. Arguments raised against shift teaching are usually related to the hours of instruction. It is assumed that any reduction in the hours of instruction will have an adverse effect on standards of education. A major argument against shift teaching is the personal security of children while travelling to and from school.

It can be argued that the most suitable level of education at which to introduce shift teaching would be elementary. First, as children only remain at school for four hours a day, one class could be taught between 8 a.m. and 12 noon, with the second between 12 noon and 4 p.m. Secondly, there is no shortage of elementary school teachers who can be trained more quickly and cheaply than primary or secondary teachers. An alternative view is that shift teaching would be better suited to higher levels – Grades 11 and 12. The reasoning for this is that older students are more able to travel to and from school without their parents.

Secondary education

Secondary education has traditionally been split into two - lower secondary from grades 7 to 10, and upper secondary grades 11 and 12. The number of schools in the country has risen considerably since the early 1980s and this has helped to raise the enrolment rate by about 40 percent during the 1980s giving an annual Grade 7 enrolment increase of about 4.2 percent. Female enrolment has been slowly increasing in provincial high schools. However, by 1989, it still represented only 43.3 percent of total provincial high school enrolments.

The transition rate into Grade 7 remained constant during the 1990s and this meant that the secondary enrolment rate has not risen a great deal. Only about one in six of the age group was offered a place in Grade 7 before the recent reforms were introduced. Central to the problems of further expanding and making the sector more efficient during the 1990s was the under-funding of the system. The government had not been able to keep pace with the increase in population and had trouble in adequately funding the sector.

Selection to Grade 7 in high schools is taken at the provincial level and is based solely on the Primary Education Certificate Examination. In some provinces there are not enough spaces to cater for the children who reach the pass mark, as recommended by the Measurement Services Unit, in the two basic skills papers of English and Mathematics. This has been a particular problem in the National Capital District. In other provinces, Gulf being the most singular example, there are not enough children with this pass mark to fill the available places. Students who complete Grade 6 within the primary schools progress automatically into Grade 7.

The problem of access to upper secondary education - Grades 11 and 12 - is even more pronounced than that of access to Grade 7. There were only four National High Schools until 1996. The number of females participating in upper secondary education has also been low. In the national high schools, only about 30 percent of students have been girls. It is expected that female participation will improve with the opening of secondary schools in the provinces offering Grades 11 and 12.

Retention

Primary Education:

Although access remains a problem, it is not so serious a problem that it cannot be surmounted with some imagination and innovative thinking. The main obstacle to achieving UPE is retention. Large numbers of children start Grade 1, but many have been dropping out before completing Grade 6. At the national level, the present figures suggest that only 55 percent of the pupils who started Grade 1 in 1994 completed Grade 6 by 1999. The biggest inter-grade drop-out is between Grades 1 and 2, and the next highest is between Grades 5 and 6. At the provincial level, retention rates ranged from a high of 79 percent in the NCD to a low of 38 percent in Enga. Retention rates are particularly low in the highlands region, and female rates are consistently lower than male. In other regions, female retention is equal to or greater than male.

These figures continue to be of considerable concern although they do show a slight improvement over the figure for the previous cohort. The New Zealand Overseas Development Agency is sponsoring a major study of retention at all levels of the education system that will look at the extent of and reasons for children dropping out of school at such a high rate.

The National Education Plan (1997) envisaged some improvement in the retention rate due to the introduction of the elementary schools. It has been assumed that the intra-grade retention rates would rise by 2 percent for those that have been through the elementary schools. It will be impossible to have

100 percent retention between Grades 1 and 6, or Grades 3 and 8 (in the reformed system) until education is made compulsory.

Among the reasons given for the high drop-out rate from primary school are: (a) tribal fighting. This occurs mostly in the highlands region. It is unclear what happens with children affected by the closure of schools due to tribal fighting. Some will of course enrol again but whether they re-enrol in Grade 1 or continue from where they left off is not known. (b) Distance to travel to school. Some provinces have recommended maximum distances, or travel time, that children should be required to walk. If this is too great, young children will not be enrolled. There are some parts of the country, often in the maritime provinces, where conditions for travelling to school are such that there are certain seasons when it is very difficult, and so children miss large amounts of time at school. These are also reasons for children enrolling at a more advanced age than recommended. (c) Lack of interest. This might be interpreted as meaning that the children did not know what was going on in class, and that there was a language problem. (d) Parents taking children out of school during certain times of the year. The Eastern Highlands is a good example of this when children are taken out during the coffee flush. Some of these never return. (e) Inability to pay school fees. This is often used as an excuse for children dropping out of school although there are cases where it is a genuine reason. Many head teachers will not exclude children for non-payment of fees because it is not considered their fault.

Secondary Education:

Retention is not as much of a problem in secondary education as in primary. Approximately 70 percent of the students that start Grade 7 complete Grade 10. Male students have slightly better retention rates than females. Possible reasons for this could be domestic commitments, marriage, or simply because girls, or their parents, see no value in pursuing their education to a higher level. School fees are often cited as a reason for students dropping out of high school.

Lower Secondary education has traditionally been a provincial responsibility. There have, however, been large differences in levels of support between provinces. The extremes have been, on the one hand, Central Province, which provides little or nothing in terms of support for students in its high schools, and, on the other, New Ireland which provides grants of up to K300 per student. These differences in subsidies mean that there are also large differences in the amounts of school fees charged between provinces. Free Education policy was introduced in 1993 to get rid of such differences but failed in its objective of taking the weight of paying school fees off the parents' backs. Schools simply introduced "project fees" instead of school fees and a number of provinces cut back, or even eliminated provincial subsidies.

The Education III project funded by the World Bank was the most significant development between 1984 and 1998. It assisted with the building of new schools and maintenance of existing school facilities, school level management, and curriculum design. Despite this, a substantial number of students are still lost between grades. Females constitute a high proportion of the students who do not complete secondary schooling, and they form only about 40 percent of the total high school enrolment.

Transition rates beyond grade 6

The transition rate from Grade 6 to 7 (1998 to 1999) was 70 percent overall with the male rate (71 percent) being slightly higher than female (69 percent). These figures include Grade 7 children in both the primary schools and the regular provincial high schools. Transition rates have been increasing in recent years, especially for females. There is wide variation at the provincial level. Morobe province had the lowest rate (49 percent) while the National Capital District had the highest (91 percent).

Gender issues in education

The participation of girls at elementary schools has been improving in recent years and is currently close to that of boys. In 1999, 47.2 percent of elementary pupils were female, a similar percentage to that of the population as a whole. In the primary grades, the sex ratio of grades 1-8 students is approximately the same as in the population as a whole, so no overt discrimination is apparent. It is noteworthy that girls are benefiting most from the increased access to Grades 7 and 8. Better educated

women are more likely to marry later, use contraception, bear fewer children and raise healthier children. They also make better decisions for themselves and their children.

The gender situation with staffing is not quite as positive. Only 41 percent of teachers in the elementary schools are female. This is marginally lower than in 1998. It remains a slightly higher figure than in the primary sector but is lower than was hoped for. There is an enormous variation between provinces with a range from 18 percent in Simbu to 67 percent in Bougainville. This is an area that needs to be considered in a number of provinces when communities are asked to nominate teachers for training. The percentage of female teachers goes down in the higher grades. It is also interesting to note that out of the 118 non-teaching head-teachers reported in 1999, only 9 were women.

2.5.2 Key Challenges

PNG is implementing major education reform to address the issues of access, retention and standards. The Gross Enrolment Ratio for all grades in primary education is expected to improve. The application of multi-grade and shift teaching need to be seriously considered if the goal of UPE is to be achieved. Transition rates appear to be improving due to the introduction of Grade 7 and 8 classes at the primary level. It is encouraging that enrolment patterns show that the education reforms are providing more access for girls.

The December 2000 End of Decade Report of the Government, in conjunction with UNICEF, on the World Summit for Children Declaration and Plan of Action and the Global Goals for Children in the 1990s, identified a number of challenges facing the education system in PNG. Among the more important of these were: the need to improve employment conditions of teachers in order to attract suitable people into the system; relevant curricula, suitable to a range of cultural and economic contexts, need to be developed and monitored to ensure their ongoing relevance; and cost efficiency needs to be emphasized, especially in regard to coordinated planning and implementation, efficient teacher deployment and community involvement. In addition, especially at the elementary level, emphasis was placed on identifying strategies to reduce the number of pupils who drop out, particularly prior to grade 3, and on developing strategies to address the special needs of girls as a basis for eliminating gender bias. Empowering teachers in grades 3 and 4 to help pupils make the transition from the vernacular to English, and upgrading the knowledge and skill of grade 7 and 8 teachers was also emphasized.

Lack of employment opportunities is a major problem for school leavers in PNG and the consequences of youth unemployment are very serious. As well as the purely economic consideration that there is under-utilisation of the potential labour force, youth unemployment impacts on health, law and order, political stability and population growth rates, and affects communities as well as individuals.

Basic education and training as well as continuous training and lifelong learning, combined with learning in the workplace, have distinct functions in promoting an individual's employability over her/his lifetime. There is a pressing need to review the nature and objectives of formal education in PNG. This must involve increasing vocational and skills training, education in life-skills, and de-emphasising formal academic education. While literacy and basic numeracy should remain the goal for all students, more realistic career education is needed, starting in primary school. Work options should be depicted more equally. When formal employment is prioritised, as in the past, all other work options become second best by implication. This leads to disappointment, and also undermines traditional PNG society.

Policies and programmes are needed that develop innovative pathways for young people to make the transition from education to employment. Providing training opportunities for young women and men should be seen as a shared responsibility of both the public and private sectors and an investment in the future of the nation.

2.5.3 Conclusions

Education is clearly an area of major priority for the Government as well as for the UN System. Tremendous progress has already been made towards universal primary education as well as towards redressing the imbalance between boys and girls in the primary schools. UNICEF in particular places

major stress in its programmes on redressing the gender imbalance in the education system as well as on improving curricula and eliminating gender biases there too.

Assisting the Government in addressing some of the major challenges identified above is clearly a priority for the UN System and other donors. Attention also needs to be focused on technical, vocational and skills training to improve the employability of young adults entering the labour market.

2.6 Employment

2.6.1 Assessment and Analysis

Current employment situation

The information presented in this section is based on the PNG Human Development Report (NPO, 1999), a report by the ILO Asian Regional Team for Employment Promotion (ARTEP, 1998), and the 1990 census, disaggregated data from the 2000 census being not yet available. In the absence of a detailed labour force survey, the 1990 census is the main source of data on labour and employment patterns in PNG.

The economically active population excludes students, household workers, “too old/sick”, handicapped/disabled, and others. The latter category includes income recipients, pensioners, etc. and other economically inactive persons. The labour force participation rate in 1990 was 87 percent for males and 67 percent for females (77 percent overall) based on a labour force defined as persons aged 15 to 59 years of age. The total projected labour force in 2000 is approximately 2 million persons, although this may be an underestimate in the light of the preliminary results of the 2000 census.

The distribution of the economically active population across categories is a clear reflection of the structure of the economy. Almost three-quarters (73 percent) of the total labour force is engaged in village-based activities - either farming or fishing for subsistence only, or in combination with cash income earning activities. Only 15 percent of the total labour force are working for wages or salaries, while a further five percent are self-employed, or running businesses. These figures reflect the marked dualism of the economy, with the vast majority of the labour force engaged in a “village mode of production” and a small minority working as employees in the private or public sector.

Most of those working to produce cash crops along with their own subsistence could be described as self-employed, but the proportion of the rural labour force placed in this category in the 1990 census was less than one percent. In the urban sector, only 1.5 percent of the labour force (about 3,200 persons) were classified as self-employed in the census, suggesting that the informal sector is very small. By contrast, almost 60,000 persons were classified as unemployed – 20 times the number of urban self-employed and 10 times the number of persons running businesses. It is highly likely that many of those classified as unemployed were in fact scratching out a living in the informal sector.

Economic dualism is even more accentuated in the rural economy. About 83 percent of the rural labour force are engaged in subsistence and cash-cropping and only 8 percent have wage employment. The proportion of the rural labour force engaged only in producing their own subsistence was 38 percent in 1990. This segment of the labour force is therefore without a cash income and vulnerable to income poverty.

The evidence of slower growth in employment in cash-earning activities in the 1980s, together with a considerable improvement in average educational attainment, indicates that most of the new employment opportunities in the formal and informal sectors were for people with at least some schooling. Those with low levels of educational attainment found it difficult to get wage employment.

Formal and informal labour force

Census data do not permit a clear distinction to be made between the formal and informal sectors. Wage work encompasses employment in large-scale international corporations (such as mining or oil companies) as well as small enterprises. Only a detailed labour force survey can provide the

necessary data to determine the conditions of work across a range of enterprises. It is not possible to say whether informal sector employment is increasing or decreasing. What is clear, however, is that the formal employment sector (defined as those working for wages under contract, subject to safety and other regulations, and having access to union representation, health and social security protection) comprises a very small proportion of the labour force. About 240,000 persons (aged 15-59) were working for wages as reported in the 1990 census, and 130,000 of these were in urban areas. Rural wage workers would include some of the mining and petroleum sector workers, but many would be working on plantations for low wages and with little job security. Similarly, many of the urban employed are informally employed in small enterprises. It is possible that only about 150,000 wage workers (including public sector employees) are in the formal sector as normally defined, or about 10 percent of the entire labour force.

Consequently, an overwhelming majority of poor households depend on the informal sector for their incomes and livelihoods. An increasing number of people, even formal sector workers and their families, are seeking refuge in the informal sector to augment family income. With the rising cost of living, especially in urban areas, many consumers are turning to the informal sector to avail themselves of cheap goods and services. It is highly likely that without the informal sector, the socio-economic pressures would be devastating.

The rural labour force comprises about 86 percent of the total, and the vast majority of these can be described as informal sector workers in the sense that they lack the protections normally provided to formal sector workers (superannuation, paid holidays, leave fares, health insurance, etc.).

At the provincial level, formal sector activity is concentrated in the National Capital District, with 63 percent of the economically active population engaged in wage employment. Southern Highlands has the lowest percentage of wage employment at only 6 percent of the economically active population

Unemployment

The 1990 census reported that 7.3 percent of the labour force were unemployed. In the urban sector, 28 percent of the labour force were recorded as unemployed, with two-thirds aged between 15 and 24 years. Urban unemployment is predominantly a problem for youth, and particularly for those lacking education and skills.

Rural unemployment is low (3.9 percent), mainly because the vast majority of rural residents produce at least their own subsistence from their own land. Underemployment is a much more serious issue in the rural sector than unemployment, but the census is unable to measure it. In the village mode of production, the application of labour is highly dependent upon the seasons and the weather. Those who live under conditions of so-called "subsistence affluence" can often meet their subsistence needs by working a few hours a day on average. This leaves spare labour time available that could potentially be utilised in other activities but is often used for leisure as productive work is not available. However, the extent of surplus labour in the rural economy has never been accurately measured.

The total labour force is projected to grow by 46,000 per year during the 2000-2005 period, and this will increase to 61,000 per year by 2015-20. These projections may be on the low side given the results of the 2000 census, but whatever the actual figures, a major problem of labour absorption lies ahead. Unless the rate of growth in the formal economy can be accelerated substantially, the vast majority of new labour force entrants will have to be absorbed into the rural village economy.

Labour market regulation and minimum wage policy

Few policy issues in PNG have attracted as much critical attention as wage policy. The establishment of the Minimum Wages Board in 1992 included major changes to the method of formulating the minimum wage. The most important change was the abolition of separate rural and urban minimum wages, and the implementation of a verified national minimum wage.

Safe work environment/Occupational safety and health (OSH)

Even if an OSH policy framework has been completed (the Industrial Safety, Health and Welfare Act), many areas of occupational health remain poorly addressed. This is partly due to low compliance with the existing legislation and the need to modernise the legislative framework. Appropriate mechanisms, including education and training to ensure a safe working environment and to prevent work-related accidents, injuries and occupational diseases, are of paramount importance in a country with high rural employment. Even if there are no available statistics on the incidence of work-related accidents, the nature of agricultural work poses many challenges in using primitive tools, applying agro-chemicals and being subject to long working hours in extreme conditions.

People in the urban informal sector are subject to unsafe living and working conditions and are vulnerable to poor health. Hygiene, lighting, long hours of work with insufficient knowledge of the dangers of materials and chemicals used, constitute a real danger to their life and health. These conditions of home-based industries often apply equally to family members not directly engaged. Any improvement in the OSH situation in the informal sector will necessitate an integrated approach combining quality employment promotion, and safety and health at work.

Social protection

Arrangements for social protection in PNG are very limited. Some arrangements include: the provident fund for private sector workers; the savings fund for civil servants; private health insurance arrangements; and workers compensation schemes. The Ministry of health provides a number of health facilities which, however, do not reach a large part of the population living in remote areas. These existing schemes partly suffer from abuse or cover a very small part of the population only. Other social protection instruments, such as old age security for the largest part of the population, unemployment protection, income replacement during sickness or disability, social assistance for vulnerable population groups and risk reduction and disaster mitigation for those affected by natural disasters, are lacking.

There is a need for discussion of social protection measures reaching especially the poor part of the population. There are various instruments, which could help to address this deficit, such as: Introduction of compulsory social insurance for all formal sector workers; community-based insurance schemes along with a reform of the financing of health care providers; and micro-finance arrangements to support self-help among the poor in order to improve their capability to earn a decent income.

