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**HIGH-LEVEL SEMINAR ON POPULATION AND DEVELOPMENT PLANNING
FOR GOVERNMENT MINISTERS (PLANNING)
AND HEADS OF PLANNING DEPARTMENTS**

(Noumea, New Caledonia, 20-22 August 1990)

REPORT

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Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The number of transformed cells was determined by the number of colonies growing on the selective medium. The results are the mean of three independent experiments. Error bars represent the standard deviation.

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the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion, and the number of people aged 65 and over is expected to increase from 250 million to 450 million (United Nations, 1994).

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1. *Chlorophyll a* (Chl *a*) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum.

Figure 1. The effect of the concentration of the *Ag* on the *Ag* adsorption capacity of the *Ag*-*Ag*2S-*Ag*2S2O3-*Ag*2S2O4-*Ag*2S2O6-*Ag*2S2O8-*Ag*2S2O10-*Ag*2S2O12-*Ag*2S2O14-*Ag*2S2O16-*Ag*2S2O18-*Ag*2S2O20-*Ag*2S2O22-*Ag*2S2O24-*Ag*2S2O26-*Ag*2S2O28-*Ag*2S2O30-*Ag*2S2O32-*Ag*2S2O34-*Ag*2S2O36-*Ag*2S2O38-*Ag*2S2O40-*Ag*2S2O42-*Ag*2S2O44-*Ag*2S2O46-*Ag*2S2O48-*Ag*2S2O50-*Ag*2S2O52-*Ag*2S2O54-*Ag*2S2O56-*Ag*2S2O58-*Ag*2S2O60-*Ag*2S2O62-*Ag*2S2O64-*Ag*2S2O66-*Ag*2S2O68-*Ag*2S2O70-*Ag*2S2O72-*Ag*2S2O74-*Ag*2S2O76-*Ag*2S2O78-*Ag*2S2O80-*Ag*2S2O82-*Ag*2S2O84-*Ag*2S2O86-*Ag*2S2O88-*Ag*2S2O90-*Ag*2S2O92-*Ag*2S2O94-*Ag*2S2O96-*Ag*2S2O98-*Ag*2S2O100-*Ag*2S2O102-*Ag*2S2O104-*Ag*2S2O106-*Ag*2S2O108-*Ag*2S2O110-*Ag*2S2O112-*Ag*2S2O114-*Ag*2S2O116-*Ag*2S2O118-*Ag*2S2O120-*Ag*2S2O122-*Ag*2S2O124-*Ag*2S2O126-*Ag*2S2O128-*Ag*2S2O130-*Ag*2S2O132-*Ag*2S2O134-*Ag*2S2O136-*Ag*2S2O138-*Ag*2S2O140-*Ag*2S2O142-*Ag*2S2O144-*Ag*2S2O146-*Ag*2S2O148-*Ag*2S2O150-*Ag*2S2O152-*Ag*2S2O154-*Ag*2S2O156-*Ag*2S2O158-*Ag*2S2O160-*Ag*2S2O162-*Ag*2S2O164-*Ag*2S2O166-*Ag*2S2O168-*Ag*2S2O170-*Ag*2S2O172-*Ag*2S2O174-*Ag*2S2O176-*Ag*2S2O178-*Ag*2S2O180-*Ag*2S2O182-*Ag*2S2O184-*Ag*2S2O186-*Ag*2S2O188-*Ag*2S2O190-*Ag*2S2O192-*Ag*2S2O194-*Ag*2S2O196-*Ag*2S2O198-*Ag*2S2O200-*Ag*2S2O202-*Ag*2S2O204-*Ag*2S2O206-*Ag*2S2O208-*Ag*2S2O210-*Ag*2S2O212-*Ag*2S2O214-*Ag*2S2O216-*Ag*2S2O218-*Ag*2S2O220-*Ag*2S2O222-*Ag*2S2O224-*Ag*2S2O226-*Ag*2S2O228-*Ag*2S2O230-*Ag*2S2O232-*Ag*2S2O234-*Ag*2S2O236-*Ag*2S2O238-*Ag*2S2O240-*Ag*2S2O242-*Ag*2S2O244-*Ag*2S2O246-*Ag*2S2O248-*Ag*2S2O250-*Ag*2S2O252-*Ag*2S2O254-*Ag*2S2O256-*Ag*2S2O258-*Ag*2S2O260-*Ag*2S2O262-*Ag*2S2O264-*Ag*2S2O266-*Ag*2S2O268-*Ag*2S2O270-*Ag*2S2O272-*Ag*2S2O274-*Ag*2S2O276-*Ag*2S2O278-*Ag*2S2O280-*Ag*2S2O282-*Ag*2S2O284-*Ag*2S2O286-*Ag*2S2O288-*Ag*2S2O290-*Ag*2S2O292-*Ag*2S2O294-*Ag*2S2O296-*Ag*2S2O298-*Ag*2S2O300-*Ag*2S2O302-*Ag*2S2O304-*Ag*2S2O306-*Ag*2S2O308-*Ag*2S2O310-*Ag*2S2O312-*Ag*2S2O314-*Ag*2S2O316-*Ag*2S2O318-*Ag*2S2O320-*Ag*2S2O322-*Ag*2S2O324-*Ag*2S2O326-*Ag*2S2O328-*Ag*2S2O330-*Ag*2S2O332-*Ag*2S2O334-*Ag*2S2O336-*Ag*2S2O338-*Ag*2S2O340-*Ag*2S2O342-*Ag*2S2O344-*Ag*2S2O346-*Ag*2S2O348-*Ag*2S2O350-*Ag*2S2O352-*Ag*2S2O354-*Ag*2S2O356-*Ag*2S2O358-*Ag*2S2O360-*Ag*2S2O362-*Ag*2S2O364-*Ag*2S2O366-*Ag*2S2O368-*Ag*2S2O370-*Ag*2S2O372-*Ag*2S2O374-*Ag*2S2O376-*Ag*2S2O378-*Ag*2S2O380-*Ag*2S2O382-*Ag*2S2O384-*Ag*2S2O386-*Ag*2S2O388-*Ag*2S2O390-*Ag*2S2O392-*Ag*2S2O394-*Ag*2S2O396-*Ag*2S2O398-*Ag*2S2O400-*Ag*2S2O402-*Ag*2S2O404-*Ag*2S2O406-*Ag*2S2O408-*Ag*2S2O410-*Ag*2S2O412-*Ag*2S2O414-*Ag*2S2O416-*Ag*2S2O418-*Ag*2S2O420-*Ag*2S2O422-*Ag*2S2O424-*Ag*2S2O426-*Ag*2S2O428-*Ag*2S2O430-*Ag*2S2O432-*Ag*2S2O434-*Ag*2S2O436-*Ag*2S2O438-*Ag*2S2O440-*Ag*2S2O442-*Ag*2S2O444-*Ag*2S2O446-*Ag*2S2O448-*Ag*2S2O450-*Ag*2S2O452-*Ag*2S2O454-*Ag*2S2O456-*Ag*2S2O458-*Ag*2S2O460-*Ag*2S2O462-*Ag*2S2O464-*Ag*2S2O466-*Ag*2S2O468-*Ag*2S2O470-*Ag*2S2O472-*Ag*2S2O474-*Ag*2S2O476-*Ag*2S2O478-*Ag*2S2O480-*Ag*2S2O482-*Ag*2S2O484-*Ag*2S2O486-*Ag*2S2O488-*Ag*2S2O490-*Ag*2S2O492-*Ag*2S2O494-*Ag*2S2O496-*Ag*2S2O498-*Ag*2S2O500-*Ag*2S2O502-*Ag*2S2O504-*Ag*2S2O506-*Ag*2S2O508-*Ag*2S2O510-*Ag*2S2O512-*Ag*2S2O514-*Ag*2S2O516-*Ag*2S2O518-*Ag*2S2O520-*Ag*2S2O522-*Ag*2S2O524-*Ag*2S2O526-*Ag*2S2O528-*Ag*2S2O530-*Ag*2S2O532-*Ag*2S2O534-*Ag*2S2O536-*Ag*2S2O538-*Ag*2S2O540-*Ag*2S2O542-*Ag*2S2O544-*Ag*2S2O546-

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 250 million to 450 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

6. *Conclusions* The authors would like to thank the referees for their constructive comments and suggestions. The authors would also like to thank the National Natural Science Foundation of China (Grant No. 70673006) for the financial support of this work.

— *Chlorophyll a* (mg g⁻¹ dry weight) = 12.72 (OD₆₈₀)^{0.78} (R² = 0.99) (Eq. 1)

[illegible]

2. $\frac{1}{2} \frac{d}{dt} \int_{\mathbb{R}^n} |u|^2 dx = \int_{\mathbb{R}^n} u \Delta u dx = - \int_{\mathbb{R}^n} |\nabla u|^2 dx \leq 0$

the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.5 billion, from 1.1 billion in 1990 to 2.6 billion in 2010. The number of people aged 65 and over is expected to increase by 1 billion, from 350 million in 1990 to 1.4 billion in 2010. The number of people aged 15-64 is expected to increase by 1.5 billion, from 1.1 billion in 1990 to 2.6 billion in 2010. The number of people aged 65 and over is expected to increase by 1 billion, from 350 million in 1990 to 1.4 billion in 2010. The number of people aged 15-64 is expected to increase by 1.5 billion, from 1.1 billion in 1990 to 2.6 billion in 2010.

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I. INTRODUCTION

The High-level Seminar on Population and Development Planning was held as part of the on-going SPC/UNFPA project on Technical Assistance in Integration of Population and Development Planning (RAS/87/P62).

The objectives of the Seminar were:

- (a) To create awareness among Government Ministers responsible for Planning Departments/ Ministries and Heads of Planning Departments in the Pacific Island countries, of the inter-relationships between population factors and national development;
- (b) To promote the integration of:
 - (i) demographic variables into the development planning process, and
 - (ii) population issues into development policy statements;
- (c) To identify and recommend strategies/priorities for dealing with the problems and issues related to population and development in the countries of the Pacific region.

The Seminar was held in Noumea at South Pacific Commission Headquarters from 20 to 22 August 1990.

The Seminar was conducted by the SPC Population Programme with the financial support of the United Nations Population Fund (UNFPA) and the South Pacific Commission (SPC).

My dear Mr. [Name] I have just received your letter of the 10th inst. and am glad to hear that you are well and happy. I am also well and hope to hear from you again soon.

Very truly yours,

I am sure that you will find the enclosed of interest. I have been thinking of you very much lately and hope that you are enjoying your work as much as I am.

With best wishes,

Yours faithfully,

[Signature]

Enclosed for you are the [Number] [Type of Document] which I have been thinking of for some time.

I am sure that you will find them of interest and hope that you will be able to use them in your work.

I am sure that you will find them of interest and hope that you will be able to use them in your work.

II. AGENDA AND PROGRAMME

Monday 20 August

13:30 - 14:45	Registration
14:45 - 15:00	Election of officers
15:00 - 16:30	Official opening
16:30 - 17:30	Keynote address - 'Population change and socio-economic development: issues'

Tuesday 21 August

07:45 - 08:45	Review of population issues in development plans
08:45 - 09:45	Population and economic development
10:15 - 11:15	Urbanisation and socio-economic problems
11:15 - 12:00	Youth, unemployment and appropriate education
12:00 - 13:00	Population, health and nutrition
14:00 - 15:00	The status and role of women
15:00 - 16:00	Integration of women in development
16:30 - 17:30	International migration and remittances
17:30 - 18:00	Demonstration of population dynamics software

Wednesday 22 August

07:45 - 08:30	Concerns of children and the aged in development
08:30 - 09:30	Population and the environment
09:30 - 10:30	Population change and socio-economic development: responses
11:00 - 12:00	Development of appropriate population programmes
12:00 - 13:00	General discussion
15:30 - 16:30	Reading of draft conclusions
16:30 - 17:45	Discussion of draft and acceptance of final recommendations
17:45 - 18:00	Official closing

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IV. SUMMARY OF DISCUSSIONS

A. OPENING SESSION

1. The Seminar was called to order by Dr Sundat Balkaran, SPC Demographer. He introduced the Secretary-General of SPC, Mr Atanraoi Baiteke, O.B.E., who gave the opening address. This is presented at Annex 1.
2. The Hon. J.H. Keil, M.P., Parliamentary Under-Secretary for Development, Prime Minister's Department, Government of Western Samoa, was elected Chairman of the Seminar and Ms Sarita Mani, Principal Planning Officer, Central Planning Office, Fiji, and Mr Lomia Gaulofa, Planning Officer, Tokelau, were elected rapporteurs. The SPC Secretariat was headed by Mme H  l  ne Courte, Director of Programmes, and the Conference Director was Dr Sundat Balkaran.
3. The keynote address was given by Professor Ian Pool, Director, Population Studies Centre, University of Waikato, Hamilton, New Zealand. His address is appended at Annex 2.
4. In introducing the subject, Professor Pool emphasised that the rationale of integrated Population and Development Planning had been defined by UNFPA in its global mandate as 'the harmonisation of population and sustained development in relation to the environment and the resource base'. This had been emphasised at other international conferences. Examples include the *Asia and Pacific Call for Action on Population and Development*, (1982) and the Amsterdam Declaration of 1989 which not only referred to the importance of the environment and the role of women in development but also called for the recognition of the importance of cultural factors. The 1989 declaration provided one of the most clearly spelt-out rationales for integrated population and development planning. It states that, 'to be effective a development strategy must reflect population concerns among its primary objectives [and] a population strategy must reflect development concerns. It must link population programmes to programmes on health, education, housing and employment...'.
 5. In the context of the Pacific region, Professor Pool identified a number of demographic issues that will require close attention. These include:
 - aspects of population growth, both rapid natural increase, and, in the case of Polynesia, high levels of emigration;
 - high levels of teenage pregnancy;
 - relatively high mortality levels in some countries;
 - rapid growth in the labour force (population 15 - 24 years);
 - rapid increases in the size of the new entrant component (15 - 24 years) to the economically active population, particularly in Melanesia;
 - numerical growth of both the young and elderly components of the population;
 - urbanisation and other patterns of population redistribution.
 6. Professor Pool's review of the major development sectors demonstrated linkages between population, development and the environment. These include sectors such as financial and fiscal, energy, transport and industry, as well as health, education, labour force and the environment. He emphasised that the linkages were strong, complex and multi-directional.
 7. During the second day of the Seminar and part of the third morning the delegates considered the relationship between population and various sectoral issues. The final session, based on a review paper presented by Professor Pool, considered the multi-directional complexity of the relationships.

B. REVIEW OF POPULATION ISSUES IN DEVELOPMENT PLANS

8. Dr Geoffrey Hayes of the University of Papua New Guinea presented an overview paper entitled *Integration of population into development planning in selected Pacific Island countries*. This paper examined the population content of the national development plans of eight Pacific Island countries. The population content ranged from virtually none to substantial. The integration of population data into development plans was found to be largely inadequate, this inadequacy generally being related to the relative low level of development of the country together with the lack of timely and accurate population data. The use of population projections was under-developed. The paper also discussed the appropriateness of certain demographic measures used in the plans, as well as inconsistency of usage across sectors within countries.

