The indicators used to monitor the progress of the Population Development Programme in South Africa

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The main goal of the Population Development Programme in South Africa is ensure a balance between resources (natural resources and socio-economic potential) and population size. In order to achieve this goal a demographic objective of a total fertility rate of 2.1 by the year 2010 has been set. If this objective is achieved and maintained, the population will stabilize at 80 million people by 2100.

Subgoals include the enhancing of the quality of life of all the population groups in South Africa, the acceleration of development, integration of family planning with development programmes, and community involvement in the various actions of the Population Development Programme participants.

The following terrains have been identified as of primary importance for development actions in South Africa in order to achieve the main goal and demographic objective as stated above:

Education (especially of women)

Manpower training (especially of women)

Primary health care

The economy

Housing

In order to monitor progress with regard to the various action plans in respect of the above terrains by the relevant government departments, the private sector, and service organizations, indicators of such progress have been identified and quantified. Objectives in respect of these indicators, coupled to a time scale have been developed.

Socio-economic development takes place on different levels, in fact development has to be multi-disciplinary, multi-dimensional, integrated and balanced at all levels to have the desired effect on fertility.

The challenge was to develop a set of indicators which would give a vivid picture of progress on all levels, but especially on the micro-level where it is of crucial importance to make a breakthrough with regard to demographic transition and the negative poverty and high fertility cycle. Furthermore, the indicators had to meet the following conditions:

- universally acceptable in the Southern African context,
- quantifiable,
- based on data that is readily available, and
- relevant as managerial information for the purpose of decision-making.

The indicators identified were:

- infant mortality rate,
- life expectancy at birth,
- teenage pregnancies,
- personal per capita income,
- literacy,
- children not attending school, and
- room density.

The importance of the above indicators and their influence on fertility will be discussed briefly.

1. INFANT MORTALITY RATE

The infant mortality rate is the number of deaths under the age of one year per 1 000 live births.

Cramer (1987:299) gives a summary of his own ideas as well as the opinions of authors such as Newland, Baldwin and Cain, Berkov and Sklar, The Food Research and Action Group, and Miller with regard to the importance of the infant mortality rate. Aspects that are emphasized by these authors are, inter alia, that the infant mortality rate reveals how well a society meets the needs of its people, and that high infant mortality rates can therefore be seen as an indicator of deprivation. Also that a high infant mortality rate is often seen as a cause of concern with regard to adolescent pregnancy, illegitimacy, poverty, and the funding of social welfare programmes.

The reduction of infant mortality rates contributes to the lowering of the total fertility rate. Parents are prepared to limit their family size, if they are confident that the children already born to them, have a fair chance of survival (President’s Council Report 1983:88). Fisher (1975:133) notes the following: “There may be a sort of feedback relationship between mortality and fertility, in the sense that current birth rates are a function of... expected death rates. That is to say, as Schultz points out, ‘The established regime of childhood mortality may influence parents in planning their lifetime reproductive behavior to compensate for what they expect to be the incidence of death among their offspring.’ Some evidence in support of this hypothesis is cited from a study of Frederiksen of birth and death rates in Sri Lanka, Mauritius, and British Guiana.” The President’s Council (1983:88) states that many researchers believe a reduction in child mortality contributes to an eventual reduction in fertility.

Health and medical services are important and control-
lable elements of development which can influence population growth.

It can therefore be stated that access to and utilization of health care facilities will result in a decline in infant and child mortality and this in turn will result in a decline in birth rates.

The infant mortality rate is the most sensitive index of mortality, because most deaths in developing communities occur in the age group 0 to 1 years. It is also regarded as one of the more effective indicators of quality of life, which will support the eventual reduction of fertility.

2. LIFE EXPECTANCY AT BIRTH

"Life expectancy at birth" refers to the number of years a newborn can be expected to live if current mortality rates were to continue.

Life expectancy is a measure and indicator of current health conditions. According to the United Nations (1984:40) "... a minimum life expectancy of 60 years or more at birth and a maximum infant mortality rate of 50 per thousand live births are suggested as indicating that the health status of the population is becoming a decreasing burden on individual, family, and community development."

Life expectancy has an indirect influence on the reduction of fertility because of its positive effect on the economy. Increased life expectancy and improved health have a potential positive effect on economic growth through such factors as lengthening of expected years of working life, an increase in physical and mental ability among workers, fewer days lost from work, greater incentive for investment in schooling, on-the-job training, as well as for other human investment. These factors contribute to higher ratios of output per unit of human and physical capital (United Nations 1984:51).

