
V. POVERTY PROFILE

In this section of the document, the poverty indicators used to analyze the situation in each of the PDMCs are described. Each sub-section includes brief comments on the situation in one or more of the PDMCs. A complete listing of the available poverty indicators for each of the PDMCs is included in Appendix I.

The data in the tables in Appendix I include: **Poverty Measures**; **Development Progress Indices**; **Inequality Measures**; **Population and Household** statistics; **Macroeconomic** statistics; **Vulnerability Indicators**; **Basic Education** statistics; **Primary Health and Nutrition** statistics; measures of **Gender Issues**, and **Governance** indicators. The quality and availability of data varies markedly between the PDMCs. In particular, the Poverty Measures are available for only three PDMCs. Partial Inequality Measures are available for another two countries. This lack of data is a constraint on the development of sensible poverty reduction strategies.

A. Indices

The UNDP calculates the **Human Development Index (HDI)** periodically. It is a composite of three factors: (i) longevity, as measured by life expectancy at birth; (ii) educational attainment, as measured by a combination of adult literacy (2/3 weight) and the combined gross enrolment ratio (1/3 weight); and (iii) standard of living, as measured by GDP per capita (adjusted for purchasing power parity). Countries with a HDI value of 0.800 or more are classified as having high human development status. Those with HDI values between 0.500 and 0.800 are classified as having medium human development. A HDI of less than 0.500 indicates low human development.

In Figure 6, the UNDP's HDI show that majority (75 percent) of the 12 PDMCs have from high to medium human development. The notable exceptions to this are the three predominantly Melanesian countries—Papua New Guinea, Solomon Islands, and Vanuatu—which have HDIs of less than 0.500. This puts them into the lower 30 percent of all developing countries along with some of the poorest in the world (such as Bangladesh, Ivory Coast, Mali, and Mozambique). Of all the PDMCs, only the Cook Islands is classified as having high human development.

The **Gender-related Development Index (GDI)** is similar to HDI except that it shows the level of development of women. The GDI also reflects quality of life—using the same indicators as leading a long life, being knowledgeable, and enjoying a decent standard of living.

The **Human Poverty Index (HPI)** is also calculated by the UNDP. It is a measure of deprivation. It is based on three variables: (i) longevity, as measured by the percentage of the population expected to die before aged 40; (ii) knowledge, as measured by the percentage of adults who are illiterate; and (iii) overall economic provisioning. Three separate indicators are used to measure the third variable: (a) the percentage of people without access to health services; (b) the percentage of people without access to safe water; and (c), the percentage of underweight children below age five.