2.6.2 Key Challenges

The creation of employment – whether in rural or urban areas – is possibly the greatest economic challenge today and will remain so for several decades to come. According to a recent study “PNG confronts a labour absorption crisis”. Past population growth will ensure that the labour force will increase at an average rate of 2.7 per cent year for the foreseeable future. Between 1990 and 2020, the economically active population is projected to more than double from 1.5 million to about 3.4 million persons. Approximately 1.9 million persons will be added to the labour force over this period, assuming that current participation rates remain stable and mortality and fertility decline. Thus the annual (net) addition to the labour force will increase from 41,000 per year in the 1995-2000 period to 61,000 per year during 2010-2015. Absorbing this rapidly increasing labour force into the economy will require highly focused attention on the part of national and provincial governments, the private sector, and communities themselves.

While the rate of employment creation was high prior to and immediately after independence, this was partly due to the low base of urban wage employment in the country and the expansion of the public service. Employment growth in the “formal” wage sector has stagnated over the past decade, while the rate of unemployment increased. The rural sector is characterized by under-employment through both under-utilised labour and low incomes.

PNG has ratified the ILO Employment Policy Convention under which it undertakes to pursue an active policy to promote full, productive and freely chosen employment and to consult with representatives of persons affected by measures taken. This instrument envisages that government should involve all affected, including those from the formal, informal and agricultural sectors, in the formulation and application of employment policy.

While a coherent national policy of employment-generation in PNG remains to be developed, a wide range of remedial measures have been suggested for improving the capacity of the economy to absorb labour, and some of these have already been implemented or are in the planning stage. Some of these included: deregulation of wages and equalization of the labour and rural minimum wage; overcoming existing shortages of skilled labour through improved training; encouraging labour-intensive manufacturing in small and medium-sized enterprises; new emphasis on managerial training with emphasis on self-employment; improved advisory and extension services in agriculture and fisheries; better technical assistance to village producers; and improved credit for village-based projects

However, some of the proposals for structural change in the rural village sector which have been made in recent years have not been implemented and are unlikely to be in the near future – even though they may in fact promote employment growth.

2.6.3 Conclusions

The two sectors with the most potential to absorb the projected growth in the labour force over the next two decades are: 1) the rural, village-based subsistence/cash-cropping sector, and 2) the urban informal sector.

A comprehensive strategy to create employment to meet the needs of the rapidly expanding labour force needs to be formulated, based on a clear understanding of the structure of the economy. Strategies to absorb labour and to maintain low levels of unemployment and underemployment need to focus specifically on the constraints operating on these sectors, although other sectors should not be neglected. The UN System, particularly UNDP and ILO, could make a contribution through assisting in developing such strategies within the context of a broader poverty reduction programme.

2.7 Children and Youth

2.7.1 Assessment and Analysis

Measured against the goals set during the World Summit for Children, the status of children and youth in PNG is poor. Of the five goals defined during the summit, PNG attained a significant reduction in maternal mortality as well as an increase in the net enrolment rate in primary education. The other goals have so far not been met.

Poor and deteriorating health and nutrition status.

Papua New Guinea ranked 144th in the world out of 189 countries in 2000 in terms of under-five mortality with a rate of 112 deaths per thousand live births³. Infant mortality is also high at 77 per thousand live births. The two main causes of death among children are diarrhoea and pneumonia, both of which are preventable. The proportion of births classified as underweight in the 1995-99 period was estimated at 23 percent - hence more than one in five children are disadvantaged at birth. Hospital data in 1999 showed that low birth weight (LBW) affected about 10 percent of babies. As many births occur outside health facilities, this figure cannot be taken as representative of the whole country.

Between 1995 and 2000, malnutrition among children under-five was high with 30 percent of children falling below 80 percent of standard weight-for-age, stunting (*moderate and severe*) at 43 percent, and wasting (*moderate and severe*) at 6 percent. Malnutrition in PNG is not only a result of inadequate dietary intake but also of high rates of infectious disease. The Growth Monitoring and Promotion Programme, which is an effective preventive and promotion measure, is not fully implemented in the country. Children are not weighed regularly and parents and caregivers are not given appropriate counselling on childcare.

The immunisation coverage of 1 year-old children between 1997 to 1999 was very low: TB – 70 percent, DPT – 56 percent, polio – 45 percent, and measles – 57 percent. Reportedly, some villages and wards have not been covered by an “immunisation patrol” in the last five years. This is largely due to

³ UNICEF, State of the World's Children Report 2000

poor cold chain management as well as inadequate human resources and logistic support to field health workers. Access to primary and secondary health facilities is very low. Likewise, effective counselling of parents and caregivers on the importance of immunisation is not done during the routine immunisation activity, resulting in low immunisation coverage, especially follow-up doses.

Malaria is one of the ten leading causes of mortality and highest causes of admission to health facilities. Malaria treatment was very high at 47.7 percent of children 0-36 months, ill with fever, who were taken to a health facility in 1995.

Poor maternal health pre-determines child health and survival

The number of pregnant women given tetanus toxoid was very low at only 14 percent - resulting in the country having the highest neo-natal mortality in the region due to tetanus at 2.58 deaths per thousand live births – with some provinces having up to 29 infant deaths due to tetanus. Ante-natal care (pregnant women attended at least once by skilled workers) was reported at 76.7 percent in 1995, but births attended by skilled personnel were only 43 percent. Anaemia among pregnant women was about 29 percent. Anaemia is known to be one of the causes of low birth weight and also contributes to maternal mortality. Among pregnant women it is caused by inadequate food intake, bouts of malaria, and intestinal parasites due to poor environmental sanitation, e.g. inadequate potable drinking water and excreta disposal.

Poor sanitation: contributes to poor child health

Access to potable drinking water was low at 41 percent in 1998 while households with water-supply on-site were only 13 percent. This contributed to increased episodes of diarrhoea estimated at 4.3 episodes per child aged 0-36 months in 1995. Home management of diarrhoea (proportion of children 0-36 months given increased fluids or ORT) was very low at 35.2 percent in 1995. This situation also increased the workload of children and women in fetching water. Safe excreta disposal is reportedly at 83 percent - however this includes practically all types of toilet.

Low access to formal education and high drop-out rate

The proportion of children entering grade 1 at age 7 was about 23 percent in 1988, although this rose to 81 percent by 1999. The success rate of children entering grade 1 reaching grade 6 in 1999 was about 51 percent for males and 61 percent for females. The poor retention rate may be due to children not being able to cope with the school demands because of poor health and nutrition status, distance from the school, and inadequate financial capability of parents. The result of this situation is an increase in the numbers of unproductive out-of-school youth. The proportion of students in grade 4 who passed the national competency examination reached 85 percent in 1993.

HIV/AIDS negating gains in development

The already poor health and nutrition situation is further exacerbated by the rapid spread of HIV infection. The increasing number of reported HIV cases and the proportion of mother-to-child transmission (8 percent) are of grave concern. The number of AIDS orphans has also increased but, because of the stigma attached to AIDS, the traditional extended family (“wantok” system) is not always available to care for them.

Given the above situation, it can be said that children are in a very disadvantaged position in terms of attaining their full potential. Not only are almost a quarter of children disadvantaged at birth by low birth weight, but their environment is not conducive to proper growth and development.

Children are affected by the erosion of the political, economic and social life experienced in the last quarter of a century. The most obvious and immediate effect of the erosion is the deepening poverty being experienced by families, forcing many to jettison the extended family and communal system that has traditionally served as a safety net for children. It is now commonplace to observe “families” where the caregivers are themselves young children or are not the natural parents of the children in that “family”. These unstable child-caring arrangements result from children being casually “adopted” by a family or sometimes by children themselves “adopting” new parents or families when their own families

fail to provide care for them. This situation often seriously threatens the best interests of both the caring and cared-for children. The net result is that nobody is really responsible for taking care of the child.

Although Papua New Guinea ratified the Convention on the Rights of the Child (CRC) in 1993 and the National Executive Council (NEC) endorsed PNG's first country report, it has still not submitted the report to the United Nations. This is probably because, while there is a substantial women's movement and lobby, there is much less public awareness and fewer advocates for children's rights.

Since the ratification of the Convention, political will and commitment have been enunciated largely in only two sectors, considered by government to be key, namely health and education. In the health sector, even though there has been parliamentary endorsement of child survival policies and programmes, actual implementation is yet to commence.

In the education sector, there has been political support for "Education For All" (EFA) designed to be implemented through major reforms in the national education system which should provide greater access to, and greater employment relevance for children. Here also, implementation progress has been slow and many targets set for the year 2000 have now been deferred to 2010.

As if this were not enough, the problem of the child is compounded by the fact that it is not exactly clear who a child is. While the CRC defines the child as every human being under the age of 18 years, it is noteworthy that the constitution does not define the age of a child. A bad situation is rendered untenable by the fact that only 200,000 Papua New Guineans (of a total population of 5 million) are registered and have birth certificates. It is thus not only extremely difficult to know how old particular children are, it is impossible to know when they are no longer children, by definition.

Both sides of this problem are particularly important for the welfare of the child, since a very large proportion of the population lives in village societies where traditional norms and laws still prevail. In these same village societies, the traditional definition of adulthood is closely tied to a male person's ability to make a garden or build a house for himself alone or with a young girl and provide for a family. All of these could be attained at an early age of 14 or 15 years. The provisions for protection of children and their rights under the domestic law and the CRC are therefore often rendered irrelevant in the lives of many children in remote traditional villages.

2.7.2 Key challenges

Health and survival

The absence of age-sex disaggregated data in the National Health Plan 2001-2010 makes it extremely difficult to reach firm conclusions concerning health issues of children.

It is no wonder that the infant mortality rate is one of the highest in the South Pacific region, since 49 percent of births take place outside the health system. Even when births are medically supervised, as was the case with 67 percent of births in 2000, the child's start in life is extremely precarious as 10 percent of children have low birth weights. To make matters worse, these children may lose their mothers at birth, with all the risks attendant on that. PNG has the highest maternal mortality ratio in the region. With all these handicaps, if children do survive beyond the first week, tetanus is waiting to further threaten their lives; here again, PNG has the highest neonatal mortality rate in the region. From birth to about 5 years of age, children are further handicapped by malnutrition and the risk of preventable infections due to lack of immunisation.

Need for early childhood stimulation

Given the multi-dimensional nature of early childhood growth and development, there is a need for an integrated approach to it – especially in the prime time (*pregnancy and 0-36 months*) of children's lives. The design for the ECD programme must consider the inter-play of various factors affecting the child's growth and development.

The review of the early childhood care and development efforts of the government revealed gaps in the present sectoral policy, programmes, and structures of the government. The review identified areas for integrating ECD concerns and stressed the need for collaborative efforts and complementation

of various sectors to ensure the continuity of interventions during the early life cycle of the child. There is a need to clearly define sectoral responsibility during fetal development, infancy, early childhood, pre-school, and school.

Education issues

For the 57 percent of children who remain in school beyond grade six, the curriculum fails fully to address relevant life skills; this in spite of the reform promising to “develop and implement vocational and training curricula for community living”. For most children, educational opportunities are limited and, when available, quality education remains prohibitively expensive and out of reach of the majority of the population. The village-based elementary school system appears capable of increasing coverage of the population with the earlier grades of schooling. However, the later grades are experiencing high percentages of dropouts.

The reforms in the education sector also attempted to strengthen inspection and monitoring. It is not clear how much, if any, of this has been achieved. Recognizing that it would be unlikely that government alone can single-handedly educate the whole population, the reform charter also sought to strengthen partnerships with churches and NGOs.

There is a clear link between the lack of access to education and the occurrence of child labour. Education is a key intervention towards the elimination of child labour as it leads to upward social mobility and poverty alleviation. Advocacy among teachers about child labour issues, and programmes on reintegration of child labourers back to formal education, need to figure in the education agenda of the Government. Due concern should be given to addressing the particular educational needs of working children, taking into account needs for non-formal education, informal education and job placement programmes as part of a holistic strategy to alleviate child labour.

Enhancing functional literacy

Children and youth have little to look forward to by way of future gainful employment. It is well known that, with no hope of a bright future, people tend to become fatalistic; children and youth are not exempt. PNG has a relatively small formal labour force and a large informal sector making employment opportunities few and far between, even for well-educated persons. At the national level, formal sector employment absorbed only 18 percent of the economically active population while the subsistence and semi-subsistence sector employed 74 percent of the total labour force.

Improving networking for children

For most of PNG’s modern history, churches have been the primary and often the only provider of non-formal functional literacy education. The churches also own and operate 46 percent of rural health centres, 50 percent of hospitals, 50 percent of primary schools, and one third of all secondary schools. While the government recognizes the role played by the churches, the churches have been calling for assistance from the government. There is a need to further enhance collaboration between the government and the private sector.

Pro-active approach for juvenile justice

It is a truism that unemployment contributes to crime. What should be the focus of attention is pro-active child-centred approaches to crime prevention. Secondly, when children are deprived of their liberties when they are under arrest or detained in institutions, it must be presumed that they are innocent until proved guilty, and treated accordingly. The aim is that detention does not lead to the violation or deprivation of their rights. It is not clear that these noble ideals in administering justice have been fully addressed in the country. Indeed, child welfare and juvenile justice have lost considerable ground and capacity in the years since ratification of the CRC. There have been few consistent advocates for child rights in the key planning and budgetary bodies. There has also been little systematic assessment of the impact of budget, policies and legislation on children, no government policy on child impact assessment, and no research commissioned or body established to address these matters.

Child labour, poverty, education and children's rights

The ILO Convention on the elimination of hazardous forms of child labour was ratified by PNG in June 2000 and forms the legal basis for integrated child labour initiatives.

A high population growth rate exerts pressure on the country's resources and its capacity is thereby constrained to deliver the basic social services. Large families are unable to provide for their basic needs of food, quality education and other basic necessities and, therefore, the children may be forced to work together with their parents under very poor and hazardous working conditions.

The most important factor that pushes children to work at an early age in the most exploitative and hazardous conditions is poverty. Children are vulnerable to many forms of exploitation, especially during times of hardship. There is, therefore, a need for an integrated approach to the elimination of child labour, focused on social mobilisation and community organisation coupled with advocacy and awareness-raising on the imminent dangers that child labour poses to physical and mental development of the child. Any successful approach must be led and initiated by the country itself and should consist of the following elements: strong political will and commitment to policy reforms to address the causes of the worst forms of child labour; linking child labour action with poverty alleviation and efforts to provide quality education; building innovative partnerships between the government, international organizations and financial institutions; provision of free and compulsory education; and raising the minimum age for hazardous occupations.

2.7.3 Conclusions

The hostile environment into which children are born and in which they are expected to grow and develop poses a great challenge to survival, development and protection programming. Opportunities will be identified in the programmes that are currently being run, and an increase in joint programming between health and education sectors, with particular reference to early childhood education, will be pursued. More specifically, there should be real moves to disaggregate data by age and gender in line with the current practice of disaggregating data by geographical location. This will highlight areas requiring specific interventions. Because of the escalating law and order situation, projects and activities in child protection will need to be implemented to ensure that the rights of the child, especially when in detention, are not violated. Life skills will need to be included in the educational curriculum to encourage gainful self-employment, which in turn will serve to reduce rural-urban migration and mitigate the law and order situation. In tandem, community-based training is needed to promote and expand economic opportunities among non-wage rural sectors, which is vital for improving livelihoods and survival.

2.8 Food Security

2.8.1 Assessment and Analysis

Agriculture systems

Agriculture, including fisheries and forestry, is a major component of the economy, contributing on average 26 percent to GNP over the period 1990-1997. The agricultural sector can be divided into three sub-sectors: subsistence, mixed subsistence-cash cropping, and the commercial sector. About 38 percent of the rural labour force in 1990 were engaged in subsistence farming only and a further 44 percent produced cash crops as well as their own food. Only 8 percent of the rural labour force were wage workers - an indication of the small size of the commercial agricultural sector. "Smallholder" farmers produce 96 percent of all agricultural produce, 75 percent of coffee, 65 percent of cocoa, 66 percent of copra and 35 percent of palm oil. Of the total value of agricultural output, about 50 percent is staple food crops (consumed mostly in rural households), 13 percent is livestock, and 33 percent is export cash crops. Commercial food production is primarily aimed at domestic consumption rather than exports. The livestock industry consists of a few intensive broiler chicken operations, piggeries and cattle ranches employing mostly imported feedstock.

The main livestock used in the traditional system are domesticated pigs in addition to fowls and chickens. Some livestock (pigs, wallabies, birds) are hunted from the wild, while the livelihood of the

coastal and river people revolve around the sea and the waterways for fish and other aquatic resources. However, research in West New Britain found that fresh fish is consumed by less than 1 percent of households even though the population has easy access to the sea. Previous research studies have made similar findings (Jenkins, 1996).

Subsistence farming systems exhibit considerable geographical diversity in terms of the mix of foods produced. The results of the National Nutrition Survey in 1982-1983, in combination with standard linguistic divisions, resulted in the identification of 15 food culture areas (Jenkins and Zemel, 1990). In the highlands, sweet potatoes, bananas, wild birds and wild animals are the main foods produced and eaten. Sago is the staple food in the wet lowlands and coastal areas. Inhabitants of the small island villages report eating greens more than do villagers from other areas. Along the Central Province coast, the staples are breadfruit and yams, while yams, banana and cassava feature prominently in most of Milne Bay province. Villages located inland and along the river systems, subsist on sago, river products, wild animals and birds (*abus*). Taro and other root crops are the staple foods for inland villages (NPO, 1999).

The traditional diet, as elsewhere in the Pacific, is low in protein with a high-energy content being provided by root crops. More than 90 percent of food energy by weight is supplied through plant foods (Uljaszek and Pumuye, 1985; Koishi, 1990; Taufu, 1995).