Life expectancy at birth is an indicator of quality of life, which is a contributing factor to lower fertility.

3. TEENAGE PREGNANCIES

"Teenage pregnancies" refers to the total number of children born alive to women younger than 20 years of age, expressed as a percentage of total live births.

Youthful reproduction is an important factor in high fertility. Mostert and Van Tonder (1986:69) refer to the Report on Fertility and Family of the United Nations wherein it is mentioned that results of the World Fertility Survey have shown that only age at marriage or the onset of a sexual relationship was delayed until the early twenties or later, has any significant reduction of fertility occurred.

Teenage pregnancies as indicator is therefore a valid and reliable measuring instrument because of the influence of teenage pregnancies on the total fertility rate.

4. PERSONAL PER CAPITA INCOME (PCI)

PCI is defined as the average personal cash income (in Rand) per month.

Economic development at the macro-level is no longer regarded as the dominant factor in fertility reduction. Studies indicate that economic development of impoverished communities (meso-level development) and economic change at family level (micro-level) are more important conditions for fertility decline than growth in the per capita national product. (President's Council 1983:76,77.)

The change in thought that occurred over the last decade regarding development resulted in a move away from the use of macro-economic indicators like the GNP which is derived from the national accounts.

According to the Databank Division of the World Bank a correlation between GNP and certain social indicators can be established (Van Heerden 1984:117). From other studies it is also evident that an increase in GNP per capita will not necessarily result in a higher physical quality of life of the people at grass root level.

Considering that a break-through with respect to the enhancing of the quality of life and the reducing of fertility has to be made at the family level, it follows that the per capita income and production has to be measured at this level.

The indicator PPCI, is calculated by dividing the total income earned by individuals in a given area by the total number of people in the area.

Another aspect of economic development which apparently has an influence on fertility trends, is the woman's participation in the labour force. There are indications that a high percentage of women employed outside the family, contributes to lower fertility.

In order to stimulate economic development at the micro-level, it is important to promote the informal sector and especially development in the rural areas.

Development which is aimed at satisfying the immediate needs of the people by producing what can be consumed locally with the production factors (entrepreneurship, labour, capital and raw materials) which are available locally, has a rapid and visible effect on quality of life.

A strategy for economic development on all levels is necessary to eradicate poverty and reduce fertility.

5. LITERACY

Education is strongly related to fertility in most countries, and is an important factor in accounting for fertility differences within populations. World-wide studies have shown that

- a reasonable level of education is a threshold factor that must be present before other aspects of development have a significant effect on fertility
- the level of education of women contributes more to fertility reduction than that of men (President's Council 1983:81).

The percentage literacy and the percentage children not attending school were identified as the two indicators which are indicative of the level of education and quality of life.

5.1 Percentage literacy as an indicator of level of education

"Literacy" is defined as the percentage of persons 13 years and older with at least a Standard 4 qualification (six years of successful schooling).

Level of schooling can result in a difference of an average of as much as three children per family in developing countries and communities. However, it has been found that schooling on a lower primary level does not correlate significantly with fertility decline. Evidence from the World Fertility Survey has shown that women with one to four years of education have a slightly higher level of fertility (United Nations 1987:214). Mott and Mott (1980:13) ascribes this to the fact that health and nutrition start to improve when education begins to spread. This is due to exposure to improved information about good nutrition and health practices and results in improving women's ability to conceive and bear live children.

A higher primary level education on the other hand, shows a very significant fertility decline of an average of two children per family in the case of women who have
reached the secondary level of education (President's Council 1983:78). According to Mott and Mott (1980:13), Jacobson (1987:43) and evidence of the World Fertility Survey (United Nations 1987:214, 223) it is only at the level of seven years of education and preferably some secondary school education, that traditional ideas regarding the value of children begin to change enough to result in a significant reduction in family size. Women with seven or more years of schooling on average tend to marry nearly four years later, and have about 25 percentage points higher contraceptive use than women with no education. Female employment is also increased, and desired family size is much smaller (Jacobson 1987:43; United Nations 1987:214).