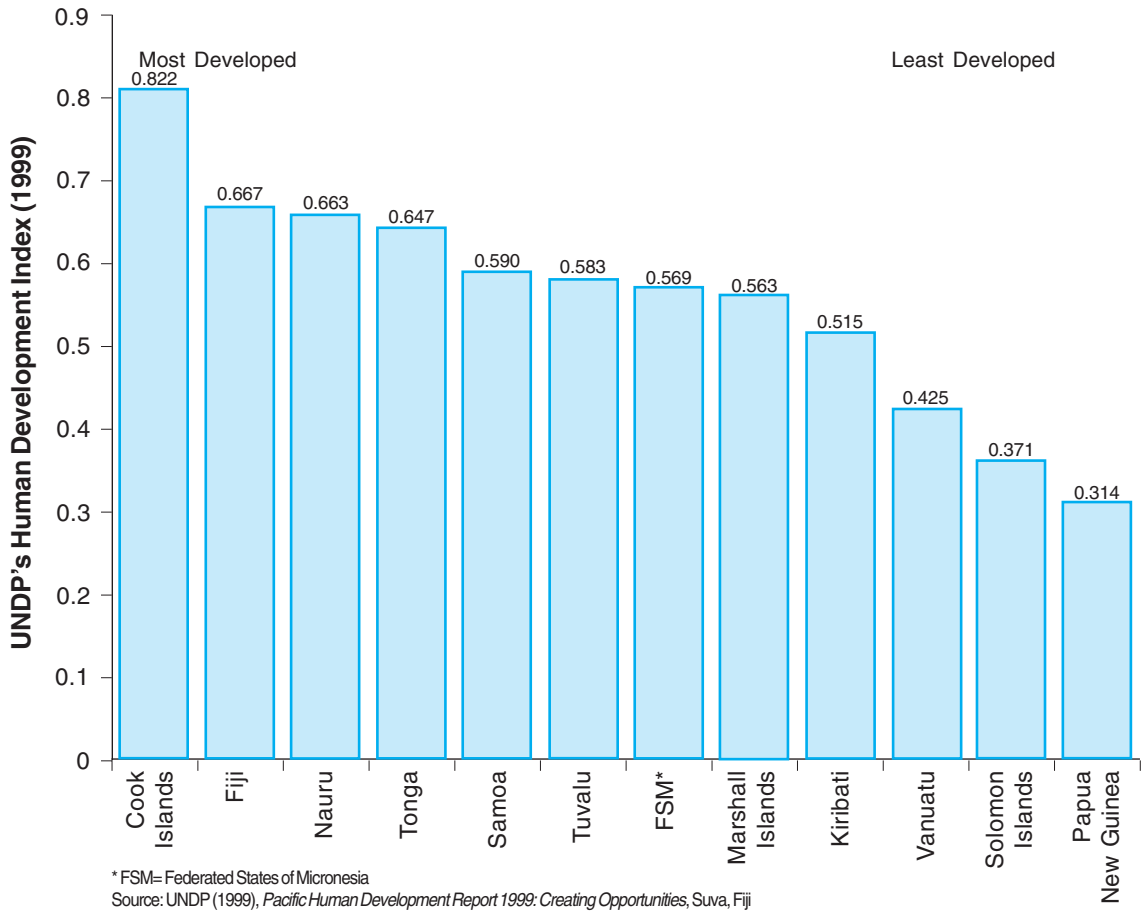


Figure 6: Human Development Index, Pacific Developing Member Countries

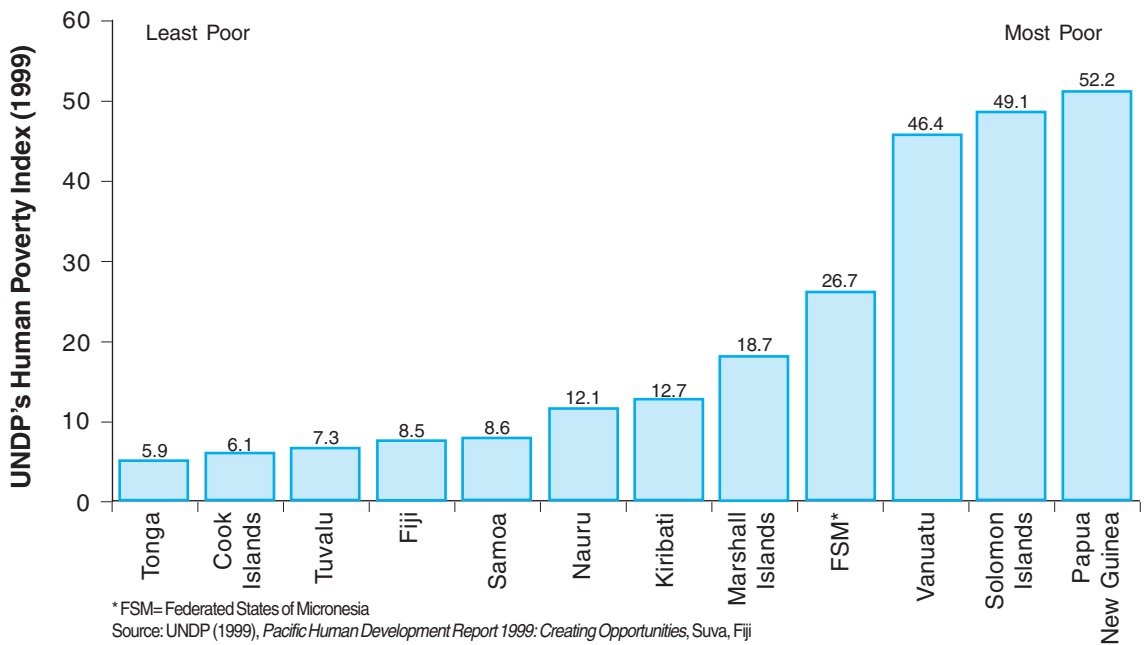


Figure 7: Human Poverty Index, Pacific Developing Member Countries

The UNDP research shows marked differences between the Human Poverty Indices (HPI) of the PDMCs, Figure 7. The three predominantly Melanesian countries (Papua New Guinea, Solomon Islands, and Vanuatu) score badly with close to 50 percent of the population being poor. The Polynesian countries (Samoa, Tuvalu, Cook Islands, and Tonga) do much better with less than 10 percent of the population being poor. Fiji, which has a complex ethnic make up, also does relatively well with less than nine percent of the population shown as being poor. The Micronesian countries are more variable with the Federated States of Micronesia having over a quarter of the population in poverty while the other three have somewhat less than 20 percent classified as poor.

The **Gender Empowerment Measure (GEM)** is a UNDP assessment of the level of gender inequality in key areas of economic and political opportunities (rather than capabilities). It is a composite measure of three indices: (i) for economic participation and decision-making; (ii) for political participation and decision-making; and (iii) for power over economic resources.

The **Composite Vulnerability Index (CVI)** was designed by the Joint Commonwealth Secretariat/World Bank Task Force on Small States to help identify vulnerable states. Vulnerability is the consequence of two sets of factors: the incidence and intensity of risk and threat; and the resilience in recovering from adversity. The CVI is a combined or aggregated measure of: (i) economic exposure (as measured, for example, by trade and capital openness); (ii) remoteness and insularity (as measured by levels of international transport costs); and (iii) proneness to natural disasters (as measured by frequency of, and percentage of population affected by such events).