9. Dr Hayes also presented a paper on *Integrated population and development planning in Papua New Guinea*. This paper outlined recent changes related to population and development planning in that country. The establishment of a population policy planning unit in the Department of Finance and Planning was noted as a significant step toward an integrated approach and would provide relevant lessons for other Pacific countries. It was agreed that the population planning unit could play a role in resolving inconsistencies in future plans.

10. Questions were raised concerning uncertainties that have to be faced in attempting to gauge the impact of policies designed to influence demographic behaviour. It was suggested that contradictions and inconsistencies identified in planning exercises and their eventual resolution could symbolise the evolution of a sound planning process, as planning itself cannot be thought of as a one-time process. A more fundamental question, namely the existence of a sound planning base, was raised. It was generally agreed that, though the integration of population variables into development planning is important, this objective probably cannot be resolved if the economic planning process is itself a problem.

C. POPULATION AND ECONOMIC DEVELOPMENT

11. Mr Siliga Kofe, SPC Economist, in his paper entitled *Population and economic development*, gave a brief survey of historical and conventional theories on the relationships between population growth and economic development. Starting with the original Malthusian theory of population, Mr Kofe proceeded to consider neo-Malthusian, Marxist and anti-Malthusian theories. He pointed out that the neo-Malthusians provided the conceptional rationale for 'family planning' which regarded birth control as the principal variable likely to bring about the reduction in population growth that they considered necessary in order not to retard economic development. On the other hand, anti-Malthusians opposed the neo-Malthusian view, arguing that population growth spurs economic development since it increases the number of consumers and producers and also provides the incentive for advancements in production technology and government service. The paper went on to discuss the impact of population growth on demographic variables, the broad economic sectors affected by such population growth and also the impact of population growth on GDP growth. Finally Mr Kofe drew attention to what were described as 'other factors' which distort the direct impact of population growth on economic growth in the Pacific Islands. The two main factors identified were remittances and foreign aid inflows.

12. The discussion that followed focused on the advisability of introducing large-scale agricultural projects in small island countries. It was noted that these might have adverse repercussions on the environment.

D. URBANISATION AND SOCIO-ECONOMIC PROBLEMS

13. Dr Crosbie Walsh of Massey University, New Zealand, presented a paper on *Urbanisation and socio-economic problems* which cautioned against uncritical acceptance of words such as 'drift' and 'problems' in the analysis of migration patterns and questioned various untested assumptions about the causes and consequences of urbanisation. The paper also pointed out that several

generalisations concerning urbanisation may neither apply to all towns nor to all times and that urban sub-populations are not likely to be homogeneous. The need to provide realistic and appropriate definitions of 'unemployment' and to collect more relevant data was elaborated.

14. Discussion on the paper focused on the desire for appropriate definitions of 'urban areas' in order to facilitate comparisons over time.

E. YOUTH, UNEMPLOYMENT AND APPROPRIATE EDUCATION

15. A paper entitled *Youth, unemployment and appropriate education* was presented by Mr Pio B. Tikoisiva, SPC Youth Development Officer. The paper noted that while 50 per cent of the population of the South Pacific countries consists of young people, youth needs and aspirations do not appear to be effectively addressed in development planning. This contributes to large-scale unemployment which in turn increases the crime rate among youth. This lack of effective planning for youth creates other social problems such as rural to urban migration and a lack of commitment to rural life, together with low self-esteem and lack of confidence among young people generally. To address and resolve some of the existing youth problems effectively, planning decisions should emphasise strong family support for youth, involve youth in development plans and create specific projects for them. To begin to achieve some of these aims there should be a review of the relevance of existing teacher training programmes and facilities, the relevance of the school curriculum and the overall contribution of the education system to rural life. The role of academic examinations as an appropriate selection process was also questioned.

16. The discussion which followed noted that youth problems varied from country to country. However, the common issue was that of unemployment, which was associated with a number of factors. These included a lack of appropriate skills training for youth in both urban and rural areas. An important feature was the lack of opportunities for self-employment due to the non-availability of capital necessary to allow young people to set up their own business. Some delegates questioned the relevance and appropriateness of education/training to the prevailing physical and environmental conditions. Another point emphasised was the overall linkages of youth training to the employment sector. This was particularly of concern in respect to unemployed youth whose chances of gaining employment are slender, given their low educational levels and the lack of demand for untrained and unskilled labour.

F. POPULATION, HEALTH AND NUTRITION

17. Dr François Bach, Acting Co-ordinator of the SPC Community Health Services and Ms Cecily Dignan, SPC Nutritionist, jointly presented a working paper on this topic. Dr Bach gave a brief overview of the morbidity and mortality patterns in the South Pacific Island countries. He indicated that, until fairly recently, infectious diseases were rampant in the Pacific and were the major causes of morbidity and mortality. However, in the last two decades or so there had been a 'transition' in disease and mortality patterns. This transition was associated with dramatic increases in non-communicable diseases, which were now the major causes of morbidity and mortality in most of the Pacific. In addition the recent emergence and spread of sexually transmitted infectious diseases, such as AIDS, were also becoming critical in the Pacific. The Nutritionist's presentation focused on issues of food dependency and the emergence of non-communicable diseases in the Pacific. Food dependency (a heavy reliance on imported food) in the Pacific countries has encouraged the consumption of imported foods and as a consequence discouraged the development of local food production and commercial activities. The changing dietary patterns, together with other life-style changes, have contributed to a dramatic increase in non-communicable diseases in most of the Pacific Islands. To minimise the dual problems of food dependency and the prevalence of non-communicable diseases, positive policies and strategies which will improve production and consumption of local foods are required. This necessitates an integrated approach to rural development, involving not only the agricultural sector but also improved communication systems, appropriate school and education programmes for rural communities and provision of family planning education and services, all of which, if implemented, could ensure an adequate standard of living for rural people.

18. Discussion focused on two main issues. The first was that advertising was encouraging the consumption of imported and often less nutritious foods and it was felt that this should be discouraged. The point was also made that complete food self-sufficiency was not possible in small country situations.

G. THE STATUS AND ROLE OF WOMEN

19. A paper entitled *The status and role of women* was presented by Ms Bernadette Papilio, SPC Women's Programmes Development Officer.

20. The paper focused on the importance of integrating women in the development planning process. If women are to realise fully their potential, ability and skills, they should be provided equal access to opportunities and resources. To facilitate this, gender-related issues and women's concerns must be incorporated in all development plans.

21. To involve women in economic and social activities, it is necessary to formulate strategies which enable women to participate actively. This will involve improvements in health and education facilities for girls and women, greater employment opportunities in different sections of the economy for women, and attitudinal changes of parents, brothers and other male counterparts. Practical assistance to rural women, such as credit facilities and training in agriculture, fisheries and basic skills in communications, is being promoted by SPC's Pacific Women's Resource Bureau.

H. INTEGRATION OF WOMEN IN DEVELOPMENT

22. A paper entitled *Integration of women in development* was presented by Ms Salamo Fulivai, Regional Director, Office of the Young Women's Christian Association, Suva, Fiji.

23. Ms Fulivai stated that many obstacles in planning development were largely due to the neglect of possibilities for integrating and encouraging women's participation in development. This exclusion meant that a large proportion of significant productive resources were being ignored in the development process. In most development plans, women's issues were not only treated as social welfare issues, but were also separated at the macro level from mainstream economic activities.

24. To improve the role and status of Pacific women and incorporate their concerns effectively in development planning, it was necessary to consider strengthening socio-economic statistics pertaining to women. Such gender-specific statistics should be collected and analysed in a form and order which would emphasise women's overall contribution. Currently statistics did not fully reflect gender situations as they related to women.

25. Discussion on the women's papers was combined. It was agreed that integration of women in development planning was vital. Strategies should include incorporation of gender-related issues and concerns to facilitate effective and meaningful participation. The collection of data on gender differentiation was important for all forms of activities, not only to understand women's contribution to economic and social life but also to increase their participation in the national labour force, which would be a step forward to utilising their full potential.

I. INTERNATIONAL MIGRATION AND REMITTANCES

26. Dr John Connell of the University of Sydney presented a paper on *International migration from the South Pacific region*. At the outset he pointed out that the flows to countries on the fringe of the region had grown in volume in recent years principally for economic reasons (although social and political influences are also important), as a response to real and perceived spatial inequalities in socio-economic opportunities. The main flows had been from the Polynesian states, but recently the flows from Micronesia and Fiji had increased considerably. Often it was the more educated who migrated, hence migration could be seen as a skill or brain drain. Migration had

tended to result in falling agricultural production and in consequence the marketable surplus of agricultural produce had necessitated a compensatory increase in food imports. In some islands there had been a decline in population. These outflows had reduced population pressure on resources and could be seen as a 'safety valve' for a population growing as a result of high rates of natural increase. The outflow of people had resulted in a substantial inflow of remittances, much of which was used for the purchase of consumer goods. Dr Connell argued that the overall impact of international migration varied significantly within the region. Few countries had sought to influence migration directly, even at a national level. However, some countries had attempted to increase the level of international migration by seeking out overseas job opportunities and rights of residence in metropolitan states, while other countries had sought to encourage return migration. These responses varied according to the perception of the 'migration' problem and its relationship to national development. Dr Connell explained that few countries had examined in detail the impact of international migration, data were sometimes unavailable and most development plans said little about population distribution issues.

27. A number of interesting points emerged during the discussion. The first was the issue of whether population variables such as gender, marital status, age, etc. were used when statistics were collected. Secondly, it was noted that migration has positive as well as negative effects, for example the increasing export of traditional foods and artefacts for island immigrant consumption in metropolitan countries. The question was raised whether this dimension has been sufficiently explored in recent research and policy approaches.

J. CONCERNS OF CHILDREN AND THE AGED IN DEVELOPMENT

28. Dr A. C. Muthiah, SPC Population Specialist, presented a paper on *Concerns of children and the aged in development planning*, which provided country-level estimates of aging. The paper noted the significant role of international migration in aging and elaborated on the need for assessing the circumstances surrounding the aged through further analysis of available data and collection of further data. Infant mortality in the region was also discussed briefly.

K. POPULATION AND THE ENVIRONMENT

29. A paper entitled *Population and the environment: areas of environmental concern in the South Pacific region* was presented by Dr Vili Fuavao, Co-ordinator of the South Pacific Regional Environment Programme.

30. The paper focused attention on the growing number of environment-related concerns encountered in the South Pacific region, and was illustrated by slides showing the extent of damage and abuse to the environment in some countries. The existing environmental concerns in the region relate to such problems as the impact of sewage-related pollutants on coastal water quality, indiscriminate use of pesticides, deforestation and land degradation, increased sedimentation and destruction of the coastal habitat, the disposal of non-domestic waste, heavy metals pollution of coastal areas, climatic change and sea-level rise, over-exploitation of living marine resources, and the ever-growing problem of endangered species. Of these problems, marine-related abuse and exploitation are most common, as most of the population lives close to coastal areas in the region. Land degradation is also of concern, because of pressures resulting from population growth and rural/urban migration. The paper concluded by emphasising that to deal successfully with environment problems in the region, it is necessary to 'integrate planning with nature', which involves investigating the environmental impact of development plans, including the relationship between key natural resources and projected population increases.

31. The discussion focused on the existing environmental problems in some countries arising from development and industrialisation and what subsequent action was being taken to redress the adverse environmental impact. It was noted that the financial costs of containing/reducing environmental abuse were high and not affordable by small countries. Therefore such precautions as the discharge of sewage into the wide open ocean, rather than into static lagoons, and the protection/replanting of mangroves to prevent soil erosion, rather than building sea-walls, would minimise the undesirable impact and provide a less costly solution to the current reality of rapid development and population growth and their subsequent adverse effect on the environment.

L. POPULATION CHANGE AND SOCIO-ECONOMIC DEVELOPMENT: RESPONSES

32. Professor Pool presented a review (see Annex 3) of the points that had emerged during the seminar, many of which had been anticipated in his keynote address. He also discussed questions relating to how integrated population and development planning might be carried out. Central to his paper was a call to modify traditional planning concepts by ensuring that all development issues were linked with population and environmental development. He went on to argue that population planning should be viewed as being concerned with more than population dynamics and structure, stressing the inter-relationships with socio-economic development and the environment. The presentation contained an 'ideal' model for integrated population and development planning at the country level.

33. It was this model that stimulated most discussion. Professor Pool had, in his presentation, emphasised that the model would need to be adapted to the Pacific situation, and numerous delegates supported this by arguing that both financial and human resources were limited so that the ideal would be difficult to attain in most Pacific countries in the immediate future. There was discussion also of a French planning model 'aménagement du territoire', which integrates population, environment and development in a spatial context working up from the community level. While delegates suggested that South Pacific models should be developed within a Pacific context, the ILO observer emphasised the importance of taking account of experiences in other regions which would provide some guidelines and at the same time avoid the mistakes made elsewhere. It was generally agreed that as a step to gaining country-level self-sufficiency, there might be a need to develop regional-level self-sufficiency first. The point was also made that there was a need for greater co-ordination both between agencies and between agencies and countries.

M. DEVELOPMENT OF APPROPRIATE POPULATION PROGRAMMES

34. Two papers were presented in this session. The first, entitled *Developing population policies for Pacific Island countries: key issues and problems* was presented by Dr Peter Pirie. Dr Pirie observed that attitudes to population, economic development and population policies arise out of the unique historical, physical and cultural character of the Pacific Islands. Contact with Europeans initiated a series of population transitions, beginning with changes in mortality that now had persons surviving for longer periods and therefore having extended life expectancy levels. Other population transitions were also identified:

- The morbidity transition, whereby communicable diseases were largely supplanted by non-communicable and chronic diseases and those associated with modern living;
- The fertility transition, that results in controlled family size;
- The value-of-children transition, in which attitudes to large families are modified;
- The employment transition, whereby employment in traditional agriculture is diversified into secondary and tertiary activities;
- The education transition, whereby traditional informal education is replaced by formal education and widespread literacy;
- Mobility transition, which has an increasing proportion of all Pacific Islanders involved in mobility of various kinds: urban to rural, international and commuting.

The combined effect of these was a complete restructuring of the society whereby a 'middle class' was created as the major component in the social structure. These transitions were loosely related and would seem to be inevitable once the first set of changes, related to mortality, was accepted. Pacific Islanders were now obviously making the transitions spontaneously and at their own pace. One of the major forces behind the transitions was the low returns available from traditional agriculture. After considering the extreme views of the socio-economic situation in the Pacific, the

MIRAB model (Migration, Remittances, Aid and Bureaucracy) and various versions of the 'dependency theory', Dr Pirie concluded that none of the models provided a realistic basis for policy development related to population. Ambivalence over the rate and direction of transition was natural and to some extent desirable. It must be remembered, however, that the forces propelling the changes were powerful and would probably prevail. The role of planners should be to assist in the constructive realisation of the benefits to individual Pacific Islanders from this set of changes.

