

Population development versus sustainable development

*Malaefono Taua Faafu-Taaloga**

Introduction

Sustainable development means meeting the needs of present generations without compromising the needs of future generations. The increasing number of human beings is always seen as a threat with direct impacts on sustainability of natural resources and the environment. Yet, the cry for sustainability largely ignores human beings especially the underlying factors related to their basic needs. In order to fulfil the needs of sustainable development, human beings are entitled to quality education, healthy life and sound economic support to fully participate in sustainable development.

This paper gives a brief summary of population characteristics as identified from the 2001 Population and Housing Census. The first part examines the impacts of population increase on selected socio-economic services and natural resources while the second part focuses on the debate of population development versus sustainable development. The paper concludes with population policy implications for future initiatives in promoting sustainable development in Samoa.

Population characteristics 2001

Samoa's population reached a total of 176,848 persons as of November 2001. This is an increase of about 10 percent when compared to the last census in 1991 with only 161, 298 persons. Of the total population, 22 percent totalled at 38,336 persons living in the Apia Urban Area (AUA), with 78 percent (138,012) living in the rural areas namely North West Upolu (NWU), Rest of Upolu (ROU) and Savaii Islands.

By age groups, 41 percent of the total population was recorded as below the age of 15 years, 55 percent aged between 15-64 years while 4 percent of the total population constituted pensioners 65 years and over. The same proportions were also identified in the 1991 census. Given the large proportion of young persons, 63 percent of the total population were single or never married, 33 percent married while 1 and 3 percent were divorced and widowed respectively.

Population growth

Population growth is determined by three major events: births, deaths and international migration. The interaction of these events determines population growth or the number of persons added or taken away from the population in a year.

For Samoa, births are estimated at about 5,000 in a year (29.1/1000), deaths at 1,000 in a year (6/1000) and more than 1,500 persons migrated overseas (-10/1000) every year. Of the three events, births and migration largely influence population growth in Samoa. While births keep increasing the population, migration on the other hand reduces the growth, keeping population growth at a minimum level. This pattern of growth has always been in existence even after Independence in 1962.

* Ms. Taaloga is the Assistant Government Statistician, Ministry of Finance, Samoa

As a result, natural increase (difference between births and deaths) is always very high for Samoa, with migration playing a significant role in narrowing this natural increase. Overseas migration is generally accepted as a good population control for Samoa. In the long run, it may become a real threat when overseas countries eventually reduce the number of migrants from Samoa. On the other hand, the continuous high birth rate contributing to the large proportion of young persons in Samoa indicates the potential of high population growth in the future.

For a small country like Samoa, the number of births is relatively high compared to the socio-economic services and natural resources available. The following sections will highlight the impact of population increase on Samoa's limited resources as shown in the Population and Housing Census 2001.

The impact of increasing population on housing resources

Any population increase will lead to an increase in demand for shelter and better housing. The Housing Census in 2001 clearly indicates a 26 percent increase in the total number of buildings people have in 2001 compared to the total buildings in 1991 (Table 1). With more buildings made, more natural resources such as wood, stones, earth soil and sand, become exploited for housing materials. Likewise, such resources are also exploited to make concrete and bricks for housing materials.

Table 1. Selected housing materials

Selected housing materials	Number of buildings 1991	Number of buildings 2001	Proportion of buildings using item in 1991 (%)	Proportion of buildings using item in 2001 (%)	% Change between 1991-2001
Total Buildings	36,136	45,606			26.2
<u>Floor</u>					
Wood	13,499	15,052	37.4	33.0	11.5
Stone	6,199	6,209	17.2	13.6	0.02
Concrete, sand, others	16,438	24,355	45.5	53.4	48.7
<u>Outer walls</u>					
Wood	11,873	14,596	22.9	32.0	22.9
Brick/Concrete	3,255	6,664	9.0	14.6	104.7
Open wall	20,415	24,051	56.5	52.7	17.8
Metal sheet and others	478	295	1.3	0.6	-38.3

Sources: Population and Housing Census Report 1991, Special Tabulation Report 2001.

Table 1 shows some selected housing indicators from the 1991 and 2001 Censuses. It shows the proportions of buildings by compositional materials and the percentage change of these housing demands between 1991 and 2001. The last column clearly indicates the increasing demand on housing materials for "floors" and "outer-walls". For instance, the number of buildings using wood for housing floors and outer walls has increased by 11.5% and 22.9% respectively, while use of concrete, bricks and other resources have greatly increased by 48.7% and more than 100% respectively.