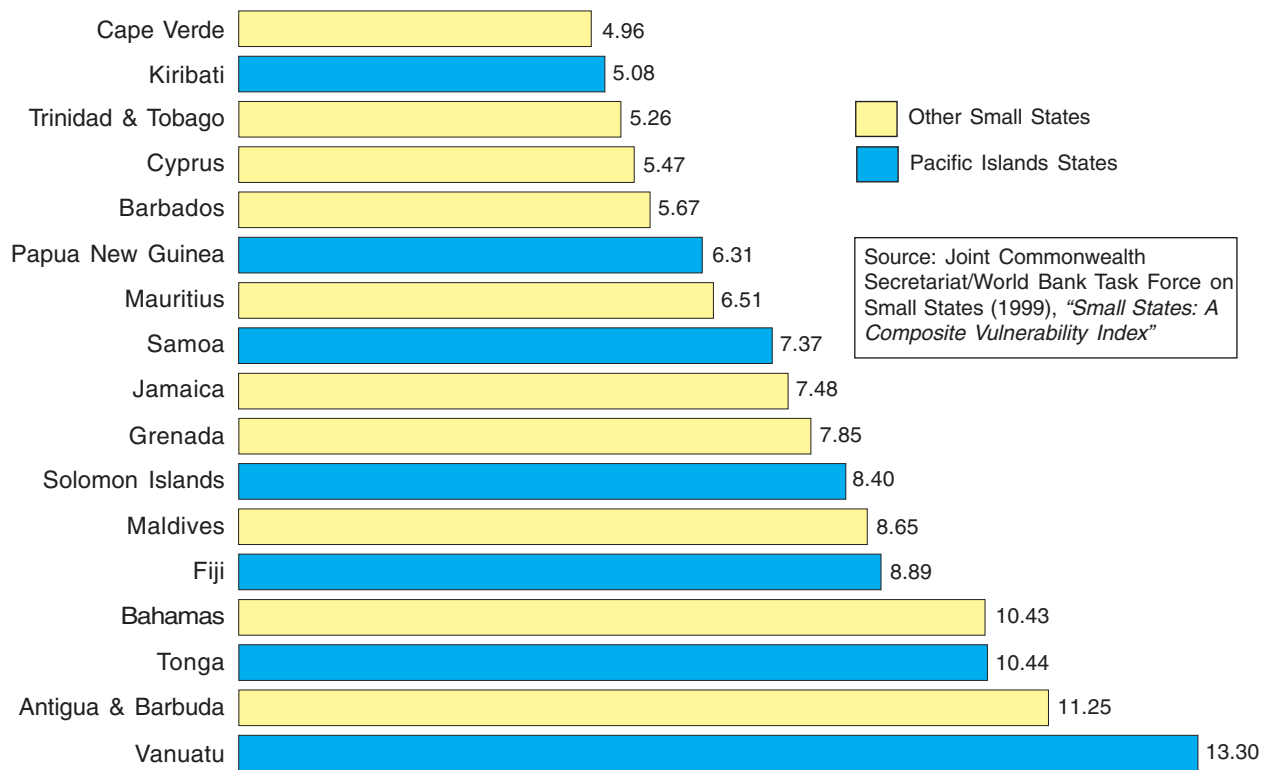


Figure 8: Composite Vulnerability Index, Selected PDMCs and Other Small States

In general, small States are more vulnerable to external economic forces and environmental hazards than are large States. Of the PDMCs, Vanuatu is the most vulnerable, reflecting its relatively low level of per capita GDP and its high susceptibility to natural disasters. The vulnerability of most, if not all, PDMCs stems from the interplay of common factors, such as remoteness, geographical dispersion, vulnerability to natural disasters, a high degree of economic openness, small internal markets, and limited natural resources.

B. Poverty Line

The **poverty line** gives an absolute measure of poverty. It is usually defined as the minimum income that is needed for essential living requirements—food, housing, clothing, water, sanitation, energy, transport, health, and education—and to be able to live according to the norms of society. The poor are then identified as the proportion of the population earning less than the poverty line. There are different ways of calculating the poverty line, the most common of which are discussed in Table 1.

Table 1: Poverty Line in the PDMCs

Pacific DMCs	Household Income & Expend. Survey (year)	National poverty line	
		US\$/year/ household	Headcount index
Cook Islands	x	x	x
Fiji Islands	1991	2,925 ¹	25.50%
Kiribati	x	x	x
Marshall Islands	x	x	x
Fed. States of Micronesia	1998	5,982 ²	40.00%
Nauru	x	x	x
Papua New Guinea	1996	2,065 ³	37.50%
Samoa	x	x	x
Solomon Islands	x	x	x
Tonga	x	x	x
Tuvalu	x	x	x
Vanuatu	x	x	x
East Timor	1999	x	75.00% ⁴

x Currently not available

¹ Based on minimum weekly gross household income required to meet basic needs, assessed at F\$83.00 (converted to US\$ using 1991 exchange rate of F\$1.4756/US\$), and multiplied by 52 weeks. Source: UNDP. 1996. *Fiji Poverty Report*. Suva

² Based on the value of a daily consumption of 2,223 calories and essential non-food expenditure; expressed in annual per capita consumption expenditure. Source: ADB. 2000. *FSM Poverty Profile Report*, draft report prepared by Rosalinda Bautista under TA#3258: *Strengthening the National Statistical System*.

³ Based on a 2,200 daily calorie intake per adult equivalent plus essential non-food expenditures; expressed in adult equivalent per year. Source: World Bank. 1999. *Papua New Guinea: Poverty and Access to Public Services*, Draft Report #19584-PNG.