Subsistence food production predominantly employs traditional, low-intensity "bush-fallow" technology as found throughout the Pacific Islands and SE Asian regions. Under this system, either primary or secondary growth forest is cleared and crops are cultivated for a limited number of years, following which the forest is left to regenerate itself for up to 20 years before being used again. This method can be employed on slopes that would not be suitable for more intensive forms of cultivation that require mechanisation. The long fallow periods required to restore the fertility of the soil means that bush-fallow production methods are only suitable where population density is low. Where population density is increasing from relatively high levels (as in some Highlands provinces) fallow periods are getting shorter with the result that yields per acre are probably declining and the agricultural system is coming under stress.

Although men and women co-operate in food production, the heavy labour involved in forest clearing is usually provided by men, while the maintenance of gardens and the overall responsibility for providing food falls upon women. In most parts of the country women are responsible for feeding and raising pigs. Although pigs are an important source of protein, the consumption of pork is generally associated with ritual events such as weddings, funerals, and land transactions.

The National Nutrition Policy of 1995 (GOPNG 1995) acknowledged that agricultural stress in the form of declining soil fertility is leading to a decline in food production in some areas. The decline in soil fertility can mainly be attributed to intensification of the agricultural farming systems. With the increase in population, land is becoming more of a constraint. As fallow periods decline, the soil has less time to regenerate. In areas of declining yield, farmers (frequently women) must work longer and harder to provide food for their families. Attention to this problem would also address the problem of women's workload.

Food consumption and nutrition

There is a shortage of detailed information on food consumption and nutritional intake. The last comprehensive national nutrition survey was conducted in 1982 and the most recent data on food consumption are from a poverty study conducted in 1996. National average daily caloric intake, according to that study, was 2,974 kilocalories per day, well above the recommended average of 2,200. While the sample size did not permit provincial estimates, regional patterns show that consumption is highest in the Southern region, excluding the National Capital (3,326), and lowest in the Islands region (2,685). No region has an average caloric intake under 2,200 kilocalories. However, protein intake showed a different pattern. The national average is 55 grams per day (comfortably above the recommended daily minimum of 50 grams per day), but ranged from 82 grams in the National Capital to 48 grams in the Highlands region.

While both national and regional average food consumption statistics suggest adequate nutrition at the large-scale geographical level, other evidence suggests that these averages mask significant malnutrition at the district level, among children and women, and in low-income groups.

The 1996 Poverty Survey found that 43 percent of children aged 0-5 years in the total sample were stunted, while 6 percent were wasted. The highest rate of wasting was found in the second year of age.

Micro-nutrient deficiencies

The extent and distribution of micronutrient deficiencies and resulting disorders are not well known. Iodine deficient soils in some areas contribute to enlarged goitre with visible rates ranging from 0.5 to 54 percent and endemic cretinism of between 1 and 7 percent in two provinces in a 1985 survey. While all salt used for human consumption must now be iodised by law, salt intake in some areas is too low to provide the necessary level of iodine, and not all salt offered for sale is adequately iodised. Nutritional anaemia is probably a more significant problem, especially among children and women of child-bearing age.

Over-nutrition and non-communicable diseases

Only incidental evidence on the prevalence of over-nutrition is available. Communities in rural Papua New Guinea have relatively low levels of obesity, especially in the Highlands, whereas in the urban coastal population, a high prevalence of obesity can be found. Men tend to be more obese than women.

In 1997 the health and nutritional status of 3,500 Primary School students was measured in East New Britain Province. Urban children were about 1 kg heavier and 2 cm taller than rural children. There is a tendency towards overweight in urban school children, especially girls, which might produce future health problems.

PNG is classified among those countries having a high prevalence of diabetes type 2, based on information from a limited number of groups (IDF atlas 2000). In certain ethnic communities, between 30 and 40 percent of the population is affected (e.g. urban Wanigela, who live in Koki, a suburb of the capital Port Moresby).

Changing patterns of food consumption and health implications

The adoption of a more modernised lifestyle by Papua New Guineans is affecting their food habits and choices, although this transition is not uniform across the country. The change is greatest among those who have cash income. A recent survey based on 24-hour recall (Gibson and Rozelle, 1998) found that almost 90 percent of the urban population ate rice the day before the survey compared with one-quarter of the rural population. Rice is becoming the second staple food, after sweet potato, hitherto the most common root crop.

Rural village people want to add variety to their diet through store-bought food (Jenkins, 1996). They often sell garden produce and fish for cash in order to purchase store food of lower nutritional value. In villages with access to urban centres, purchased food items (rice, tinned fish and tinned meat) comprise an ever-increasing part of the diet. Some food items purchased are 'junk' foods, being highly processed and of low nutritional value.

The choice and availability of foods has a direct bearing on health and nutrition status. A baseline health and nutrition survey, carried out in 1996 in Western Province along Lake Murray and Strickland river, showed that the mean height and weight of Lake Murray adults were significantly higher than those of people in the flood plains and further along the river. Apparently this was because Lake Murray people consumed more fish protein and malaria was less prevalent (Taufa, 1997).

In rural areas, cash availability depends principally on the proximity of large-scale resource projects. Research has shown that villagers closer to mines bought more store foods and made fewer food gardens than people living further away from the mine (Ulijaszek and Pumuye, 1985). Store goods could be up to 50 percent of their food intake by weight. (Taufa, 1995). This has led to changes in the

dietary habits of the local people and, within a few years, to an increase in the prevalence of chronic lifestyle-related diseases such as obesity, hypertension and coronary heart disease (Flew and Paika, 1996).

Causes of malnutrition

Malnutrition is caused by a complex range of factors that operate at various levels. It is clear from the 1982/83 survey that the populations of some ecological-climatic zones suffered greater malnutrition than others. The middle zone between the coastal lowlands and the highlands tends to be particularly affected, but this is not consistent throughout the country. More intensive agricultural systems are associated with larger children indicating that the nutritional status of children benefited from intensification as well as from the introduction of cash crops into traditional systems.

In many sago-based societies, an over-reliance on sago discourages planting of other foods. For example in Josephstahl, a sago-based society located in a remote rural community in Middle Ramu, Madang, the variety of fruits, vegetables, fungi, nuts, birds, small mammals, insects and fresh water animals is far greater than elsewhere. However, these foods were seen as a small relish to eat with one's sago or as a snack during the day, not as an important part of the meal. Coupled with a heavy burden of infection, this type of diet produces a population with high levels of endemic malnutrition (Jenkins, 1996).

At the individual level, the most nutritionally disadvantaged persons would appear to be: (1) pregnant and lactating women; (2) children of both sexes aged 1-2; (3) high parity women; (4) women suffering from malaria, tuberculosis, or intestinal parasites. The least nutritionally disadvantaged individuals are: (1) adult males; (2) females aged from about 6 to 22; (3) persons not suffering from tuberculosis, malaria or intestinal disease. The specific causes of malnutrition vary in each of these groups. For example, inadequate weaning practices contribute to wasting in children. Pregnant and lactating women receive insufficient food because their specific needs are unrecognised in traditional ways of thinking.

Gender is clearly a factor contributing to malnutrition in individuals. The decline in weight and fatness with age tend to be greater in women than in men, which indicates that the nutritional status of women is poorer. The risk of chronic energy deficiency (that is, a Body Mass Index below 18.5) is three times higher for women than for men in all income categories. This apparent vulnerability of women has been related to two possible sources of stress, pregnancy and lactation, and agricultural labour. A third factor might be that in many cultural groups, it is customary for men to be given priority access to the most nutritious high-protein foods, as well as first access to limited food supplies.

Income poverty contributes to malnutrition. Households spend a relatively high share of their expenditures on food (63 percent), suggesting an overall low standard of living (World Bank, 1999). Stunting, or chronic under-nutrition, is particularly prevalent among young children in the lower income groups in rural areas. The risk of a child from the poorest consumption quartile being stunted is 18 percentage points higher than that of a child from the highest consumption quartile. Anthropometric data for adults also indicate that there is a close relationship between the average level of Body Mass Index and the level of household consumption, especially for women.

2.8.2 Key challenges

Agriculture and food security

More intensive plant production systems appear to be more likely to provide a nutritious range of food than less intensive systems cultivating fewer crops. Intensification requires the transfer of well-adapted and accessible technologies and farming practices, including the effective use of high-yielding varieties, integrated plant nutrition systems, integrated pest management and appropriate post-harvest handling, storage and processing methods. These should be combined with well designed marketing systems and credit schemes to generate greater income for the producers. The diversification of production systems through the integration of livestock and planting of multi-purpose tree species as components of the farming systems is also needed.

Support for small irrigation and drainage schemes using such water sources as rainfall, runoff, streams and rivers, and underground water together with agricultural land development, to insure against drought and water shortage for crop and animal production is needed. Credit schemes specifically for food production, processing and marketing would help boost food security.

A particularly daunting challenge is the expansion and improvement of agricultural extension services. These have deteriorated dramatically during the 1980s and decentralisation of responsibility to the provinces has led to the collapse of extension services in recent years. The teaching of basic food production, nutrition and health subjects in schools should be further promoted in order to protect individuals against food insecurity.

Nutrition

The implementation of the National Nutrition Policy that was endorsed by the National Executive Council in 1995 would contribute to improved nutrition across the country.

In rural areas “Community Based Growth Monitoring and Promotion” activities should be undertaken. Not only will they address the nutrition and health status of young children, but also of mothers (ante-natal visits, family planning) and the family as a whole (backyard gardening, water supply, toilets, sanitation). Furthermore, encouragement of income generating projects has the potential to address issues in an integrated way by departments (health, agriculture, education).

Poverty and malnutrition should be addressed by developing “Work-for-food” activities. The possibility of providing small loans to develop cottage industries should be explored. The establishment of craft markets located near tourist sites, and the encouragement of urban backyard gardens are other possibilities.

The prevention of over-nutrition should be addressed by promoting healthy lifestyles and eating habits. Town planners should develop parks and walking/cycling tracks so that urban populations can live a more active life. Law and order must be addressed so that people are not afraid to walk the streets. The selling of healthy lunch foods (rather than fatty fast foods) in school canteens and offices by women’s groups should be encouraged. The consumption of local foods, not only in the house but also in restaurants and kai-bars should also be supported. Consumers need to be educated about food choices, food quality and food safety.

2.8.3 Conclusions

The long-term sustainability of national food security is precarious, based on the present dependence on imported foods of low nutritional value. To reverse this trend, government and its development partners should strengthen local capacity to improve domestic food supplies by providing supportive structures and measures. Food security is a complex issue involving social, environmental and economic factors. There is a need for greater integration among different sectors. Agriculture, forestry, fisheries, health, education, and environment and conservation departments, non-governmental organizations (NGOs) and others need to link their activities in a more coordinated way. It should also be recognized that hunger, food shortages, or malnutrition cannot be eliminated through government action alone. Thus, a broad mobilization of public and private sector resources will be necessary to improve food security. To boost agricultural output and increase food security, an “agriculture day” should be celebrated each year. Perhaps this might coincide with World Food Day at the national level. Activities relating to this may be held first at the district level, later at provincial level and finally at national level with exhibits and displays from the best growers. Prizes and awards should be given in each category of exhibition. This would encourage producers and would give due recognition to agriculture as a profession.

2.9 Environment and Sustainability

2.9.1 Assessment and Analysis

Natural resources and biodiversity

PNG is blessed with a magnitude of biological richness that few other countries can match, and, by and large, these riches are faced with lower levels of immediate threats than elsewhere. Large tracts of land are still forested and the coral reefs have suffered less damage than almost anywhere in the world. The people maintain close ties to nature and have strong cultural ties to the land. PNG has vast natural resources, and has relatively low population density. Local cultures remain strong, and the country harbours a cultural and linguistic diversity unmatched in the world. People still have the knowledge and skills needed to live off the land.

The country has a huge comparative advantage in its wealth of biodiversity. While it may not be well situated for large-scale manufacturing industry, it has a tremendous advantage in the vast diversity of its plants and animals. Due to its relatively unspoiled natural environment and its huge cultural and biological diversity, it has huge tourism potential that only its bad reputation for security and the high costs and unreliability of travel are keeping in check. This advantage will only increase as more densely populated countries continue to be despoiled – provided that PNG manages to avoid some of the traps that other countries have fallen victim to.

PNG has ratified a number of important international conservation conventions including, amongst others, the Convention on Biological Diversity (1992), the Ramsar Wetlands Convention (1993), the Framework Convention on Climate Change (1993), the London Convention on the Prevention of Marine Pollution (1994), the Montreal Protocol on ozone-depleting substances (1998), the Convention on the Illegal Trade in Endangered Species (CITES), the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean and the Apia Convention on the Conservation of Nature in the South Pacific. These conventions bind signatory countries to observe the regulatory measures contained in them.

Environmental threats

The problems facing the environment, on which Papua New Guineans rely so heavily, fall mainly under the heading of over-exploitation. Logging, over-hunting, over-fishing, clearing for agriculture and plantations, trade in threatened or endangered species of wildlife, all present environmental problems when they result in over-exploitation or over-harvesting. Continuing population growth will worsen all these problems while increased consumption exacerbates the pressure from an expanding population.

The main threats to the forests are 1) industrial logging, 2) conversion for agriculture and plantations, and 3) over-hunting. The marine environment is threatened by logging, destruction of mangroves, over-harvesting of sessile organisms such as giant clams and bêche de mer, shark harvesting and coral reef destruction.

Industrial logging is conducted by foreign companies some of which show little concern for the environmental laws of the country. Revenues received from log export taxes are being heavily offset by damage to PNG's biological heritage. These revenues are relatively insignificant in comparison to the revenues gained from mineral exports.

It is clear from the Forest Authority's own map of present and proposed timber concessions that nearly all of the country's loggable forest has been either logged, allocated for logging, or proposed as new concessions. Hence, unless industrial logging is reduced to a sustainable level, it will not be long before it ceases to make a useful contribution to the economy.

While logging companies are clearing forest at a faster rate than anyone else, most of the presently deforested lands were cleared long before there were logging concessions. While logging leads to severely degraded forests and loss of biodiversity, it only leads to deforestation if followed by agriculture, plantations or other types of development. Land that is cleared for agriculture and plantations remains deforested longer than land which is logged and then abandoned. As Papua New

Guineans took to less nomadic lifestyles, population densities increased and fallow periods shortened, regular burning and agriculture resulted in extensive deforestation, particularly in the highlands.

The industrial mining sector also has an impact on forests, through the clearing of forest for mining and construction activities, as well as on the aquatic environment, both freshwater and marine, through the leaching of effluents into watercourses.

Mammals and large birds and reptiles are quickly over-harvested near any kind of human settlement. Hunting already poses a serious conservation problem for several important species, and this is expected to get worse with continued population growth and the ensuing habitat reduction. Similarly, in marine systems, sessile organisms with low growth rates, like giant clams and other molluscs, are quickly overexploited. Sharks have growth rates that are too low to bear any commercial exploitation, and sea cucumbers are quickly over-harvested where commercial buyers come in to make quick profits in Asian markets.

The land tenure system gives the people a unique opportunity to manage their land for long-term benefit to themselves and other species. Ninety-nine percent of all land is under traditional clan ownership. Hence, no one can make decisions about the use of the land without permission from the landowners. Having secure tenure over the land ought to make it possible for the people to manage their land for their long-term benefit. Unfortunately, in practice, the system has made it easier for ruthless developers to gain easy access to land belonging to disempowered, poorly organized, and easily exploited land owners. Furthermore, patchy ownership patterns make the kind of cohesive large-scale habitat protection needed for the viability of animal and plant populations difficult. It also makes most western-style conservation measures difficult to achieve. Hence, while PNG has much of the most valuable land in the world for conservation of biodiversity, it ranks at the bottom of the scale in terms of the proportion of its area under some level of protection. Less than 0.03 percent of the land area is in national parks. Among the more extensive Wildlife Management Areas, just three areas (Tonda, Maza and Crater Mountain WMAs) account for more than 80 percent of the total area and there is no general protection against destructive practices like industrial logging in WMAs.

2.9.2 Key Challenges

Reduce industrial logging

The number of people who have a vested interest in commercial logging is small. The revenues to the state are relatively small and come only by decreasing the natural capital of the country. Benefits to local communities are also small or negative. Rather than forbidding industrial logging outright, it may be easier to impose heavy taxation on logging and other extractive industries. Taxation is one of the most powerful instruments modern societies have to discourage harmful activities and is generally accepted by the general citizenry as a means of avoiding destruction of the environment. Revenues gained from logging could thereby be used to compensate for previous destructive practices.

Establish area-based rules of conduct

As an alternative to strict, exclusive conservation areas on small, isolated parcels of land, a system of good rules of conduct (like WMA rules) over a large network across the country could be established. Because of the difficulties of establishing conventional protected areas across large continuous tracts of land, an appropriate alternative might be to strive for a set of rules of conduct for every area of the country. What sets WMAs apart from other pieces of land is the gazettal of "wildlife management" rules for the said areas. Examples of such rules might include such measures as: a) no commercial hunting of crocodiles, b) no industrial logging, c) bêche de mer harvesting on a designated reef prohibited during the months of October through January, etc. Such rules can be more or less complicated and more or less detailed. As with WMA rules, landowners would have to agree on rules, penalties and a system of enforcement on their land. With a large and diffuse effort, and with committed practitioners working closely with communities to establish land use plans and spatially explicit rules of conduct, a viable conservation strategy in the absence of large national parks could be established.