35. Dr Pirie's paper was followed by a paper entitled *What's wrong with family planning programmes?* presented by Dr Hamish Richards, Director of the Sir David Owen Population Centre, Cardiff. This paper assumed that the implicit objective of many national population programmes was the introduction of a small family norm, but this was contrary to traditional/cultural beliefs. Consequently motivational programmes should have a 'gradualist' approach, in terms of both content and time-frame but this was generally not the case. In addition, programmes were generally health- and female-oriented, with messages often being limited to global and national demographic data and contraceptive technology: no attempt was made to discuss underlying issues. It was argued that progress would only be made if programmes concentrated on family welfare issues and were directed as much to men as to women. It must never be forgotten that the recipients, rather than the experts, were the most important people in the development process.

36. The above topics were discussed together. Observations were made by delegates that family planning programmes were beginning to focus on men as well as women and on issues larger than contraception. For instance, in Fiji the family life education programme for youth attempted to create an awareness of the importance of family decision-making and the need for skills development. It was agreed that once the concepts of family life were established, it was easier to introduce both the concept of a smaller family norm and information that could facilitate the achievement of that objective. A view was expressed that the discussion on family planning programmes implicitly assumed that socio-cultural conditions favourable to smaller families already existed in many countries of the region.

37. One delegate raised a very fundamental point when he commented that while countries often attempt to obtain the views of the population as a whole, from village communities up to government level, on development issues, the donor agencies seek to impose conditions which block such attempts at effective integration involving grassroots participation.

38. Discussion also focused on the deficiencies of the MIRAB view of the situation in the Pacific. It was pointed out that aid given by metropolitan countries was frequently to their own benefit and that in the case of international migration in the Pacific, the metropolitan countries benefited from the inflow of people trained and educated at Island Government expense. Another observation was that the funnelling of aid into a bloated bureaucracy, which was used as a way of employing people and of income distribution, could better be directed to supporting village agriculture and making the rural areas more attractive so that migration would be reduced.

V. RECOMMENDATIONS

The Seminar made the following recommendations:

Recommendation No. 1

That all integrated population development planning should be grounded in country or regional issues. These should be defined not as population, nor as developmental, nor as environmental issues, but as the linkages between all of these.

Recommendation No. 2

That where traditional population programmes exist, these should be analysed to determine whether the programme is in fact adequately addressing population, development, youth, women and environmental linkages.

Recommendation No. 3

That in formulating country-level population programmes, two distinct dimensions should be identified:

- A planning and co-ordination dimension, including integrated population and development planning, which is pivotal to the programme in the sense that it provides rationale and benchmarks for evaluation;
- An implementation and service-delivery dimension which reaches from the national to the grassroots level and includes maternal and child health/family planning, information, education and communication, and data collection and analysis.

Recommendation No. 4

That the objectives of country projects concerned with population and development planning should be realistic in the context of resource availability.

Recommendation No. 5

That adequate resources be made available to ensure that appropriate human resource development and training is achieved.

Recommendation No. 6

That immediate attention be given to the development of appropriate indigenous methodologies and integration models. The application of such methodologies should be appropriate to the needs and characteristics of each Pacific Island country.

Recommendation No. 7

That, as a first step towards integrated population and development planning, countries prepare an inventory of measures, projects and activities in various sectors involving population-development interactions, identifying from this inventory whether or not population-development relationships have been adequately taken into account in sectoral policies and plans.

Recommendation No. 8

That national, regional and international organisations should be called upon to play a back-stopping role as appropriate. In particular, the South Pacific Commission should further strengthen its role in integrated population and development planning.

Recommendation No. 9

That the South Pacific Commission, through the South Pacific Organisations Co-ordinating Committee (SPOCC), co-ordinate regional activities in integrated population and development planning.

SPC/POPN.SEMINAR/WP. 1 **Review of population issues in development plans**
– Dr Geoffrey Hayes and Secretariat

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| WP. 2 | Integrated population and development in Papua New Guinea
– Dr Geoffrey Hayes |
| WP. 3 | Population and economic development
– Secretariat |
| WP. 4 | Urbanisation and socio-economic problems
– Dr Crosbie Walsh |
| WP. 5 | Youth, unemployment and appropriate education
– Secretariat |
| WP. 6 | Population, health and nutrition
– Secretariat |
| WP. 7 | Concerns of children and the aged in development
– Secretariat |
| WP. 8 | The status and role of women
– Secretariat |
| WP. 9 | Integration of women in development
– Ms Salamo Fulivai |
| WP.10 | Population and the environment
– Secretariat |
| WP.11 | International migration and remittances
– Dr John Connell |
| WP.12 | Population change and socio-economic development: responses
– Dr Ian Pool |
| WP.13 | What's wrong with family planning programmes?
– Dr Hamish Richards |
| WP.14 | Development of appropriate population programmes
– Dr Peter Pirie |

Informal Papers

SPC/POPN.SEMINAR/Informal 1	List of Participants
Informal 2	General information sheet
Informal 2A	List of Working and Informal Papers
Informal 3	Integrated human resource development: people and planning in the Pacific – Dr John Connell
Informal 4	Population and human resources development – Dr Hamish Richards
Informal 5	Human resources development in the Pacific Island developing countries – Helen Hughes et al.
Informal 6	The UNFPA Amsterdam Declaration
Informal 7	Asia-Pacific Call for Action on Population and Development

Country Papers

SPC/POPN.SEMINAR/CP. 1	Papua New Guinea
CP. 1A	Papua New Guinea
CP. 2	French Polynesia
CP. 3	Tokelau
CP. 4	Fiji
CP. 5	Western Samoa
CP. 6	Federated States of Micronesia
CP. 7	American Samoa

**ADDRESS BY MR ATANRAOI BAITEKE O.B.E., SECRETARY GENERAL,
SOUTH PACIFIC COMMISSION**

I would like to welcome you all to the South Pacific Commission. For those who have been to SPC before, we welcome you again, and for those who are here for the first time, we give you a special welcome. We in the SPC are very delighted to have you all with us. This is an important seminar and we are very grateful for your presence.

While this seminar is being implemented by the Population Programme of SPC with the financial involvement of the United Nations Population Fund (UNFPA), you will note from the agenda that SPC programmes other than Population are making a significant input. These include Economics, Environment, Health, Youth and Women. This is appropriate in a seminar where the primary objective is to create an awareness of the inter-relationships between population issues and national development planning.

In planning and now implementing the seminar, the various SPC units have combined together, thus emphasising, even at the preparatory stages of this meeting, that close and significant inter-relationships exist and can be positively exploited in the sphere of population and socio-economic development.

While the longer-term objective of the seminar is to promote the integration of demographic variables into the development planning process and population issues into development policy statements, perhaps the initial objective may be described as *creating an awareness of the existence of population problems within the countries of the region.*

In many cases population problems exist without even being identified as such. These problems range from the growth in school-age numbers to inter-island and international migration. The problem of unemployment and under-employment, especially of young people, which has the potential to bring about a negative change in traditional values including a breakdown in law and order, is basically a population problem and is best tackled as such.

What has to be appreciated at the outset is that population growth can and often does lead to instability. At the present time, of the 22 countries and territories in the region, only Niue, Palau, Pitcairn and Tokelau are not experiencing population growth. In the 18 where population is growing, the average annual rates range from one to over four per cent, with ten having rates of two per cent or more per annum. With few exceptions, the populations of the Pacific countries are as large as they have ever been. The post-war demographic pattern in most countries has been one of high birth-rates and declining death-rates. This improvement in mortality and its impact on population growth is a positive feature that must always be borne in mind, but average life expectancy is still low by both western and biblical standards! 'Three score years and ten' is not even a dream in Papua New Guinea, where average life-expectancy at birth is still only about 55 years. In other parts of the world, Niger for example, it is 45 years. So death-rates still need to be brought down and if this happens, then population will increase even if the number of births remains the same. We should also be aware of the interesting issue of short but happy lives or relatively long but problematic and unhappy lives.

Instability resulting from population growth may be identified in various forms. A growing labour supply without new jobs being created means unemployment; there are short-falls in public and community services such as the provision of school places and medical facilities; people move because of pressure on the land, either internally or to international destinations. Such migration flows inevitably disrupt traditional agricultural and social patterns, while internal migration creates social and economic pressures in urban areas, which in turn generate environmental problems. Urban unemployment creates poverty, which is reflected in the emergence of 'shanty-towns' that lead to a deterioration in health and nutrition and give rise to problems of sanitation, while housing no longer meets the standards of earlier years; the rivers, streams and open spaces of

urban areas become polluted with the waste of a more consumer-oriented society. In other words, we have a catalogue of inter-related social, economic and cultural problems which start with population change and end with environmental degradation.

Population growth, then, is clearly a destabilising factor the dynamic implications of which should be provided for in the formulation of all sectoral plans.

The overriding aim of all national development programmes is to improve the quality of life of the people. But as the number of people increase, so the task of improving socio-economic conditions becomes more difficult. It should therefore be clear that the primary objective of those responsible for formulating national development plans should be to adopt an integrated and balanced approach to population, resources and development, designed to promote population stability. But this has to be planned for, hence the relevance of integrating population issues into the socio-economic development process.

There is, however, another important factor to be borne in mind. That is that population numbers are not determined by politicians and planners but by individual couples. Ultimately national population size is no more and no less than the aggregate of decisions made at the family level. But perhaps that is not strictly true. Perhaps the phrase 'action taken' rather than 'decisions made' would more closely reflect reality. At the present time in most countries of the region, national population size reflects 'action taken' and not 'decisions made' by couples. But positive population/family welfare programmes, which would inform couples that appropriate methods can prevent unwanted pregnancies, could lead them to make informed decisions with respect to family size and by so doing, bring about population stability. But this can only be achieved if national leaders encourage the formulation of appropriate and acceptable motivational activities.

Clearly, planning is called for and that should be integrated, sector by sector.

The agenda of this seminar has been devised to present these issues to you. I am sure they will be expressed in a manner that will influence you to return to your respective countries and territories convinced of the relevance of population and development planning and of the need to take the appropriate action necessary to attain the objectives of this meeting. If this is done, the inevitable result will be an improvement in the well-being of the people.

I welcome you once again to the SPC and wish you well in your deliberations.

KEYNOTE ADDRESS

POPULATION CHANGE AND SOCIO-ECONOMIC DEVELOPMENT: ISSUES

by Dr Ian Pool, Professor and Director, Population Studies Centre,
University of Waikato, Hamilton, New Zealand

A. From *Call for Action* to implementation of integrated population and development planning (PDP) : Why are we here at this seminar?

1. For the last two decades the notion of integrating population factors into development planning has been strongly advocated by international agencies, and by fora of nation-states. An example is the *Asian and Pacific Call for Action on Population and Development* from the 1982 Asian and Pacific Population Conference in Colombo, where numerous Pacific countries were represented. Recently this has again been underlined by the Amsterdam Declaration of the United Nations Population Fund (UNFPA), adopted by 79 countries, including Australia and Fiji, participating at that forum.

2. To date, however, the call for action has not yet been matched satisfactorily by on-the-ground implementation across all countries in the world and all regional and sub-regional development organisations. There have been some very notable steps forward. The formulation and implementation of integrated maternal and child health/family planning (MCH/FP) programmes in many countries is an important development, but is merely one sector. It is a non-Malthusian approach to population and health, that is with an emphasis on the health of mothers and babies. Other examples might be the creation of population planning units in some countries, or the strengthening of sub-regional capacities in this domain. In our region of the South and mid-North Pacific, this is exemplified by the moves being undertaken by the SPC, such as this very meeting. Thus the first agenda item for this seminar, particularly in the country presentations and in the review of development plans this afternoon, is a stocktaking of the steps already made towards integrated Population development planning (PDP) in the developing countries of the Pacific.

3. In this context, I must stress that integrated PDP is not an exercise being foisted on the less developed countries by the international agencies. On the contrary, it is something which is essential for all nation-states. My own country, a Pacific Island state, has recently completed a framework for this in a document prepared by an Inter-Departmental Committee. Within the New Zealand Planning Council there has been a Population Monitoring Group for a number of years. To take other examples, France for decades has not only monitored population trends, but has had well developed mechanisms for integration within its highly structured planning commissions. Both Australia and the United States have had high-level enquiries into population policy concerns.

4. These comments should not be taken to suggest that the developing countries are behind the industrialised in this regard – in fact some of the most advanced integrated PDP I have seen is in the very poorest countries in the Sahel region of West Africa. In some senses the starkly defined problems they must confront – population in relation to limited environments and resources, in the face of low returns from commodity exports – provide useful cross-comparisons for the Pacific's issues to be discussed in this seminar.

5. These examples aside, however, the progress of integrated PDP has been slower than might have been hoped, in both developing and developed countries. Thus a second agenda item for this seminar is the identification of current and emerging issues, and future responses to integrated PDP in the SPC region. The seminar's programme will thus permit us to take a major step forward in meeting what is an urgent need in our region. Together, and particularly through the knowledge base provided by the country experts, we should be able to make an inventory of substantive problems to be faced, and to design the overall features of an action programme for the region.

6. The remainder of my paper introduces the two agenda items just outlined. It does this by underlining firstly the importance of integrated PDP by discussing its *raison d'être*. Before proceeding further it will also have to provide a summary definition of PDP, although I will wait till my paper on Wednesday to go into this in greater detail. I must stress that conceptualisation is not some academic issue – evaluations across the developing world have shown that a failure to conceptualise has had profound and undesirable practical consequences. Then my paper today will outline issues which will be addressed in greater detail in the subsequent substantive sessions.

B. Raison d'être of integrated PDP

7. A useful, simple and elegant starting point is to paraphrase UNFPA's global mandate to highlight the need for population programmes as components of development:

The harmonisation of population and sustained development, in relation to the environment and the resource base.

The particular role of integrated PDP is to insure that the inter-relationships between population and these other factors are identified, and disharmonious features diagnosed so that they can be eliminated.

8. The *Asia and Pacific Call for Action* adopted at the Third Asian and Pacific Population Conference at Colombo in 1982 defined this further (ESCAP 1988). It is reprinted in paper Informal 7, but I wish to summarise a few key points here.

- (i) The very first 'Principle' in that document stresses the links between population and development.
- (ii) The first two 'Objectives' stress the need to 'adopt an integrated and balanced approach to population, resources and development;' and 'To promote and reinforce the understanding and appreciation of current and future population dynamics and the interrelationships between population and development; ...'.
- (iii) These principles and objectives very specifically define our purpose here at this seminar.
- (iv) The very first recommendation states 'An integrated approach should be evolved and followed in regard to population and related programmes of economic and social development'.
- (v) The particular problems of the small Island states are clearly spelt out in this document. This significant input from the small Island countries stems, I must add, from the fact that ESCAP and SPC had co-operated in holding a pre-conference seminar, from which a paper was prepared and presented to the main conference.