⁴ Based on household cash expenditure as identified in ADB's *Rapid Assessment Household Survey*. 2000.

A **food-poverty line** indicates the cost of a food consumption basket that is sufficient to meet a minimum food energy requirement per adult per day. It will reflect the dietary patterns of the lower income groups, either nationally or, in some cases, regionally. Measurement of a food poverty line is usually a first step in defining poverty. Another measure, the **basic needs poverty line**, adds an allowance for basic non-food expenditure to the food-poverty line. Both the food poverty line and the basic needs poverty line allow poverty comparisons within an individual country.¹⁸

¹⁸ To allow comparisons between countries, the World Bank has devised an international poverty line, which it has set as US\$1 per day at 1985 purchasing power parity.

Many in the PDMCs have difficulty acknowledging the existence of poverty in their country. One manifestation of this difficulty is the fact that few PDMCs have an established poverty line, as shown in Table 1. One reason for the aversion to the term poverty in the PDMCs is the Pacific Islanders' association of poverty with widespread food shortages. It is, thus, important to emphasize that poverty in the Pacific context is not the same as poverty in Asia. Poverty has a number of faces, some of which are only visible in the Pacific—i.e., most people in the Pacific do not have access to decent public-funded health, education, and technical services; women in the Pacific are disproportionately represented among the disadvantaged; government resources are inequitably distributed across the population; and despite having generally egalitarian societies, Pacific leaders have become more removed from their communities.

C. Measures of (Income) Inequality

Thus far, **Gini coefficients**¹⁹ have been estimated for Fiji (UNDP 1996), Papua New Guinea (World Bank 1999), the Federated States of Micronesia (ADB 2000 under TA No. 3258), and East Timor (Pedersen and Arnberg 1999). For Fiji, the UNDP estimated a total household income Gini coefficient for 1990/91 of 0.460, and a per capita income Gini coefficient of 0.49. The Papua New Guinea Gini coefficient was estimated to be 0.484 in 1996. These levels of inequality are somewhat better than that in the Latin American countries that generally show the greatest level of inequality in developing countries, and marginally worse than the level of inequality in Asian developing countries. Gini coefficient for 1998 is estimated at 0.408 for the Federated States of Micronesia and 0.300 for East Timor. As with Fiji and Papua New Guinea, these levels of inequality are moderate and place the Federated States of Micronesia and East Timor in the mid-range of developing countries. While these generalized indices provide a useful overview they conceal some marked difference within several of the countries.

D. Social Indicators

In many PDMCs, the education system is plagued with widespread inefficiencies and failure to produce a skilled labor force. Low skill levels are not only the result of weaknesses in the formal education system, but also reflect a lack of non-formal and work-based skills training programs. The major causes of the poor quality of education include inadequately trained teachers, scarcity of instructional materials, and poor school facilities. Improving the quality and relevance of education is a major priority for human development.

There are problems with the reliability, comparability, and measurement of many human development figures for the Pacific. For example, **adult literacy rates**, the most common measure of education outcome, are misleadingly high for the Pacific. In most cases, they are not based on any real measurement of functional literacy, but instead come from census counts of the number of adults with three or less years of primary school education. As such, they provide little useful information on the functional literacy of the workforce.

The highest reported adult literacy rates come from the smaller Polynesian island states of Tonga (99 percent), Samoa (96 percent), and Tuvalu (95 percent). The lowest rates are reported from the large Melanesian countries of Solomon Islands (30 percent), Vanuatu (34 percent), and Papua

¹⁹ The Gini coefficient is a ratio (or index of income concentration). It is a statistical measure of income equality ranging from 0 to 1. A measure of 1 indicates perfect inequality; i.e., one person has all the income and the rest have none. A measure of 0 indicates perfect equality; i.e., all people have equal shares of income. In practice, a coefficient of <0.25 shows a low level of income inequality whereas a figure of =>0.50 shows a high degree of income inequality.

New Guinea (52 percent). The rankings are affected by the relative size of the PDMCs, as access and delivery of basic education services (or any other basic public services for that matter) are easier and less costly for smaller states.