Adult literacy is also the most important single socioeconomic factor which explains and contributes to change in mortality levels. Literacy provides a firm basis for health education and improved insight into the causes, prevention and treatment of diseases. The strong contributory effect of adult literacy and reduction of infant and child mortality in particular, is confirmed by many international researchers (President's Council 1983:78).

In developing countries the decline in fertility is mostly preceded by an increase in the level of education. Thus, literacy as defined by the Population Development Programme, is an important indicator to evaluate progress in terms of the main goal of the programme.

5.2 Percentage children not attending school

The percentage of children 6 to 18 years of age not attending school, expressed as a percentage of the total number of children 6 to 18 years old, is the second indicator of level of education and quality of life in South Africa.

Schooling exposes pupils to different ideas and social values and powerfully undermines traditional norms and familial relationships that favour unlimited fertility. Education also influences certain economic factors which have an influence on fertility: It reduces the economic utility of children; it creates aspirations for upward social mobility and the accumulation of wealth; and it increases the opportunity cost of women's time, and enhances the likelihood of their employment outside the home.

A high percentage of children between 6 and 18 years of age do not attend school in South Africa, and live in surroundings that are conducive to traditional norms and values. They are, therefore, not exposed to this major instrument of change with regard to traditional fertility norms.

Cost of education, insufficient provision of basic education, and inaccessibility of existing schools, are the main factors which prevent children from attending school in South Africa (Department of Education and Training 1986:8). An imaginative programme of education is needed to achieve the level of education which will have the desired effect on fertility behaviour.

6. ROOM DENSITY

Housing is one of the basic needs of human beings and as such it is an important aspect of the comprehensive term quality of life.

Suitable housing is conducive to personal health. It provides shelter against the elements, and accompanied by improved basic services like sanitation, fresh water, and refuse removal, it can make an important contribution to a more hygienic lifestyle which is essential if child deaths are to be prevented (President's Council 1983:219).

Home ownership also has an influence on the financial bargaining power of the individual. A home can be offered as security for a loan which could be used for further development. Pensionaries with their own homes are also not dependent on their children in this respect.

Suitable housing generally provides security and stability through which an opportunity is created for developmental programmes. It is also conducive to political and social peace which in turn is essential for a higher economic growth and a higher physical quality of life (Africa Insight 1987:161) which are prerequisites for fertility decline.

Room density is used as an indicator to measure the progress that is made with regard to housing. It is defined as the average percentage occupancy of dwellings in terms of the scale given below. A percentage higher than 100 indicates overcrowding. The higher the percentage is above 100, the higher the rate of overcrowding.

Only "equivalent persons" are counted and a child under the age of ten years is counted as half a person. Furthermore only bedrooms are taken into account.

When more than the following number of equivalent persons occupy a dwelling, overcrowding exists:

- 2.5 equivalent persons: 1 bedroom dwelling
- 3.5 equivalent persons: 2 bedroom dwelling
- 5.0 equivalent persons: 3 bedroom dwelling
- 7.5 equivalent persons: 4 bedroom dwelling
- 10.0 equivalent persons: 5 bedroom dwelling
- 12.5 equivalent persons: 6 bedroom dwelling
- 15.0 equivalent persons: 7 bedroom dwelling
- 17.5 equivalent persons: 8 bedroom dwelling
- 20.0 equivalent persons: 9 bedroom dwelling.

Room density as an indicator, primarily quantifies the relation between available housing in terms of bedrooms, and the demand for housing in terms of the number of occupants. The formula was developed by Prof. E. Batson, formerly of the University of Cape Town, and makes it possible to evaluate a given situation at grass root level.

CONCLUSION

Should the objectives that have been set in respect of the various indicators be achieved as a result of the various programmes that are implemented within the terrains that were identified, the total fertility rate will decline, and the main demographic objective of the Population Development Programme will be achieved.

FOOTNOTES

1. Director: Demographic and Population Analysis, Department of National Health and Population Development.

2. The total fertility rate: The average number of children that would be born alive to a woman (or group of women) during her lifetime if she were to pass through her childbearing years conforming to the age-specific rates (rates obtained for specific age groups) of a given year (Haupt & Kane 1980:13).

3. The Population Reference Bureau defines demographic transition as "the historical shift of birth and death rates from high to low levels in a population. The decline of mortality usually precedes the decline in fertility, thus resulting in rapid population growth during the transition period." (Haupt & Kane 1980:7).

REFERENCES