The data above reveals that, out of all the buildings made, the construction of floors showed that "concrete" was the mostly used material for floors in 1991 and 2001, while the highest proportion of housing walls were made of open walls which are mostly "wood". Housing

information revealed people's tendency to live in better-built houses. This is an indication of the drive to achieve a better quality of living. On the other hand, it also shows the increasing pressure of housing demands on scarce housing resources.

The impact of population increase on selected household services

The increase in population also leads to increasing demands for household basic services. The more demands on household services, the more pressure on available services. Table 2 shows the total number of households in Samoa and the proportions of households using selected services in 1991 and 2001.

Table 2. Selected Household information

	1991	2001	Proportion of households using service in 1991 (%)	Proportion of households using service in 2001 (%)
Total Number of Households	22,195	23,079		
Tap water supply	19,895	20,989	89.6	90.9
Toilets using water	19,684	20,439	88.7	88.6
Lighting-electricity	17,497	21,447	78.8	92.9
Cooking fuel- firewood	15,935	14,321	71.8	62.1
Waste disposal-Truck	-	13,487	-	58.4
Fixed phone	-	5,189	-	22.5
Cellular phone	-	1,946	-	8.4

Sources: Population and Housing Census Report 1991, Special Tabulation Report 2001.

In the total number of households, an extra 880 households had been added to total households in 1991 reaching a total of 23,079 in 2001. Additional households leads to the increasing demands for household services like water, electricity, sanitation, waste disposals, telephones and related-services. Generally, Samoan households have a high standard of accessibility to water and electricity for household amenities. As shown in Table 2, 90 percent of total households in 2001 have access to tap water for use in their homes and almost 90 percent of households also used water for toilet facilities. In addition, the use of electricity for lighting shows an increase in the proportion of households from 79 percent in 1991 to 93 percent in 2001.

Greater accessibility to these services indicates better quality of living. Likewise, it also shows increasing pressure and strain on limited resources particularly water. Quality water management is consistently needed to sustain this natural resource. In other household amenities, cooking fuel shows that firewood is the most used fuel by Samoan households.

While there is a noticeable decline of firewood consumption (72 to 62 per cent), more than half of total households still depend on firewood for cooking. This also calls for effective forestry management to monitor the exploitation of local forestry for firewood. The statistics revealed the strong relationship between the increasing population and the demand on housing materials and household services. The question is: how can we approach the issue of sustainable development?

Population development versus sustainable development

Sustainable development will never be fully achieved if population development is ignored from the full process. Many countries propose that direct population control and family planning are the best remedies to slow population increase in order to reach sustainable development. Evidence show that countries with low population growth rates are the major force behind environment degradation. They consumed the most energy, most water and food and even contributed the highest air pollution. This is particularly true for developed countries with a high standard of living.

This paper emphasises that "sustainable development is better achieved if resources are allocated more to meet basic human needs as a solution to population growth and not reducing population growth to meet sustainable development". This is because population issues like education, health and subsistence living are the main forces behind population control and hence sustainable development. A lot of life experiences and data proves that when people have high quality education, live a healthy life and have sufficient financial support to live comfortably, people are most likely to become aware of their family size and hence sustainable living.

Education development versus sustainable development

Well-educated people generally understand issues regarding large family size, environment degradation, unemployment, healthy living and are able to act upon it. Education gives people the knowledge and skills to understand issues as well as determining their behaviour. The Population Census 2001 shows that of the total population 15 years and over, 30 per cent have completed primary level education, 57 per cent completed secondary level and only 11 percent completed tertiary education. "Education for what?" is the challenge. The question that often comes to mind is: what can you do when you have completed a particular level? Will you be ensured that completing primary or secondary will give sufficient knowledge and skills to live a good sustainable life?

People without good education and knowledge to find employment have limited choices for living. Limited choices cause people to abuse fishing resources, forestry resources, polluting the environment and even turn to abusive behaviour creating more social problems. The point is, sustainable development will never be achieved if young generations do not receive proper education or even sufficient knowledge and skills to create better choices for themselves.

The Population Census 2001 depicts a disturbing picture of young children not attending schools. Table 3 clearly indicates these numbers by single ages. For whatever reasons causing non-attendance, the question is: how can we fight for sustainable development when not everyone is given the equal opportunity to be formally educated?

Table 3: Population 5-19 by school attendance and sex, 2001

Age	Males	Females	Males	Females	Males	Females	Total
5-9	12165	11175	870	720	13035	11895	24930
10-14	10426	9816	535	226	10961	10042	21003
15-19	5665	5460	3829	2670	9494	8130	17624
Total	28256	26451	5234	3616	33490	30067	63557

Source: Special Tabulation Report 2001

A bigger challenge for education is, not only should we aim to make everyone attend school, we should also aim to enrich young generations with the relevant knowledge and skills to live a secure and comfortable adult life. Given limited paid employment, young school leavers need education that comes with the knowledge and skills to earn their own living. Promoting vocational training in the community and even creating community based projects maybe good alternatives for young school leavers who would not be able to get a paid job.