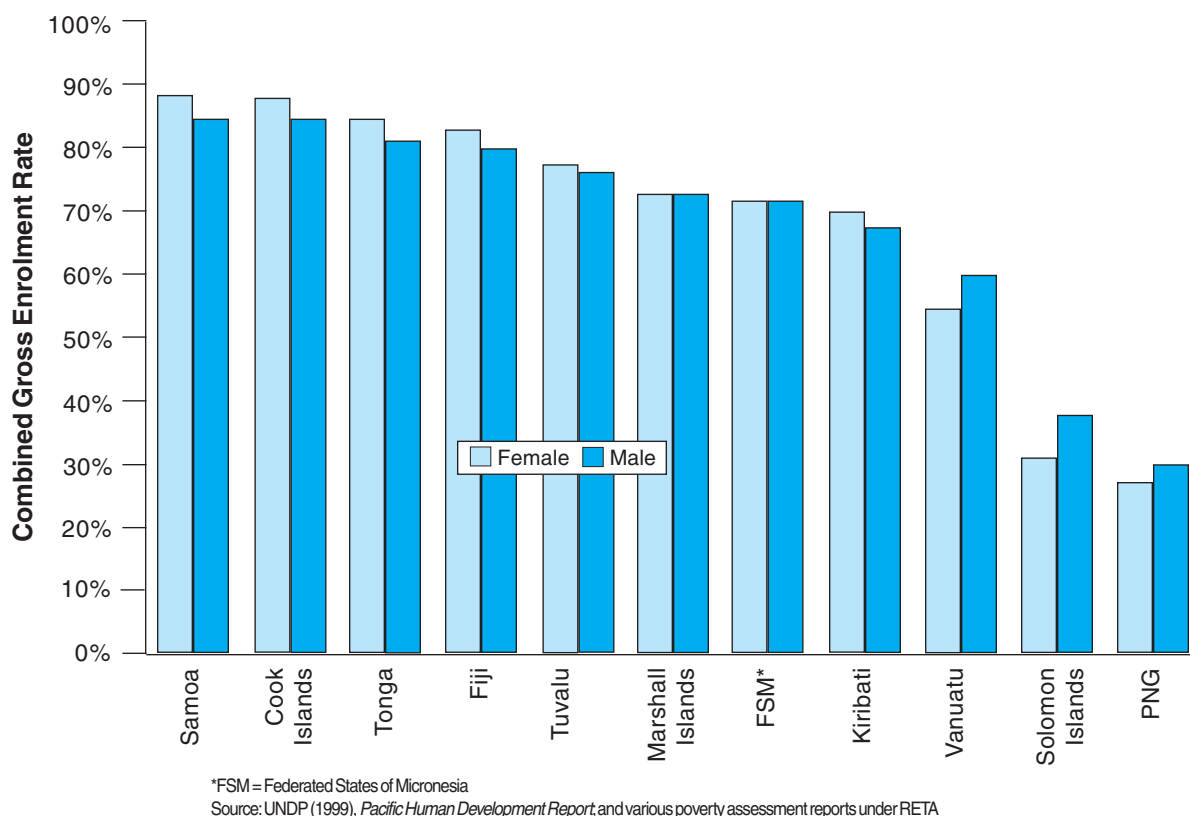


Figure 9: Combined Gross Enrolment Rate by Gender, PDMCs

Another measure of education outcome is the **combined gross enrolment ratio (CGER)**, which is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. The Polynesian countries continue to report the highest CGER, averaging over 80 percent. Middle ranking are the Micronesian states of the Marshall Islands (72 percent), the Federated States of Micronesia (71 percent), and Kiribati (68 percent). At the low end are the Melanesian countries of Papua New Guinea (29 percent), Solomon Islands (35 percent), and Vanuatu (57 percent). The levels of adult literacy and CGER are consistent with the PDMC's HDI ranking.

The health status of the people in the PDMCs has been undergoing major changes as countries become more developed and urbanized and their population's age, the pattern of illness and death changes. While the incidence of infectious and respiratory illness is still high, there has also been a sharp rise in non-communicable "lifestyle diseases", such as cancer, diabetes, cardiovascular disease, and accidents. The transition towards lifestyle diseases has produced new and costly challenges for the health service. The prevention and mitigation of these diseases also pose a challenge for the education system that now must give increasing emphasis to public education on the importance of proper nutritional and lifestyle practices.