9. A recently formulated argument for integrated PDP is in the Amsterdam Declaration drawn up at a forum organised by UNFPA in November 1989. This document, also termed *A better life for future generations*, is available to you as Informal Paper 6, but I wish to summarise a few points here (UNFPA 1989).

- (i) It reaffirmed the World Population Plan of Action adopted at Mexico City in 1984, which had drawn on the regional plans of action, such as that of the Asia-Pacific region to which I have just made reference.
- (ii) It stressed a point of major significance for our meeting here: 'that the principal aim of social, economic and cultural development, of which population policies and programmes are integral parts, is to improve the quality of life of the people'. Put another way, 'population studies' and demography, it should be stressed, are 'not about counting people, but making sure that people count'.
- (iii) This declaration also argued 'that the current structural adjustments programmes in developing countries should not be allowed to erode their ability to provide basic services to their population...'
- (iv) In para 9 this declaration provides one of the most clearly spelt out rationales for integrated PDP that I have ever seen:

To be effective, a development strategy must reflect population concerns among its primary objectives. Similarly, a population strategy must reflect development concerns. It must link population programmes to programmes on health, education, housing and employment, among others. Indeed, it is only through such linkages that sustainable development can be achieved.

- (v) It gives greater emphasis than previous declarations to cultural development as an integral component of all development.
- (vi) It also more specifically identifies linkages with the environment. For example it calls on 'all countries':

To adopt integrated population, environmental and natural resource management policies, including those which address population movement and distribution with the objective of minimizing their negative consequences.

Thus it also clearly diagnoses the impact of population distribution on the environment.

- (vii) Last, but not least, this declaration strongly emphasises the need 'to ensure that women participate in and benefit from all population and development activities'.

C. Identifying Pacific population issues : a brief summary

10. I wish to turn now to the major population issues in the Pacific region. These will be detailed by other speakers, but in my paper there is a need to summarise patterns and trends. This is in keeping with a major principle in the field of PDP derived from evaluations of PDP projects across the entire Third World: *PDP programmes/projects must be grounded in the issues of PDP in each country or region.*

Growth and its components

11. In Figure 1, the total growth of South Pacific regions is compared with that of other world regions. Melanesia rivals the world's fastest growing region, Africa, but the other two regions fall below the level for the Less Developed Countries (LDCs) as a whole.

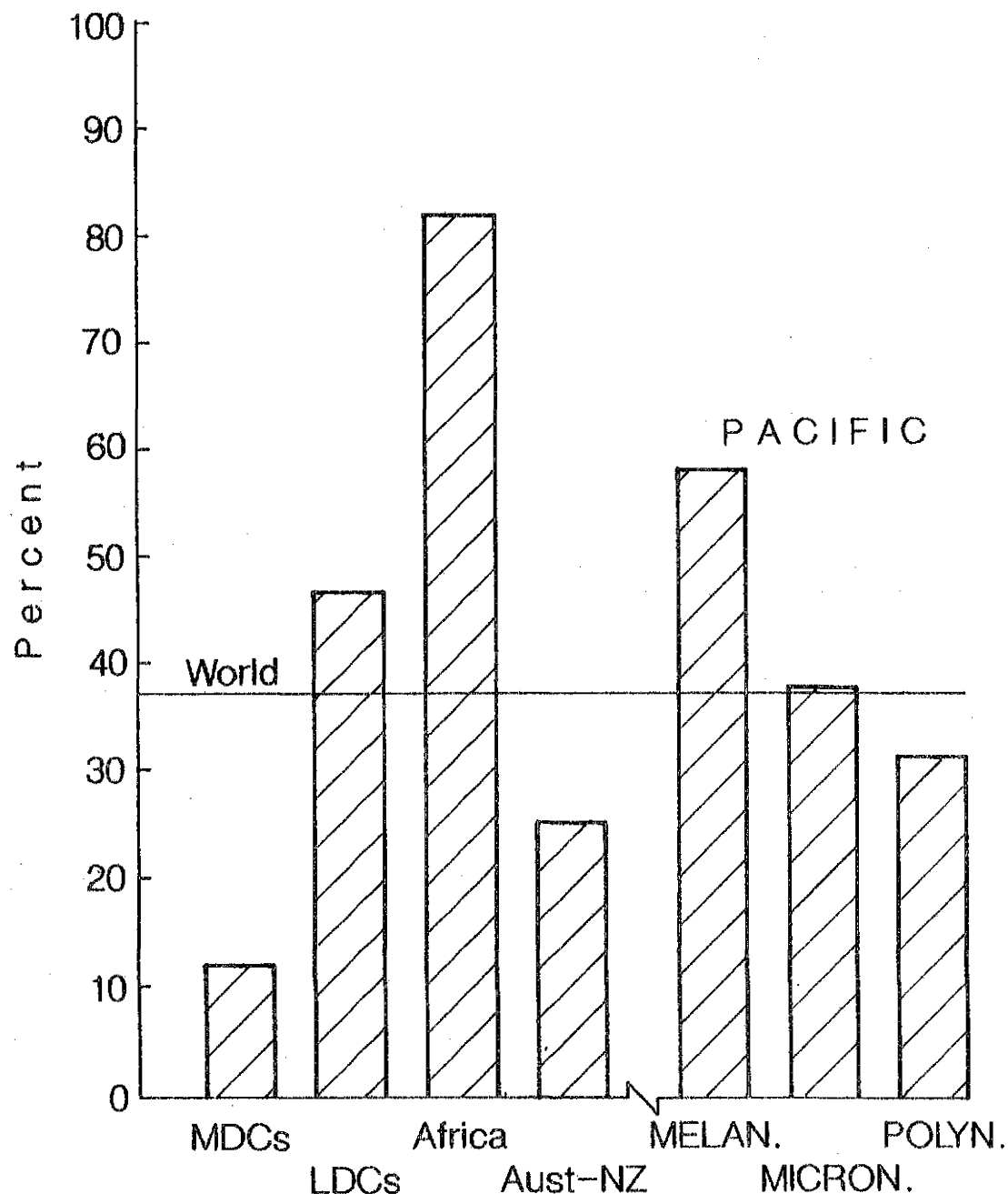


Figure 1: Total population growth (%), 1980–2000

Source: United Nations (1988a).

12. In contrast, the Pacific countries have very high rates of natural increase by world and even by LDC standards, as is shown on Figure 2. The high rates of natural increase come from the continuation of relatively high birth-rates, as against the achievement of low death-rates, particularly in the cases of Micronesia and Polynesia. This is in part a function of the young age distribution of the countries of the region. Nevertheless, even when age composition is controlled for, as in Figure 3, the Pacific countries deviate markedly and systematically from the norm. Normally, high fertility is found in countries with low levels of life expectation, but in the Pacific relatively high fertility often occurs in the face of satisfactory levels of life expectation. That said, however, the levels of life expectation experienced in some parts of Melanesia and Micronesia are low by comparison with Asia. This is a rather disturbing feature of Pacific demography.

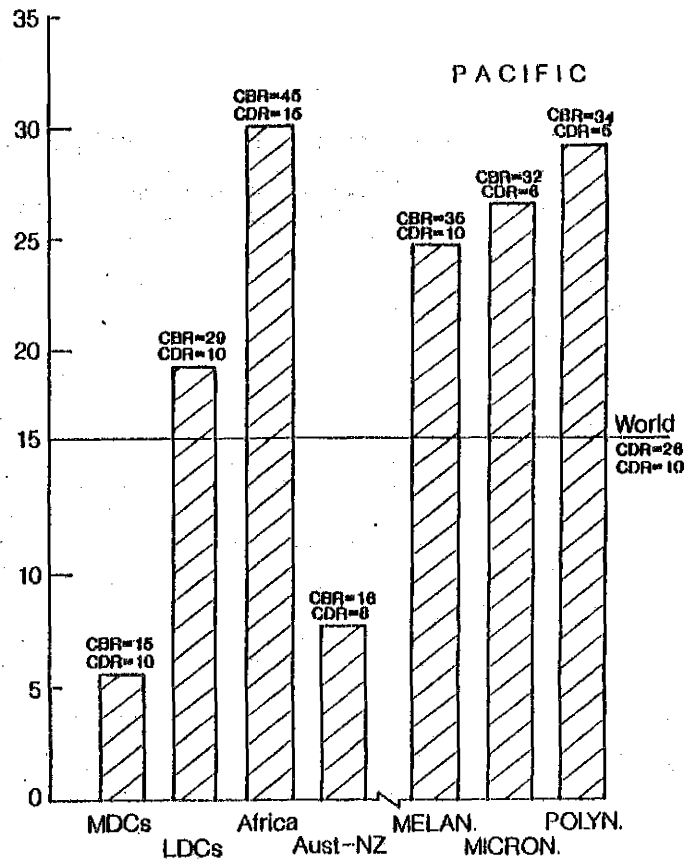


Figure 2: Rates of national increase (RNI = CBR - CDR) per 1000, 1985-90;

Component rates CBR = Crude Birth Rate
CDR = Crude Death Rate

Source: United Nations (1988a).

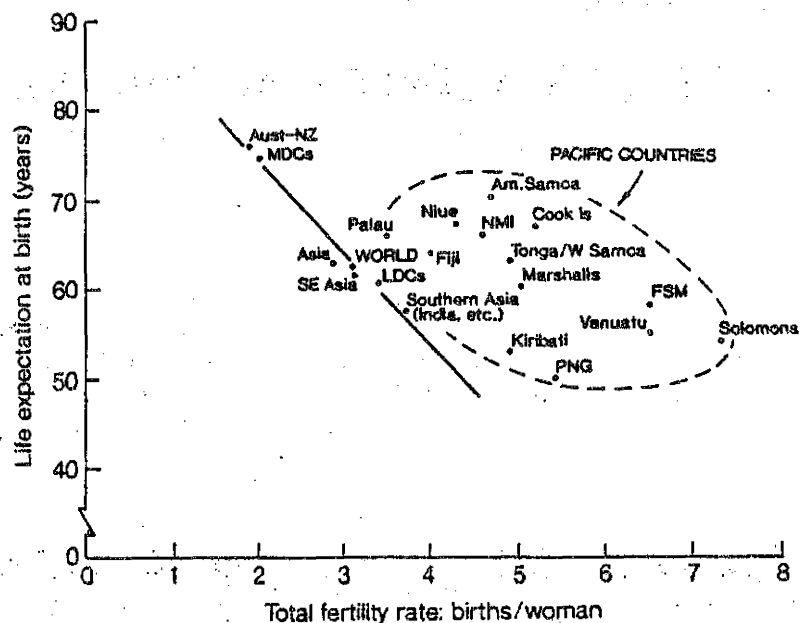


Figure 3: Components of natural increase, life expectation and fertility

Sources: Regions, UN (1988); Pacific countries, Bedford (1990).

13. As is shown in Figure 4, a major reason why the Pacific growth rates, as against rates of natural increase, are low, is that many of the countries lose population through emigration. In some cases in Polynesia this loss is massive.

		Average annual rates of growth (RPG) (%)			
		Below RNI	About the same as RNI (Diff. +/- 0.4% or less)	Above RNI	
Average annual rates of natural increase (RNI) (%)	Above RPG	American Samoa* Cook Is* Niue* Tokelau* Western Samoa* Fiji New Caledonia* Nauru* FSM Palau* (11)			Countries of EMIGRATION
	About the same as RPG		Tuvalu Papua New Guinea Solomons Vanuatu Guam Kiribati Marshall Is Northern Marianas (8)		Countries with very limited NET MIGRATION
	Below RPG			French Polynesia Wallis and Futuna* (2)	Countries of IMMIGRATION

Figure 4: Components of growth, mid-1980s

The countries marked with an asterisk show more than 1.0 percentage point difference between the RPG and the RNI.

Source: Bedford (1990).

14. In sum, this leaves us with two urgent questions:

- What are the costs of sustaining these high rates of natural increase?
- Is it desirable for Micronesia, and particularly for Polynesia, to reduce the effects of very high rates of natural increase through emigration?

Composition : labour force

15. In part the questions just posed may be pre-empted by decreases in fertility, but for the foreseeable future the effects of previous high levels of fertility will be seen in problems of the Pacific labour market. The very general and unfavourable labour force trends I am about to show will become even more severe if emigration to Australia, New Zealand and the United States is cut off.

16. Figure 5 dramatically sets the scene for one of the most critical issues for integrated PDP in this region. Firstly, it indicates that the economically active population is growing at about the level, generally a little above, that of the population as a whole.

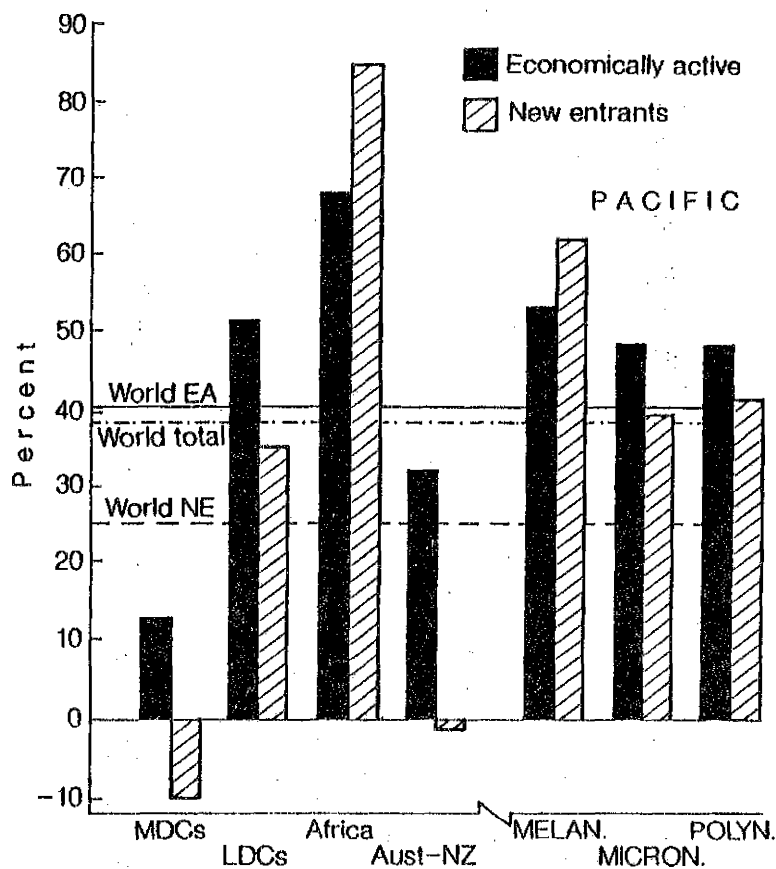


Figure 5: Growth (%) of economically active (EA) population and labour force new entrants (NE) population (18–23 years), 1980–2000

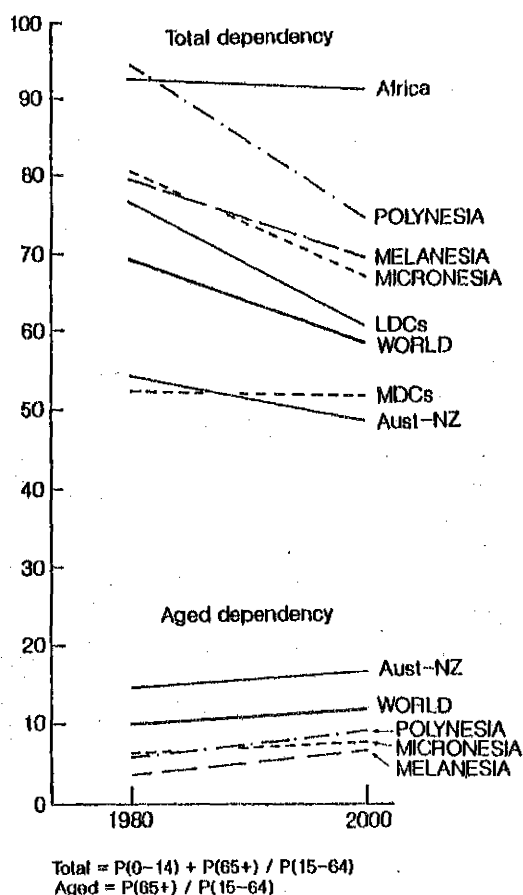
Source: United Nations (1988a).