Trade in endangered species

The timber trade dominates the general forestry debate and large-scale log trade undoubtedly remains a threat to the integrity of many ecosystems. Within the forested areas exist a wealth of medicinal, aromatic and ornamental plants, including orchids, that are in demand from overseas markets. But the extraction of individual timber species (such as Rosewood *Pterocarpus indicus*, Kwila *Instia bijuga*, Okari *Terminalia spp*, Pacific Ebony *Diospyros sp.* and Sandalwood *Santalum mcgregorii*) is an additional conservation threat at the species level that results from the broader timber trade.

In terms of non-timber forest products, the current level of Eaglewood (also known as Agarwood or gaharu) exploitation in East Sepik and Sandaun provinces is of great concern. If the harvest and trade of this species (or set of species) – which produces a high value, low volume product used for aromatic and medicinal purposes – can be managed sustainably, it offers vast income-generating potential. To achieve this while substantial stocks still remain in the wild will require considerable inter-agency co-operation between the National Forest Authority (including the Forest Research Institute), the Office of Environment and Conservation (OEC), and the Internal Revenue Commission.

Fisheries and marine trade, which is not often viewed as “wildlife trade” *per se*, presents a series of management and regulatory issues for Papua New Guinea. Of particular need for attention are:

Sharks – The FAO has instituted an International Plan of Action for the conservation and management of sharks after global acknowledgement that sharks are more susceptible to over-harvesting than many other marine fish species. As prescribed by the plan, nations need to develop a shark assessment report that identifies actions to be implemented through a National Plan of Action for sharks. PNG needs to commence developing the assessment report and the plan of action.

Marine invertebrate species – In general the trade and harvesting of marine invertebrate species from the South Pacific has been found to lack management frameworks. Also, given the susceptibility of some species (e.g. Trochus, Pearl Oyster, Green Snail, Giant Clam and Sea Cucumber) to over-exploitation, there is a need for PNG to ensure adequate monitoring and appropriate management of harvesting and trade.

Live reef fish for food (LRFF) – LRFF have not only become of interest worldwide as a resource that can offer high financial returns, but also due to the individual susceptibility of individual species to over exploitation. PNG needs to be aware of this and monitor and manage those fish species involved in this trade. An associated issue is the use in some locations of the destructive practice of cyanide and dynamite fishing.

Corals – PNG needs to understand the overall use of coral resources and ensure appropriate management is in place. Hard corals, which provide the backbone of all reef ecosystems, are listed in Appendix II of the Convention on the Illegal Trade in Endangered Species (CITES) which requires the issuance of permits by PNG for any international trade. Greater awareness is also needed regarding the significance that domestic uses of hard corals, such as for road construction, play in the overall mortality of coral resources.

Marine turtles – All species of marine turtles are listed in CITES Appendix I which prohibits international trade for commercial purposes. Marine turtles in PNG are targeted for domestic consumption and are also caught incidentally through fishing practices such as trawling and long-lining. PNG needs to monitor the harvest of marine turtles to prevent over-harvesting of these migratory species, whether for domestic use or to supply the souvenir trade in marine turtle products.

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean: Fish stocks (particularly tuna) covered by this convention are of interest to PNG, which needs to maintain its active role in pursuing the implementation of this convention.

Fish aggregating devices (FADs) – These devices are used to attract fish to a particular area to make it easier to harvest from the wild. Concerns are growing at the effects that these devices may be having on the larger ecosystem, particularly when FADs are not controlled or monitored. PNG needs to address the situation of FADs within its archipelagic waters.

The major constraint to ensuring that wildlife harvest and trade is managed sustainably in PNG is a lack of capacity, in terms of personnel, expertise and available financial resources. The Office of Environment and Conservation, PNG's designated CITES Management Authority, remains critically understaffed and lacks even basic communications capacity (telephone, E-mail, fax) to collect and disseminate crucial information. Unless the government pays more heed to wildlife trade as a priority issue within an integrated plan to protect PNG's biodiversity for future generations, the country will remain a "soft touch" for the depredations of the international wildlife trade.

It should be a national priority to ensure no further net conversion of land to agriculture, plantations, and other land uses that inhibit natural succession. There has already been enough primary forest cleared to allow any further harvesting of timber, gardening etc. to take place in second growth, or in small clearings balanced by reversion to primary forest in other areas.

While it is relatively clear what needs to be done to protect the environment, it is not clear how one might go about achieving such measures. Like most places in the world, instituting policy changes that will succeed in protecting the environment is a matter of political will and a populace that will encourage and allow politicians to do the right thing. Maintaining the world's ecosystems is not something that can be done piecemeal, by implementing little projects here and there in the midst of an overwhelming trend in another direction. Public awareness campaigns with the support of the government could succeed in persuading society at large to go in the right direction.

It is not clear what conservation tools would work in Papua New Guinea, given the vagaries of long-term changes in society such as continual population increase and the increasing desire for cash and consumables. Appropriate and effective conservation mechanisms that will work in PNG over the long term need to be found. Achieving these goals calls for: strengthened collaboration between OEC and other governmental agencies responsible for drawing up development plans, NGOs and the private sector; strengthened linkages and communication between environmental agencies, local leaders and decision-makers, and the general public; awareness of "environmentally sustainable development" to be improved among government departments, private sector firms, and the general public; the constraints and impediments to the enforcement of environmental legislation to be identified and remedial measures to address these problems introduced; and research to be conducted on environmentally sustainable practices in agriculture, fisheries and forestry.

Implementation targets involve the drawing up of a national environmental awareness programme in collaboration with NGOs by early in the decade. Environmental "focal points" need to be established in every province and extension facilities established to serve districts and local governments. Other measures which will be needed include: awareness programmes to be piloted in selected provinces and, later, established in all provinces; constraints on enforcement to be identified and measures to address them implemented; and research priorities to be identified and targeted research programmes implemented.

2.9.3 Conclusions

The United Nations System attaches considerable importance to the conservation and management of PNG's rich environmental heritage. It can play a significant role in assisting the government to establish appropriate management systems and programmes for the effective conservation and management of scarce and valuable biological resources. Considerable assistance within the framework of the Global Environment Facility (GEF) as well as from UNDP and other donors has already been provided for projects in areas such as biodiversity conservation, climate change monitoring, and reef fishing. Additional resources could be obtained for assistance to major programmes to tackle some of the environmental challenges outlined in the previous section.

3 ASSESSMENT AND ANALYSIS OF CROSS-CUTTING ISSUES

3.1 HIV/AIDS

3.1.1 Assessment and analysis

Papua New Guinea is now in the unenviable position of having the highest incidence of HIV/AIDS in the Pacific region. It also has the fifth-highest percentage of 15 to 24-year-olds living with HIV/AIDS in South-East Asia and the Pacific.

As of June 2001, the total number of HIV-positive individuals reported had reached 3,901, of whom 1,366 had developed full-blown AIDS and a further 249 had died from the disease. At the same time, AIDS had already become the leading cause of mortality among young adults in the Port Moresby General Hospital medical ward.

The trends in HIV infections in the recent past show an alarming picture. From 1995 to 1997, starting from a very low baseline, approximately 50 percent more cases were reported each year over the previous year and the annual increase in diagnosed cases has continued at the level of approximately 30 percent per annum since then. The surveillance system for HIV/AIDS is still relatively undeveloped, but the consensus of informed opinion is that there are probably between 10,000 and 15,000 people already infected with HIV throughout PNG, most of them being concentrated in the area of the National Capital District. Although the HIV prevalence rate remains low in groups at low risk such as blood donors and ante-natal women, the rate is significant among people with high-risk behaviours, especially in Port Moresby.

An important speech in November 2000 by the wife of the Prime Minister, Lady Roslyn Morauta, highlighted that recent data showing 89 percent of HIV infections are the result of heterosexual sex with men and women being infected in almost equal numbers and with the majority being in the 20 to 29 age-group. A worrying factor is that a further 9 percent of cases are peri-natal. The average age of diagnosis is 30 although women tend to be younger at an average of 27 years of age. Rape and sexual assault of women contribute to the problem, and the danger of the spread of HIV and other sexually transmitted infections (STIs) is great. STIs are common, especially among sex workers (chlamydia 31 percent, syphilis 32 percent, and gonorrhoea 36 percent). The escalation of the epidemic is being exacerbated by the high prevalence of sexually-transmitted diseases, estimated at 10.6 per 1,000 population, and by the low acceptance rate of modern methods of contraception, especially condoms. For many men, condoms carry a connotation of adultery and prostitution, while the lack of power most women have in their relationships with their male partners makes it very difficult for them to insist on the use of condoms. Significant HIV infection rates have been documented among female sex workers in Port Moresby (17 percent) as well as among STD patients (7 percent).

The government has acknowledged the risk of HIV/AIDS to the country and established the National AIDS Council and its Secretariat by act of Parliament in December 1997. It comprises representatives from government departments, the Council of Churches, the National Council of Women, the Chamber of Commerce and the NGOs as well as of people living with HIV/AIDS. Within this context, the government established five working advisory committees at the national level as well as 20 Provincial AIDS Committees with wide community representation, to organize local HIV/AIDS awareness programmes, counselling, care, testing and reporting. The national advisory committees cover behaviour change, medical expert advice, legal and ethical advice, research and sectoral response.

The government has developed a multi-sectoral approach through a comprehensive Medium-Term Plan (MTP) for the 1998-2002 period. With significant assistance from AusAID, the Government has also established 10 STD clinics and conducted a series of training courses for health workers and laboratory technicians. Community-based information, education and communication (IEC) campaigns have been initiated and grants have been provided to community-based organizations (CBOs).

The government has so far not introduced the use of anti-retroviral drugs in the treatment of HIV/AIDS but has announced its intention to introduce the treatment for mother-to-child transmission in the future.

3.1.2 Key challenges

The Joint United Nations Programme on HIV/AIDS (UNAIDS) fielded a mission to PNG early in 2001. It concluded that the HIV/AIDS epidemic in Papua New Guinea is clearly gathering momentum. With policies and structures now in-place for effective response, there is an undeniable need to intensify strong and decisive actions to operationalize and implement the MTP and prioritise action to reduce the spread of the epidemic, including expanded interventions with people at high risk of infection. It will be necessary to work with key sectors to integrate HIV/AIDS components to operational plans and activities, identify and respond to emerging needs and gaps in the MTP, and reduce the impact of the epidemic on individual, families, communities and the country as a whole. Failure to implement it will quickly reverse the gains made so far in the health and other sectors. It will also be important that the multi-sectoral approach pays attention to HIV/AIDS in the workplace with specific programmes targeting employers and workers and addressing workplace concerns.

Need to strengthen components of the Medium Term Plan (MTP)

To strengthen the impact of the MTP, there is now a need to respond to emerging gaps in the plan, and to strengthen some existing components to ensure an effective national response to the epidemic. In this regard, gaps include the need for efforts to reduce mother-to-child transmission of HIV, strengthening and implementing gender elements of the MTP, including gender-sensitive STD and care services; and linkages with wider programmes, especially gender and violence activities. There is also a need for further analysis of the socio-economic impact of HIV, and use of these data for sector planning and activities.

Areas that need strengthening include the need for innovative approaches to condom promotion, especially to people at high risk of HIV infection, in addition to on-going condom social marketing activities. It is important to ensure that reliable data are available to monitor the development of the epidemic and to develop and monitor interventions. There is a strong need for the greater involvement of people living with AIDS in HIV prevention and care activities and for the improvement of care for people living with HIV and AIDS, both within the health sector and at family and community levels. The strengthening of efforts to involve non-governmental and business sectors in effective responses to the HIV epidemic is also desirable. It is important that any activities in these areas be strongly linked with existing MTP activities being carried out by the National AIDS Council Secretariat (NACS) and Provincial AIDS Committees (PACs), and that they make use of international experience (e.g., best practices) in developing appropriate interventions.

Specific activities to support the NACS, PACs and Provincial AIDS Co-ordinators would include capacity building, strengthening and implementing gender elements of the MTP, including better representation of women in the NACS, and linking these structures with national, regional and international information networks. Thematic taskforces need to be established and monitoring and evaluation tools for provincial and district levels developed.

3.1.3 Conclusions

A recent message from the Secretary General of the United Nations, Mr. Kofi Annan, called on UN Country Teams to give priority to supporting governments to implement fully the Declaration of Commitment adopted by the UN General Assembly Special Session on HIV/AIDS. He stressed that national governments must be supported to re-examine their development plans and priorities in the light of the epidemic and of the Declaration of Commitment, adding that “a business as usual” approach is insufficient. In the light of this call for action, UN System support to government HIV/AIDS activities should aim at: providing technical and other resources to build the capacity of sectors and institutions to take action for HIV prevention and care; ensuring access to the wealth of experience and technical resources available through the UN system to address the HIV epidemic; mainstreaming HIV/AIDS into the development activities of all UN agencies; providing exposure to innovative models, interventions, and “best practices” used in other countries and relevant to the national situation; and complementing existing donor resources and programmes. In discussion with the government, specific areas of potential collaboration with the UN system could include: participation in the mid-term review of the current MTP, and the development of the next MTP; promoting increased regional exchange of experience and

collaboration with Papua New Guinea; development of an integrated work plan to incorporate HIV/AIDS components into appropriate work areas of programmes assisted by UN System organizations and agencies; and strengthening of the UN Country Thematic Group on HIV/AIDS, which may include representatives from the NACS and partner agencies.

3.2 Gender

3.2.1 Assessment and Analysis

Papua New Guinea was the first Pacific country formally to recognise women's role and contribution to national development. This was in the seventh item of the Government's Eight Point Development Plan (1974) which called for "a rapid increase in the equal and active participation of women in all forms of economic and social activity". Then, in 1991, a National Women's Policy was introduced and endorsed by the government. This National Policy reaffirmed the goal of equality and participation and integral human development, as reflected in the Constitution. PNG ratified the Convention of the Rights of the Child in 1993 and CEDAW in 1994, and the government's commitment to gender equality and women's advancement was seen in the strong government delegation of 31 women to the Beijing Fourth World Conference on Women in 1995. In 1995 also, the Granville Declaration saw the adoption of the National Platform emphasising gender equality and equity to access and opportunities in education, health and resources for the betterment of life. Women's literacy was a key strategy in achieving women's advancement. The establishment of national women's mechanisms at the highest political level - to influence policy decisions of government - was another key strategy.

Despite these great beginnings, there has been a marked lack of national attention and commitment to women's issues in the past few years. This may reflect a lack of political will, but it is also a result of the economic constraints facing the country today. More especially, decreased budgets for social sector spending, coupled with inflation have impaired health and education services, each of which affects women and girls who form the most vulnerable group. Cutbacks in jobs, and rapid urbanisation have brought social stress, fragmented families, increased poverty levels and domestic violence as well as growing law and order problems. Prostitution problems surfacing in the major urban centres have resulted in an increased incidence of STDs and HIV/AIDS.

Encouraging progress has, however, been made in incorporating gender issues into Government policies and plans, including the Population Policy, the National Health Plan, the National Education Plan, the Small and Medium-Scale Enterprise Policy and the National Defence Force White paper. Government sectors such as the agricultural sector, are also becoming more gender responsive. A Gender Desk has been established within the Department of Education (1999) which is monitoring the gender components in a number of educational projects. A number of NGOs are also focusing on gender issues. PNG has ratified ILO Core Conventions that are directed at the elimination of discrimination in the workplace. One of the greatest achievements, however, has been the draft Gender Equity in Education Policy tabled with the Top Management Team (TMT) of the Departments. A sister document to this policy will be the development of an Equal Employment Opportunity Policy guideline. These are the seeds for renewed commitment to the equal advancement of women and girls. At the same time, the strengthening of a formal mechanism which can articulate women's interests and fight for their rights, progress and positive changes is also a priority, as is the need to sensitise and raise the awareness of men on gender issues. Government also needs to formulate and enact a national policy for the elimination of discrimination.

3.2.2 Key Challenges

PNG women's unequal access to the resources and services they need to enable them to work for a better future for themselves and their families is most evident in the health and education sector, economic activities and employment. While the total adult literacy rate stands at 63.2 percent, female literacy stands at 64.7 percent compared to males at 82 percent. PNG continues to experience low female enrolments in higher levels of education. In 1994, girls represented 46 percent of enrolment in Grade 1, 40 percent in Grade 10 and 31 percent in Grade 12. In higher education, females comprised 35 percent of total enrolments and 25 percent of enrolled students at PNG Universities. The Gender Equity strategy (above) will focus on addressing this situation.

Female life expectancy in PNG is amongst the lowest in the world, at 53.5 years compared with 54.6 for males, whilst maternal mortality rates are listed at 370 per 100,000 live births which is a real cause for concern. The primary cause of death of mothers relates to pregnancy and childbirth complications – directly linking back to poor primary health care as well as women's lack of funds for adequate health care and medicines.

The economic downturn of the country has slowed efforts to effectively integrate women's participation in the formal sector. Current assessments of the distribution of economic activity by gender confirm the increase in economic activity by females. However, the majority of women are still employed in informal subsistence sector activities, particularly in rural areas. Reportedly, women's informal sector trading is the major contribution to family incomes.

The revised Organic Law on Provincial and Local Level Governments (1995) has seen a rapid increase in the participation of women at provincial and local government levels. In a recent count, there were a total of 284 appointed women members at local government level, at the ward level there are 5,747 wards and there would be a total of 11,494 women representatives at ward level. However, women's participation at national level is still minimal with only two women MPs in Parliament. Acquiring national seats will continue to be difficult for women, given that few are supported by current political parties, and sponsorships for female candidates are difficult to obtain. While the government is moving towards a more decentralised community-based development, this will not be sustainable unless gender dimensions are fully appreciated and incorporated.

While consistent gains are being made in mainstreaming gender, it is likely that there will need to be affirmative action programmes for women and girls for some time.