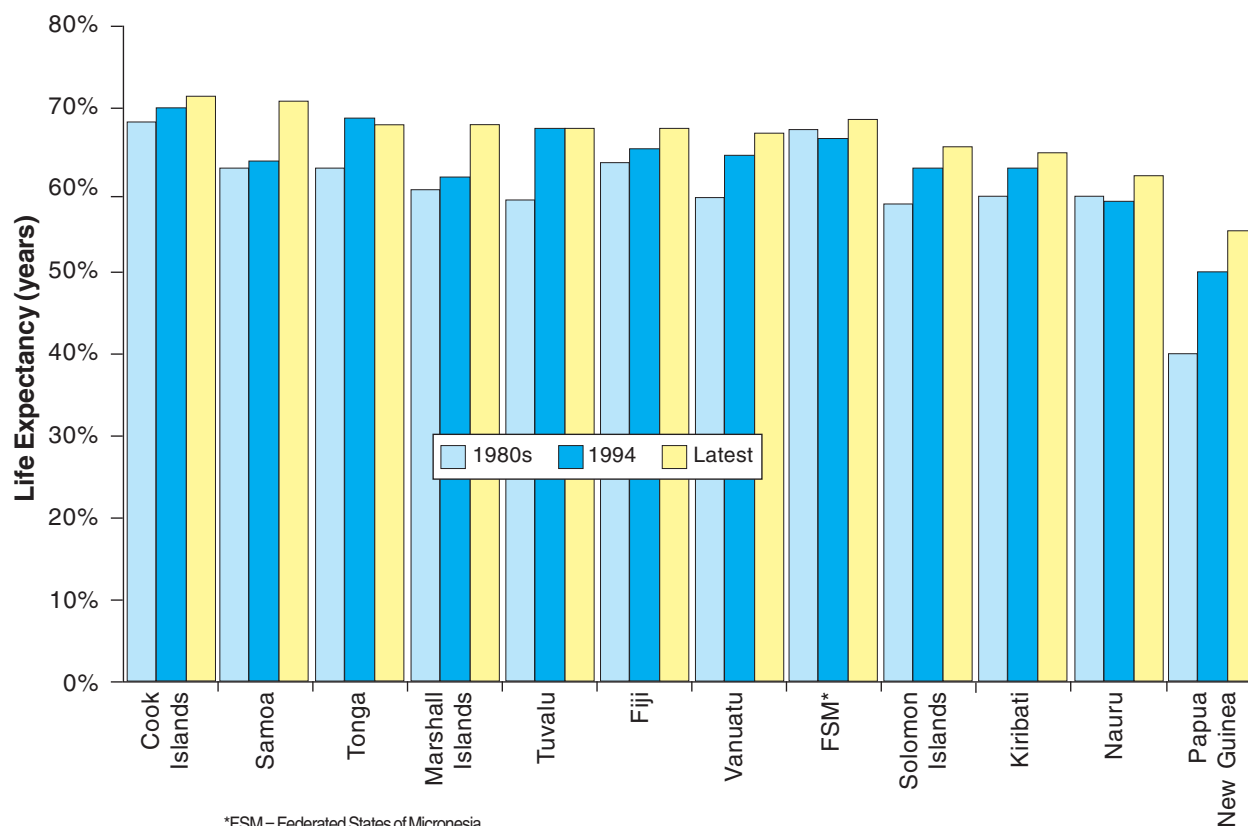


Figure 10: Improvements in Life Expectancy at Birth, PDMCs, 1980s, 1994, and latest available year

Two of the proxies of health outcome used in this report are **life expectancy at birth** and **infant mortality rate**. Life expectancy at birth is defined as the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. Infant mortality rate is the number of infants who die before reaching one year of age, per 1,000 live births in a given year. The past two decades have witnessed improvements in life expectancy at birth, as shown in Figure 10.

Another important measure of health outcome is access to health services, such as safe water, sanitation facilities, and immunization against measles and diphtheria, pertussis, and tetanus (DPT). Of particular note is the fact that some PDMCs that rank well in terms of HPI do not score well in health service access. For example in Tuvalu, which ranked third, 15 percent of the population does not have access to safe water. This is a common situation on small atolls. The Micronesian states of Kiribati, Marshall Islands, and the Federated States of Micronesia have middle-ranking HPI status, which reflects the difficulty of providing services across these widely scattered islands. Also, the lower-ranking of the Melanesian group of Vanuatu, Solomon Islands, and Papua New Guinea largely reflects poor access to basic services due to the large size, dispersal, and diversity of these states.

The **percentage of population with access to safe water** is defined as the share of the population with reasonable access to an adequate amount of safe water (including treated surface water and untreated but uncontaminated water, such as springs, sanitary wells, and protected boreholes). In urban areas, the source may be a public fountain or standpipe located not more than 200

meters away. In rural areas, the definition implies that members of the household do not have to spend a disproportionate part of the day fetching water. An adequate amount of safe water is that needed to satisfy metabolic, hygienic, and domestic requirements—usually about 20 liters a person a day. Among population in the PDMCs, access to safe water varies from a high of 95 percent (in Cook Islands and Tonga) to a low of 24 percent (in Papua New Guinea).

Percentage of population with access to sanitation is the share of the population with at least adequate human waste disposal facilities that can effectively prevent human, animal, and insect contact with human waste. Suitable facilities range from simple protected pit latrines to flush toilets with sewerage. To be effective, all facilities must be correctly constructed and properly maintained.

E. Gender Issues

A crucial component of any human development strategy is the education and health of females. In recent years, evidence from many developing countries shows that there is a close relationship between the educational attainment of mothers, the level of hygiene practiced by the family, the adequacy of family nutrition practices, and the effectiveness of health. Additional schooling also gives mother more control over the spacing and frequency of children and influences her use of health services during pregnancy and birth. Moreover, well-educated mothers tend to have well educated children. It is therefore vital that education policies ensure that girls and young women have access to a full range of education services.