17. Secondly, and despite emigration, the size of the economically active population of the Pacific countries will grow rapidly by world and developing country standards. Clearly this has major implications for job creation over the next few decades.

18. Thirdly, because of recent declines in fertility, the new entrants age group, at 15–24 years, will generally grow at a slower pace than the labour force as a whole. On the graph, however, two regions differ from this normal pattern: Africa and Melanesia. This means that Melanesian labour force planners are faced not only with having to find employment for a rapidly expanding labour force, but also with meeting the needs of the volatile young worker population.

19. Finally, one other feature of this graph needs noting – the decreases in the sizes of the new entrant age group in the MDCs, including Australia and New Zealand. It is certain that the developed countries will meet this by increasing their attraction of workers from the Third World into two areas of the labour force – the less skilled service industries, and the highly skilled professions. These migrant workers from the LDCs to the MDCs are also likely to be younger workers. All of these features will have major and probably undesirable effects on the domestic labour markets of some Pacific countries. This may offset the advantages gained from the effects of emigration on the growth rate.

20. The relationship between the labour force and the dependent population is shown in Figure 6. In the Pacific, as elsewhere in the developing world, dependency is generally affected by a young rather than an older age structure. In fact, over the next decade youth dependency will decline because of decreases in fertility. While aged dependency is very much a developed country characteristic, there will be some increase in this in the Pacific.



**Figure 6: Shifts in dependency (%),
1980-2000**

Source: United Nations (1984).

Composition: age structure

21. Aging is defined conventionally in terms of the proportion of the population at older ages. At present and in the immediate future this is very much a developed country issue – while only a quarter of the world's people live in developed countries, half of all its elderly are found there. It is a strange twist of fate that those cultures in which age gives status have low percentages at older ages, while those populations in which age is less revered have 10 per cent or more of their people at older ages.

22. There is, however, another way of viewing aging: the numerical growth of the older population. Here, as is shown in Figure 7, the Pacific, particularly Melanesia and Polynesia, stands out as having very rapid growth patterns. Thus not only must rapid labour force growth, particularly of new entrants, be catered for, but in planning the Pacific countries have to accommodate, in all senses of that word, a rapidly growing geriatric population.

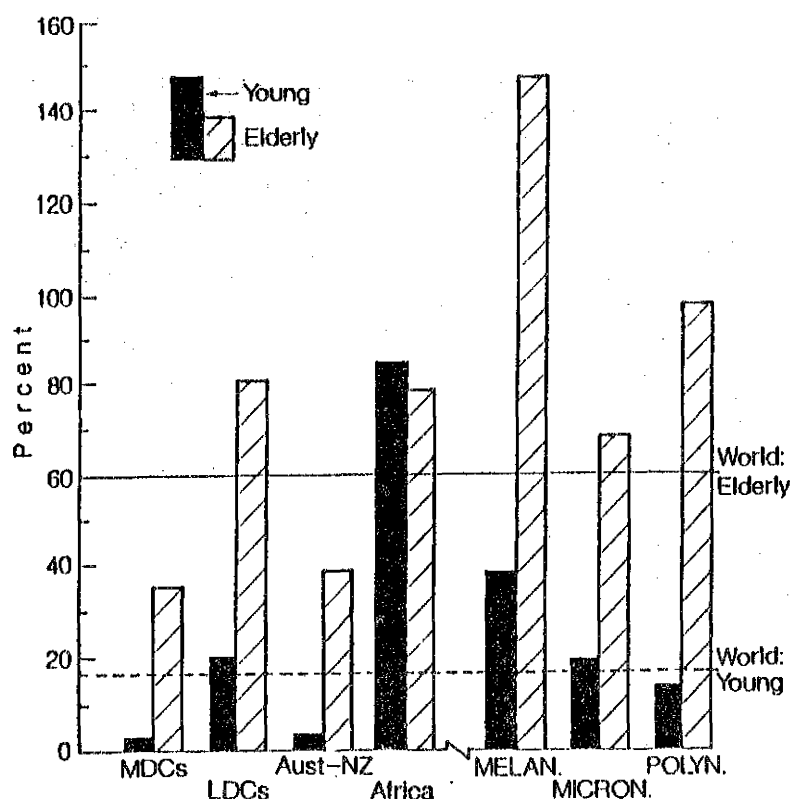


Figure 7: Growth %, 1980-2000: young (0-14 years) and elderly (65+ years) populations

Source: United Nations (1988a).

23. This is not the only problematic composition change. In Micronesia and Melanesia the populations at youngest ages will also be growing more than is generally the case, although their trend in this regard is overshadowed by Africa's.

Population distribution

24. Of the nine Pacific countries replying to the United Nations 1987 population monitoring survey, eight saw their spatial distribution as partially or completely inappropriate, and four of the nine had policies attempting to decelerate or reverse internal migration. In my address I will not attempt to analyse this area which is very complex and highly significant for integrated PDP exercises.

25. Nevertheless, two important points must be made.

- (i) Population densities are generally high. This may seem incorrect for some of the regions of say Papua New Guinea or the Solomons, but let us examine that a little further for Papua New Guinea. Certainly crude densities are usually fairly low in its provinces, but some areas of Central Chimbu reach '80 persons per square kilometre,... and as high as 190'. In general, however, and here I quote Lam (1982), 'it would appear that there are only limited pressures on land resources on a nation-wide basis, even under existing agricultural technologies. Moreover, a significant scope exists for expanded production of subsistence and cash crops'. He/she then continues, 'At the same time, there are a few pockets of considerable population pressure on arable land. Furthermore, several large tracts of good but sparsely settled land lie in relatively inaccessible areas at present. Full utilisation of such idle resources would require a massive amount of public investment in infrastructure facilities, in resettlement schemes and also in the eradication of endemic malaria'. The point here is that crude densities are a very poor measure of population pressure and instead as an index of population pressure one must turn to relative density: to the relationship of population to arable land, to technology and to resources.

- (ii) To complicate the issues further, internal migration trends will alter relative densities. Mobility may take many forms: circular mobility, flows to economic foci from remote regions or outer islands, and urbanisation. Figure 8 illustrates merely one aspect of one of these trends. As can be seen, Melanesia and Micronesia stand out as having particularly rapid increases, Polynesia less so, in part because their urban migrants will often be shifting to Los Angeles, Oahu, Auckland, Wellington or Sydney. Rapid urban growth does not necessarily reduce rural pressures or rural labour surpluses. To take Papua New Guinea again, its overall average annual rate of growth in the period 1985–90 will have been 2.4 per cent, its urban growth 4.5 per cent, but its rural growth still a high level of 2.0 per cent (UN 1988a).

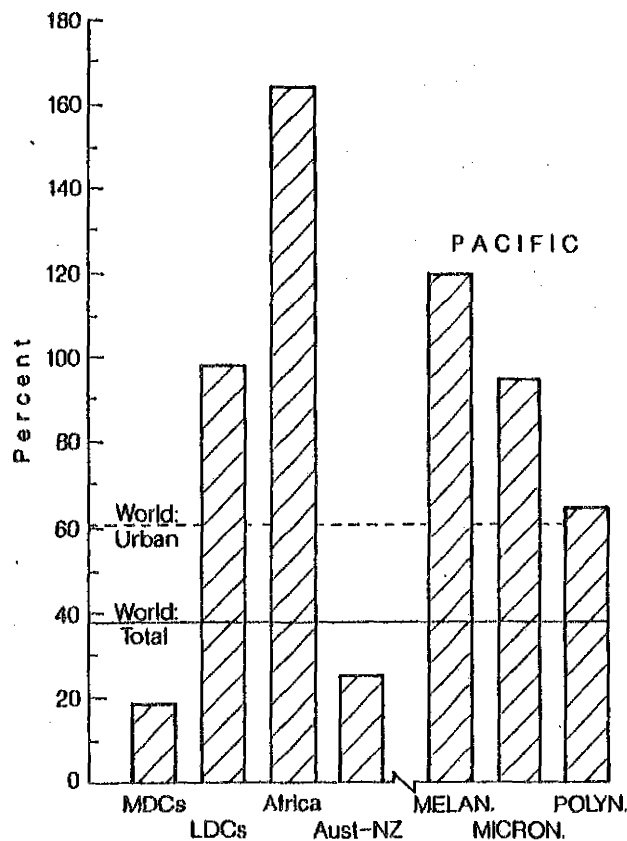


Figure 8: Urban growth, 1980–2000:
per cent increase in numbers

Source: United Nations (1988a).

D. Population – development relationships

26. I will now deal with the most critical aspect of our meeting, because the major *raison d'être* for integrated PDP is the importance of recognising linkages between these factors, as was spelt out at the beginning of my address. It must be reiterated that these linkages are two-way. In fact, they are complex and multidimensional, involving simultaneously a range of population factors and different development sectors. In the words of the Amsterdam Declaration (UNFPA 1989, para 16):

The population issue is an intrinsic part of general economic and social development. Changes in population both influence and respond to changes in other areas, including income levels, economic growth, education, employment, health and status of women.

27. In this presentation I have identified a number of key development sectors and sub-sectors, and will analyse, one by one, relevant population linkages. Appendices A–F summarise these relationships, which will be discussed in some detail in my text, although I cannot hope to cover all, nor to do justice even to the examples I have selected.

28. Beyond the particular sectors I will be discussing here, I must stress that there are underlying development constraints operating in the region. These include:

- Environmental limitations and a fragile ecology, both for high islands and atolls, and even large islands, which are mountainous, with limited arable zones;
- Problems of transport and communications, and a lack of infrastructure;
- A lack of highly skilled people, and associated with that, small and fragile bureaucracies, which, nevertheless, are the major monetary sector employers;
- A lack of local capital for development and investment, thus leading to off-shore borrowing, and reliance on external aid and remittances;
- Depressed commodity prices, added to problems of servicing markets;
- Problems meeting objectives of self-reliance, particularly for basic foodstuffs, and thus dependence on imports.

Cultural and social sector (Appendix A)

29. I start with this sector because unless it is addressed there is no point to development. It will be noted also that I refer to cultural factors, something normally lacking in development planning, yet an essential element of national well-being and self-reliance. In other words, I am arguing that development is far more than mere concern over economic growth and the material aspects of life.

30. For most countries and their cultural groups, the protection of the integrity of the population is basic to all development. Increasingly in the Pacific, particularly Polynesia, this is threatened by migration. Hayes (1990) has shown that 66 per cent of all Cook Islanders, 78 per cent of Niueans, 22 per cent of Tongans and 36 per cent of Samoans (Western and American) live outside their cultural hearth. The *Asia and Pacific Call to Action* argues (ESCAP 1988):

The small island states, particularly those subject to emigration, are urged to formulate social, economic and population policies which would maintain their demographic and cultural viability.

31. Basic needs (food, shelter, air, water, energy, clothing) plus health and education, are very much affected by population patterns and trends. The capacity to meet these or to provide basic services will be affected not only by growth, but also by shifts in the cohort composition or in distribution. This is because the profile of basic needs varies from one life-cycle stage to another, as is shown by Figure 9. Demand for basic needs is thus determined by population, and success in meeting these needs is measured against demographic data.

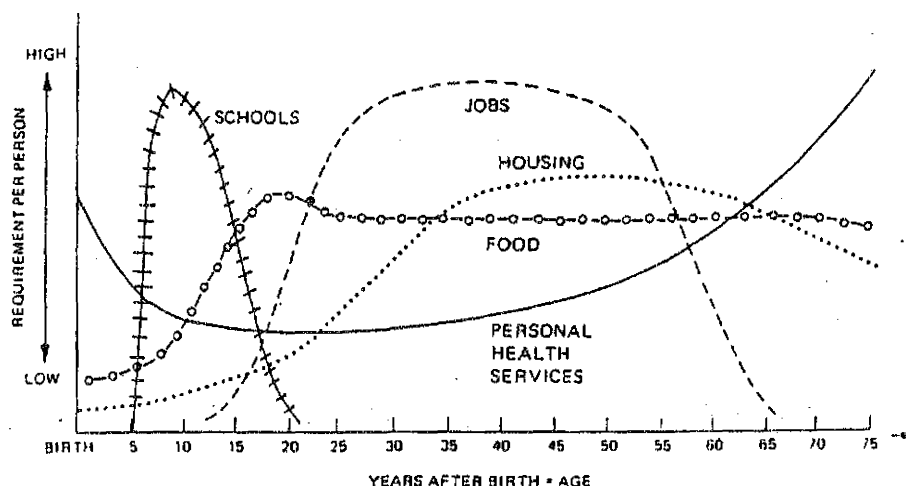


Figure 9: Time relationships between a birth and future service requirements (basic needs)

Source: Corsa and Oakley (1971), Fig. 2.

32. One might add that differential demand over the life-cycle for all goods and services, whether they be basic needs, commercial products, social and other services, or discretionary expenditure, is the fundamental reason for all age composition – development relationships. Moreover, and time does not permit the exploration of this point here, as cohorts of differing size reach these key life cycle stages this gives yet another dimension to differentials in demand. To render this situation even more complex, with changes in the timing and spacing of births and other factors, cohorts reach these life cycle stages at varying chronological ages. And, as if this were not complex enough already, these factors combine to produce varying durations between generations, which will be of varying sizes. This last point is critical to an understanding of what are termed inter-generational transfers. At the micro level this involves the care of children by parents, or of the elderly by adult offspring, and at the macro level it relates to pensions, family benefits and other forms of income maintenance.