Other key challenges are:

- i) Promoting and integrating women's rights perspectives and approaches in development processes – given the traditional biases there will be a need for national initiatives through gender sensitive policy, planning and resource allocation. (The CEDAW could be an entry point to this activity.)
- ii) Promoting women's participation in community-based development processes – advocacy and capacity building of local NGOs, employers' and workers' organisations and community organisations for gender sensitive development; piloting of new initiatives/approaches.
- iii) Promoting transformative agendas and women's participation in decision-making and leadership at all levels – women's participation in local and national politics and gender sensitisation of legislative bodies and the public and private sectors, for example.
- iv) Promoting women's access to services and resources – integrating gender dimensions in key sectors – agriculture, health, education, employment and enterprise development. (UN agencies should be able to identify entry points such as agricultural extension, pre-natal/post-natal care etc.)
- v) Promoting women's leadership for effective participation in peace negotiations and reconstruction processes – integrate gender dimensions in local policies, programmes and institutional structures and build capacity of local NGOs and community organisations in gender and development issues.
- vi) Eliminating violence against women and promoting women's rights – advocacy and training on violence against women as well as sexual harassment and violence against women at work, sensitisation of the justice system, and piloting of innovative, rights-based approaches including for HIV/AIDS prevention.

3.2.3 Conclusions

Perhaps the greatest challenge to Government is to overcome the widespread feeling that gender equality is not a pressing concern. Immediate steps should include the strengthening of the national women's mechanism and the engendering of national initiatives such as through the Planning Department. However, a more systematic and concerted drive is necessary. Specific programmes, with UN System support, including promoting women workers' rights, women's entrepreneurship and gender in enterprises, as well as the development of co-operatives, could be part of this drive. Furthermore there is urgency in establishing national baseline data on women's status, and having this baseline evaluated regularly. The completion of PNG's first report to CEDAW - through employing a team approach with each ministry responsible for their particular sectors - is a first step in rekindling national commitment to the advancement of women and girls, and monitoring progress towards goals set.

3.3 Natural Hazards and Disaster Preparedness

3.3.1 Assessment and analysis

Papua New Guinea faces a wider range of natural hazards that are also on a greater scale than any of its neighbours, being prone to earthquakes, tsunamis, volcanic eruptions, huge landslides, floods, severe droughts and even frosts.

PNG is in the formation belt for tropical cyclones, but only coastal areas to the southeast are vulnerable to them. Many more areas experience high rainfall that causes flooding and landslides, which are exacerbated by widespread logging. Dependence on regular rainfall means that any shortage can rapidly develop into drought; many of the atolls have limited groundwater and are particularly vulnerable. Sea-level rise due to climate change is a new hazard to these small low-lying islands. In the highlands, winter frosts are another meteorological hazard that can damage crops and cause famine.

PNG is situated on the boundary between the Pacific and the Australian tectonic plates. The country has eight active volcanoes and is subject to regular earthquakes with one to two events of at least magnitude 6 on the Richter scale occurring every year. Secondary effects of this seismic activity include landslides and tsunamis. Finally, some communities also face man-made hazards due to poorly regulated natural resource extraction, including environmental degradation and pollution of their land and water resources by mining operations. The socio-economic impact of these many hazards is multiplied when overlaid by the high level of vulnerability in PNG due to the lack of infrastructure, low human development indicators and high population growth rate.

During the ten years from 1990 to 1999 – the International Decade for Natural Disaster Reduction – PNG experienced six of the twelve most devastating disasters in the Pacific. These included the earthquake and subsequent landslide at Morobe in 1993, the volcanic eruption which destroyed Rabaul town in 1994, the eruption of Manam Island Volcano in 1997, the country-wide famine caused by severe drought and frosts during 1997/8, and the terrible tsunami at Aitape in 1998. The estimated human and financial impact of these disasters is shown below:

<u>Event</u>	<u>Date</u>	<u>Location</u>	<u>No. of deaths</u>	<u>No. affected</u>	<u>No. of homes lost</u>	<u>Est. Cost (USD)</u>
Morobe Earthquake	Oct 93	Morobe, Madang	37	10,000	Not known	\$ 1 million
Morobe Landslide	Oct 93	Morobe, Madang	41	7,000+	Not known	\$ 1 million
Rabaul Eruption	Sep 94	Rabaul, East New Britain	23	105,000	5,300	\$ 60 million
Manam Eruption	1997	Manam Island	17	3,000	60+	\$ 200,000
Cyclone Justin	Mar 97	Bougainville	Not known	Not known	Not known	\$ 14 million

Drought and frosts	1997/8	Country-wide	Not known	3.6 million	-	\$ 100 million
Aitape Tsunami	Jul 98	Sissano to Malol, Sandaun	2,100+	9,000+	2,000	\$ 7 million

UN/OCHA statistics confirm that PNG suffers from the most frequent and severe disasters in the Pacific, and it is ranked eleventh in the list of disaster-prone countries in the whole Asia and Pacific Region. What the statistics do not show is that the multitude of often unreported small disasters, such as localised landslides and floods, have a disproportionate impact on the poorest and most isolated rural communities. Cumulatively, these minor disasters are probably a greater impediment to sustainable development than dramatic calamities such as the Aitape Tsunami.

3.3.2 Key challenges

PNG has a disaster management system with a Disaster Management Act (1984), a National Disaster Plan, and a National Disaster Committee (NDC). The NDC is responsible for coordinating not only national emergency response but also mitigation and preparedness efforts. It is chaired by the Secretary of the Department of Provincial and Local Government Affairs, and the National Disaster Management Office (NDMO) provides its secretariat and executive arm. This structure is intended to be mirrored at provincial and district level, where the Administrator chairs a Provincial Disaster Committee.

However, the National Disaster Plan has never been updated, the NDC has rarely met in recent years, and the capacity of the NDMO is limited due to lack of funding and staffing limitation. Disaster management plans and committees exist in some provinces but not others, and only in isolated cases are they active in reducing the risk from critical hazards. The focus of disaster management at all levels is almost entirely on response, to the exclusion of mitigation, preparedness, or recovery. All countries in the Pacific face similar difficulty in maintaining sufficient awareness and preparedness, but the problems in PNG are generally of a much greater scale.

It is apparent that much of the development process results in increased rather than decreased vulnerability to hazards. Risk reduction and disaster mitigation strategies must therefore play a greater part in ensuring the sustainability of development gains.

Most rural communities demonstrate an extraordinary degree of self-sufficiency. They have strategies for coping with hardship that have been refined over thousands of years, but they have always been subject to events that kill, maim, and destroy their livelihoods. Human influence is increasing the magnitude and frequency of some disasters, and they are also more severe at the margins of development. As people gravitate to more developed areas and patterns of life, their communities enter an almost perpetual transition phase between traditional and modern lifestyles. These communities have lost their knowledge of traditional coping mechanisms such as building bush dwellings and planting disaster-resistant crops, as well as their incentive to maintain self-reliance, and are increasingly dependent on government assistance. The toughest challenge facing the country in this thematic area is, therefore, to formulate and implement effective strategies to reduce community vulnerability.

3.3.3 Conclusions

Recent disasters in PNG, large and small, have repeatedly demonstrated that the areas of disaster response that require urgent attention are those relating to coordination, impact and needs assessment, information and logistics management. Improving these aspects will be of immense assistance when dealing with the next disaster.

Attention to disaster response issues does not pre-empt the need for a comprehensive disaster management programme across national, provincial, district and community levels. Areas to be addressed in such a programme should include:

- Making the NDC more effective in ensuring that relevant government agencies and organisations with statutory responsibilities are better prepared for future disasters;
- Preparing or reviewing disaster management plans at national, provincial, district and local (community) levels, including disaster policy and legislation;

- Building capacity in line agencies to prepare contingency plans and ensuring that they incorporate disaster risk reduction elements in their normal project planning;
- Strengthening emergency operations procedures, which include organisational structures, coordination mechanisms and logistics support, and post-disaster damage assessment and needs analysis procedures;
- Institutional strengthening through training and skills development and producing disaster management training materials for trainers and schools;
- Conducting risk and vulnerability assessments to support decision-making for disaster mitigation, preparedness and response;
- Improving the early warning systems for all major hazards – cyclones, floods, landslides, drought, frosts, and tsunamis;
- Establishing disaster management information systems and research programmes;
- Producing public education materials and mounting awareness programmes; and,
- Identifying and implementing community-specific disaster management activities.

A comprehensive five-year disaster management project addressing many of these issues was developed jointly by the Government of PNG, UNDP, and AusAID in 1995. Uncertainties over the Organic Law Reforms, disruption in the NDMO and financial difficulties caused by budget cuts, meant that the original project was not implemented, but the disasters of 1997 and 1998 reawakened interest in the project and it was thoroughly reviewed and revised in 1999. The project is currently awaiting final approval and funding, pending fulfilment of certain pre-conditions. These pre-conditions include revision of the national disaster plan, and the establishment of a fully-staffed, functioning and credible disaster management organisation with effective leadership. This is important because the lead implementing agency for the project is the NDMO. The goal of the project is to reduce the impact of disasters in selected provinces of PNG. It has four main components:

- (1) To strengthen the institutional capacity of the NDMO, provinces and key line agencies to plan for, manage, implement and evaluate disaster management programmes;
- (2) To provide timely and specific skills development training;
- (3) To increase the awareness and preparedness within communities of the targeted provinces; and,
- (4) To manage the project efficiently and effectively, and provide performance information on progress and impact.

A comprehensive roadmap thus already exists to build substantial risk reduction and disaster management capacity. The United Nations can make an effective contribution in this critical area over the next five years by engaging fully in this PNG Disaster Management Project that it has already had a part in designing. Whilst the majority of funds will come from Australia, the UN could take a lead role in building support for the project amongst key stakeholders including the government at all levels, the Red Cross Movement, both the national society and the PNG delegation of the International Federation of Red Cross and Red Crescent Societies, NGOs, communities, and the representatives of other donor countries. It could also undertake discrete elements of the overall PNG Disaster Management Project, such as creating capacity at national and provincial level to conduct effective post-disaster assessment, reliable reporting, and appropriate response planning.

In-house the United Nations Country Team must take steps to ensure that it is able to meet its own mandated responsibilities for concerted action in disaster mitigation, preparedness, response, and recovery. The key mechanism is the United Nations Disaster Management Team (UN-DMT), which not only coordinates any emergency response and recovery action by the UN, but is also the appropriate forum for implementing UN development assistance in this area. It is thus critical that the UN-DMT become an effective coordination and implementation group, with agreed policies and procedures, a clear work-plan, and dedicated capacity to catalyse and support it.

3.4 Information and Communications Technology

3.4.1 Assessment and analysis

Papua New Guinea is in the early stages of taking full advantage of latest developments in the field of Information and Communications Technology (ICT). The government is fully supportive of initiatives to link government departments, provincial administrations, education and research institutions into a wider network. Progress towards this objective is in a nascent phase.

The government has established an Information Technology Board (ITB), within the Department of Personnel Management (DPM), which reports directly to the Prime Minister and cabinet. An ITB Working Group (ITBWG) has been set up with its chairman having a clear mandate from the Government to define a national ICT policy. Its main objectives are to: create awareness and common understanding in the government on the use of ICT as an enabler of development; develop a national ICT policy framework; improve inter-departmental coordination and sharing of information; provide better dissemination of public information; build capacity in the civil service and civil society; and reduce telecommunication and Internet rates

Under Pangtel, the telecommunications regulation authority of PNG, Telikom currently operates about 60,000 switched lines to 30,000 customers, making the teledensity of PNG about 1 percent. Mobile service to some 5,000 customers is available through Pacific Mobile, a wholly-owned subsidiary of Telikom. Telikom also offers leased line services (not yet upgraded to ISDN capability) to about 2,500 business customers. Bandwidth capacity varies from 64 KbPS to 2 MbPS. The national backbone is built on a mixed solution of satellite and microwave technologies. While the Internet traffic amounts to 40 percent of the total, only 5 percent of revenues are linked to Internet service provider (ISP) contributions. All ISPs are using the international Internet gateway operated by Telikom, which currently offers a 4 MbPS capacity that will soon be upgraded to 6 MbPS. Decisions are currently pending on the possible privatization of Telikom as well as on new regulations providing for community telephone services, mainly for rural connectivity. The issues of Voice-over Internet provision to permit overseas telephone calls via the Internet, and the price of connectivity for educational institutions, are still under consideration.

The Department of Finance and Treasury has been particularly active in this field and has created an inter-departmental wireless network that currently includes 12 of the 35 government departments. The department offers connection to any department willing to make the initial investment for the wireless equipment. The creation of the network faced some regulatory issues linked to frequency assignment which have been overcome. However, the cost for departments wishing to link into the network is relatively high. A strategic plan to build a national network based on wireless technology is currently awaiting approval. The Department of Education (DoE) is part of the government network and also has its own internal local area network (LAN) which provides E-mail access to all staff and limited Internet access to senior staff. It plans to extend the network to its offices in all 20 provinces under the Education Research Network Project. The University of Papua New Guinea (UPNG) runs a fibre network on its campus that provides full Internet access to its 3,000 students through about 100 personal computers, but it is not yet connected to the government wireless network. The university plans to extend its network in the future to all campuses, provide distance education, and link to the government network.

3.4.2 Key challenges

The future development of ICT in PNG will open a number of opportunities and challenges. In the fields of education and health, in particular, the potential for making a significant impact in broadening educational opportunities and improving health services is substantial. In education, for example, possible activities could include expanding the networking academy programme to the government, universities and colleges of technical and further education (TAFE). Distance learning at tertiary-level institutions could expand through virtual centres where customised performance simulation by use of ICT could be deployed at marginal cost to build capacities through training in an array of areas. Computer-based training modules could be deployed over the government network. In the health sector, ICT could become a tool to foster collaboration and exchange of information as well as providing a means of keeping abreast of new medical knowledge. Remote consultation with specialists in urban areas could become possible from rural health centres. Disease prevention and epidemic response could

be improved through more effective monitoring and communication. Health facility administration, patient records and medical procurement could also be streamlined.

Citizen involvement in the governance of the country could be encouraged through community access to information at Citizen Information Centres. Economic opportunities in rural areas could also be greatly expanded through access of local producers to the Internet through Citizen Information Centres which could provide facilities, for instance, for the marketing of indigenous handicrafts on the Internet and the processing of credit card transactions for their sale. Micro-finance opportunities for small enterprises could be provided through a financial and information service network or small grants programme. Local entrepreneurs could attract global multi-national companies to establish helpdesk centres and data processing centres in PNG, taking advantage of the difference in time zones. The country's law and order crisis could be addressed through such measures as the development of a standardized criminal identification system shared by the police, the correctional services, the attorney general's department and the courts. A crime statistics database could be linked to a geographic information system (GIS) to provide accurate and up-to-date information on crime "hotspots", thereby facilitating the tracking and apprehending of offenders. A management information system to collect and collate court judgements and arrest warrants could also be established for wide access by law enforcement authorities.

In the environmental sphere, a country-wide land resource database could be established using GIS technology and computer imaging. This system could also be used to assist in crop forecasting and in the efficient management of agricultural and forest resources. Numerous other possibilities in other sectors could open up with the expansion of the ICT network, and the capacity of the government to deliver services across the country could be greatly enhanced.

3.4.3 Conclusions

The UN System in PNG can be of considerable support to the government in further developing and implementing its ICT strategy. In this regard, the government will need to develop policies and a system to strengthen inter-ministry coordination and public services. The sharing of government information among departments will need to be improved and this could best be achieved through a government Intranet. A number of steps in this regard were proposed by an August 2001 mission to PNG by the Kuala Lumpur-based UNDP Asia and Pacific Development Information Programme (APDIP). They included: building capacity of high-level government officials through an ICT awareness and policy development seminar; establishing a national committee of key stakeholders with a clear mandate; identifying key areas where ICT can be an enabler for PNG development; and providing policy experts in various key areas to assist the government in developing a national policy. Other specific activities in sectoral areas of interest of various UN System agencies could also be developed to assist the government in meeting the challenges of its ICT development programme.

4 Bougainville

4.1 Assessment and analysis

Context

The islands of Buka and Bougainville form part of the North Solomon province. Because of their ethnic affinity with the Solomon Islands to the south, there had long been secessionist feelings on the islands. Bougainville in fact unilaterally declared its independence fifteen days before Australia granted independence to PNG in September 1975. This declaration never took effect and a pact keeping Bougainville within PNG was signed with the central government in August 1976.

The commissioning of the large Panguna copper mine by Bougainville Copper Ltd. (BCL) in 1972 exerted a major impetus to a rapid change in the economy of the whole of PNG. During the period between the signing of the Bougainville Copper Agreement between BCL and the then Government in 1974 and the closure of the mine in May 1989, BCL is reported to have paid the national Government more than US\$500 million in company tax as well as about US\$150 million in dividends arising from the large amounts of copper, gold and silver produced, accounting for some 20 percent of the country's GNP and 45 percent of its export earnings.

The establishment of the mine and its effects on the surrounding environment were strongly resented by local landowners and others affected by it. Established in 1987, the Panguna Landowners Association demanded US\$15 billion in compensation from BCL and tighter controls on environmental effects. When these demands were not met, militant action was taken and the Bougainville Revolutionary Army (BRA) was formed. The mine operators decided in January 1990 to close the mine and evacuate all their personnel.