Education is the key to a secured livelihood and sustainable development. Quality education means at the end of 13 or more years of formal education, those years would be sufficient for most if not all to have a strong foundation of knowledge to explore life options in the real world and having the ability to deal with them.

Subsistence living versus sustainable development

Today's standard of living depends on financial income. Without money, people cannot afford education, health services, and all necessities of life. Sustainable development cannot be achieved if people are poor and lack opportunities to make a good living. Given the fragile economy and vulnerability to global trading, it is understandable that Samoa's economy offers a limited number of employment opportunities for the growing number of school leavers.

The Population Census 2001 shows that of all those aged 15 years and over, the rate of unemployment has risen from 2.1 percent (1,175) in 1991 to 4.7 percent (2,618) in 2001. Sadly enough, out of all those being categorised as being employed (people involved in paid and unpaid employment), 47 percent were reported working in unpaid employment meaning that these people were working in activities such as planting, fishing and assisting with the family economic welfare without any form of income. Lack of income is another major source of environment degradation and exploitation of natural resources. Like lack of knowledge, people turn to abuse natural resources such as polluting fishing resources and cutting down trees, and even turn to criminal behaviour due to lack of money.

Promoting small and informal businesses in the community and making access to financial assistance easier, maybe good alternatives to promote more employment opportunities for many. With secured income, people will have the capacity to participate consciously in sustainable development initiatives.

Healthy living versus sustainable development

"Healthy people make healthy nations" is a common phrase. For Samoa, the accessibility to health services is very high and hence not seen as a major barrier. Communicable and non-communicable diseases are well under control by the Health services despite shortages of personnel. This paper argues that the major barrier to healthy living in Samoa is not the lack of health services but it is "the lack of motivation to translate health messages into appropriate actions".

Unbalanced diets, lack of exercise, abusive smoking and drinking, unaffordable family size, unclean environment and poor sanitations are all visual factors that indicate the difficulty in translating health messages into appropriate actions in Samoa. For example, the over-flow drainages in the urban areas, poor rubbish disposals in town and in the villages, poor public utilities at the public hospitals, food markets and town areas are all indicators of unhealthy behaviours. Generally, if people do not practice healthy living in their own homes, they

would never understand the importance of healthy environment in their actions whether they are at home or not.

An interesting example was the question on means of waste disposal in the Population Census 2001. Out of the 23,079 households in the country, 58 percent of total households reported that they depend on public trucks to dispose their rubbish, 4 percent reported burning their own rubbish while 24 percent and 14 percent dispose their rubbish in the sea and the bush respectively. Such factual evidences demonstrate a worrying health and environmental issue. In short, health issues are significant for sustainable development. We will never achieve full sustainable development if health issues are ignored from the full process.

Population policy implications

Population increase is a threat to small and vulnerable countries like Samoa. Likewise, it is a threat to all efforts of sustainable development. This paper argues that achieving sustainable development can only come from quality education, healthy living and a sound financial support and all these will lead to informed decisions on affordable family sizes which will eventually lead to lower population growth. Quality education gives young generations the knowledge and skills to live a secure and comfortable livelihood in their adult years. Education systems must ensure that young generations are entitled to such. Including population and sustainable issues in school curriculum would be an advantage.

Healthy living determines healthy environment and healthy families. Program managers should ensure that people not only receive the services but also have the ability to apply healthy actions in their lives. Community and health workers must ensure that health issues are well understood and applied in the communities. Limited employment opportunities cannot be avoided. Giving people sufficient financial assistance to create their own sources of income is the only alternative to limited paid employments. Small businesses and individual projects should be strongly encouraged to generate income in the informal sector.

Conclusion

The increasing population growth puts pressure on all resources making it difficult for sustainable development to be effective. While many have argued that reducing population growth is the solution for sustainable development, this paper strongly argues that meeting the requirements for basic needs first has more impacts on lowering population growth and not vice versa. It must be said that the population growth is not an issue by itself but a result of unbalanced necessities of life. The paper has provided population facts about the impact of population increase on socio-economic services and limited resources. It has also identified significant population development issues causing unsustainable development. The real challenge is for policymakers and program managers to design appropriate strategies approaching all angles of sustainable development.

There is no simple answer to sustainable development. It is a complex issue hence needs all levels to play their roles starting from the national level, community level, and down to the grass-root level to contribute in one way or another. Asserting quality education, healthy living and subsistence living will lower population growth hence we will be able to meet the needs of present generations without compromising the needs of future generations.

References

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