33. I have gone into this parenthetical issue in some degree of detail for two reasons:

- (i) It illustrates that population size and growth are not the only factors affecting or being influenced by development.
- (ii) This discussion shows that some of these relationships are not only multidirectional, but multidimensional.

34. The vulnerable populations are those whose access to basic needs, and to other resources and rewards, is limited. Beyond socio-economic determinants there may also be demographic considerations, as when out-migration of young male workers adversely affects the composition of the labour force in areas of migration origin. Conversely, at points of destination there may be vulnerable populations, such as the urban poor, informal sector workers, and contract workers on plantations and in mines. Female-headed households are at risk, particularly if they constitute sole-parent families. In order to identify such sub-populations for targeting, it is necessary to refine data analyses, such as, for example, conceptualising research hypotheses in a way that allows for an analysis of gender differentiation.

35. Health needs are merely one example of basic needs. These relationships are well spelt out, and thus require little discussion here, but three important points can be made.

- (i) MCH/FP is very much a part of the health sector. The FP component of this until recently has emphasised birth limitation with the aim of reducing family size, often in order to meet national population growth targets. The new integrated MCH/FP approach is not only more sensitive to individual needs, but is likely to be more effective as it directs attention to the health – fertility relationship. As yet, however, there has not been adequate attention to birth timing and spacing, as against limitation, although ESCAP is identifying this as a major issue for their current population programme cycle. Better timing and spacing not only have advantages in terms of the health of mothers and babies, but also in the longer run may be a more efficient means of reducing fertility. We cannot prove this last point because few programmes have taken this approach, but from examples such as China the opposite effects can be seen. The emphasis of their programme has been on limitation, but they have produced massive problems in terms of aging. Within the programme itself, they are now finding that couples, as soon as they marry, initiate their first child instead of timing and spacing their births, while in the longer run they have introduced severe cohort composition effects, which will cause bulges, as they are experiencing at the labour force ages at present, and aging. It has now been shown that timing, an older age at first birth, and spacing of a second child could have produced the same population targets, without the severe effects I have just described, and would have been more acceptable within the cultural milieu in which the programme was being implemented.

- (ii) Related to this last issue is that of the timing of the first birth, which raises the sensitive question of teenage fertility, data for which are presented in Figure 10. In the Third World this is often fertility within marriage, but marital status is not an important consideration. Whether an adolescent is married or not, she and her baby are at risk, not just in health terms, but also in terms of their life-chances (e.g. the education of both mother and child, and the career of the mother). Levels of mortality, morbidity and risks of sexually transmitted disease are all linked to a high prevalence of teenage fertility (UN 1988b). Consequently, one has to view with concern the fact that of the 16 countries for which I had data, only two fell into the low range for levels of teenage fertility, and eight were in the high to very high range, along with New Zealand Maori and Black American adolescents, who have the highest known levels in the developed countries.

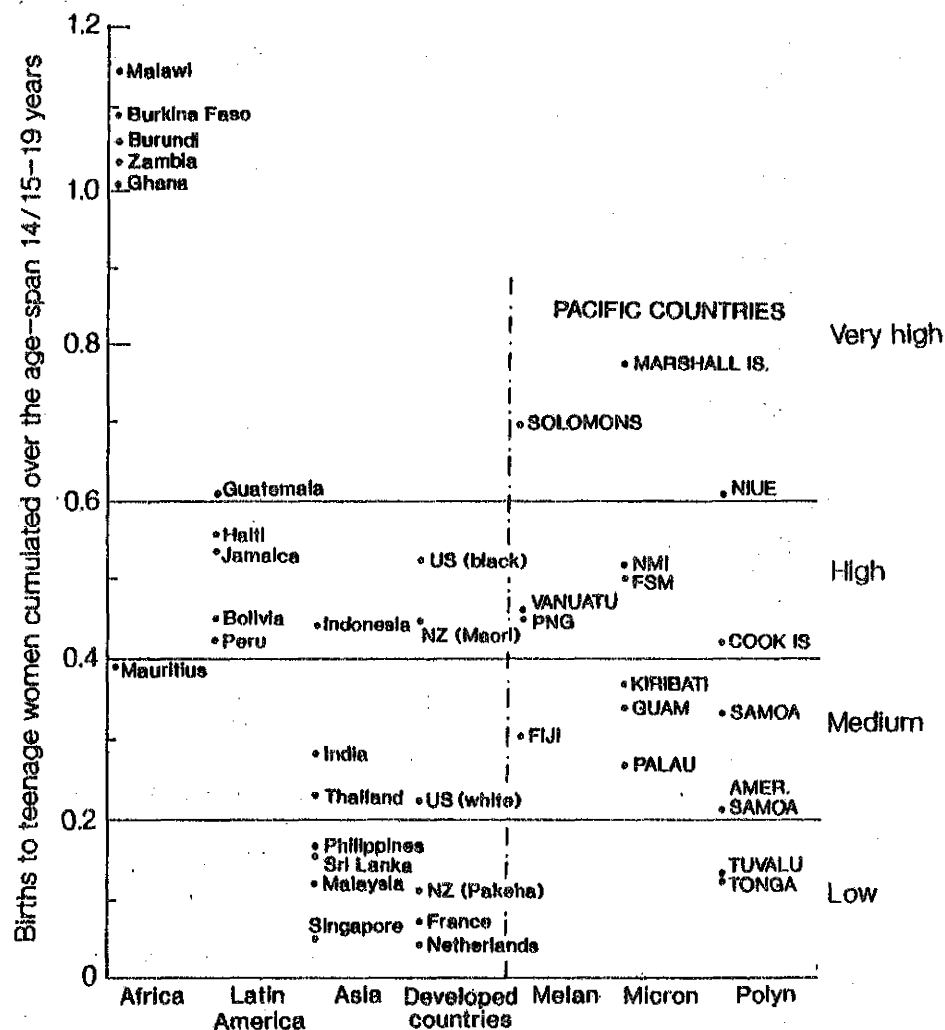


Figure 10: Teenage total fertility rates (most recent estimate)

Sources: Booth (1989), Hayes (1983), Levin and Retherford (1986), Ross et al. (1988), US Bureau of the Census (1980).

- (iii) Under the rubric health, it is worth discussing the point that population-development relationships are far reaching and very complex. This is illustrated in Figure 11 which models relationships between the key development variable, rural development, and other factors, among the more important being health. It is worth noting the two-way relationship between primary health care and community development. Also note the pivotal role of increased rural production, not just as an economic objective, but because of its bio-medical implications. I will return to this diagram later.

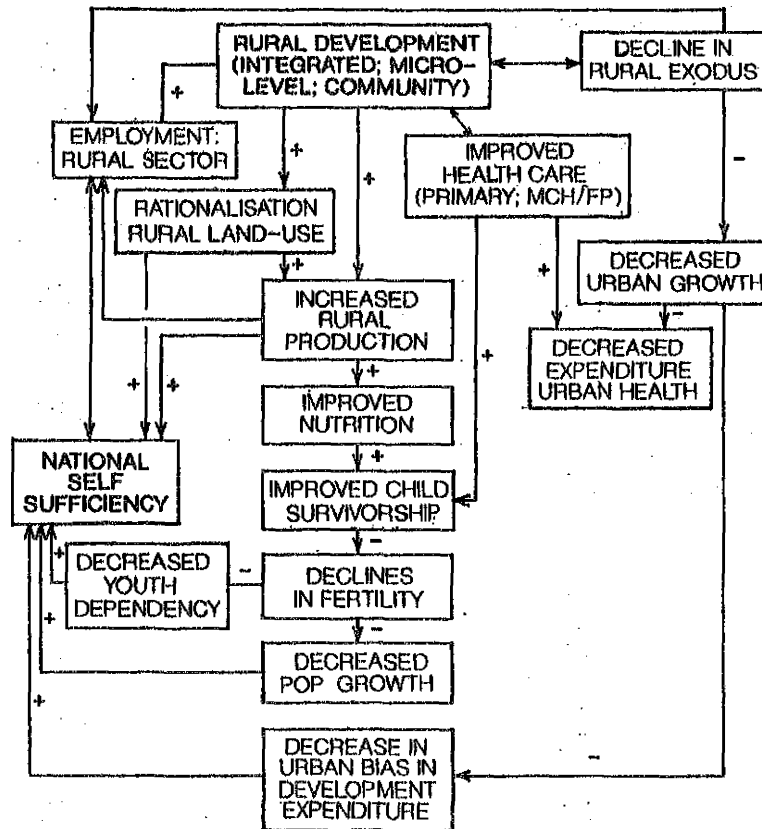


Figure 11: Theoretical interrelations, population – health – development

Source: N'Diaye and Pool (1988).

Human resources (Appendix B)

36. Conventional education planning is based on the recognition of the fact that demand for education is determined by a combination of demographic factors and participation rates at each stage. Equally well, however, the supply of teachers is determined demographically – their number, their age distribution, and thus questions of recruitment, promotion and retirement, and certainly at the tertiary level, their possible migration to posts in developed countries or in international agencies.

37. One of the most important areas of population and development interrelations comes in the employment sector. Yet, traditionally, planners restricted their analyses to monetary employment, that is wage and salary workers. This bias is being reduced, yet there is still insufficient endogenisation of population into the planning models, even in this area of critical importance to planners. For example, in the most recent development plan for Western Samoa (1988), not only is population as a whole covered in only a few sentences, but even labour force aspects receive little more attention than this. In the appendix tables it is referred to globally, for the entire age group 15–64 years, with no breakdown by age and sex. There are far more analytical details on beer – volume, producer value, production levels, market value and exports – than on the labour force, and those on beer are more up to date (Western Samoa, 1988). I have used the case of Samoa, but I am sure that this would apply to most other, if not all, Pacific countries.

38. I have summarised the relationships between population and employment in Appendix B, Part II. It suffices to note here that they are many and complex, and are multidirectional.

Environment and natural resource base

39. As was noted earlier, for Pacific countries the question of population–environment relations is perhaps one of the starkest development issues. Most states have land areas limited by size or by terrain, and for some, particularly the atoll countries, the population–environment relationship continues to be Malthusian (Appendix C).

40. Everywhere, a combination of environmental degradation and high relative population densities presages problems for the immediate future. This was explored earlier using Papua New Guinea as a case study. While there seemed some possibility for displacing present population pressures by developing low density areas which have some potential, projections of population growth raise the question whether such a scenario is realistic. This decade, Papua New Guinea's population will grow by 25 per cent, a level well above that of the LDCs as a whole. This will not only increase densities, but will also mean that there will be a need to divert funds from investment to current expenditure, simply to keep abreast of the pressures produced by rapid population growth.

41. The lower panels of Appendix C relate to energy. They show two paradoxes. Fuel for cooking is essential to living, so that in some parts of the world where firewood is increasingly difficult to obtain, larger family sizes are seen as valuable simply to provide a workforce for this task. Yet the reason for the depletion of firewood reserves is the pressure of population on the land, and the attendant destruction of forest. A second paradox relates to the elimination of this need, which is normally achieved by rural electrification. Yet the construction of the infrastructure for this is not without effects on population. Typically Third World dam construction, for example, involves the displacing of traditional village communities.

Rural and community development

42. The fostering of agriculture, forestry and fishing, and the associated community development schemes are fundamental to Third World development, including national self-reliance, a common broad objective. This is clear in Figure 11. Again, as is shown in Appendix D, the analysis and planning of rural development involves the recognition of two-way relationships between population and development. For example, the attainment of self-sufficiency may be frustrated if population growth is more rapid than increases in production.

43. Conversely, policies encouraging export crop and other primary production may have demographic implications. Young workers may migrate away from subsistence and local market production zones towards the areas of export production. The loss of young workers from regions of out-migration may affect the labour force there, and thus decrease levels of production. This may have the effect of diminishing self-sufficiency in basic foodstuffs and increasing demand for imports. Export production may be supported by incentive schemes for farmers mechanising, using artificial fertilizers and other costly technologies. The better-off farmers can take advantage of this, thus increasing their productivity and profits. This may lead to socio-economic differentiation in formerly tribal rural regions, and eventually to agrarian poverty. Lest this seem too speculative, I must stress that such problems have already occurred in Africa, where traditional patterns of rural economic organisation resemble those of the Pacific.

Other industrial employment (Appendix E)

44. In many Pacific countries, the largest employer after primary production will be the service sector, especially the bureaucracy. This issue is discussed in the Western Samoan planning documents to which I referred earlier. They show that the 'economically active population engaged in community and other services, about one half of which comprises the civil service, is nearly one-third of those employed in agriculture and manufacturing put together'. They continue 'what is needed is a realistic labour policy and a programme for generating employment within the country, however paradoxical that may seem in the face of the propensity to emigrate' (Western Samoa 1988).

45. Tourism acts like export cropping in drawing young workers to development zones. This may be in contradiction to objectives such as the need to achieve equity between regions.

Other sectors (Appendix F)

46. Transport, communications and infrastructure are seen normally as part of physical development, having capital investment and staffing implications. Yet if one thinks about the issue, this sector is intimately linked with population concerns, as population characteristics, particularly distribution, determine demand, and the implementation of capital projects has consequences for population, particularly for distribution.

47. This also applies to financial and fiscal planning, perhaps the most central of development planning concerns, but one which is seldom reviewed to determine its demographic implications. Yet this linkage is extremely strong. How can one plan in a Polynesian country without considering remittances? Their volume and flow is largely determined by demographic patterns – the number of migrants abroad, their duration of absence, if born in the Pacific, the birthplace distribution of Pacific ethnic enclaves in metropolitan countries, and so on. Again, household expenditure and budgets, and related macro-level consumption statistics, depend in part on the demographic structure of households and the related levels of discretionary expenditure. Similarly, equity issues have underlying demographic and other causes.

E. Conclusion

48. This paper has outlined a number of issues of population and development confronting the Pacific countries. The subsequent sessions will expand on this both by providing details on the country situations, and permitting an exploration in depth of particular population – development sector relationships.

49. Later on the conference will review approaches to population policy and planning attempted in the region. On Wednesday I will discuss possible responses to the population and development issues I have raised here today.

50. A final session might well come up with recommendations which are both technically feasible yet are fashioned to meet the particular cultural and other needs of Pacific countries. I am rather optimistic about this, as the Pacific input to the *Asia and Pacific Call for Action* in 1982 had a very significant effect on that document, which gave more than token recognition to our region.