A state of emergency was declared on the island. Skirmishes between the BRA and the PNG Defence Force increased to the point where, early in 1990, the Central Government decided to remove all government personnel including its troops from the island and deny the inhabitants all government services. The BRA responded with a unilateral declaration of independence in May 1990. The hostilities over the following eight years resulted in the reported deaths of some 12,000 to 15,000 people and the displacement of thousands more. In April 1998 a permanent cease-fire was signed and deployment of a multinational Peace Monitoring Group commenced. On 30 August 2001 a Peace Agreement was signed giving Bougainville special status as a province with the right to establish an autonomous administration to manage its own affairs. The Agreement provided for the formulation by a Constitution Commission of a Constitution for Bougainville to be adopted in time for elections to be held in July 2002. It also provided for the phased disposal of weapons under the supervision of the UN Political Office in Bougainville (UNPOB) and for the longer-term prospect of a referendum on possible independence to be held by 2015 at the latest.

Effects of the civil war

Population information for Bougainville is sketchy. The 1980 census gave the population for North Solomons Province as 126,000. It was estimated to be 154,000 at the time of the 1990 census. The incomplete census in 2000 gave a figure of 141,161 persons in the areas covered. Estimates for 2000 put the figure at between 150,000 and 200,000. Some 50,000 people were still living in Care Centres at the time of the 1998 cease-fire but all have now returned to their villages. Health services were severely disrupted by the years of conflict with many of the original 149 health facilities destroyed and many health workers displaced. Similarly, most educational establishments in Bougainville suffered serious devastation during the conflict.

Children caught in conflict

During the ten years of the civil war, children and young people, together with other vulnerable groups, became the first and worst affected victims, living in constant fear of danger and missing out on normal childhood development and education. Children as young as 10 years old were conscripted into

the armies on both sides while many other children, with their mothers, were forced by the conflict to flee into the mountains, where services and supplies were virtually nil.

In addition to cases of direct victimization, children became natural victims of the halted development in Bougainville. Targeted infrastructural destruction resulted in loss of schools, health centres, aid posts, electricity and water supplies. While the loss for children born after the start of the conflict is one of accepting war and deprivation as normal, those born a few years before suffered the additional trauma of having known better days from which they were dispossessed.

Large numbers of young people who were directly caught up in the war as combatants, and those otherwise displaced because of it, both boys and girls, missed out on education because of the war. Between 15,000 and 20,000 youth, in the age range of 13 to 25, are estimated to have been thus affected. Prior to the destruction caused by the war, Bougainville had enjoyed the highest standards of high school education in the country. The sense of loss from the missed education was profound.

Effects on women and men

Women's experiences during the conflict had a profound impact on their physical well-being, self-esteem and social status. Their workload increased during the absence of their menfolk with women having to take on tasks usually done by men. Women played a critical role in fostering the peace process by lobbying and pleading with men to lay down arms and settle into community life as well as advocating a return to peace and harmony.

Men, caught up in the hostilities, were also severely affected. Intense residual feelings of mistrust, anger, resentment, hatred and guilt resulted in its aftermath. Many have tried to cope with these feelings by excessive consumption of homebrew or "Jungle Juice" ("JJ") which has had further negative effects on their role in society. As the peace takes hold, however, increasing numbers of men are becoming actively engaged in the reconstruction and rehabilitation activities, particularly in the agricultural field.

4.2 Key challenges

Establishing good governance

The Peace Agreement stipulates that the Bougainville Interim Provincial Government in consultation with the Bougainville People's Congress will establish a Constitutional Commission, a Constituent Assembly, the Judiciary and a system of government that meets internationally accepted standards of good governance.

The formidable tasks that lie ahead for Bougainville, including in the area of long-term institution-building for governance, inevitably involve the establishment of a regulatory framework, processes and procedures that will provide for the effective representation of the people's views in the design and formulation of policies and laws, and public accountability of public officials and state institutions. The anticipated amount of work in this area suggests the need for carefully designed support to the Bougainville Interim Provincial Government and the Bougainville People's Congress to see that the Constitution formulation process reflects internationally accepted standards of good governance.

It will take time for the civil service of Bougainville to become fully effective as its government tries to strike a balance in continuing to provide an acceptable level of essential public services on the one hand and the training of its human resources on the other. It will be very important for the public service to be a merit-based civil service guarded by an effective Public Service Commission, comprehensive general administrative orders and effective financial rules and regulations. Two essential areas within the government machinery that need to be addressed immediately are development planning and the budgetary process. An effective judicial system needs to be established.

Restoration of social services

Since the end of hostilities, there has been a period which has witnessed rapid progress in restoring health facilities: two hospitals, 31 health centres or sub-centres and 78 aid posts were operational by mid-2000. Considerable progress has been made since the cease-fire in restoring them to

some form of normality but much still needs to be done to return health services to their pre-war level of effectiveness. An indication of the degree to which this was being attained only a year after the ceasefire was the success of a Sub-National Immunization Day campaign by the Department of Health, supported by UNICEF, WHO and other donors, in September and October 1999 when, out of a target group of 28,420 children in Bougainville, 74 percent were successfully immunized against polio and 54 percent against measles, while 2,084 mothers received tetanus toxoid vaccination.

The seven high schools and a large number of elementary schools and village vernacular Tok Ples Skuls are once again functioning. Plans are being made for the upgrading of the Arawa High School to take students up to 11th and 12th grades. Many people, often young and old alike, whose childhood was essentially “lost” to the war, are now coming back to school to catch up with their education. This creates a very unique situation, appropriate for special programming. Programmes of teacher education are underway with bilateral support. The Arawa College of Distance Education (CODE) has been reopened.

Capacity and institution building

In areas where long periods of instability and armed conflict have affected socio-economic development, the harnessing of local capacities for peace, income generation and employment promotion is the pivotal area of immediate concern. These will help build a durable foundation of shared economic growth while respecting cultural and religious practices of the communities affected by armed conflict, poverty and marginalisation.

Capacity building efforts form the core response to rebuilding the social fabric after a crisis situation. This encompasses the building of collective organizational and technical abilities in order to develop the quality, legitimacy and performance of the institutions at all levels of society. Post-crisis reconstruction efforts should be geared to bringing these capacities to the surface with the following initiatives: promoting social dialogue and reconciliation; safeguarding human rights, fundamental principles and rights at work by advocacy and training, especially targeting children; ensuring non-discriminatory practices; advancement of the status of women; promoting common values through sports and cultural activities; strengthening traditional institutions and other self-help organisations; and strengthening Communal Ownership and Services.

Income and employment generation

Access to credit and the institutionalisation of community-based credit systems will be important in generating livelihoods in Bougainville. Skills and vocational training and small enterprise development will also be important in this regard. There is a need to give particular attention to micro-finance, which is vital in terms of reaching and empowering affected groups and providing an entry point for institution building from the grassroots level upwards. The role of women, disabled persons and migrants as well as the social and economic integration of other vulnerable groups needs to be taken into account.

One major undertaking addressing some of the above issues for the rehabilitation and reconstruction of Bougainville is the UNDP-assisted Bougainville Rehabilitation, Reconstruction and Development Project. With a budget of over US\$5 million and with considerable donor support, it has been operational since April 1999, focusing on the following five key areas, all providing tangible evidence of the “peace benefits” of sustainable development:

1. Economic development through the rehabilitation of Bougainville’s agriculture sector, involving the entire re-planting of cocoa small-holdings and development of the cocoa industry which was formerly the richest agricultural productive asset in the whole of Papua New Guinea. The project is increasingly absorbing large numbers of ex-combatants.

2. Ex-combatant training and employment activities include major workshop development projects, providing skill training to youths and producing support equipment for the cocoa and coconut farmers.

3. Women’s development and gender issues have a special focus, providing many opportunities for women’s advancement including the pilot Arawa Women’s Vocational Training

Project. This sustainable project is based on the establishment of an operational guest house which is allied to a comprehensive 26-week training programme.

4. Community development is a “unifying” element that rebuilds the social structure and trust within a community. It is being addressed through educational, sporting and cultural activities.

5. Business development and training is a feature of almost every project initiative taken, and promotes a sustainable economic and social environment for the future.

Rehabilitation of children and youth

After ten years of war and the trauma that it brought to the lives of thousands of children and young people, a major challenge for UN System assistance in the coming years is the protection, rehabilitation and reintegration of children and youth in Bougainville.

A first priority is the psychological rehabilitation of children and youth through activities such as games, drama, music and art, capturing and recording old community traditions, thereby facilitating their return to normal ways of life. Youth networks and activities need to be established to mobilise young people to take charge of their own futures and to provide easily available alternatives to substance abuse and aggressive behaviour. Local NGOs will need support in focusing on child protection management systems, conflict management and providing accompanying information resources. The training of police and the judiciary, to ensure that appropriate standards are in place for the administration of juvenile justice, will also be important in the face of aberrant behaviour resulting from the conflict.

The effective re-absorption of older children in schools to catch up with their lost education will also be a vital part of their rehabilitation. As noted above, it will require special programmes to deal with the age disparities of children in the same classes. Peace education materials also need to be developed to deal with ethnic attitudes and intolerance that were exacerbated by the civil war.

Weapons disposal

A major feature of the Bougainville Peace Agreement was the disposal of weapons used in the conflict. The main phase of the disposal process, in which weapons are to be put in containers and locked, with the United Nations Political Office in Bougainville (UNPOB) holding a key to each container, commenced in December 2000. UNPOB will be presiding over the Sub-Committee on Weapons Disposal of the Peace Process Consultative Committee (PPCC), which will effectively be the management committee of the implementation process. Below this supervisory level, the Office will be bringing the weight of its neutrality, respect and trust to bear on giving the parties to the Agreement an assurance of the effectiveness and integrity of the weapons disposal exercise.

While, under normal circumstances, UNPOB will be playing this role for as long as the process lasts, the process is not to be open-ended. It is the desire of all the parties to the Agreement that there be a resolution of the question of the ultimate fate of the weapons – whether they will be stored, as one faction desires, or destroyed, as the other wishes – before elections for the Autonomous Bougainville Government are held. The Agreement gives the parties 18 weeks after the coming into effect of the constitutional amendments to agree on this question. But the parties are equally concerned lest the inability to agree on the question delay the elections. In the event of such non-agreement, UNPOB will be required to make a determination whether, in view of the level of compliance with the terms of the Weapons Disposal Plan, there is nevertheless a sufficiently high level of security to permit the holding of free and fair elections. If UNPOB were to determine that those conditions exist, and that the elections can therefore safely be held, a critical benchmark for the effectiveness of weapons disposal would have been satisfied, and the last part of the mandate of the Office would have been fulfilled, permitting the Office to begin to wind down its presence on the island. It is intended that this will occur before the elections which are due to be held in PNG in July 2002.

4.3 Conclusions

It is clear from the foregoing sections that the challenges facing the United Nations System and other development partners in supporting the government and provincial administration in the restoration of normality and a thriving economy in Bougainville are enormous. The formulation of a widely accepted constitution and the reestablishment of political, administrative and judicial institutions as a foundation for good governance in the province are clearly an immediate priority. The rehabilitation and restoration of the health and education systems in Bougainville, already well underway, need to be further supported to ensure that the physical and intellectual needs of a population traumatized by ten years of conflict are fully met. Special educational arrangements and psychosocial programmes are urgently required to provide a second chance to the young people who were deprived of a normal education and thrown into traumatic conflict by the war. Equally important will be the full restoration of normal economic activity in Bougainville with the rehabilitation of existing agricultural, industrial and commercial enterprises and the concomitant creation of productive employment for the people, particularly for ex-combatants trying to reintegrate in society.

5. FROM CCA TO UNDAF

As noted, the foregoing analysis of issues and challenges facing Papua New Guinea as presented in this Common Country Assessment has been developed through a participatory process involving major stakeholders in the country. It is intended to provide a basis for decision-making on future priorities for development cooperation with the country by the United Nations System organizations and agencies in partnership with the Government and people of PNG. Clearly, the resources available to the UN System, even in tandem with support from other development partners, fall far short of meeting all these challenges. Difficult decisions will have to be made in the course of upcoming programming exercises of the UN System in PNG in order to use the scarce available resources in the most effective manner.

Various types of conflicts, potential social disruption, and fragility of state structure would not be adequately addressed by a predominantly macro-economic approach without sufficiently taking into account cultural, societal and historical dimensions of an extremely complex country such as PNG. An inclusive and participatory approach to development, anchored in partnership with the Government and civil society, would yield long-term and equitable benefits. The United Nations System can best serve its ultimate purpose – peace and development – by acting as a politically, technically, and culturally neutral friend of Papua New Guinea. Although the financial resources of the United Nations System available for development co-operation with Papua New Guinea are extremely modest in comparison with traditional main donors, the UN is seen to fulfil a unique role that goes far beyond its limited resources. Its neutrality, the role it plays in raising public awareness of the global agenda, follow-up and implementation of the recommendations of international conferences, and its ability to draw relevant experience from across national and cultural boundaries, make the United Nations System a genuine partner in the national development process.

The UN System and its programmes of assistance to Papua New Guinea will maintain and strengthen its emphasis on a rights-based approach to development, and promote human rights as the underlying, guiding principle for all development programmes and inputs, in all sectors. Child protection and the rights of children will be pursued through support to the revitalization of the birth registration system, the reform of the juvenile justice system and the elimination of child abuse through the promotion of community-based initiatives on good parenting. Early child care and development will also be a focus of attention. Importance will be attached to translating the Convention on the Rights of the Child (CRC) into specific initiatives on the ground such as promoting the modernisation of laws and modelling best practices. In the field of education, particular attention will be paid to girls' education to rectify imbalances in enrolment and in curricula throughout the school system as well as in the area of pre-school education

The issue of improving the quality of governance and human security in PNG is one that has gained widespread recognition as being of paramount importance for the future of the country. As such,

it would be a major focus of future UN System collaboration in close cooperation with other development partners.

The health of the population in the face of threats from a number of major communicable diseases is clearly another major priority for future UN System partnership with the government. The most important of these are malaria, tuberculosis (TB), HIV/AIDS and other sexually-transmitted infections, along with others such as childhood measles, pneumonia and diarrhoea. With current immunisation coverage at a very low level, a major focus of attention will be on extending the coverage of the Expanded Programme of Immunisation (EPI) to a level of 80 to 90 percent of children over the next five years as part of an integrated child health strategy. In addition, the rapid advance of HIV/AIDS infections in the country in recent years has made it essential for the UN System to give high priority to combating it through a coordinated programme of interventions involving several UN System organizations and agencies. Preventive measures in the field of health will be accompanied by priority given to building healthy communities by improving water supplies, sanitation and food safety, including adequate provision of micronutrient nutrition.

PNG's population of over 5 million is increasing. High fertility and low usage of contraception feed this high population growth. Maternal mortality is the highest among Pacific island countries and improving reproductive health is essential to tackle these basic issues. Increasing the coverage of modern contraception and births attended by trained personnel and reducing fertility levels also needs to be a focus of attention. Priority also needs to be given to reducing very high infant and early childhood mortality rates. A tobacco-free initiative will also be embarked on to reduce tobacco advertising and dangerously high levels of cigarette smoking. These measures will be made more effective through a major programme of human resource and capacity development in the health sector to ensure that the recently decentralised health administration operates effectively.

The special case of rehabilitation and development in Bougainville in the wake of the recent Autonomy Agreement that ended more than ten years of civil strife will remain a major focus of UN System attention in the coming years. Together with other development partners, the UN System organizations and agencies will work to support the endogenous efforts to restore normalcy to Bougainville through targeted inter-sectoral interventions in the fields of agriculture, health, education, governance, human rights and other fields including disarmament, demobilisation and reintegration of combatants. Partnership of the United Nations Political Office in Bougainville will be crucially important.

In 2000, a parliamentary select committee on urbanization, social development and poverty alleviation was convened. Representatives from government, non-government, private sector and UN agencies participated to provide their views on the subject and identified strategies to address some of the issues. As a result, a comprehensive report on the subject was tabled in Parliament for discussion. The report endorsed a strategy to strengthen the health sector, especially for the rural population, particularly targeting women and children. The UNCT will continue to work closely with the committee advocating for and contributing to emergent broad-based discussion on poverty reduction. Likewise, operational efforts to strengthen broad-based partnership aimed at reducing poverty and providing for sustainable livelihoods while safeguarding the environment, particularly in rural areas of the country, will be given high priority.

A number of cross-cutting issues will receive priority in UN System assistance to PNG. Gender issues and enhancement of the role of women in PNG society will be an important focus of attention. Support will be given to national efforts to improve the implementation of the Convention on the Elimination of Discrimination against Women (CEDAW). It is envisaged that the protection and improvement of the environment and assisting the government in improving its disaster management systems and in gaining maximum benefit from new advances in Information and Communication Technology (ICT) will need to be addressed in future UN System programmes in PNG.

The United Nations Development Assistance Framework (UNDAF), which is due for approval early in 2002 will provide further detail on the nature and extent of UN system initiatives, some of which are outlined above. The UNDAF will provide an indication of the resources from various parts of the UN System that will be made available or mobilized for these activities as well as an approach to partnership building and coordination with the UN system's development partners.