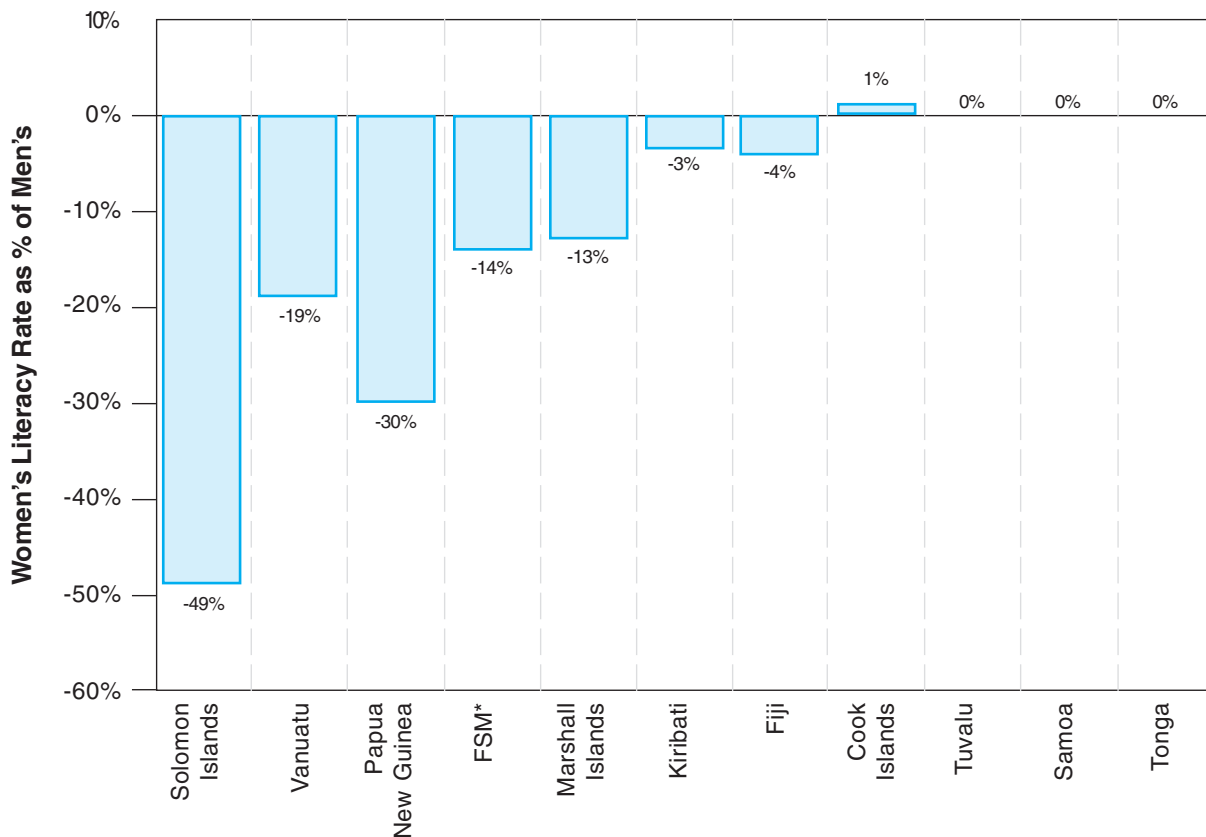


Figure 11: Differences in Adult Literacy Rate by Gender, PDMCs

In several of the PDMCs, there are significant differences between the genders. Figure 11 shows the difference in adult literacy of women and men. In the case of the Polynesian countries Tonga, Samoa, and Tuvalu, there are no differences. In addition, the overall level of adult literacy in these countries is high. Of far greater concern is the level of female literacy in the Melanesian countries where women lag far behind men. The generally low level of overall adult literacy in these countries makes this problem even worse.

For various physiological reasons women generally live longer than men. Where the difference in life expectancy is small, or in extreme cases less than the life expectancy of men, there are serious grounds for concern about the situation facing women. In Tonga, Tuvalu, and Kiribati, the life expectancy of women at birth is six years longer than the life expectancy of men. By comparison, as shown in Figure 12, the difference in the life expectancy of women born elsewhere in the PDMCs is markedly shorter. In the extreme case of Papua New Guinea, the life expectancy of women is a year shorter than that of men. These differences suggest that women have to cope with a very difficult life in several of the PDMCs.