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CULTURAL – SOCIAL SECTORS
(including health)

Common development issues

1. Cultural maintenance (language; lifeways; traditions; norms)
2. Basic needs (see also rural development; often measured by demographic indices, e.g. population:dwelling, see health below)
3. Vulnerable populations (e.g. urban poor, often young workers in informal sector; sole-parent households; female-headed-households; often vulnerable through structural readjustment)
4. Health (effectiveness measured by demographic indices)

Relevant population factors

Migration, international and regional

Growth; composition; distribution

Growth; composition; migration; distribution

Growth; composition (young, old and females 15–44 years); fertility; distribution

HUMAN RESOURCES

*Common development issues**Relevant population factors**I. Education*

1. Participation in basic education
2. Participation in tertiary education

Growth; composition (persons 6–11 years); size and composition teaching profession

Growth; composition (18–23 years); size and composition teaching profession; international migration

II. Labour force and employment

3. Monetary employment
4. Informal sector (problem of definitions, see 6 below)
5. Rural labour force surpluses/deficit (a demographic issue produced by population change).
6. Labour force in general (problem of definition of 'active'; especially affects vulnerable female, subsistence populations)
7. Dependency (see also Appendix A – 'Vulnerable populations')

Growth; composition by age and skill-level; migration and distribution; vulnerable populations with structural readjustment

Rapid urbanisation; rural labour surpluses; composition (especially youths); distribution

Composition; migration; distribution

Growth; size; composition by age (persons 15–64 years; skill-level; composition within labour force ages, especially of new entrants)

Ratio non-working to active population

1900-1901

1900-1901

1900-1901

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ENVIRONMENT AND NATURAL RESOURCE BASE

*Common development issues**Relevant population factors**I. Ecological*

1. Pressure on/degradation of the environment through
 - farming
 - forestry (see also firewood)
 - mining
 - construction
 - fishing

Size; growth; local distribution;
relative density

2. 'Greenhouse effects'

Migration and redistribution
nationally and internationally

II. Energy

3. Capital project construction

Labour force; migration to site;
local redistribution

4. Power reticulation

Size; growth; distribution;
composition (determine demand
for power)

5. Firewood

All population variables determine
demand, plus labour force to meet
that demand

RURAL DEVELOPMENT/COMMUNITY DEVELOPMENT PRIMARY PRODUCTION

Common development issues

1. Self sufficiency/subsistence (especially food for local markets and import substitution; see also basic needs and health)
2. Export primary production (e.g. fisheries; plantation agriculture; mining)
3. Provision of community services (e.g. clinics; potable water; often measured against population)
4. Alternative growth pole development
5. Forestry (see Appendix C - Environment etc.)
6. Mechanisation; increasing resort to technology, organic fertilizers etc.

Relevant population factors

Growth; composition; migration; distribution (particularly as these affect *relative* density, dependency and labour force)

Ditto, except may act to draw migrants to region of development; skill levels of labour force

Size; growth; distribution; mortality/morbidity; fertility; composition

Particularly factors relating to distribution and migration

Changes in vulnerability; migration and distribution; composition

OTHER INDUSTRIAL EMPLOYMENT SECTORS*Common development issues**Relevant population factors**I. Manufacturing***1. Import substitution**

Range from migration to economic factors; labour force skills (need to import highly skilled supervisors, etc.)

*II. Service sector***2. Development of the Civil Service**

Urbanisation's composition (both at origin and destination); distribution

3. Private sector services

Composition of labour force by age and skills

4. Tourism

Migration to tourist regions; labour force skills

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

1. *Journal of the American Medical Association*, 1997; 277: 1033-1036.

1. *Chlorophyll a* (Chl *a*)

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer. The concentration of chlorophylls was expressed in $\mu\text{g mL}^{-1}$.

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OTHER SECTORS

*Common development issues**I. Transport and communication*

1. Axial road development
2. Servicing remote regions/outlying islands
3. Urban transport construction projects

II. Financial and fiscal

4. Dependence on remittances
5. Income maintenance
6. Equity (both from taxation and income maintenance)
7. Household budgets/expenditure

Relevant population factors

Distribution and redistribution

Propensity of population to migrate

Drawing migrants to urban centres

Migration flows by volume and characteristics

Growth and composition (see also Appendix A – 'Vulnerable populations')

Composition and distribution by income and household expenditure

Composition; distribution; migration networks; fertility

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POPULATION CHANGE AND SOCIO-ECONOMIC DEVELOPMENT: RESPONSES

by Dr Ian Pool, Professor and Director, Population Studies Centre,
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A. THE ROLE AND FUNCTIONS OF INTEGRATED POPULATION AND DEVELOPMENT PLANNING WITHIN THE CONTEXTS OF POPULATION PROGRAMMES, AND DEVELOPMENT PLANNING IN GENERAL

1. From the discussion over the last few days it should be clear that population and development are inextricably intertwined, and also are interlinked with the environment. The identification of these inter-relationships is the easier task, yet has seldom been well done. But today we must turn to an even more difficult task – how to respond to the issues once problems have been diagnosed. This is more difficult in two senses:

(i) Most importantly, in the final analysis action requires political will. Here we must not judge decision-makers harshly in advance. They are faced with the very real problem of identifying factors which may not have an impact until well into next century, and then formulating policies today to meet these very long-term eventualities. As all policy costs money, they are also being asked to give priority in public expenditure to programmes which will benefit citizens as yet perhaps even unborn, as against meeting the needs of their constituents today.

(ii) Secondly, we the technicians have failed to serve the politicians adequately in a number of key regards, but I am optimistic that this meeting will help us turn lack of success into achievement. Our failures can be listed, and provide as it were the basis for the structure of my paper:

- The longer-term population-development issues have not been adequately identified, and population has not been successfully integrated into planning models. Coupled with this, demographers have not sensitised planners and politicians to the fact that projected population trends are the only reasonably certain elements on the long-term perspective on the society. Who knows what the fashions will be in the year 2005, and even the 'Greenhouse Effect' is being debated. But the relative size of the cohorts of young workers entering the labour market between now and that year is known from the last census. We can even tell you the relative size of your retirement population in the year 2020. We have kept these secrets to ourselves, only releasing them to the few technicians who have strayed into our statistical ghettos. We have also attempted to cloak these data in impenetrable methodologies.
- We have also not fully developed methodologies and programme structures to permit us to overcome the difficulties I have just outlined. That said, however, recent developments across the Third World permit us to move with greater ease than was the case in the past. In our defence it must be stressed that integrated population development planning (PDP) has a very recent history, with the first projects in most regions getting underway only in the late 1970s. Even the longest-established programmes are only at a third generation of funding cycles.

2. My remarks here are drawn from reviews that UNFPA carried out across the Third World in 1987–88, and from a global synthesis of these evaluations. I participated in the Asia–Pacific and African regional assessments, and prepared the draft of the overall report. I am not a Pacific specialist, but in 1988 I did have the privilege of doing a technical review of UNFPA's support to regional integrated PDP programmes in the Pacific, and I will also draw on that experience.

3. In the discussion which follows I will be shifting backwards and forwards between three structures and their conceptual support systems:

- (a) Development in general,
- (b) Population programmes as a component of that,
- (c) Integrated PDP, as a means of combining these two.

B. GROUNDING A COUNTRY PROGRAMME IN ISSUES

4. One must stress one key point: that population programmes, whether at the country or regional level, must support the development of a knowledge base which can be applied to policy. This point will be developed frequently during my presentation.

5. The substantive papers in this seminar have shown that we already know that many problems of composition, as well as growth and redistribution, are extremely severe and may have very long-term foreseeable consequences. Programmes relating to issues such as alternative growth poles/secondary market centres or the industrial transformation of the labour force often also affect some of the key socio-economic determinants of high fertility; any programme which directly or indirectly helps to improve infant and childhood survivorship affects what may be the critical pre-determinant of changes in attitudes relating to family size and demographic replacement. Thus, for example, programmes relating to food production, nutritional strategies, well construction, etc. may have more impact than information, education and communication (IEC) programmes which unidimensionally address growth reduction through fertility control. Moreover, it happens that in the Pacific context some socio-economic policy agencies, for example ministries of agriculture, community development and local government, have outreach networks through which integrated population messages and programmes could well be channelled.

6. Even in the narrow area of historical focus of some population programmes in fertility regulation, there is a need for a multidimensional, critical study of problems on which future programme planning should be grounded. A review of projects of assistance in the field of MCH/FP (maternal and child health/family planning) suggests that they have focused more on logistical concerns, such as the distribution of the means of fertility control, plus institution-based delivery systems and infrastructural/capital projects. Less attention seems to have been paid to the *raison d'être* of MCH/FP projects, the critical analysis of which may give a very different perspective to project formulation. Programme managers must ask whether high fertility, as an issue affecting not only national population growth, but also the health, welfare and life chances of adolescents, of young women and their offspring, and of multiparous women, is being adequately addressed by present programmes.

7. To take this argument a step further, intimately interrelated with this is the fact that women are grossly over-represented among the vulnerable groups in the population. Precocious conception and/or abbreviated inter-birth intervals are prime determinants of this vulnerability – the feminisation of poverty is a fact of life, and can only become worse as macro-social and macro-economic changes immutably alter Pacific life. More and more women may well end up in female-headed households, or as sole parents working in low wage employment, frequently separated from the community base which may provide some of the mechanisms for traditional forms of social insurance. The structural readjustment programmes may have exacerbated these problems.

8. In sum, this rather long explanation leads to a simple recommendation. This is an argument for a research-based and more multi-variate approach to needs assessment, grounded in a comprehensive understanding of different population problems and their interrelations, with the aim of providing a better base for programming. It is here that integrated PDP takes over to incorporate population into development planning.

9. The next step, as it were, is to design a population programme within the general area of development planning. Integrated PDP is the component of the programme which plays the critical role of linking population and development in general. I am going to direct my remarks to country

rather than regional population programmes, but will pick up the issue of a regional input again near the end.

10. As stressed already, a country programme must pursue objectives which facilitate sustainable development, which take account of the relationship between population, development and environment. A critical product of this must be self-sufficiency, whether this be in terms of the provision of basic needs, or in the formulation and implementation of development programmes and the delivery of social services.

11. In formulating a country population programme, a word of caution is necessary. In the past, in many developing countries, population programmes have concentrated on rapid growth, and in the process have overlooked other critical demographic issues. Important as very rapid population growth is for some Pacific countries, it is insufficient today to see it as a singular and simply analysed problem, and to formulate unidimensional policy. This focus has sometimes been registered negatively in other countries, thus causing them to hesitate in establishing population policies. Their caution is not unfounded. Experience elsewhere in the Third World has shown that this approach has not produced the decreases in growth which were hoped for, in spite of the fact that fertility limitation has been prescribed as the uni-variate response. Even in successful Asian cases, such as China, this emphasis has produced some unsatisfactory side-effects. There, it is now clear that if a timing and spacing approach rather than limitation had been taken, couples could have had two children without altering population size targets, and they might have been able to avoid the mini baby-boom following the recent legislation of a minimum age at marriage. Previously, there was none, but couples were pressured to put off marriage; with a legal minimum couples have married as soon as possible, then raced to have their one child.

12. Because fertility regulation is often wrongly seen as the central population issue, and family limitation is equated with population programmes, it is worthwhile spelling out this issue a little more. It raises questions critical to the Pacific country programmes. Limitation affects reproduction at the upper end of the fecund age range. It does not address the reproductive, maternal and infant health needs of younger women. It produces a programme emphasis on efficient contraceptive techniques suited to termination of child-bearing, but not to a decrease in precocious conceptions. It focuses on the fertility regulation aspects of MCH/FP, rather than seeing fertility control as an integrated, albeit key, component of MCH/FP.

13. This set of comments underlies what must be the key rationale for Pacific country programmes in this one component dealing with aspects of reproduction:

- A birth-spacing approach should be viewed as advantageous, demographically, rather than a block to the resolution of wider population issues, such as rapid growth;
- It is also a culturally-sensitive approach, as it permits a better integration of MCH/FP into the wider context of social, economic and population policy;
- From an implementation standpoint, a birth-spacing approach can be more comfortably accommodated within information, education and communication (IEC) programmes, than by simplistic appeals to birth limitation.

14. I must stress the point that MCH/FP, to which I have been addressing my comments, is merely one component of a population programme. In the wider context, beyond family planning and in the realm of broader social policy, many Pacific countries already have a large body of what is termed 'implicit population policy'. These are policies which affect population, but which may not be recognised as such, or formulated to achieve population goals. Thus the remainder of my remarks are addressed to the policy and planning needs for integrated PDP to convey not only population growth, size and density, but also its distribution, its cohort composition, etc. It is worth stressing that the cohort changes discussed in my keynote address are going to make all aspects of planning extremely difficult.

C. CONCEPTUAL ISSUES

15. When one turns to comprehensive, integrated PDP, one immediately encounters a conceptual problem. Traditionally, population programmes have been oriented towards narrow statistical issues, or to family planning. For its part, development planning has concentrated on fiscal, financial and infrastructural concerns, or capital projects. Even manpower/labour force planning, which should have been a natural population-development field, did not really bridge the gap. It has either focused entirely on formal sector (wage and salary) employment, or it has simply analysed the labour force ages as a block, without disaggregating by age and cohort.

16. There is another gap between development planning, which is really economic planning, and population planning as traditionally practised. This arises from the fact that economic planning involves the short-term, say 3–5 years, whereas the impact of population change on the economy, the society or the environment is normally much longer-term, 7–10 years at the least, and typically 15–20 years. This conceptual gap can, however, be simply bridged if one views economic and population planning as a continuum, with population planning simply extending the time horizon of traditional development planning.

17. This conceptualisation can be taken a step further. Population planning introduces the traditional planning exercise to social factors, and puts an emphasis on serving the needs of the people. It also throws up the longer-term implications of the pressure of population on natural resources, thus linking traditional planning to the environment. Thus it also extends the lateral horizon of planning.

18. When an integrated approach is taken, other conceptual difficulties arise. Three terms are employed interchangeably – policy, planning and integration. Each has a generic and a specific meaning. It is useful, however, to make a conceptual distinction as follows:

- to see *policy* as the actual decision-making, achieved by setting broad objectives and formulating the strategies to realise these objectives;
- to view *planning* as formulating and elaborating programmes through which the strategies can be implemented;
- and to see *integration* as the technical process of endogenisation of population variables into planning models.

19. When attention turns from the role of integrated PDP in development planning as a whole to its more narrow contribution to country population programmes, it is useful to see these as having two dimensions, as shown in Table 1:

(i) A dimension of planning and of co-ordination. This latter function is critical but is often overlooked, and involves co-operation between international agencies, between national agencies, and between national and international. It is obvious but worth stressing that an element of co-ordination is to ensure that policies in areas seemingly distant from population, such as tourism or arterial route construction, do not impinge on population in such a way as to limit the effectiveness of the country programme. Equally well, it is important to identify where population patterns and trends may affect policy implementation in other sectors.

(ii) A dimension covering operational aspects and the delivery of services, particularly MCH/FP, health care, IEC and women's programmes, as well as areas such as urban and rural planning. It should be noted that data collection and analysis activities also come in the operational domain, rather than as part of integrated PDP.