ANNEX I: CCA INDICATORS**United Nations CCA Conference Indicators: Conference Goals and Targets**

International conferences convened by the United Nations during the decade of the 1990s:

1. World Conference on Education for AllJomtien 1990
2. World Summit for ChildrenNew York 1990
3. UN Conference on Environment and Development.....Rio de Janeiro 1992
4. International Conference on NutritionRome 1992
5. World Conference on Human RightsVienna 1993
6. International Conference on Population and DevelopmentCairo 1994
7. World Summit for Social DevelopmentCopenhagen 1995
8. Fourth World Conference on WomenBeijing 1995
9. Ninth Congress on the Prevention of Crime and Treatment of Offenders ... Cairo 1995
10. Second UN Conference on Human Settlements-HabitatIstanbul 1996
11. World Food SummitRome 1996
12. Ninth Session of the UNCTAD – UNCTAD IXMadrid 1996
13. UNGA – 20th Special Session on the World Drug ProblemNew York 1998
14. Intergovernmental Conference on Cultural PoliciesStockholm 1998

Indicators, Conference Goals and Targets

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Income poverty	Reduced poverty levels	Proportion of population in extreme poverty in 1990 reduced by 50% by 2015	World Summit on Social Development, 1995 (WSSD)
Sub-Indicator			
Poverty headcount ratio			
Poverty gap ratio			
Poorest fifth's share of national consumption			

Core Indicator			
Food Security and Nutrition			
Sub-Indicator			
Percent of children under age 5 suffering from malnutrition	Improved nutrition	Severe/moderate nutrition among children <5 50% of 1990 level by 2000	WSSD, Fourth World Conference on Women (FWCW), World Summit on Children (WSC), World Food Summit (WFS)
Percent of population below minimum level of dietary energy consumption (caloric intake in context of food balance sheet)	Increased food security.	Reduce number of chronically undernourished by half by 2015	WFS
Percent of household income spent on food for the poorest quintile	Increased food security	Reduce number of chronic undernourished by half by 2015	

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Health and Mortality			
Sub-Indicator			
Percent population with access to primary health care services.	Improved Health Care	Universal Accessibility of primary health care	ICPD/WSSD/FWCW
Estimated HIV adult prevalence rate	Reduction in levels of HIV/AIDS	Universal access to RH services and information by 2015	ICPD
HIV prevalence in pregnant women under 25 who receive antenatal care in capital cities/major urban areas.	Reduction in levels of HIV/AIDS	Universal access to RH services and information by 2015	ICPD
Infant mortality rate.	Reduced infant mortality	Reduction of MR by 1/3 of 1990 level and below 35 per 1,000 by 2015	ICPD/WSSD/WCW / WSC
Under 5 Mortality rate	Reduced child mortality	MR at ages <5 reduced 2/3 of 1990 level by 2015	(ICPD/WSC)

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Core Indicator			
Reproductive Health			
Sub-Indicator			
Maternal Mortality ratio	Improved maternal health and reduced maternal mortality	Reduction by ½ of 1990 levels by year 2000 and a further ½ by 2015	ICPD/WSSD/ FWCW /WSC
Percentage of births attended by skilled health personnel	Improved maternal health and reduced maternal mortality	Reduction by ½ of 1990 levels by year 2000 and a further ½ by 2015	ICPD/WSSD/ FWCW /WSC
Contraceptive prevalence rate	Increased access to family planning	Universal access to safe/reliable contraceptive methods	ICPD

Core Indicator			
Child Health and Welfare			
Sub-Indicator			
Percentage of 1 year old children immunized against measles	Improved child health	Universal immunization against measles	WSC
Percentage of children <age 15 who are working	Reduced child labour	Elimination of child labour	WSSD

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Education			
Sub-Indicator			
Net primary enrolment or attendance ratio.	Increased access to basic education	Universal access, and completion of primary education by 2015	EFA/WCW/WSC /ICPD
Adult literacy rate	Increased literacy	Adult illiteracy reduced by ? 1990 level by 2000	EFA/WSSD/WCW
Literacy rate of 15-24 year olds	Increased literacy	Adult illiteracy reduced by ? 1990 level by 2000	EFA/WSSD/WCW

Core Indicator			
Gender Equality and Women's Empowerment			
Sub-Indicator			
Ratio of girls to boys in secondary education	Gender equality in education	Elimination disparity in primary and secondary education by 2005	ICPD/WSSD/ FWCW
Female share (%) of paid employment in non-agricultural activities	Gender equality in employment	Elimination discriminatory practices in employment	FWCW
Percentage of seats held by in national government, including parliament.	Women's political empowerment	Equitable access to political institutions	FWCW

Core Indicator			
Employment and Sustainable Livelihood			
Sub-Indicator			
Employment to population of working age ratio.	Creation of full employment	Universal access to paid employment	WSSD

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Environment			
Sub-Indicator			
Carbon Dioxide emissions (per capita).	Improved environment	Clean and health environment and reversal of current trends in loss of environmental resources	UNCED
Biodiversity: land area protected			
GDP per unit of energy use			
Arable land per capita			
Percentage change in km2 of forest land in past ten years			
Percentage of population relying on traditional fuels for energy use			

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Drug Control and Crime			

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Prevention			
Sub-Indicator			
Area under illegal cultivation of coca, opium poppy and cannabis.	Improved drug control.	Measurable results in reducing cultivation, manufacture, trafficking an abuse of illicit drugs by 2008	UNAD
Seizures of illicit drugs			
Prevalence of drug abode			
Number of crimes per 100,000 inhabitants.	Improved crime prevention.	Eliminate/significantly reduce violence and crime	UNCPCTO

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
International Legal Commitments for Human Rights			
Sub-Indicator			
Status of ratification of, reservation to and reporting obligations under international human rights instruments.	Universal ratification of international human rights instruments	Acceding to all international human rights interments and avoiding the resort to reservations as far as possible	
Status to follow up to concluding observations of UN human rights treaty bodies			

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Democracy and Participation			
Sub-Indicator			
Periodicity of free and fair elections	Strengthened democratic institutions and popular participation	Free and fair elections and democratic government	WCHR
Recognition in law of the right to freedom of expression, association and assembly			

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Administration of Justice			
Sub-Indicator			
Recognition in law of guarantees for independent and impartial judiciary and fair trial.	Fair administration of justice.	Effective legislative framework, law enforcement, prosecutions, legal profession and fair trials in conformity with international standards	WCHR
Recognition in law of the right to seek judicial remedies against state agencies/officials.	Improved framework of remedies.	Existence of legal remedies in conformity with international standards.	

Indicator	Conference Goal	Conference Target	Conference
Core Indicator			
Security of Person			
Sub-Indicator			
Recognition in law of the prohibition of gross violations of human rights affecting the security of person.	Liberty and security of person	Elimination of gross violations of human rights affecting security of person, including torture and cruel, inhuman or degrading treatment of punishment, summary and arbitrary execution; disappearances, and slavery	WCHR

ANNEX II
UNITED NATIONS DATA BASE ON PAPUA NEW GUINEA

Common Country Assessment Indicators

A. Conference Indicators

Core Indicator: Income Poverty								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Poverty headcount ratio (% of population below US\$1 per day)	WB (1999)	1996	-	-	31.0	-	-	-
Poverty headcount ratio (% of population below National poverty line)	WB (1999)	1996	41.3	16.1	37.5	-	-	-
Poverty gap ratio	WB (1999)	1996	13.8	4.3	12.4	-	-	-

Remarks: No official poverty line has been established in PNG. An indicative poverty line has been established by the World Bank (1999).

Core Indicator: Food Security and Nutrition								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Percentage of children under age 5 suffering from malnutrition	PNG HDR (1999)	1997	-	-	29	-	-	-
Percentage of population below minimum level of dietary energy consumption	FAO	1996-1998	-	-	29	-	-	-
Percent of household income spent on food by the poorest 20%	N/A	-	-	-	-	-	-	-

Core Indicator: Health and Mortality								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Percentage of population with access to primary health care services	NPO (1999)	1996	-	-	79	-	-	-
Estimated HIV adult prevalence rate	NACS (2000)	2000	-	-	0.25	-	-	-
HIV prevalence in pregnant women under 25 who receive antenatal care in capital cities/major urban areas	NACS(2000)	2000	-	0.34	-	-	-	-
Infant mortality rate	NSO (1997)	1985-95	86.6	33.7	77.3	72.0	82.2	77.3
Under 5 Mortality rate	NSO (1997)	1985-95	111.5	46.0	100.0	91.3	108.2	100.0

Remarks: Adult HIV prevalence rate is the estimated % of adult population infected with HIV. Prevalence rate in pregnant women refers to women aged 15-49 attending antenatal clinics in the capital city, Port Moresby.

Core Indicator: Reproductive Health								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Maternal Mortality ratio	NSO (1997)	1980-95	-	-	370	-	-	-
Percent of births attended by skilled health personnel	NSO (1997)	1996	-	-	47	-	-	-
Contraceptive prevalence rate	NSO (1997)	1996	-	-	20	-	-	-

Core Indicator: Child Health and Welfare

<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Percent of 1 year old children immunized against measles	NSO (1997)	1996	-	-	75.6	-	-	-
Percent of children < age 15 who are working	NSO (1994)	1990	7.7	5.8	6.7	6.4	6.9	6.7

Remarks: Data on working children refer to persons aged 10-14 only. Includes labour force categories working for wages, running a business, self-employed, subsistence production and cash cropping. Immunization data refer to percent of children 12-23 months vaccinated against measles

Core Indicator: Education

<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Net primary enrolment or attendance ratio	NPO (1999)	1996	-	-	55.8	-	-	-
Percent of persons starting grade 1 who reach grade 5	NDOE (2001)	1994-99	-	-	55.4	54.5	56.1	55.4
Adult literacy rate (percent)	NSO (1994)	1990	40	71	45	40	50	45
Literacy rate of 15-24 year olds	NSO (1994)	1990	51	75	56	51	56	56

Remarks: Primary enrolment ratio is gross enrolment. For the % of children reaching grade 5, grade 6 has been used as this is more meaningful in PNG.

Core Indicator: Gender Equality and women's Empowerment

<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Ratio of girls to boys in secondary education	NDOE (2001)	1999	-	-	0.68	-	-	-
Female share (%) of paid employment in non-agricultural Activities	NSO (1994)	1990	15.9	19.9	18.0	-	-	-
Percent of seats held by women in national parliament	ONP (1999)	1997	-	-	1.8	-	-	-

Remarks: Female share of paid employment refers to percent of persons over 15 years at age working for wages who are female. Some of these wage jobs may be in agriculture but outside the village sector

Core Indicator: Employment and Sustainable Livelihood

<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Employment to population of working age ratio	NSO (1994)	1990	46.0	45.0	46.0	37.5	54.0	46.0
Unemployment rate	NSO (1994)	1990	3.9	27.5	7.3	5.7	9.1	7.3
Informal sector employment as % of total employment	-	-	-	-	-	-	-	-

Remarks: Employment to population of working age refers to those working for money as wage or salaried employees, self-employed, running a business or growing cash crops. Working age is population aged 15-59.

Core Indicator: Housing and Basic Household Amenities and Facilities								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Number of persons per room, or average floor area. Per person	NSO (1994)	1990	-	2.4	-	-	-	-
Percent of population with sustainable access to safe drinking water.	NPO (1999)	1996	-	-	24.4	-	-	-
2nd source - access to safe drinking water	NSO (1994)	1990	-	89.2	-	-	-	-
Percent of population with access to adequate sanitation	NPO (1999)	1996	-	-	83	-	-	-

Core Indicator: Environment								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Carbon Dioxide emissions (metric tons per capita)	WRI (2000)		-	-	-	-	-	0.6
Biodiversity: land area protected	NPO (1999)	1997	-	-	3	-	-	-
GDP per unit of energy use Arable land per capita (ha)	PNGRIS	2000	-	-	2.0			
Percent change in km ² of forest land in past ten years					60			

Core Indicator: Drug Control and Crime Prevention								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Area under illegal cultivation of cocoa, opium poppy Cannabis	-	-	-	-	-	-	-	-
Seizures of illicit drugs	-	-	-	-	-	-	-	-
Prevalence of drug abuse	-	-	-	-	-	-	-	-
Number of crimes per 100,000 inhabitants	-	-	-	-	-	-	-	-

Note: - = Not available

UNITED NATIONS DATA BASE ON PAPUA NEW GUINEA

Common Country Assessment Indicators

B. Conference and Convention Indicators on Governance and Civil and Political Rights

Core Indicator: International Legal Commitments for Human Rights		
Sub Indicator	Source	Status
Status of ratification of reservation to and reporting Obligations under international human rights Instruments	UNDP 2001 HDR	PNG has ratified three of the six major human rights instruments (CRC, CEDAW and Convention on the Elimination of all forms of Racial Discrimination). Reports: Report on CRC has been endorsed by NEC and waiting for DFAT to forward to UNICEF and international committee on Rights of the Child No report prepared on CEDAW or CERD
Status of follow up to concluding observations on UN human rights treaty bodies		N/A because no reports on the above human rights instruments have been submitted
Periodicity of free and fair elections	National Constitution/Electoral Commission	Since independence in 1975 PNG has held parliamentary elections every five years
Recognition in law of the right to freedom of expression, association and assembly	National Constitution	Section 46 of the National Constitution guarantees the right to freedom of expression and publication. Section 47 guarantees the right to association and assembly
Recognition in law of the right to seek judicial remedies against state agencies/officials	National Constitution	Section 37, sub-section 3 of the National Constitution guarantees the establishment of the Ombudsman Commission Section 217
Recognition in law of the prohibition of gross violation of human rights affecting the security of the person	National Constitution	Section 36 – Freedom from inhuman treatment Section 43 – Freedom from forced labour Section 44 – Freedom from arbitrary search and entry Section 38 – General qualifications on qualified rights. This sub section allows laws to be passed that may restrict or regulate certain freedoms if necessary in the interests of the public e.g. public health, protection of children and persons with disabilities, development of under-privileges or less advanced groups or areas.

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C. Contextual Indicators

Core Indicator: Demographics

Sub Indicator	Source	Ref. Year	Rural	Urban	Female	Male	Total
<i>Population size</i>	NSO (2001)	2000	-	-	2,469,959	2,661,091	5,131,050
<i>Total Fertility rate</i>	NSO (1997)	1996	5.0	4.0	-	-	4.8
<i>Life Expectancy at birth</i>	DNPM (1999)	1996	-	-	53.5	54.6	54.1

Remarks:

Core Indicator: Economy

Sub Indicator	Source	Ref. Year	Status
GNP per capita (US\$ and PPP)	AusAID (2000)	1997	US\$930.
External debt (US\$ as percentage of GNP)	AusAID (2000)	1998	External debt in 1998 was 35% of GDP in local currency
Decadal growth rate of GNP per capita (US\$)	DNPM (1999)	1988-98	Real GDP per capita grew by 15% between 1988 and 1998 (kina values)
Gross domestic savings as % of GDP	UNDP (2000)	1999	28.3%
Share of exports in GDP	AusAID (2000)	2001	60.3% (projected)
Share of Foreign Direct Investment (FDI) inflows in GDP	WB (2001)	1999	2.7%
% of public expenditure on social services			

Remarks:

UNITED NATIONS DATA BASE ON PAPUA NEW GUINEA

Common Country Assessment Indicators

D. Non-Core Indicators

Non-Core Indicator: Demographic Indicators								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Population last census	NSO (2001)	2000	-	-	5,131,050	2,469,959	2,661,093	5,131,050
Sex ratio	NSO (2001)	2000	-	-	-	-	-	108
Estimated current growth rate (%)	NSO (2001)	1990-2000	-	-	2.4	-	-	-
Population density (persons per km ²)	NSO (2001)	2000	-	-	-	-	-	11
Crude birth rate per 1,000 population	DNPM(na)	1996	-	-	36.1	-	-	-
Crude death rate per 1,000 population	DNPM (na)	1996	-	-	-	-	-	-
Rate of natural increase (%)	DNPM (na)	1996	-	-	2.4	-	-	-
Life expectancy at birth	NPO (1999)	1996	-	-	-	53.5	54.6	54.1
Total fertility rate	NSO (1997)	1996	5.0	4.0	4.8	-	-	-
Infant mortality rate (per 1,000 live births)	NSO (1997)	1986-96	-	-	-	-	-	77
Under 5 mortality rate (per 1,000 live births)	NSO (1997)	1986-96	-	-	-	-	-	100
Maternal mortality ratio (per 100,000 live births)	NSO (1997)	1984	-	-	-	-	-	370
Proportion under 15 (%)	NSO (1994)	1990	-	-	-	-	-	41.9
Youth population (15-24)	NSO (1994)	1990	-	-	-	-	-	726,329
Percentage youth	NSO (1994)	1990	-	-	-	-	-	20.1
Median age	NSO (1994)	1990	-	-	-	-	-	18.7
Population aged 65 and over	NSO (1994)	1990	-	-	-	-	-	85,349
Percentage aged 65 and over	NSO (1994)	1990	-	-	-	-	-	2.4

Non-Core Indicator: Health								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Contraceptive Prevalence rate (%)	NSO (1997)	1996	-	-	-	-	-	25.9
CPR Modern Methods only (%)	NSO (1997)	1996	-	-	-	-	-	19.8
Percent of births without antenatal check	NSO (1997)	1996	-	-	-	-	-	20
Percent of births in health facility	NSO (1997)	1996	-	-	-	-	-	51
Percent of births at home	NSO (1997)	1996	-	-	-	-	-	47
Percent of deliveries without assistance	NSO (1997)	1996	-	-	-	-	-	10.2
Medium spacing between births/months	NSO (1997)	1996	-	-	-	-	-	32.4
Doctors per 100,000 population	NDOH (1998)	1998	-	-	-	-	-	7
Nurses per 100,000 population	NDOH (1998)	1998	-	-	-	-	-	67

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Percent at Government expenditure allocated to health	NDOH	2000	-	-	-	-	-	10.5
Health expenditure as % of GDP	NDOH	2000	-	-	-	-	-	3.7
Per capita health expenditure (kina)	NDOH	2000	-	-	-	-	-	68

Non-Core Indicator: Education								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Adult literacy rate (10 yrs and over)	NSO (1994)	1990	40	71	45	40	50	45
Percent Population no schooling	NSO (1994)	1990	60	28	60	67	54	60
Gross primary enrolment rate (%)	NDOE (2001)	1999	-	-	-	81	82	81
Gross secondary enrolment rate (%)	NPO (1999)	1996	-	-	-	-	-	9.2
Female secondary enrolment (%)	NPO (1999)	1996	-	-	-	-	-	7.7
Grade 1-6 retention rate (%)	DOE (2001)	1994-99	-	-	-	54.5	56.1	55.4

Non-Core Indicator: Labour and Employment								
<i>Sub indicator</i>	Source	Ref. Year	Rural	Urban	Total	Female	Male	Total
Wage and salary earners as % of labour force	NPO (1999)	1990	8.3	59.6	15.0	-	-	-
Subsistence and cash cropping workers as % of Labour force	NPO (1999)	1990	44.4	5.1	39.1	-	-	-
Subsistence only workers as % of labour force	NPO (1999)	1990	38.4	3.3	33.7	-	-	-
Unemployment rate (%)	NPO (1999)	1990	3.9	27.5	7.3	-	-	-
Youth unemployment rate (15-24)	NPO (1999)	1990	8.3	37.4	19.0	-	-	-
Labour force participation rate (%)	NPO (1999)	1990	-	-	-	87.0	66.9	77.3
Projected Annual Labour force growth	NPO (1999)	2000-05	-	-	-	31,200	20,040	51,240

ANNEX III: TERMS OF REFERENCE FOR CCA IN PAPUA NEW GUINEA (as established by the UNCT in Consultation with the Government and Other Stakeholders through the Team-Building and Training workshop, March 2001)

Introduction

In Papua New Guinea, the Common Country Assessment (CCA) is understood as “a country-based process for reviewing and analyzing the national development situation and identifying key issues as a basis for advocacy, policy dialogue and preparation of the UNDAF and country programmes.” The process will be participatory, inclusive, dynamic, innovative, and iterative. The findings will be described in the CCA document, the first of which will be completed by mid-2001, forming the foundation for the ensuing United Nations Development Assistance Framework (UNDAF) planned for approval by the Government by 15 September 2001.