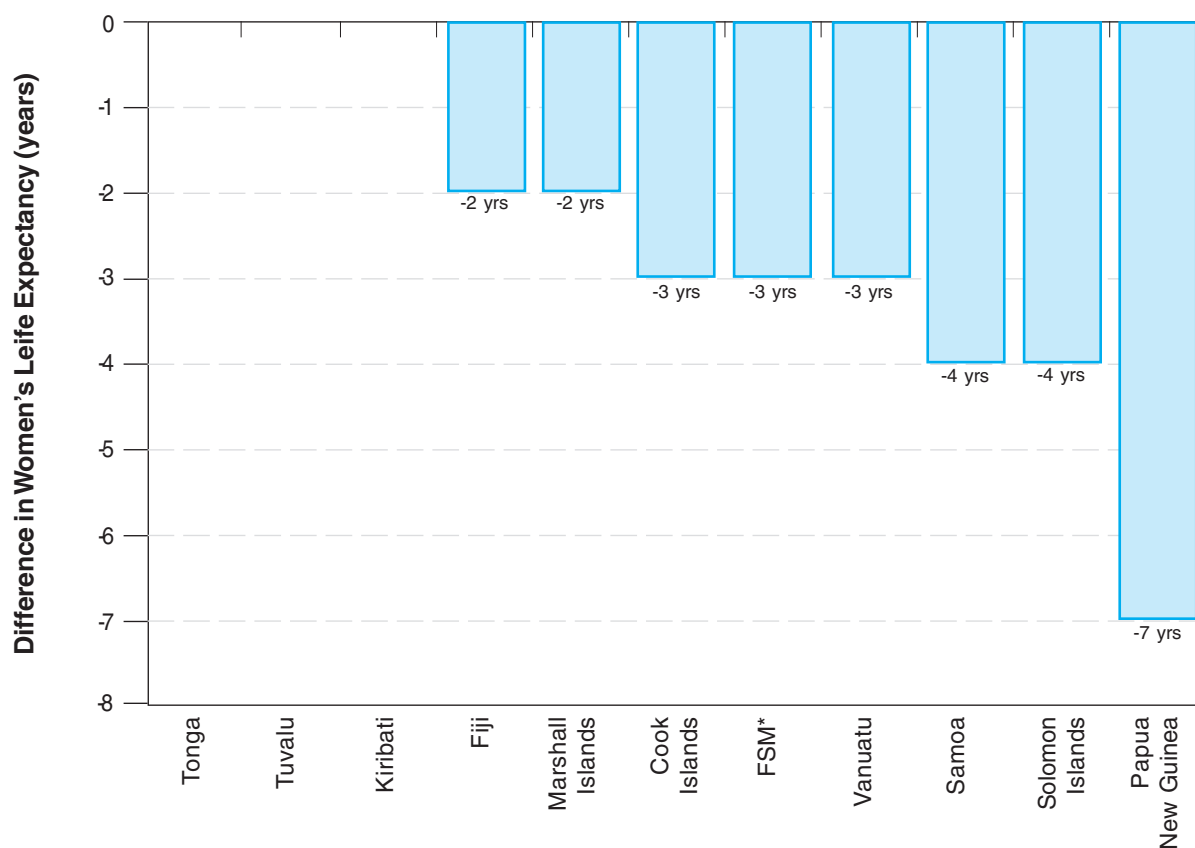


Figure 12: Gender Differences in Life Expectancy, PDMCs

In general, these differences reflect women's poorer access to education and health facilities and such fundamental inequalities as a more restricted range of livelihood or employment opportunities. In general, women have higher status and achievements in countries with better overall human development ranking.

Another important gender issue is the reproductive health of women. In this report, three measures of reproductive health are used: fertility rate, contraceptive prevalence rate, and maternal mortality rate. **Total fertility rate** is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. **Adolescent fertility rate** is the number of births per 1,000 women aged 15-19. Countries that are at the bottom of the HDI ranking—i.e., Marshall Islands, Solomon Islands, Papua New Guinea, Vanuatu, and Federated States of Micronesia—have reported fertility rates of five births or more. Top-ranking countries, including Fiji and the Cook Islands, have fertility rates of less than four births.

Fertility rates are somehow influenced by the **contraceptive prevalence rate**, which is the percentage of women who are practicing, or whose sexual partners are practicing, any form of contraception. It is usually measured for married women aged 15-49 only. Countries with high fertility rate usually have low contraceptive prevalence rate. Conversely, countries with low fertility rate have high contraceptive prevalence rate. Among the 12 PDMCs, the Solomon Islands report the lowest contraceptive prevalence rate of eight percent, while the Cooks have the highest rate at 53 percent.

Maternal mortality ratio is the number of women who die during pregnancy and childbirth, per 100,000 live births. The tiny size of many PDMC island populations makes this data especially difficult to get. Available data shows that Papua New Guinea has the highest maternal mortality rate at 930, followed by the Federated States of Micronesia at 561 and Solomon Islands at 550. The lowest rates are reported in the Cook Islands at 20 and Fiji at 31. The results again show that in more developed countries, women have better access to relatively high standard of health services.

F. Governance Indicators

Poverty in the Pacific has often been described as a poverty of opportunity. This means that the lack of opportunities for the disadvantaged groups (such as rural or outer islands people) are seriously handicapped when it comes to advancing their economic well-being. A major constraint of their development is the level of governance.

A significant governance issue in the Pacific is the size of the public sector. Many PDMCs have built large and inefficient public sectors. For example, in the early 1990s public sector employment accounted for 70 percent of paid employees in Kiribati, 69 percent in Tuvalu, 48 percent in Solomon Islands, and 46 percent in Federated States of Micronesia (UNDP 1999). Downsizing of the public sector poses another problem of how to absorb laid-off workers in other productive employment.

One measure of governance used in the report is the level of public spending on basic social services, namely: (i) **public expenditure on education**, which is the percentage of GNP accounted for by public spending on public education plus subsidies to private education at the primary, secondary, and tertiary levels; and (ii) **public health expenditure**, which consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and non-government organizations), and social (or compulsory) health insurance funds.

Most PDMCs spend an average of 17 percent of the budget on education. This is at par with other developing countries whose public spending on education ranges from an average of 17.3 percent in East Asia, 19.9 percent in Sub-Sahara Africa, and 20.5 percent in the Arab States (UNDP 1999). In several PDMCs, education budgets are distorted in favor of higher education, at the expense of primary education. A high proportion of the recurrent budget in primary and secondary schooling goes to paying the salaries of teachers. In order to make spending on education more effective, it should focus on the level of education with the highest social returns and provide quality universal basic education. And the most cost-effective way to do this is probably through a mix of private and public investment.

Public spending on health among PDMCs averaged around 13 percent. With the public sector and economic reform programs currently being undertaken by many of the PDMCs, health spending has come under pressure.²⁰ Instead of the less costly primary health care, expensive hospital-based and referral curative treatment dominates the allocation of public health spending. If the

²⁰ Measures in the reform programs include budget cuts, down- or right-sizing of the public service, and introduction of cost recovery or fee-paying schemes. These measures seem to hit social services particularly hard.

limited existing resources are used more effectively, it is important to improve health management either by: decentralizing management and service provision; identifying new financial options such as social and private insurance systems; or encouraging involvement of the private sector and NGOs in health service delivery.