Table 1: Model for a typical country population programme

National component or structures	International assistance or structures
I. Planning and co-ordination	
<i>Central planning and policy bodies</i>	<i>Country office of agency</i>
Linkages to sectoral and regional planning units	Assistance co-ordinating committee (linkages between agencies in the population field)
	Projects of assistance in the field of PDP
Research and training bodies (e.g. university)	Projects of assistance
II. Operational and service delivery dimension	
National statistical offices; sectoral and other organisations which collect data	Projects of assistance for data collection and analysis, especially the census
Ministries of Education, Broadcasting and Agriculture (Extension units); Institutions with Women's Programmes/Projects; and other organisations with an outreach/educational capacity	Projects of assistance in the field of IEC
Ministries of Health; private hospitals; other organisations in the health field	Projects of assistance in the Primary Health Care (PHC) and MCH/FP
Ministries, NGOs, etc. dealing with spatial aspects of population, community development, agriculture, labour force, etc.	Projects of assistance

20. Finally, it should be stressed that integrated PDP has a very special role in a country population programme. As it is directed to charting and to planning the harmonisation of population and development, it provides the *raison d'être* for the operational side of the programme. Similarly, it also provides their goals, and the benchmarks for evaluation.

D. THE PLANNING ENVIRONMENT: A MODEL

21. Following the conceptual distinctions made above, it is possible to identify a number of critical 'functions' and the institutions which are best suited to carry them out. The list noted here constitutes an 'ideal' situation and will vary in composition from country to country. Nevertheless, by identifying the different functions it is possible to evaluate more specifically what exists on the ground in the Pacific countries so as to assess their needs more carefully:

Policy: This function is carried out at the highest-decision making level (see Table 2). Some countries have 'Population Councils/Commissions' for this purpose, whereas others integrate this function into a more general policy commission. To have true integrated population policy the latter strategy may be the more appropriate. Experience has shown that sometimes a 'Commission' may be cumbersome, meet infrequently and function inadequately. Likewise the presence of a 'Policy' does not guarantee implementation of population activities, which in contrast sometimes takes place vigorously even in the absence of an explicit, systematic and comprehensive 'Population Policy'. In any case, all countries already have both implicit and explicit population policies and legislation, although usually they are not recognised as such. More importantly, there is a tendency to see population policy as narrowly restricted to growth and to fertility control, whereas it is much wider than this, covering demographic-development interactions relating to population distribution and composition as well.

Table 2: Population – development functions and activities of programmes/projects

A. Functions

1. Population policy
 - Formulation and elaboration
 - Follow up and monitoring during implementation
 - Secretariat for a Commission (if this is applicable)
2. Integration of variables of a populational type into planning (both sectoral and global)
 - Integrative and synthetic research (Second Order)
 - Integration during planning
 - Follow up of plans (e.g. mid-term review)
 - Evaluation of different sectors
3. Research and documentation (where this is the primary objective)

First Order

 - Primary research; conventional demographic research; bi-variate or multi-variate research; modelling

B. Related Activities (for each function)

- Consciousness-raising senior civil service (sensitisation)
 - Institutionalisation of programme
 - Training, workshops, etc.
 - Documentation/information/communication
-

- Secretariat:** The policy-making body will often have administrative support from a secretariat which is staffed by senior civil servants as is shown in Figure 1. This 'Population Unit' may also oversee and co-ordinate implementation across a number of sectors.
- Planning:** This is a much more technical function, best situated in a central planning body. In countries where PDP has been sited in sectoral ministries, rather than central planning, it sometimes has become marginalised. It should also have links with sectoral planning offices, which, as the PDP field develops, may appoint their own sectoral population specialist(s) as a component of their planning unit. The 'Population Planning Unit' (PPU) in the central planning institution should also forge close links with institutions undertaking basic demographic and integrated population research. Finally, it should provide the technical back-stopping for the Population Secretariat and/or the Policy Council.
- Research:** While integrated planning involves 'research', basic or primary research using raw data is better undertaken in separate research centres such as in universities, if these are available (Table 3). This dimension of research is time-consuming and may deflect the PPU or Council from more urgent tasks. This has been a frequent occurrence world-wide, and often the most tangible 'output' of PPUs will be a series of research papers having limited end-use. The PPU should instead integrate into planning results of research, syntheses, etc.

Table 3: Major institutions and functions which may be involved in population and development field

Level*	Institution	Function
Political	Commission (meets occasionally: political body reporting to the highest councils)	(i) Policy formulation (including legislation) (ii) Overseeing its implementation
High administrative	Population Unit Secretariat	Supports work of Commission both administratively and in a limited sense, technically. Co-ordination.
Technical	(a) Population Planning Unit	(a) Integration
	(b) Population Research Unit/Centre	(b) Research

* The term level here has no connotation or ranking/significance.

22. Beyond this, all of the above functions are sustained by some critical activities, which sometimes become so dominant that they risk being ends in themselves and may constrain the achievements of the PDP programme (see Table 2). They include:

notion surfaces often, even if rather vaguely. In physical planning areas it is frequently referred to in relation to habitat; in agriculture it is seen in terms of the need for a healthy and well-educated work-force so as to increase productivity; while MCH/FP is clearly oriented in that direction.

29. At the sectoral level, there is no doubt that in most countries, elements of population policy not only exist both explicitly and implicitly, but also that there are in place some of the mechanisms to implement them quite effectively. In other areas this may be far less true. Although, for example, employment opportunities and rising levels of real income for a rapidly growing labour-force are often identified as over-riding concerns, there may not be systematic policy analyses of changes in cohort size, especially at new entrant labour-force ages, in relation to education, training and employment in formal, informal and subsistence sectors.

E. THE REALITIES OF THE POLICY ENVIRONMENT

30. In countries where attempts have been made to achieve integrated PDP, many problems have been encountered. There has often been a failure to recognise that this is a complex multidisciplinary area touching on all development sectors, even the financial, fiscal, transport and energy sectors. Secondly, there has been limited attention to the development of analytical or conceptual frameworks, and no clear idea of the institutional structures in which to carry out formulation and implementation of programmes in this area. Thirdly, as few, if any, successful models of PDP programme formulation have existed until very recently, project formulation has often followed that for service delivery programmes, and this has proved to be inappropriate. The PDP field was a relatively late addition even to population programmes, let alone to planning in general, and as a result it is only now that the first generation of projects is ending and a new generation emerging. Fourthly, project and programme formulation has very often been unrealistic in terms of targets, time, budgets, and the range and extent of prescribed functions plus their associated activities.

31. These problems are exacerbated in the Pacific countries. On Day One we outlined the many development difficulties you face, but I want to add to this list with particular reference to the policy environment. Above, I sketched out an ideal set of functions and their attendant institutions – councils and central planning ministries, policy, research and planning. Few Pacific countries have anything approaching the elaborate structures I outlined. In fact, their civil service is small and fragile – your presence here has probably impinged on the work programme of your department.

32. I would not want you to take away the impression, moreover, that I am advocating that any one or all of the structures I outlined should be established in Pacific countries. In a phrase, that would be absurd. Such PDP infrastructures would be cumbersome and unwieldy. All I have suggested is a model. Your country might combine several of the functions in the one civil service post, or see them implemented on a part-time basis rather than allocating permanent full-time staff to each and every task I outlined. The point I was making was not to argue for a bureaucratic establishment, but for a recognition that there were separate and distinct functions, and that in setting up an integrated PDP programme these separate identities be recognised, even if in practice distinctions cannot be easily maintained.

33. I might add that the model could be followed in detail only in much larger countries than even say Papua New Guinea or my own. Even then, as in a country such as Bangladesh, it is debatable whether it is better to have at least one of the institutions I have identified, a Population Commission, as an entity separate from the Planning Commission in general, or whether, as I believe, it should be a component of this more general body. The one easily identifiable institution, which can be funded initially through external aid, as from UNFPA, should be a Population Planning Unit. Perhaps, in smaller Pacific countries this might undertake two or three of the tasks I noted above, but if so, the work-plan should clearly identify this, and avoid the error I referred to above of setting wildly ambitious goals for the programme. In the space of a normal project grant it is totally unreasonable to expect the one person to help the Cabinet write a population policy, aid the planners to integrate population into planning, carry out research, and also institutionalise the project, select and send someone overseas for training, etc. etc., as is often prescribed for these projects. Some also can expect them to help with the census and carry out IEC activities directed to the population in general as well. Only Superman/Superwoman could achieve such objectives.

F. ROLES OF SUB-REGIONAL AGENCIES

34. It is in the context of the small and fragile administrative infrastructures of Pacific states that sub-regional agencies such as the South Pacific Commission may make a special contribution. I will use SPC as my example, as I have had the opportunity to study it in detail. No single Pacific state, even Fiji or Papua New Guinea, could sustain a specialised cadre of the type proposed earlier in my paper.

35. This is not without precedent. I have in mind a similar situation in the Sahel region of West Africa, where the states have much larger populations, but their bureaucracies are still not well developed. Comprising nine nations, they are funded largely from external sources, but have an independent governing body composed of heads of state, the *Comité permanent inter-état pour la lutte contre la sécheresse sahélienne*, the Permanent Inter-State Committee for the Campaign against the Sahelian Drought. Beneath it is a technical-administrative institution, the *Institut du Sahel*, and below it specialised units, of which CERPOD, *Centre de recherche en population pour le développement*, is relevant to us here.

36. There is one major difference – all the CERPOD professional staff are from the region, and number among them persons who are extremely well qualified. Clearly a goal in the Pacific must be to achieve the same form of intellectual self-sufficiency. What follows, using the CERPOD comparison, is a suggestion to use a sub-regional organisation over the next few project funding-cycles as a vehicle to develop the integrated PDP function, until states at varying times and to different degrees can assume these tasks themselves. In other words, I am not arguing in my paper that you should go home tomorrow and immediately implement all the structures and functions I noted earlier. But you might leave having prescribed a role for the SPC, for other regional agencies, for other supra-regional institutions such as ESCAP, and for the international and specialised agencies. With great respect, I would suggest that one could argue for a programme which uses these organisations to achieve regional self-sufficiency, as a step towards national self-reliance within the limitations we have noted already.

37. Originally CERPOD was engaged in consulting with countries over basic data collection and analysis. In recent years, it has shifted towards helping countries engage in integrated PDP.

38. The SPC's demography section has followed a similar history. It has followed a broad, sweeping approach to population activities, which is appropriate given the unique needs of each of the 22 countries and territories it encompasses. An emphasis has been given to support with data collection and analysis. This approach must be continued, but perhaps with increased back-stopping from regional advisory services at ESCAP in Bangkok.

39. I would argue that this meeting provides an opportunity to reassess this historical focus and to see if SPC's demography unit, in particular, should move more into developing and adapting methodologies for integrated PDP in this region. It could exploit its natural advantage of its location within a multidisciplinary development organisation to formulate simple multidimensional integrated PDP models, appropriate to Pacific countries. An SPC unit could also undertake country visits, perhaps in association with experts in other disciplines. It must also maintain close links with other agencies, as I will discuss below.

40. It seems to me that a first step towards this programme objective might be an inventory of the knowledge-base, regionally and in each Pacific country. Table 4 outlines a knowledge-base typology applicable to such an inventory.

Table 4: Knowledge-base typology, integrated PDP

-
- A. Data collection and analysis**
 - Countries with advanced systems
 - integrated
 - not integrated
 - Countries without advanced systems
 - B. Stage of population analysis**
 - Trends only or both trends and implications
 - Advanced
 - fed to end-users
 - not fed to end-users
 - Not advanced
 - C. Integrated research, especially population – development-oriented**
 - Advanced
 - Population implications drawn out to end-users
 - * mechanism for feeding to end-users
 - * no mechanism
 - Population implications not drawn out
 - Not advanced
 - D. Integrated population – development planning**
 - Advanced
 - incorporated in policy
 - not incorporated
 - Not advanced
 - E. Integrated population – development policy formulation**
 - Advanced
 - Not advanced
 - F. Integrated population – development policy implementation**
 - Advanced
 - Not advanced
 - G. Evaluation with feedback mechanism**
 - Advanced
 - Not advanced
-

*Source: Report, UNFPA Mission to evaluate Population Division.
 ESCAP, January 1990.*

G. ROLE OF THE INTERNATIONAL AGENCIES

41. The international agencies perform two very critical tasks in this area. Firstly, as is shown in Table 5, UNFPA in particular, but also some bilateral agencies and international NGOs, provide programme support. Secondly, the agencies also provide executing and back-stopping support, as is also shown on Table 5.

Table 5: Funding and executing agencies, Pacific population projects 1986-87

Funding	Number
UNFPA	51
Bilateral	3
Regional and NGO	18
Total	72
Executing of multilaterally funded projects	
WHO	11
UNESCO	7
ILO	9
SPC	3
UNFPA	3
UNDP/DTCD	4
Government	13
NGO	3
Total	53

Source: UNFPA 1988. Inventory of population projects in developing countries around the world 1986-87. New York.

42. To date, however, support for population programmes has largely been directed towards three operational areas: MCH/FP, population education, and statistical data collection, in that order (Table 6). I could only identify two PDP projects out of a total of 72 Pacific population projects, although I did not have access to data at the regional as against the country level, and obviously I have not included some of the work, for example, of ILO, although its projects are oriented more towards IEC than towards integrated PDP. I might add that the number of population projects was, with the exception of the former U.S. Trust Territory of the Pacific Islands (which had 9 of the 72), highest where UNFPA had sent a basic needs mission: Fiji (18), Tonga (10), while Samoa and Papua New Guinea had six, Vanuatu, Kiribati and Solomon Islands five, Cook Islands and Tuvalu three and Niue one.

**Table 6: Projects of population assistance, Pacific countries, by field or activity:
Number, 1986-87**

Field	Number
MCH/FP	33
Population education	15
Migration	1
Statistics	12
Community/women's programme	4
PDP	2
Training	3
Health/other than MCH/FP	2
Total	72

Source: See Table 5.

43. A final remark relates to co-ordination. Outside the Pacific, a lack of co-ordination between agencies has been seen to be most counter-productive. Thus I would argue that a priority should be the establishment, if it does not exist already, of some inter-agency population programme co-ordinating committee, including bilateral and NGO, country-level and regional agencies, which meets occasionally to review programmes. In the integrated PDP field, experience elsewhere has shown that this leads to greater programme efficiency and effectiveness. USAID, for example, has unparalleled expertise in simple modelling through its RAPID programme; UNFPA has funded population units; ILO has a good record executing these projects, and in providing technical back-stopping; ESCAP's regional advisory services in population statistics are highly regarded in the Pacific; and so on. Obviously, SPC would be a member of such a committee and would bring with it 25 years of experience of population data collection and analysis in the region, in depth knowledge of the countries, multidisciplinary, and, increasingly, back-stopping expertise in the field of integrated PDP. One must add that, in addition, SPC has the particular advantage of belonging to the region's countries.