Partnership in Action

The United Nations System will undertake the CCA in close collaboration with the Government of Papua New Guinea and other key partners from the donor community, the Bretton Woods Institutions, civil society, and the private sector.

The United Nations System

All UN organizations present in PNG, which together comprise the United Nations Country Team (UNCT), namely, UNDP, UNFPA, UNICEF and WHO, will participate in the CCA process. The UNCT, under the leadership of the Resident Coordinator (RC) assumes the core management responsibility for the CCA process. Concerted efforts will continue to be made to invite and encourage the active participation of relevant non-resident UN agencies in appropriate phases of the CCA process.

Government

The UNCT has sought full Government participation throughout the CCA process including from the Departments of National Planning and Monitoring; Foreign Affairs; Health; Education; Social Welfare; Labour and Employment; Agriculture and Livestock; Environment and Conservation; and others as may be found relevant.

Donor Community

The UNCT has invited all interested bilateral and multi-lateral donors as well as selected international NGOs as key partners in the CCA process including participation in working groups or donor coordination groups. Donors will be encouraged to make use of the CCA document, when prepared, and share in follow-up of the issues identified in the CCA.

Bretton Woods Institutions

The Bretton Woods Institutions (World Bank and International Monetary Fund) have been invited to participate in the CCA process. Specific methods of collaboration will be explored keeping in view country conditions and the need for flexibility.

Civil Society

The UNCT will actively seek and enlist the participation of the civil society including non-government organizations (NGOs), community-based organizations (CBOs), academic or research institutions, professional associations, women’s groups, the press, interest groups, and others.

Private Sector

The CCA partners will explore ways and means by which private enterprises, companies, and business associations can be engaged in the CCA process on matters that contribute to the attainment of overall development objectives.

Throughout the CCA process in PNG, the UNCT will mobilize the participation of and contribution from other institutions and groups actively associated with PNG’s development endeavour, especially selected regional and sub-regional institutions.

Objectives

The specific objective of the CCA process is to enable all partners to achieve a deeper knowledge of the key development challenges facing PNG, based on a shared in-depth understanding of the country’s development situation. It is proposed that this objective will be attained through three levels of assessment and analysis carried out in relation to both international conventions and conferences, on the one hand, and to PNG’s own national priorities on the other. Level 1: Assessment of the development situation around specific themes or topical areas and related indicators; Level 2: Selection and in-depth analysis of key development challenges emerging from the foregoing assessment; Level 3: Identification of core priorities for the United Nations system for inclusion in the ensuing United Nations Development Assistance Framework (UNDAF). The process of analysis for the preparation of the CCA document will be pursued in ways that would maximize its usefulness to PNG and her development partners in the formulation of their respective plans and strategies.

Role and Responsibilities in the CCA Process

The UNCT, under the leadership of the Resident Coordinator, will provide the core members of the Steering Group with responsibility for managing and overseeing the overall CCA process, with day-to-day tasks delegated to CCA working teams. Under the guidance and support from the Steering Group, the teams will establish their work plans and carry out associated work within the agreed overall timeline which aims at completing the CCA document by 31 May 2001. In so doing, the teams will, inter alia, exchange information and undertake other forms of collaboration with relevant CCA partners and participants. In particular, the teams will be responsible for assembling relevant data and information from primary resources; assessing and analyzing them; and drafting findings in the form of reports on the topical sectors entrusted to them. It is anticipated that the teams through intensive efforts will endeavour to undertake a substantive proportion of assessment and analytical work in April, the initial set of draft reports becoming available by the first week of May. The UNCT will review the reports and produce the consolidated full-scale draft of the CCA document by mid-May as targeted. Commitment to inclusive and participatory approach to the CCA process as a whole will be reflected during the preparation of the CCA document including, for example, a planned plenary review of the draft CCA document for feedback and comments by the participants who attended the team building for CCA/UNDAF exercise during 28-30 March 2001. The duly finalized first CCA document for PNG will be published by 31 May 2001.

ANNEX IV Invitees/participants in team building and training workshop – Port Moresby, 28-30 March 2001

The 3-day workshop was facilitated by Mr. Steve Kraus, External Relations Officer, UNAIDS, Bangkok, and Mr. Luca Azzoni, ILO, Turin, whose services were retained by the United Nations Country Team in PNG.

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Education	Peter Baki	Secretary		3013446	3254648
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L&E Dept	Peter Pokana	Director, ILO Affairs		3213396	3201062
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NRI	Lt. Col. James Laki	Senior Rsrch Fellow		3260300	3260213

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DED	Ulla Kroog	Program Coordinatr	lramalho@online.net.pg	3255380	3259377
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ANNEX V: MEMBERS OF THE CCA WORKING GROUPS AS FORMED INITIALLY AS OF APRIL 2001
Governance and Human Security

Name	Title	Agency
Michelle Pople	Programme Officer	UNDP
Bernard Choulai	Boug. Liaison Officer	UNOPS
Ruby Zarriga	Asst. Secretary	DNPM
Hakawa Harry	Senior Planner	DNPM
Stephen Mokis	Secretary	Ombudsman Commission
Peter Saroya	Sec. Social concerns	PNG Council of Churches
Lt. Col. James Laki	Senior Research Fellow	NRI
Fiona Hukula	Senior Research Fellow	NRI

Education and Employment

Name	Title	Agency
Peter Pokana	Director, ILO Affairs	Labour & Employment
Geno Rua	Labour Statistician	Labour & Employment
Konet Sapulai	Principle Pol Dev. Officer	Labour & Employment
Pala Wari	AS, Policy Monitoring	Education
Felix Meraudje	Asst. Manager	City Mission
Freddie Rousseau	CTA-PNG/96/001	ILO
Regina Kati	Secretary General, Nat. Comm	UNESCO
Walter Komek	Executive Officer, Nat. Comm.	UNESCO
Nelson Anciano	UNV Programme officer	UNDP

Food Security, Nutrition, Agriculture

Name	Title	Agency
Mathew Kanua	Deputy Secretary	Agri. & Livestock
Anton Benjamin	Director, Food Security Branch	Agri. & Livestock
Mawe Gonapa	Senior Agron., Food Security Branch	Agri. & Livestock
Jacinto Oliveros	Crop Adviser, Food Sec. Branch	Agri. & Livestock
Elias Taian	Snr. Animal Health Adviser	Agri. & Livestock
Thomas Betitis	A/Chief, Land Use, Technical Services	Agri. & Livestock
Dr. Chris Dekuku	Information	Agri. & Livestock
Ms. Li Jie	Third Secretary	China
Ms. Rosa Kambuou		NARI
Lilo Massing		German Dev. Service
Merawe Degemba	Programme Coordinator	UNDP
Jaru Bisa	Programme Officer	UNDP
Thomas Paka	Programme Assistant	UNDP

Health, Water & Sanitation

Name	Title	Agency
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Coleman Moni	Principle Adviser-Policy Planning	Health
Dr. Gilbert Hiwalyer	Director, Monitoring & Evaluation	Health
Dr. James Wangi	Principle Adviser, Disease Con.	Health
Dr. S. Govind	Programme Management Officer	WHO
Ted Magno	Environmental Engineer	WHO
Miriam Midire	Programme Officer	UNFPA

Children & Youth

Name	Title	Agency
Lady Hilan Los	Acting Director	ICRAF
Priscilla Kare	Acting Executive Director	National YWCA
Rosa Au	Lecturer, Social Department	UPNG
Joseph Klapat	Deputy Secretary	Social Welfare & Dev.
David Haseboda		Social Welfare & Dev.
Taufique Mujtaba	Communications Officer	UNICEF

Environment

Name	Title	Agency
David Mitchell	Project Coordinator	CI
John Genolagani	First Assistant Director	Environment & Consrvn.
Tormod Burkey	Programme Officer	UNDP
Merawe Degemba	Programme Officer	UNDP
Igo Sere	Principle Adviser Environment Health	Department of Health

ANNEX VI: LIST OF KEY REFERENCES

During the CCA process, an attempt was made to create and maintain a central repository of information on studies, reports, and literature used by working groups, individuals, and institutions for the purpose of analysis and assessment of the topical subjects germane to the CCA/UNDAF process. There is no lack of such materials on PNG. The effort to establish a list of the key reference was facilitated in a major way by Mr. Geoffrey Hayes of UNFPA CST in Suva, who made available the original list, which the UNCT and the working groups expanded. The UNCT plans to build continuously on the useful work carried out by the working groups in establishing the information repository. It is hoped that as it evolves, the list would be of use to other colleagues and institutions who are interested in development affairs of PNG.

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ANNEX VII: MILLENNIUM DEVELOPMENT GOALS (MDG)

From the **UNDG Guidance Note on Reporting on the Millennium Development Goals at Country Level, October 2001**, received with a letter jointly signed by **Mark Mallock Brown, Administrator, UNDP**; **Carol Bellamy, Executive Director, UNICEF**; **Catherine Bertini, Executive Director, UNFPA**.

Millennium Development Goals (MDGs)	
Goals and Targets	Indicators
Goal 1: Eradicate extreme poverty and hunger	
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1. Proportion of population below \$1 per day (PPP-values) 2. Poverty gap ratio [incidence x depth of poverty] 3. Share of poorest quintile in national consumption
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4. Prevalence of underweight children (under-five years of age) 5. Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	6. Net enrolment ratio in primary education 7. Proportion of pupils starting grade 1 who reach grade 5 8. Literacy rate of 15-24 year olds
Goal 3: Promote gender equality and empower women	
Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015	9. Ratio of girls to boys in primary, secondary and tertiary education 10. Ratio of literate females to males of 15-24 year olds 11. Share of women in wage employment in the non-agricultural sector 12. Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	13. Under-five mortality rate 14. Infant mortality rate 15. Proportion of 1 year old children immunised against measles
Goal 5: Improve maternal health	
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 7: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS	18. HIV prevalence among 15-24 year old pregnant women 19. Contraceptive prevalence rate 20. Number of children orphaned by HIV/AIDS
Target 8: Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases	21. Prevalence and death rates associated with malaria 22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures 23. Prevalence and death rates associated with tuberculosis 24. Proportion of TB cases detected and cured under DOTS (Directly Observed Treatment Short Course)
Goal 7: Ensure environmental sustainability	
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	25. Proportion of land area covered by forest 26. Land area protected to maintain biological diversity 27. GDP per unit of energy use (as proxy for energy efficiency) 28. Carbon dioxide emissions (per capita) [Plus two figures of global atmospheric pollution: ozone depletion and the accumulation of global warming gases]
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water	29. Proportion of population with sustainable access to an improved water source
Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	30. Proportion of people with access to improved sanitation 31. Proportion of people with access to secure tenure [Urban/rural disaggregation of several of the above indicators may be relevant for monitoring improvement in the lives of slum dwellers]

Goal 8: Develop a Global Partnership for Development*	
<p>Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system</p> <p>Includes a commitment to good governance, development, and poverty reduction – both nationally and internationally</p>	<p>Some of the indicators listed below will be monitored separately for the Least Developed Countries (LDCs), Africa, landlocked countries and small island developing states.</p> <p><u>Official Development Assistance</u></p> <p>32. Net ODA as percentage of DAC donors' GNI [targets of 0.7% in total and 0.15% for LDCs]</p> <p>33. Proportion of ODA to basic social services (basic education, primary health care, nutrition, safe water and sanitation)</p> <p>34. Proportion of ODA that is untied</p> <p>35. Proportion of ODA for environment in small island developing states</p> <p>36. Proportion of ODA for transport sector in land-locked countries</p> <p><u>Market Access</u></p> <p>37. Proportion of exports (by value and excluding arms) admitted free of duties and quotas</p> <p>38. Average tariffs and quotas on agricultural products and textiles and clothing</p> <p>39. Domestic and export agricultural subsidies in OECD countries</p> <p>40. Proportion of ODA provided to help build trade capacity</p> <p><u>Debt Sustainability</u></p> <p>41. Proportion of official bilateral HIPC debt cancelled</p> <p>42. Debt service as a percentage of exports of goods and services</p> <p>43. Proportion of ODA provided as debt relief</p> <p>44. Number of countries reaching HIPC decision and completion points</p>
<p>Target 13: Address the Special Needs of the Least Developed Countries</p> <p>Includes: tariff and quota free access for LDC exports; enhanced programme of debt relief for HIPC and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction</p>	
<p>Target 14: Address the Special Needs of landlocked countries and small island developing states</p> <p>(through Barbados Programme and 22nd General Assembly provisions)</p>	
<p>Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term</p>	
<p>Target 16: In co-operation with developing countries, develop and implement strategies for decent and productive work for youth</p>	<p>45. Unemployment rate of 15-24 year olds</p>
<p>Target 17: In co-operation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries</p>	<p>46. Proportion of population with access to affordable essential drugs on a sustainable basis</p>
<p>Target 18: In co-operation with the private sector, make available the benefits of new technologies, especially information and communications</p>	<p>47. Telephone lines per 1000 people</p> <p>48. Personal computers per 1000 people</p> <p><i>Other Indicators TBD</i></p>

* The selection of indicators for Goals 7 and 8 is subject to further refinement

Comparison between the IDGs and the Millennium Declaration

International Development Goals

- Halving the proportion of those in extreme poverty between 1990 and 2015
- Enrol all children in primary school by 2015
- Make progress towards gender equality and empowering women by eliminating gender disparities in primary and secondary education by 2005
- Reduce infant and child mortality rates by two-thirds between 1990 and 2015
- Reduce maternal mortality ratios by three-quarters between 1990 and 2015
- Provide access for all who need reproductive health services by 2015
- Implement national strategies for sustainable development by 2005 so as to reverse the loss of environmental resources by 2015

Millennium Declaration

- To halve, by the year 2015, the proportion of the world's people whose income is less than one dollar a day and the proportion of people who suffer from hunger and, by the same date, to halve the proportion of people who are unable to reach or to afford safe drinking water.
- To ensure that, by the same date, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and that girls and boys will have equal access to all levels of education.
- By the same date, to have reduced maternal mortality by three quarters, and under-five child mortality by two thirds, of their current rates.
- To have, by then, halted, and begun to reverse, the spread of HIV/AIDS, the scourge of malaria and other major diseases that afflict humanity.
- To provide special assistance to children orphaned by HIV/AIDS

- By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers as proposed in the "Cities Without Slums" initiative.

Similar but with some differences

Baseline year – 1990 or 2000?

IDGs use 1990 as a baseline year. There is some ambiguity about the baseline year for the Millennium goals. In two cases—maternal mortality and under-five mortality—the term "current rates" is used, directly specifying a 2000 baseline. For the remainder, the targets are stated in the form of "to halve by 2015..." This would imply a 2000 baseline year of the Millennium Declaration. After discussions within the UN system and with other partners, the issues have been resolved in favour of 1990 serving as the baseline year.

Different wording

Some of the Millennium goals appear similar to the IDG wording, but in fact are quite different. For example, IDGs mention universal primary enrolment; the Millennium Declaration refers to universal completion of primary schooling. Again, this makes the Millennium Declaration more ambitious than the IDGs.

Additions and deletions

New goals: hunger; safe water; gender equality for higher education (not just secondary); HIV/AIDS and other major diseases; children orphaned by HIV/AIDS; and improved lives for slum dwellers.

Goals cut: infant mortality and reproductive health services.

Infant mortality is part of the indicator on under-five mortality; whereas reproductive health services are included among the selected indicators for monitoring the MDGs.

Other aspects

The Millennium Declaration contains a number of development-related targets beyond those linked to poverty (as listed in paragraph 19). Environment and governance, for instance, feature prominently in other sections.